DRAFT

Initial Study/Mitigated Negative Declaration

6001 Arcturus Avenue Outdoor Storage Yard Project

JUNE 2023

Prepared for:

CITY OF OXNARD
214 South C Street
Oxnard, California 93030
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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
AB	Assembly Bill
ADT	average daily trips
AFY	acre-feet per year
AQMP	Air Quality Management Plan
Basin	South-Central Coast Air Basin
BMP	best management practice
BSA	biological study area
CAAP	Climate Action and Adaptation Plan
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CHL	California Historical Landmarks
City	City of Oxnard
CMWD	Calleguas Municipal Water District
CNDDB	California Natural Diversity Database
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CRHR	California Register of Historical Resources
dBA	A-weighted decibel
GHG	greenhouse gas
GSP	Groundwater Sustainability Plan
Guidelines	Ventura County Air Quality Assessment Guidelines
HSC	California Health and Safety Code
in/sec	inches per second
IS/MND	initial study/mitigated negative declaration
kWh	kilowatt hours
L_{eq}	energy equivalent level
LOS	level of service
Metropolitan	Metropolitan Water District of Southern California
MM	mitigation measure
MS4	Municipal Separate Storm Sewer System
MT	metric ton
NAAQS	National Ambient Air Quality Standards
NAGPRA	California Native American Graves Protection Act
NAHC	Native American Heritage Commission

Acronym/Abbreviation	Definition
NBVC	Naval Base Ventura County
NO_2	nitrogen dioxide
NO_x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
O_3	ozone
OPR	Governor's Office of Planning and Research
PCE	passenger car equivalent
PM_{10}	particulate matter less than 10 microns in diameter
ppv	peak particle velocity
PRC	Public Resources Code
project	6001 Arcturus Avenue Outdoor Storage Yard Project
RCNM	Roadway Construction Noise Model
ROC	reactive organic compound
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
sf	square feet
SLF	Sacred Lands File
SWPPP	stormwater pollution prevention plan
TAC	toxic air contaminant
TCR	tribal cultural resource
USFWS	U.S. Fish and Wildlife Service
UWCD	United Water Conservation District
VCAPCD	Ventura County Air Pollution Control District
VCTC	Ventura County Transportation Commission
VMT	vehicle miles traveled
VOC	volatile organic compound

1 Introduction

1.1 Project Overview

The 6001 Arcturus Avenue Outdoor Storage Yard Project (project) involves the construction of a parking lot and accompanying landscaping, lighting, fencing, and bioswale on an 8.7-acre site in Oxnard, California (project site). The site was previously occupied by a manufacturing use that has since been demolished, but the site includes approximately 120,000 square feet (sf) of remnant concrete surface that would not be removed or paved over (but would instead be incorporated into the proposed parking lot). The project would feature a total of 352,501 sf of paving, 27,038 sf of landscaping, 327 parking spaces for vehicles or shipping containers, a combination of screen wall (along Arcturus Avenue) and perimeter fence, 38 overhead lights, 4 fire hydrants, and a bioswale and storm drain on the southern edge of the parking lot. Construction of the project has been conservatively estimated to require 3 months to complete. The project is anticipated to become operational on approximately March 1, 2024, and would generally operate between 6 a.m. and 6 p.m. The project site would be used to store shipping containers and vehicles and would replace the site's previous use for heavy manufacturing.

1.2 California Environmental Quality Act Compliance

In accordance with Section 15073 of the California Environmental Quality Act (CEQA) Guidelines, this initial study/mitigated negative declaration (IS/MND) is being circulated to relevant local, state, and federal agencies and to interested organizations and individuals who may wish to review and comment on the IS/MND. The City of Oxnard (City) will circulate the IS/MND to the State Clearinghouse for distribution and a 30-day public review. The City will evaluate comments received on the Draft IS/MND and will prepare responses to address any substantial evidence that the project could have a significant impact on the environment. If there is no substantial evidence, the City as lead agency will adopt the IS/MND in compliance with CEQA.

Written comments must be submitted to the City of Oxnard by 5:00 p.m. on July 26, 2023. Please include "6001 Arcturus Avenue Outdoor Storage Yard Project" in the subject line. Submit comments to the following:

City of Oxnard, Planning Division
Attention: Joe Pearson II
214 South C Street
Oxnard, California 93030
by email at: joe.pearson@oxnard.org

1.3 Project Planning Setting

The project site is situated in the southern region of the City. A small portion of the site, within the southwest, is located within the Coastal Zone boundary. As such, the City maintains primary land use permit authority for the project site, but planning approvals are ultimately appealable to the California Coastal Commission since the site partially falls within the Coastal Zone boundary. Industrial uses and parking lots are adjacent to the north and east sides of the project site, farming exists to the south, and undeveloped open space land uses exist to the west of the site, separated by a local rail spur line. Vehicular access to the site is provided by Arcturus Avenue, by way of

Hueneme Road to the north. The project consists of the construction of a parking lot and accompanying landscaping, lighting, and perimeter fence on a pre-graded site formerly occupied by a manufacturing land use.

1.4 Public Review Process

There will be a 30-day public review period for the IS/MND, in accordance with the requirements of Section 15073 of the CEQA Guidelines. In reviewing the IS/MND, the reviewer should focus on the sufficiency of the document in identifying and analyzing the potential impacts on the environment and ways in which the potentially significant effects of the proposed project are avoided or lessened. Comment submittal requirements and deadlines are detailed on Section 1.2 above.

In accordance with Section 15074 of the CEQA Guidelines, prior to approving the proposed project, the City of Oxnard Planning Commission will consider the proposed IS/MND together with any comments received during the public review process. The Planning Commission will adopt the proposed IS/MND only if it finds that that there is no substantial evidence that the project would have a significant effect on the environment.

2 Initial Study Checklist

1. Project title:

6001 Arcturus Avenue Outdoor Storage Yard Project

2. Lead agency name and address:

City of Oxnard, Planning Division
214 South C Street
Oxnard, California 93030
805.385.8272

3. Contact person and phone number:

Joe Pearson II, Planning and Environmental Services Manager
805.385.8272

4. Project location:

6001 Arcturus Avenue
Oxnard, California 93033

5. Project sponsor's name and address:

Hager Pacific Properties
8222 Melrose Avenue
Suite 202
Los Angeles, California 90046

6. General Plan Designation:

City of Oxnard 2030 General Plan Land Use Designation: Light Industrial (ILT) and Industry Priority to Coastal Development (ICD).

7. City Zoning:

City of Oxnard Zoning: Light Manufacturing (M1)

8. Description of project. (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation:

Hager Pacific Properties proposes to construct a parking lot and outdoor vehicle storage yard at 6001 Arcturus Avenue. The structures associated with the previous use of the site, a heavy industrial manufacturing facility, were demolished in September 2021, with site cleanup/hauling of the demolition debris completed in August 2021. However, as those facilities were under operations at the time the application for the project was submitted, these existing uses were considered into the baseline conditions for the analysis. Figure 1, Regional Location, illustrates the regional and local setting of the project site, while Figure 2, Project Site, displays the boundaries of the project site.

The site is 8.7 acres in total, and currently contains approximately 120,000 sf of remnant concrete surface that would not be removed but instead would be incorporated into the parking lot. The project would feature a total of 352,501 sf of paved parking, 27,038 sf of landscaping, 38 overhead lights, 4 fire hydrants, and a bioswale and storm drain on the southern edge of the parking lot. Refer to Figure 3 and Figure 4 for Site and Landscape Plans that illustrate the details of the project. Visual screening of the site from Arcturus Avenue is proposed to be provided with a 6-foot-high block screen wall, with the remaining site perimeter featuring an 8-foot-high steel security fence.

The proposed project would operate as a storage facility for containers and cars. Access to the project site would be provided by two driveways on Arcturus Avenue, which would facilitate separate ingress and egress movements for the proposed project. Trucks and vehicle carriers to and from the Port would enter the site via Arcturus Avenue. It is anticipated that the average duration a container would remain on site is 5–7 days. The proposed project would operate Monday through Friday from 6:00 a.m. to 6:00 p.m. with no on-site employees. During a peak operational day, there could be up to 50 shipping containers transported to/from the Port to the facility or when vehicles are transported to/from the Port to the facility there could be up to 65 vehicle carriers.

Demolition and grading phases have already been completed for the process of converting the former manufacturing facility into an outdoor vehicle storage yard. The California Air Resources Board (CARB) California Emissions Estimator Model (CalEEMod) identifies a default construction period for the scale and nature of the project, which includes site preparation, trenching and construction, paving, and landscaping. For the purposes of modeling, it was assumed that construction of the proposed project would commence in September 2023[1] and would last approximately 3 months, ending in December 2023. These construction schedule durations are considered very conservative but are used in the analysis of construction effects of the project to ensure potential worst-case conditions are addressed. Refer to Table 1 for a detailed breakdown of construction equipment and phasing, along with an approximate construction schedule.

1 The analysis assumes a construction start date of September 2023, which represents the earliest date construction would initiate. Assuming the earliest start date for construction represents the worst-case scenario for criteria air pollutant emissions because equipment and vehicle emission factors for later years would be slightly less due to more stringent standards for in-use off-road equipment and heavy-duty trucks, as well as fleet turnover replacing older equipment and vehicles in later years.

Table 1. Construction Scenario Assumptions

Construction Phase	Start Date	Finish Date	One-Way Vehicle Trips			Equipment		
			Average Daily Workers	Average Daily Vendor Trucks	Total Haul Trucks	Type	Quantity	Usage Hours
Site Preparation	9/4/2023	9/8/2023	4	4	0	Rubber Tired Dozers	3	8
						Tractors/ Loaders/ Backhoes	4	8
Trenching and Construction: ▪ Install water line/hydrants ▪ Lights install ▪ Fence install	9/11/2023	10/20/2023	8 6 8	2 4 2	20 0 0	Tractors/ Loaders/ Backhoes	2	8
						Welders	1	8
						Forklifts	1	8
						Generator Sets	1	8
Paving	10/23/2023	12/1/2023	10	5	300	Pavers	2	8
						Paving Equipment	2	8
						Rollers	2	8
Landscaping	12/4/2023	12/15/2023	10	2	0	Tractors/ Loaders/ Backhoes	1	8

Source: CalEEMod, CAPCOA 2022, Data Request.

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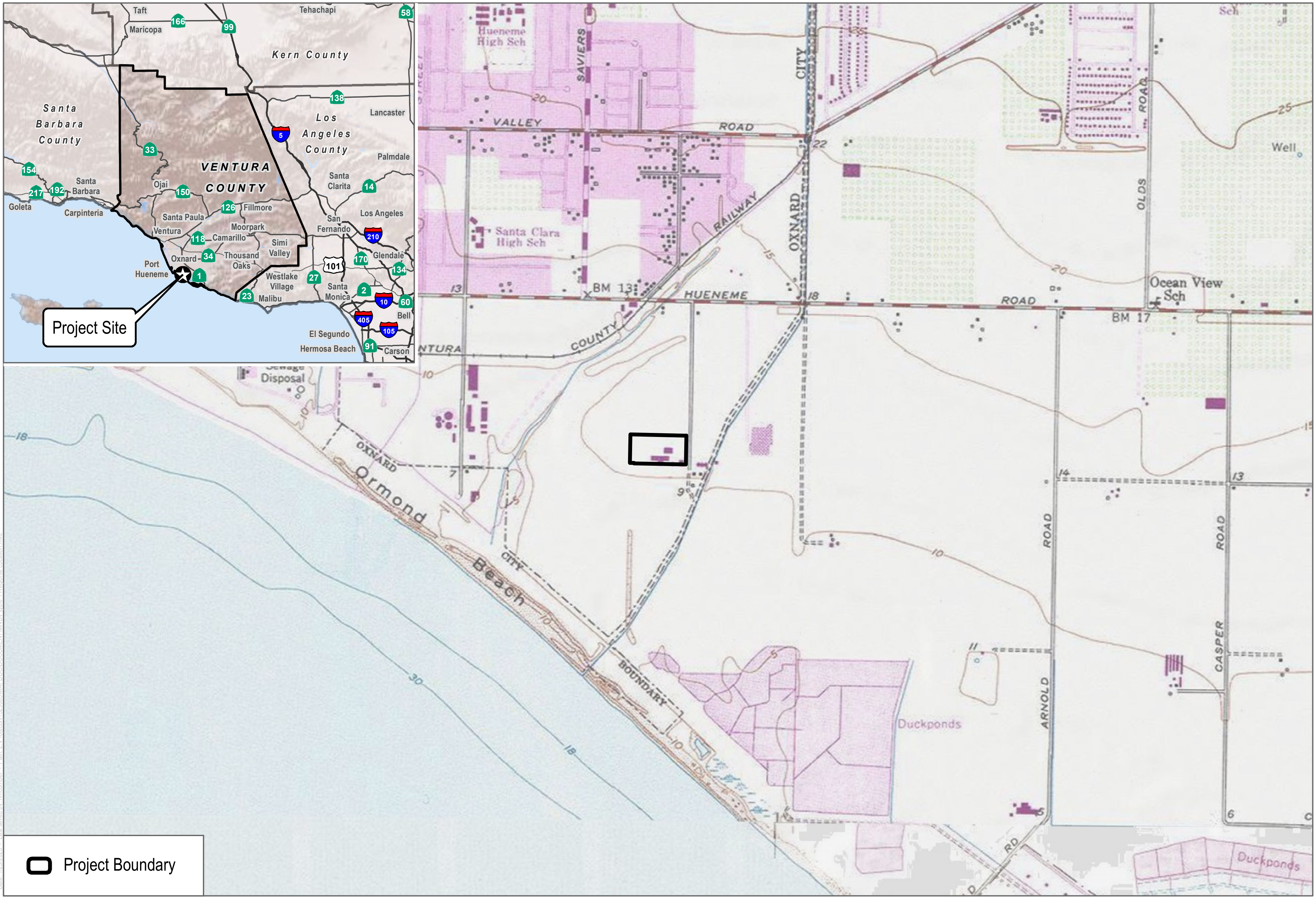

SOURCE: USGS 7.5-Minute Series Oxnard Quadrangle

DUDEK

0 1,000 2,000 Feet

FIGURE 1

Regional Location

6001 Arcturus Avenue Project

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SOURCE: Bing Maps; Ventura County 2023

DUDEK

0 150 300 Feet

FIGURE 2

Project Site

6001 Arcturus Avenue Project

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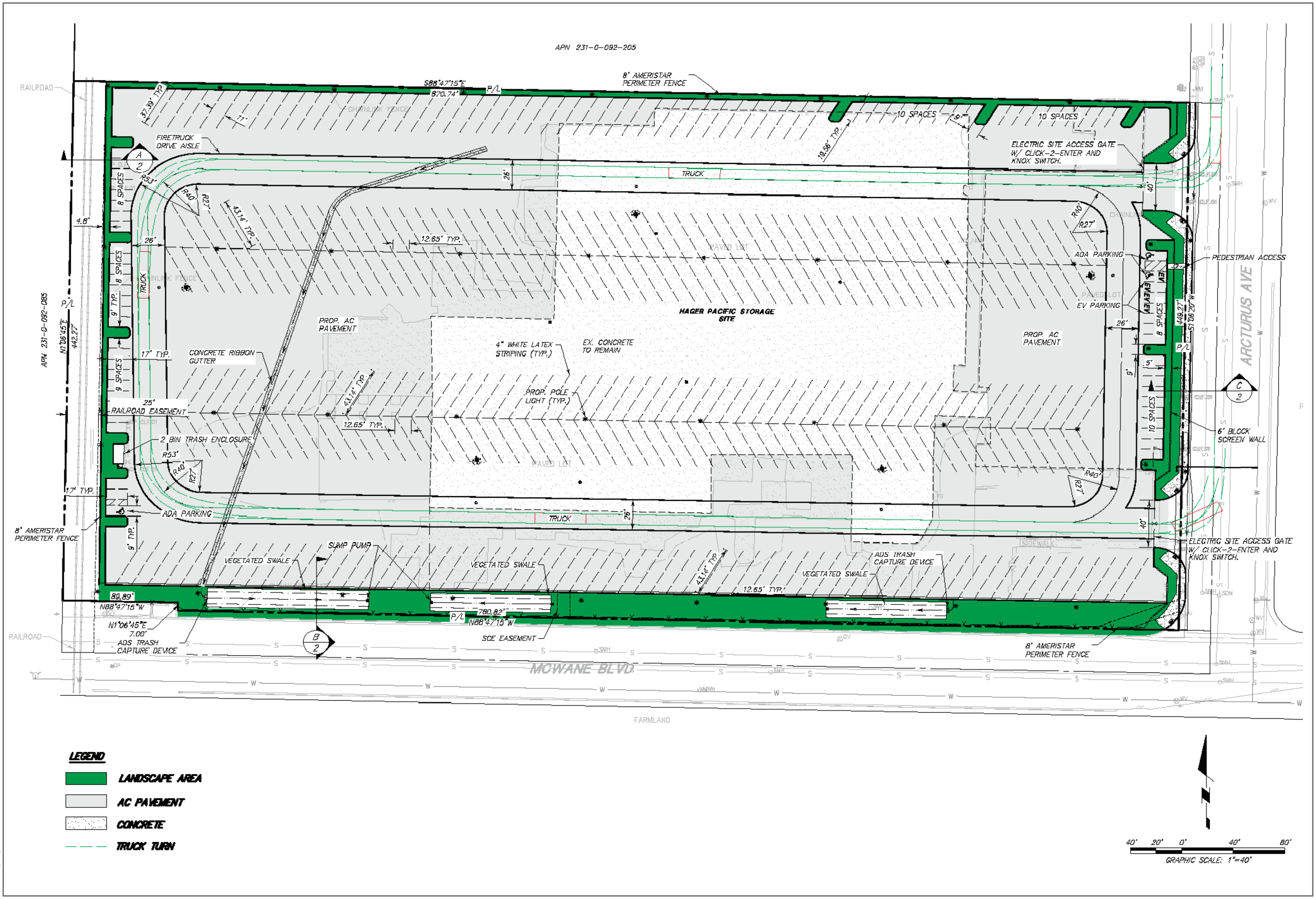

SOURCE: Jensen Design and Survey, Inc. 2022

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FIGURE 3

Site Plan

6001 Arcturus Avenue Project

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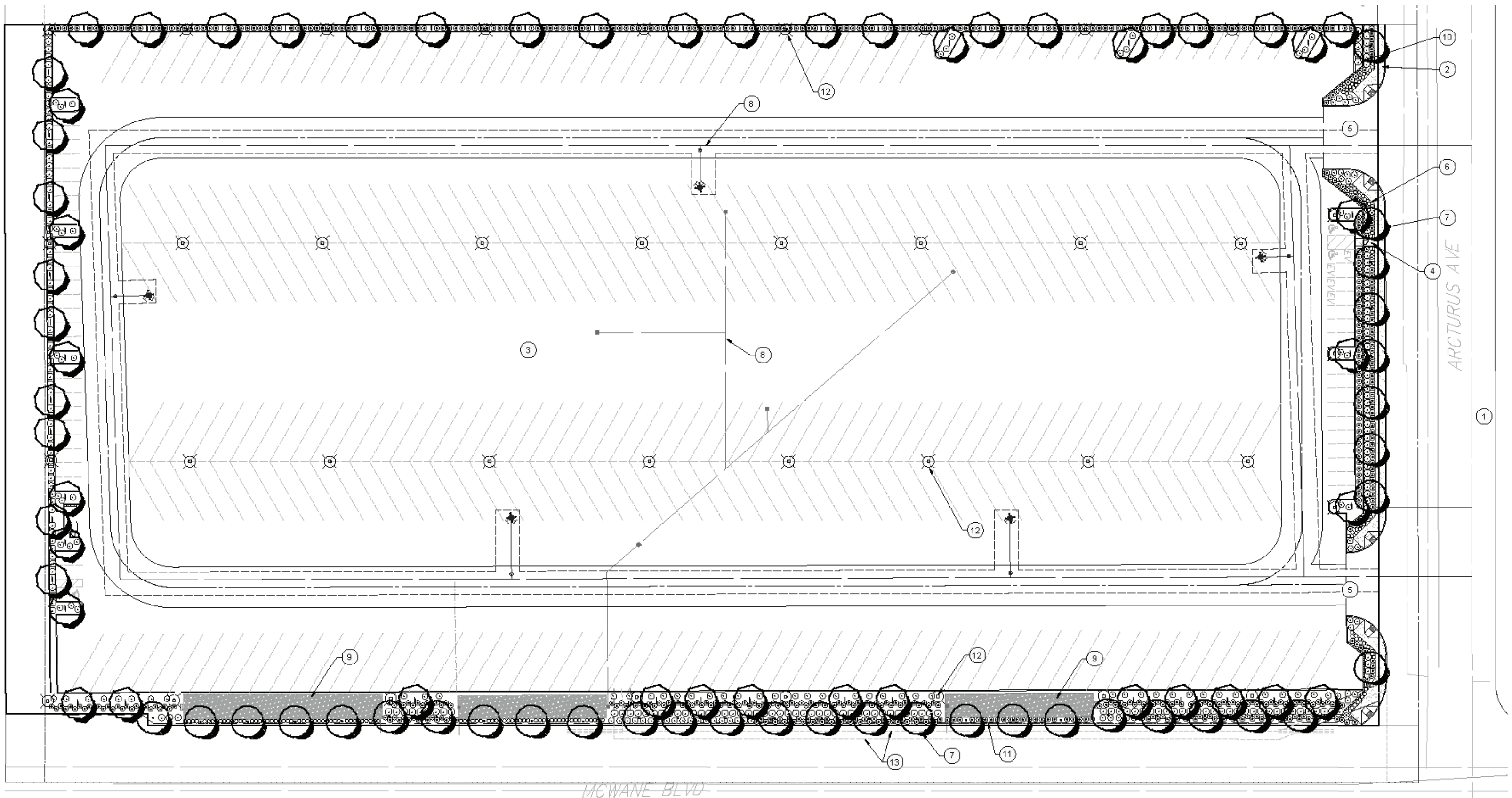

PROPOSED PLANT LEGEND

PLANT SPECIES TO BE FINALIZED DURING CONSTRUCTION PLAN DEVELOPMENT

SHRUBS

SYM.	BOTANICAL NAME / COMMON NAME	QTY.
	BACKGROUND SHRUB (5 GAL.) LIGUSTRUM J. 'TEXANUM' / TEXAS PRIVET	206
	MID-GROUND SHRUB (5 GAL.) CALLISTEMON C. 'LITTLE JOHN' / DWARF CALLISTEMON BOUGAINVILLEA 'LA JOLLA' / BOUGAINVILLEA VAR.	611
	ACCENT SHRUB (1/5 GAL.) DIANELLA SPP. / FLAX LILY VAR.	148

GROUNDCOVER / GROUNDCOVER

SYM.	BOTANICAL NAME / COMMON NAME	QTY.
	BOUGAINVILLEA 'OOH LA LA' / BOUGAINVILLEA VAR. LANTANA 'GOLD RUSH' / LANTANA VAR.	125
	CAREX PANSA / MEADOW SEDGE JUNCUS EFFUSUS / SOFT RUSH MIMULUS CARDINALIS / SCARLET MONKEYFLOWER MUHLENBERGIA RIGENS / DEER GRASS LANDSCAPE PLANTING SHALL MEET THE COUNTY OF VENTURA LOW IMPACT DEVELOPMENT HANDBOOK	4,825 SF

TREES

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	QTY.
	LAGERSTROEMIA I. 'MUSKOGEE' / CRAPE MYRTLE VAR.	24" BOX	34
	PLATANUS A. 'COLOMBIA' / LONDON PLANE VAR. SEARSIA LANCEA / AFRICAN SUMAC	24" BOX	52

ADDITIONAL NOTES:

NORTH

SCALE - 1" = 40'-0"

0 20' 40' 80' 120'

SOURCE: Wetland Design Group, Inc. 2023

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FIGURE 4

Landscape Plan

6001 Arcturus Avenue Project

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The project is anticipated to become operational on approximately March 1, 2024, and would generally operate between 6 a.m. and 6 p.m. The parking lot would feature a total of 327 parking spaces. The project site would be used to store shipping containers and vehicles. An average of 100 vehicles are anticipated to visit the site daily, assuming the delivery of 50 shipping containers per day; however, there are not anticipated to be any employees or security personnel stationed on site. As part of the proposed bio-swale feature, a WS_D4 series sump pump is included.

9. Surrounding land uses and setting: Briefly describe the project's surroundings:

The project site contains a remnant concrete surface area of approximately 120,000 sf that would be preserved in the project but is otherwise currently vacant. The project site is bounded by East McWane Boulevard and agricultural land to the south, Arcturus Avenue and an unpaved vehicle storage yard to the east, and railroad tracks and undeveloped open space to the west. To the immediate north and northeast of the project, parking lots and industrial land uses dominate the landscape. Further north, along the north side of Hueneme Road are single family residences (approximately 2,250 feet from the project site), and Art Haycox Elementary School sits to the northwest (approximately 3,500 feet from the project site). The area further east of the project site is dominated by farmland. To the immediate west of the project site is open space, with a wastewater treatment plant and multi-family homes further to the west.

10. Required Discretionary Actions

The following discretionary approvals would be required for the project:

- Approval of a Special Use Permit to allow vehicle storage on the project site, which is consistent with the M-1 zone with approval of a Special Use Permit under Section 16-138 of the City's Municipal Code.
- Approval of a Coastal Development Permit to allow vehicle storage on the project site, which is consistent with the M-1 zone with approval of a Coastal Development Permit under Section 17-57 of the City's Municipal Code.
- Adoption of an IS/MND prepared in accordance with CEQA. The City is required to consider the IS/MND and adopt it prior to approving the project.

11. Other Public Agencies Whose Approval is Required

The California Regional Water Quality Control Board, Los Angeles Region, may need to provide final approval of remediation case T10000011316 prior to development of the project.

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 and Urban Design	☐	Climate Change and Greenhouse Gas Emissions	☐	Hydrology and Water Quality	☐	Population, Education, and Housing
☐	Agricultural Resources	☒	Cultural Resources and Tribal Cultural Resources	☐	Land Use and Planning	☐	Public Services and Recreation
☒	Air Quality	☐	Geology and Soils	☐	Mineral Resources	☐	Transportation and Circulation
☒	Biological Resources	☒	Hazards and Hazardous Materials	☒	Noise	☐	Utilities and Energy

Determination (To be completed by the Lead Agency)

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been 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 (1. have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (2. 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.

Signature ____________________ Date 6/21/2023

Joe Pearson II

Printed Name ____________________ For ____________________

Evaluation of Environmental Impacts

1. When the answer to a checklist question is "yes", either the "Potentially Significant Impact" or "Less than Significant Impact with Mitigation Incorporated" box will typically be checked. When the answer to a checklist question is "no," either the "Less than Significant Impact" or "No Impact" box will typically be checked.
2. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project--specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project--specific screening analysis).
3. All answers must take account of the whole action involved, including off---site as well as on-- site, cumulative as well as project–level, indirect as well as direct, and construction as well as operational impacts.
4. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is typically required.
5. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (6) below, may be cross-referenced.
6. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(3.(3)(4.. In this case, a brief discussion should identify the following:
   a. Earlier Analysis Used. Identify and state where they are available for review.
   b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c. Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site--specific conditions for the project.
7. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
8. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
9. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

10. The explanation of each issue should identify:
    a. The significance criteria or threshold, if any, used to evaluate each question; and
    b. The mitigation measure identified, if any, to reduce the impact to less than significance

2.1 Aesthetics and Urban Design

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Would the project have a substantial adverse effect on a scenic vista such as an ocean or mountain view from an important view corridor or location as identified in the 2030 General Plan or other City planning documents?	☐	☐	☒	☐
2. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway, or route identified as scenic by the County of Ventura or City of Oxnard?	☐	☐	☐	☒
3. Would the project substantially degrade the existing visual character or quality of the site or its surroundings such as by creating new development or other physical changes that are visually incompatible with surrounding areas or that conflict with visual resource policies contained in the 2030 General Plan or other City planning documents?	☐	☐	☐	☒
4. Would the project add to or compound an existing negative visual character associated with the project site?	☐	☐	☐	☒
5. Would the project create a source of substantial light or glare that would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

1. Would the project have a substantial adverse effect on a scenic vista such as an ocean or mountain view from an important view corridor or location as identified in the 2030 General Plan or other City planning documents?

The 2030 General Plan Goals and Policies outline three broad categories of aesthetic resources, including Local Waterways, Agricultural Greenbelts, and Beaches and Coastlines (City of Oxnard 2022). The project site is on the north side of East McWane Boulevard, opposite cultivated agriculture land on the south side of this street. The project site is also within approximately 0.5 miles from the coastline. Although not specifically identified as scenic vistas, both the cultivated agriculture land and the beach and coastline could be considered aesthetic resources, per the City's definition in the 2030 General Plan. However, existing structures on the parcels north and northeast of the project site currently obscure views of these agricultural fields and the coastline from public vantage points north of the project site. In addition, the project would not introduce any structures on the site and fencing and light posts would not be taller than the existing structures on the parcel immediately north of the project site. Therefore, the project would not have a substantial adverse effect on a scenic vista, and impacts would be less than significant.

2. *Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway, or route identified as scenic by the County of Ventura or City of Oxnard?*

The General Plan Background Report identifies there are no California Department of Transportation (Caltrans) Designated Scenic Routes in the Oxnard Planning Area; however, the City of Oxnard identifies several road segments within the City as scenic (City of Oxnard 2006). Scenic roads designated by the City include Los Angeles Avenue, Vineyard Avenue (between Los Angeles Avenue and Patterson Road), and Oxnard Boulevard/Highway 1 (between US Route 101 and Point Mugu). The project site is not visible from any of these designated scenic roadways. In addition, the project site does not contain any specimen trees, rock outcrops, or historic buildings. The proposed project would therefore not damage scenic resources and there would be no impact.

3. *Would the project substantially degrade the existing visual character or quality of the site or its surroundings such as by creating new development or other physical changes that are visually incompatible with surrounding areas or that conflict with visual resource policies contained in the 2030 General Plan or other City planning documents?*

The project site was the former location of Arcturus manufacturing, of which only some concrete and asphalt paving remains. The proposed project would introduce landscaping, ornamental fencing, and security lighting to the site. These proposed project components would improve the visual quality of the site, compared to existing conditions. The parking and outdoor storage yard would be compatible in appearance to the existing industrial developments and parking lots in the block of land south of Hueneme Road and west of Edison Drive. The project would therefore have no adverse impacts on the visual character of the site, and in the project would be beneficial to the existing visual character or quality of the site or its surroundings compared to the project. Therefore, no impact with regard to the site's visual character would occur.

4. *Would the project add to or compound an existing negative visual character associated with the project site?*

The existing visual character of the site may be described as barren paving with a perimeter of weeds and poorly maintained chain-link fencing. The project proposes to introduce perimeter landscaping and ornamental fencing that would improve the existing negative visual character of the site. The project would therefore not add to the existing negative visual character of the site, and no impact would occur.

5. Would the project create a source of substantial light or glare that would adversely affect day or nighttime views in the area?

The project would not include structures and proposed fencing is not anticipated to have a shiny finish that could produce glare. The project site is located in an urban area with streetlights and parking lots that create nighttime light pollution. The proposed project would not contribute a significant amount of additional light during nighttime hours, as the facility is anticipated to operate between approximately 6:00 a.m. and 6:00 p.m. The project proposes parking lot lights employing downward orientation with shielding to minimize light spill, and lighting would be motion-activated (not left on during periods of darkness). Any new lighting would be required to conform to requirements in Section 16-320 of the Oxnard City Code, which requires lighting to illuminate only the intended surfaces and to not exceed seven foot-candles, nor be less than one footcandle at any point. Design standards for the coastal zone, including the southwest corner of the property, include SEC 17-46 B4: Lighting shall be stationary and deflected away from adjacent properties. These requirements are also outlined as **MM-BIO-4** (see Section 2.4, Biological Resources). Light and glare impacts would therefore be **less than significant.**

2.2 Agricultural Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use?	☐	☐	☐	☒
2. Would the project conflict with existing zoning for agricultural use or an existing Williamson Act contract?	☐	☐	☐	☒
3. Would the project involve other changes in the existing environment that, due to their location or nature, could result in conversion of off-site farmland to non- agricultural use?	☐	☐	☐	☒

1. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use?

According to the California Department of Conservation, Ventura County Important Farmland Map the project site is not on land designated as Prime Farmland, Unique Farmland or Farmland of statewide importance (California Department of Conservation 2022). The site does not include designated farmlands; therefore, the project would not result in the conversion of prime farmland, unique farmland, or farmland of statewide importance. The project would have **no impact** on converting farmland to non-agricultural use.

2. *Would the project conflict with existing zoning for agricultural use or an existing Williamson Act contract?*

The project site was previously developed for manufacturing uses (which have since been removed) and is designated as Light Industrial according to the 2030 General Plan Land Use Element (City of Oxnard 2022). According to the California Department of Conservation Division of Land Resource Protection, the site is not under a Williamson Act Contract (California Department of Conservation 2022). Additionally, the project site is zoned as Light Manufacturing by the City; the proposed project's implementation would not conflict with the proposed zoning for the site, and the site is not zoned for agricultural use. The project would have **no impact.**

3. *Would the project involve other changes in the existing environment that, due to their location or nature, could result in conversion of off-site farmland to non- agricultural use?*

The project site was previously developed for manufacturing uses, which would be converted to a less intensive use under the project. While agricultural land exists within the vicinity of the project, E. McWane Boulevard is located between the project site and these agricultural lands, and the project site is within a grouping of parcels dedicated to industrial and manufacturing uses; therefore, implementation of the project would not have any indirect impacts on farmland or forestland that could lead to conversion to nonagricultural or non-forest uses. Thus, the proposed project would have **no impact** on agriculture or forestry resources.

2.3 Air Quality

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Would the project conflict with or obstruct implementation of the Ventura County AQMP?	☐	☐	☒	☐
2. Would the project violate any federal or state air quality standard or contribute substantially to an existing or projected air quality standard violation?	☐	☒	☐	☐
3. Would the project result in a cumulatively considerable net increase of any criteria in excess of quantitative thresholds recommended by the VCAPCD?	☐	☒	☐	☐
4. Would the project expose sensitive receptors to pollutant concentrations exceeding state or federal standards or in excess of applicable health risk criteria for toxic air contaminants?	☐	☐	☒	☐
5. Would the project create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

The project site is located in the South-Central Coast Air Basin (Basin), which covers Ventura, Santa Barbara, and San Luis Obispo Counties. The Ventura County Air Pollution Control District (VCAPCD) monitors and regulates the local air quality in Ventura County and manages the Air Quality Management Plan (AQMP). The analysis presented in this section is based upon information found in the Ventura County Air Quality Assessment Guidelines (Guidelines), adopted by the VCAPCD in 2003.

Air quality is affected by stationary sources (e.g., industrial uses and oil and gas operations) and mobile sources (e.g., motor vehicles). Air quality at a given location is a function of several factors, including the quantity and type of pollutants emitted locally and regionally and the dispersion rates of pollutants in the region. Primary factors affecting pollutant dispersion are wind speed and direction, atmospheric stability, temperature, the presence or absence of inversions, and topography. The project site is located in the southeastern portion of the Basin, which has moderate variability in temperatures, tempered by coastal processes. The air quality in the Basin is influenced by a wide range of emission sources, such as dense population centers, heavy vehicular traffic, industry, and weather.

Air Quality Standards and Attainment

The VCAPCD is required to monitor air pollutant levels to ensure National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) are met. If the standards are met, the Basin is classified as being in "attainment." If the standards are not met, the Basin is classified as being in "nonattainment," and the VCAPCD is required to develop strategies to meet the standards. According to the CARB Area Designation Maps, the project site is located in a region identified as being in state nonattainment for 1-hour ozone (O_3), state and federal nonattainment for 8-hour O_3, and state nonattainment for particulate matter less than 10 microns in diameter (PM_{10}) (VCAPCD 2006a). In December 2022, the VCAPCD adopted the 2022 Ventura County AQMP, which provides a strategy for the attainment of federal O_3 standards (VCAPCD 2022).

San Joaquin Valley Fever (formally known as Coccidioidomycosis) is an infectious disease caused by the fungus *Coccidioides immitis*. Valley Fever is a disease of concern in the Basin. Infection is caused by inhalation of *Coccidioides immitis* spores that have become airborne when dry, dusty soil or dirt is disturbed by natural processes, such as wind or earthquakes, or by human-induced ground-disturbing activities, such as construction, farming, or other activities (VCAPCD 2003). In 2019, the total number of cases of Valley Fever reported in California was 9,004, with 364 cases reported in Ventura County (California Department of Public Health 2019).

Air Pollutant Emission Thresholds

VCAPCD's Guidelines recommend specific air emissions criteria and threshold levels for determining whether a project may have a significant adverse impact on air quality within the Basin. The project would have a significant impact if operational emissions exceed 25 pounds per day of reactive organic compounds (ROC; also referred to as reactive organic gases) or 25 pounds per day of nitrogen oxides (NO_x). The 25 pounds per day threshold for ROC and NO_x is not intended to be applied to construction emissions since such emissions are temporary. Nevertheless, VCAPCD's Guidelines state that construction-related emissions should be mitigated if estimates of ROC or NO_x emissions from heavy-duty construction equipment exceed 25 pounds per day for either ROC or NO_x.

VCAPCD has not established quantitative thresholds for particulate matter for either operation or construction. However, VCAPCD indicates that a project that may generate fugitive dust emissions in such quantities as to cause injury, detriment, nuisance, or annoyance to any considerable number of persons, or which may endanger the comfort, repose, health, or safety of any such person, or which may cause or have a natural tendency to cause injury or damage to business or property, would have a significant air quality impact. This threshold applies to the generation of fugitive dust during construction grading and excavation activities. The VCAPCD Guidelines recommend application of fugitive dust mitigation measures for all dust-generating activities. Such measures include minimizing the project disturbance area, watering the site prior to commencement of ground-disturbing activities, covering all truck loads, and limiting on-site vehicle speeds to 15 miles per hour or less.

Applicable Ventura County Air Pollution Control District Rules and Regulations

VCAPCD implements rules and regulations for emissions that may be generated by various uses and activities. The rules and regulations detail pollution-reduction measures that must be implemented during construction and operation of projects. Rules and regulations relevant to the project include those listed below.

Rule 50 (Opacity)

This rule sets opacity standards on the discharge from sources of air contaminants. This rule would apply during construction of the project.

Rule 51 (Nuisance)

This rule prohibits any person from discharging air contaminants or any other material from a source that would cause injury, detriment, nuisance, or annoyance to any considerable number of persons or the public or which endangers the comfort, health, safety, or repose to any considerable number of persons or the public. The rule would apply during construction and operational activities.

Rule 55 (Fugitive Dust)

This rule requires fugitive dust generators, including construction and demolition projects, to implement control measures limiting the amount of dust from vehicle track-out, earth moving, bulk material handling, and truck hauling activities. The rule would apply during construction and operational activities.

Rule 55.1 (Paved Roads and Public Unpaved Roads)

This rule requires fugitive dust generators to begin the removal of visible roadway accumulation within 72 hours of any written notification from the VCAPCD. The use of blowers is expressly prohibited under any circumstances. This rule also requires controls to limit the amount of dust from any construction activity or any earthmoving activity on a public unpaved road. This rule would apply throughout all construction activities.

Rule 55.2 (Street Sweeping Equipment)

This rule requires the use of PM_{10} efficient street sweepers for routine street sweeping and for removing vehicle track-out pursuant to Rule 55. This rule would apply during all construction and operational activities.

Rule 74.2 (Architectural Coatings)

This rule sets limits on the volatile organic compound (VOC) content of architectural coatings. Non-flat coatings are limited to 150 grams per liter of VOC content, flat coatings are limited to 150 grams per liter of VOC content, and traffic marking coatings are limited to 150 grams per liter of VOC content. The project would be required to comply with this rule.

Rule 74.4 (Cutback Asphalt)

This rule sets limits on the type of application and VOC content of cutback and emulsified asphalt. The project would be required to comply with the type of application and VOC content standards set forth in this rule.

1. Would the project conflict with or obstruct implementation of the Ventura County AQMP?

A project is non-conforming with an air quality plan if it conflicts with or delays implementation of any applicable attainment or maintenance plan. A project is conforming if it complies with all applicable VCAPCD rules and regulations, complies with all proposed control measures that are not yet adopted from the applicable plan, and is consistent with the growth forecasts in the applicable plan (or is directly included in the applicable plan). Zoning changes, specific plans, general plan amendments, and similar land use plan changes that do not increase dwelling unit density, do not increase vehicle trips, and do not increase vehicle miles traveled (VMT) are also deemed to comply with the applicable air quality plan (VCAPCD 2003).

Consistency with land use and population forecasts in local and regional plans, including the AQMP, is required under CEQA for all projects. VCAPCD further describes consistency with the AQMP for projects subject to these guidelines, which means that direct and indirect emissions associated with the project are accounted for in the AQMP's emissions growth assumptions, and the project is consistent with policies adopted in the AQMP. The 2022 AQMP was adopted by the VCAPCD Board on December 13, 2022, and is the most recent applicable air quality plan. The 2022 AQMP is the 3-year update required by the state to show how VCAPCD plans to meet the 2015 federal 8-hour O_3 standard (VCAPCD 2022).

The AQMP relies primarily on the land use and population projections provided by the Southern California Association of Governments (SCAG) and the CARB on-road emissions forecast as a basis for vehicle emission forecasting. The project site is zoned as Light Manufacturing and has a Light Industrial land use designation, which the project would be consistent with. Furthermore, the project would not require any operational employees to function. As the project would not create any jobs, the project is within the growth assumptions that underlie the emissions forecasts in the 2022 AQMP. In addition, the project and cumulative projects combined would remain consistent with the growth projections. As a result, the project would not conflict with or obstruct implementation of the AQMP, and impacts would be **less than significant.**

2. Would the project violate any federal or state air quality standard or contribute substantially to an existing or projected air quality standard violation?

Air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and VCAPCD develops and implements plans for future attainment of ambient air quality standards. Based on these considerations, project-level thresholds of significance for criteria pollutants are relevant in the determination of whether a project's individual emissions would have a cumulatively significant impact on air quality.

Construction Emissions

Emissions from the construction phase of the proposed project were estimated using CalEEMod, Version 2022.1 (CAPCOA 2022).

As described in Section 1, Introduction, the proposed project would develop 352,501 sf of parking, 27,038 sf of landscaping, and other developments such as lighting and fencing. For the purposes of modeling, it was assumed that construction of the proposed project would commence in September 2023[2] and would last approximately 3 months, ending in December 2023. The analysis contained herein is based on the following subset area schedule assumptions (duration of phases is approximate) which are also outlined in Table 1, above:

- Site Preparation – 1 week
- Trenching and Construction – 1 month
- Paving – 5 weeks
- Landscaping – 1 week

The estimated construction duration was created using CalEEMod defaults and was confirmed by the City. Detailed construction equipment modeling assumptions are provided in Appendix A, CalEEMod Results.

The construction equipment mix used for estimating the construction emissions of the proposed project is based on information provided by the project applicant and is shown in Table 1, above.

For the analysis, it was assumed that heavy construction equipment would be operating 5 days per week during proposed project construction. Construction worker and vendor trips were based on CalEEMod default assumptions and rounded up to the nearest whole number to account for whole round trips.

The project would be required to comply with VCAPCD Rule 55 to control dust emissions generated during any dust-generating activities. Standard construction practices that would be employed to reduce fugitive dust emissions include watering of the active dust areas two times per day, with additional watering depending on weather conditions. The project would be required to comply with VCAPCD Rule 74.2 for use of architectural coatings.

Proposed construction activities would result in the temporary addition of pollutants to the local airshed caused by on-site sources (i.e., off-road construction equipment, soil disturbance, and ROC off-gassing) and off-site sources (i.e., on-road haul trucks, vendor trucks, and worker vehicle trips). Construction emissions can vary substantially from day to day, depending on the level of activity; the specific type of operation; and, for particulate matter, the prevailing weather conditions. Therefore, such emission levels can only be approximately estimated.

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2 The analysis assumes a construction start date of September 2023, which represents the earliest date construction would initiate. Assuming the earliest start date for construction represents the worst-case scenario for criteria air pollutant emissions because equipment and vehicle emission factors for later years would be slightly less due to more stringent standards for in-use off-road equipment and heavy-duty trucks, as well as fleet turnover replacing older equipment and vehicles in later years.

Table 2 presents the estimated daily emissions generated during construction of the project. Details of the emission calculations are provided in Appendix A.

Table 2. Estimated Maximum Daily Construction Criteria Air Pollutant Emissions–Unmitigated

Year	VOC	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
	pounds per day					
Summer						
2023	3.97	39.9	35.8	0.05	7.85	4.06
Winter						
2023	1.41	9.43	11.0	0.02	0.50	0.22
Project Maximum	**3.97**	**39.9**	**35.8**	**0.05**	**7.85**	**4.06**
VCAPCD Threshold	*25*	*25*	—	—	—	—
Threshold Exceeded?	No	Yes	—	—	—	—

Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; VCAPCD = Ventura County Air Policy Control District. Results include VCAPCD Rule 55 to reduce fugitive dust.
See Appendix A for complete results.

As shown in Table 2, the project construction would not exceed 25 pounds per day of VOC emissions, but NO_x emissions would exceed 25 pounds per day. Therefore, impacts would be potentially significant. With implementation of **Mitigation Measure (MM) AQ-1**, impacts would be **less than significant with mitigation.**

Table 3 presents the estimated daily emissions generated during construction of the project including **MM-AQ-1**. Details of the emission calculations are provided in Appendix A.

Table 3. Estimated Maximum Daily Construction Criteria Air Pollutant Emissions–Mitigated

Year	VOC	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
	pounds per day					
Project						
Summer						
2023	0.52	3.04	28.7	0.05	7.85	4.06
Winter						
2023	0.97	3.86	11.6	0.02	0.50	0.22
Project Maximum	**0.97**	**3.86**	**28.7**	**0.05**	**7.85**	**4.06**
VCAPCD Threshold	*25*	*25*	--	--	--	--
Threshold Exceeded?	No	No	--	--	--	--

Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; VCAPCD = Ventura County Air Policy Control District.
See Appendix A for complete results.

As shown in Table 3, with implementation of **MM-AQ-1**, the project construction would not exceed 25 pounds per day of ROC or NO_x emissions. Therefore, construction impacts would be **less than significant with mitigation.**

MM-AQ-1 Heavy-duty diesel-powered construction equipment greater than 75 horsepower shall be equipped with Tier 4 Final or better diesel engines. The City of Oxnard shall verify and approve all pieces within the construction fleet that would not meet Tier 4 Final standards per the VCAPCD Guidelines. Equipment engines must be maintained in good condition and in proper tune as per manufacturer's specifications.

An exemption from these requirements may be granted by the City in the event that the applicant documents that equipment with the required tier or fuel type is not reasonably available and corresponding reductions in criteria air pollutant emissions are achieved from other construction equipment. Before an exemption may be considered by the City, the applicant shall be required to demonstrate that two construction fleet owners/operators in Ventura County were contacted and that those owners/operators confirmed Tier 4 Final or electric equipment could not be located within Ventura County.

Operational Emissions

Emissions from the operational phase of the proposed project were estimated using CalEEMod. Operational year 2024 was assumed as it would be the first full year following completion of proposed construction. Emissions associated with the following sources were estimated using CalEEMod.

Area Sources

Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chainsaws, and hedge trimmers. The emissions associated with landscape equipment use are estimated based on CalEEMod default values for emission factors (grams per square foot of building space per day), as well as number of summer days (when landscape maintenance would generally be performed, 180 days) and winter days.

Energy Sources

As represented in CalEEMod, energy sources include emissions associated with building electricity. Electricity use would contribute indirectly to criteria air pollutant emissions; however, the emissions from electricity use are only quantified for greenhouse gas (GHG) emissions in CalEEMod, since criteria pollutant emissions would occur at the site of power plants, which are not on the project site. It is assumed that the project is in compliance with the 2019 Title 24 Building Energy Efficiency Standards.

Mobile Sources

Following the completion of construction activities, the proposed project would generate criteria pollutant emissions from mobile sources (vehicular traffic) as a result of the transport of shipping containers and vehicles to and from the proposed project. CalEEMod default data, including trip characteristics, trip lengths, and emissions factors, were used for the model inputs. Project trip rates were taken from the Associated Transportation Engineers Trip Generation and Parking Analysis for the Hager Pacific Logistics

Facility Special Use Permit Application (Appendix F). Project-related traffic was conservatively assumed to include a worst-case mixture comprised entirely of Heavy-Heavy Duty trucks, as modeled within the CalEEMod. Emission factors representing the vehicle mix and emissions for the operational year of 2024 were used to estimate emissions associated with vehicular sources.

Table 4 presents the maximum daily emissions associated with the operation of the project after all phases of construction have been completed. Emissions represent maximum of summer and winter. “Summer” emissions are representative of the conditions that may occur during the O_3 season (May 1 to October 31), and “winter” emissions are representative of the conditions that may occur during the balance of the year (November 1 to April 30).

Table 4. Estimated Maximum Daily Operational Criteria Air Pollutant Emissions–Unmitigated

	VOC	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
Year	pounds per day					
Project						
Summer						
Mobile	0.10	6.91	1.71	0.05	0.75	0.23
Area	0.04	0.00	0.00	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00
Winter						
Mobile	0.10	7.17	1.74	0.05	0.75	0.23
Area	0.04	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00
Project Total	**0.14**	**7.17**	**1.74**	**0.05**	**0.75**	**0.23**
Existing Land Use						
Summer						
Mobile	0.04	1.83	0.55	0.01	0.22	0.07
Area	1.82	0.02	2.66	< 0.01	< 0.01	< 0.01
Energy	0.04	0.70	0.59	< 0.01	0.05	0.05
Winter						
Mobile	0.04	1.90	0.56	0.01	0.22	0.07
Area	1.39	—	—	—	—	—
Energy	0.04	0.70	0.59	< 0.01	0.05	0.05
Existing Total	**1.91**	**2.60**	**3.80**	**0.02**	**0.27**	**0.12**
Net Total	**-1.77**	**4.57**	**-2.06**	**0.03**	**0.48**	**0.11**
VCAPCD Threshold	*25*	*25*	—	—	—	—
Threshold Exceeded?	No	No	—	—	—	—

Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; VCAPCD = Ventura County Air Policy Control District.
See Appendix A for complete results.

As shown in Table 4, the project would not exceed any of the VCAPCD operational criteria pollutant emissions thresholds. Therefore, the project would have a **less-than-significant impact** during operation, even without considering the emissions of the existing land use.

Conclusion

Based on the previous considerations, with implementation of **MM-AQ-1**, the project would not result in a cumulatively considerable increase in emissions of nonattainment pollutants, and cumulative impacts. Impacts would be **less than significant with mitigation**.

3. ***Would the project result in a cumulatively considerable net increase of any criteria in excess of quantitative thresholds recommended by the VCAPCD?***

As stated previously, the Basin is currently in state nonattainment for 1-hour O_3, state and federal nonattainment for 8-hour O_3, and state nonattainment for PM_{10}. The VCAPCD suggests neither quantified analyses of cumulative operational emissions nor provides thresholds of significance to be used to assess cumulative construction or operational impacts. However, the VCAPCD recommends that a project's contribution to cumulative impacts should be assessed utilizing the same significance criteria as those for project-specific impacts. As discussed above, the project would have less than significant construction and operational impacts after the implementation of **MM-AQ-1**. Therefore, cumulative impacts to air quality would be **less than significant with mitigation.**

4. ***Would the project expose sensitive receptors to pollutant concentrations exceeding state or federal standards or in excess of applicable health risk criteria for toxic air contaminants?***

Health Impacts of Toxic Air Contaminants

A substance is considered toxic if it has the potential to cause adverse health effects in humans, including increasing the risk of cancer upon exposure or acute (immediate) and/or chronic (cumulative) non-cancer health effects. A toxic substance released into the air is considered a toxic air contaminant (TAC). Adverse health effects associated with exposure to TACs may include carcinogenic (i.e., cancer-causing) and noncarcinogenic effects. Noncarcinogenic effects typically affect one or more target organ systems and may be experienced on either short-term (acute) or long-term (chronic) exposure to a given TAC. There are existing residences adjacent to the western and southern boundaries of the project site.

TACs are identified by federal and state agencies based on a review of available scientific evidence. In the State of California, TACs are identified through a two-step process that was established in 1983 under the Toxic Air Contaminant Identification and Control Act. This two-step process of risk identification and risk management and reduction was designed to protect residents from the health effects of toxic substances in the air. In addition, the California Air Toxics "Hot Spots" Information and Assessment Act, Assembly Bill (AB) 2588, was enacted by the legislature in 1987 to address public concern over the release of TACs into the atmosphere.

Examples include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. TACs are generated by a number of sources, including stationary sources such as dry cleaners, gas stations, combustion sources, and laboratories; mobile sources such as automobiles; and area sources such as landfills. Adverse health effects associated with exposure to TACs may include carcinogenic (i.e., cancer-causing) and noncarcinogenic effects. Noncarcinogenic effects typically affect one or more target organ systems and may be experienced on either short-term (acute) or long-term (chronic) exposure to a given TAC.

No residual TAC emissions and corresponding health risk are anticipated after construction, and no long-term sources of TAC emissions are anticipated during operation of the project. CARB has published the Air Quality and Land Use Handbook: A Community Health Perspective (CARB 2005), which identifies certain types of facilities or sources that may emit substantial quantities of TACs and therefore could conflict with sensitive land uses, such as “schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities.” The Air Quality and Land Use Handbook *is* a guide for siting of new sensitive land uses, and CARB recommends that sensitive receptors not be located downwind or in proximity to such sources to avoid potential health hazards. The enumerated facilities or sources include the following: high-traffic freeways and roads, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and large gas dispensing facilities. The project would not include any of the above-listed land uses associated with generation of TAC emissions.

Project construction would result in emissions of diesel particulate from heavy construction equipment and trucks accessing the site. Diesel particulate is characterized as a TAC by the State of California. The Office of Environmental Health Hazard Assessment has identified carcinogenic and chronic noncarcinogenic effects from long-term exposure but has not identified health effects due to short-term exposure to diesel exhaust. According to the Office of Environmental Health Hazard Assessment, health risk assessments, which determine the exposure of sensitive receptors to toxic emissions, should be based on a 30-year exposure period for the maximally exposed individual resident; however, such assessments should be limited to the period/duration of activities associated with the project. Thus, the duration of the proposed construction activities would only constitute a small percentage of the total 30-year exposure period. Due to this relatively short period of exposure (3 months) and minimal particulate emissions on site and locally off site from exhaust, TACs generated by the project would not result in concentrations causing significant health risks. Furthermore, operation of the project would not require the operation of any equipment, only the transportation of goods using non-idling trucks. Overall, project construction and operation would not result in substantial TAC exposure to sensitive receptors in the vicinity of the project and impacts to sensitive receptors would be **less than significant.**

Health Impacts of Carbon Monoxide

Mobile-source impacts occur on two basic scales of motion. Regionally, project-related travel would add to regional trip generation and increase the VMT within the local airshed and the Basin. Locally, project-related traffic would be added to the City’s roadway system. If such traffic occurs during periods of poor atmospheric ventilation, consists of a large number of vehicles “cold-started” and operating at pollution-inefficient speeds, and operates on roadways already crowded with non-project traffic, there is a potential for the formation of microscale carbon monoxide (CO) hotspots in the area immediately around points of congested traffic. Because of continued improvement in mobile emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the Basin is steadily decreasing.

The VCAPCD recommends conducting a CO hotspot screening analysis for any project that meets both of the following conditions:

1. The project would generate indirect CO emissions are greater than the applicable ozone project significance thresholds (i.e., 25 pounds per day); and
2. The project would generate traffic that would significantly impact congestion levels at roadway intersections currently operating at, or that are expected to operate at, LOS [level of service] E or F.

As shown in Table 4, operation of the project would not exceed the VCAPCD threshold of 25 pounds per day for O_3 precursors (ROCs or NO_x). The VCAPCD has not established a daily significance threshold for CO emissions. The project is not anticipated to significantly affect congestion levels at roadway intersections due to the minimal number of vehicle trips generated by the project. As a result, the project does not trigger the need for a CO hotspot analysis and would not cause or contribute to a CO hotspot. Therefore, the project would not expose sensitive receptors to substantial CO concentrations and impacts would be **less than significant.**

Valley Fever

As previously discussed, the City has a low incidence rate of Valley Fever. Furthermore, the project would not impact undisturbed land; it would be built upon an existing developed site, which is not a source of Valley Fever spores. Impacts would be **less than significant.**

Health Impacts of Other Criteria Air Pollutants

Construction and operation of the proposed project would not result in emissions that exceed the VCAPCD's emission thresholds for any criteria air pollutants. Regarding ROCs, some ROCs are associated with motor vehicles and construction equipment, while others are associated with architectural coatings, the emissions of which would not result in the exceedances of the VCAPCD's thresholds. Generally, the ROCs in architectural coatings are of relatively low toxicity. Additionally, VCAPCD Rule 74.2 restricts the ROC content of coatings for both construction and operational applications.

In addition, ROC and NO_x are precursors to O_3, for which the Basin is designated as attainment with respect to the NAAQS and CAAQS. The health effects associated with O_3 are generally associated with reduced lung function. The contribution of ROCs and NO_x to regional ambient O_3 concentrations is the result of complex photochemistry. The increases in O_3 concentrations in the Basin due to O_3 precursor emissions tend to be found downwind from the source location to allow time for the photochemical reactions to occur. However, the potential for exacerbating excessive O_3 concentrations would also depend on the time of year that the ROC emissions would occur, because exceedances of the O_3 ambient air quality standards tend to occur between April and October when solar radiation is highest.

Regarding nitrogen dioxide (NO_2), according to the construction emissions analysis, construction of the proposed project would not contribute to exceedances of the NAAQS and CAAQS for NO_2. Health impacts from exposure to NO_2 and NO_x are associated with respiratory irritation, which may be experienced by nearby receptors during the periods of heaviest use of off-road construction equipment. However, these operations would be relatively short term. Additionally, off-road construction equipment would operate at various portions of the site and would not be concentrated in one portion of the site at any one time.

Construction of the proposed project would not require any stationary emission sources that would create substantial, localized NO_x impacts. Therefore, health impacts would be considered **less than significant.**

The ROC and NO_x emissions, as described previously, would minimally contribute to regional O_3 concentrations and its associated health effects. In addition to O_3, NO_x emissions would not contribute to potential exceedances of the NAAQS and CAAQS for NO_2. Thus, it is not expected that the proposed project's operational NO_x emissions would result in exceedances of the NO_2 standards or contribute to the associated health effects. CO tends to be a localized impact associated with congested intersections. The associated CO hotspots were discussed previously as a less-than-significant impact. Thus, the proposed project's CO emissions would not contribute to significant health effects associated with this pollutant. Likewise, PM_{10} and $PM_{2.5}$ would not contribute to potential exceedances of the NAAQS and CAAQS for particulate matter, would not obstruct the Basin from coming into attainment for these pollutants, and would not contribute to significant health effects associated with particulates.

Based on the preceding considerations, health impacts associated with criteria air pollutants would be **less than significant.**

5. Would the project create objectionable odors affecting a substantial number of people?

The occurrence and severity of potential odor impacts depend on numerous factors. The nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receiving location each contribute to the intensity of the impact. Although offensive odors seldom cause physical harm, they can be annoying, cause distress among the public, and generate citizen complaints.

Construction Emissions

During project construction, exhaust from equipment may produce discernible odors typical of most construction sites. Potential odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment. However, such odors would disperse rapidly from the project site and generally occur at magnitudes that would not affect substantial numbers of people. Therefore, impacts associated with odors during construction would be **less than significant.**

Operational Emissions

Land uses and industrial operations associated with odor complaints include agricultural uses, wastewater treatment plants, food-processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding (VCAPCD 2003). Further, new parking developments generally do not cause odor nuisances to nearby land uses. The project would not create new sources of odor during operation. Therefore, project operations would result in an odor impact that is **less than significant.**

2.4 Biological Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
2. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations adopted by the California Department of Wildlife and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
3. Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, and coastal wetlands) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
4. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
5. Would the project conflict with any local policies or ordinances protecting biological resources?	☐	☒	☐	☐
6. Would the project conflict with an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

The biological study area (BSA), which includes the project site and a 100-foot buffer, is located within the City of Oxnard, which is situated atop a coastal alluvial plain formed by the Santa Clara River and surrounded by the mountains of the Transverse ranges. This plain was formed by the deposition of sediments from the Santa Clara River and Calleguas Creek. This plain contained a series of marshes, salt flats, sloughs, and lagoons prior to the expansion of agriculture and urbanization.

Regionally, the site is located approximately 1.5 miles east of the waterfront at the Port of Hueneme and 0.5 miles north of Ormond Beach and the Pacific Ocean. Surrounding land uses include industrial, commercial, agricultural, and undeveloped lands. The agricultural land south of the project site and the undeveloped lands west of the project site are owned by The Nature Conservancy, which is currently in the conceptual planning stages for future restoration. The Ormond Lagoon Waterway is located approximately 0.25 miles northwest of the project site. Approximately 0.63 acres of the southwestern portion of the project site is located within the Coastal Zone.

The project site has been developed since at least 1982 with multiple structures evident in aerial imagery (UCSB 2023). Previously developed structures within the project site were removed in September 2021, which is evident from aerial imagery dated June 2022 (Google Earth 2023), leaving behind a concrete/paved base covering most of the site.

To identify the potential biological resource constraints associated with the project, Dudek conducted a review of available literature and data relating to the biological resources potentially present within the project site and vicinity. The literature review included a query of the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB; CDFW 2023a); the California Native Plant Society Rare Plant Inventory database (CNPS 2023a); the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (USFWS 2023a), western monarch overwintering sites (Western Monarch Count 2023), California amphibian and reptile species of special concern (Thomson et al. 2016), CDFW's California Natural Community List (CDFW 2023b), CDFW's Special Vascular Plants, Bryophytes, and Lichens List (CDFW 2023c), and CDFW's Special Animals List (CDFW 2023d). The CNDDB and California Native Plant Society queries incorporated a search of the project USGS quadrangle (Oxnard) and five surrounding quadrangles.

The query of CNDDB and other databases provided information on sensitive biological resources that may be present in the project vicinity, and thus informed the discussion of sensitive resources potentially occurring on the site. Dudek also compiled information on any critical habitat occurring in the area for federally listed species utilizing the USFWS and National Marine Fisheries Services Critical Habitat Mappers (USFWS 2023b; NMFS 2023), as well as wetland and aquatic resources included within the USFWS National Wetlands Inventory (USFWS 2023c) and USGS National Hydrography Dataset (USGS 2023). In addition, Dudek examined recent available aerial images of the area, and other relevant planning documents or technical reports, including:

- City of Oxnard General Coastal Land Use Plan (City of Oxnard 1982)[3]
- City of Oxnard General Plan (City of Oxnard 2022)
- City of Oxnard Municipal Code
- Ormond Beach Restoration and Public Access Project Plan (ESA 2021)

The following analysis relies on a biological resources field assessment conducted by Dudek biologist Andrea Dransfield on February 14, 2023. During the survey, Ms. Dransfield walked all project areas, recorded all plant and wildlife species occurring within the BSA, and assessed habitat suitability for sensitive biological resources. Vegetation community mapping was completed during the field survey. A Trimble handheld GPS unit, capable of sub-meter accuracy, was utilized to delineate potential aquatic features, and vegetation communities, where necessary. Classification of vegetation communities follows standard nomenclature in A Manual for California Vegetation, Online Edition (CNPS 2023b) and CDFW's California Natural Community List (CDFW 2023b). Ms.

[3] Approximately 0.63 acres in the southwest portion of the project parcel falls within the Coastal Zone Boundary.

Dransfield performed a brief follow-up visit on March 15, 2023, to take photo documentation of culverts located directly outside the southwest corner of the project parcel boundary.

The methods, results, and discussion of the biological site visit, assessments, and potential for sensitive biological species to occur is documented in the Biological Resources Assessment Report provided as Appendix B.

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

The project site is mostly developed with a narrow strip of disturbed habitat along the southern boundary of the parcel and sparse ornamental plant species along the parcel fence line. No special-status plants were observed or identified as having a moderate to high potential to occur within the BSA.

The literature review identified 89 special-status species known to occur within the six-quad search, including 41 plant and 48 wildlife species. Of these species, none were observed or determined to have a moderate to high potential to occur within the project site.

The project site overlaps with CNDDB occurrences of American peregrine falcon (*Falco peregrinus anatum;* federally proposed for delisting, California Fully Protected Species, state candidate for delisting) and Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri;* 1B.1: Plants rare, threatened, or endangered in California, seriously threatened in California) and is adjacent to Belding's savannah sparrow (*Passerculus sandwichensis beldingi*; USFWS Bird of Conservation Concern, state listed as endangered) occurrences, none of which were observed on site (CDFW 2023a; Figure 2 of Appendix B). In addition, the project site does not provide suitable foraging or nesting habitat for American peregrine falcons. The site visit for this project occurred in February, which is during Coulter's goldfields blooming period, and none were observed. This species usually occurs in wetlands, salt marshes, playas, and vernal pools, none of which occur on the project site. Belding's savannah sparrow documented occurrences are noted more than 200 feet southwest of the project site (CDFW 2023a). The project site does not provide suitable salt marsh nesting or foraging habitat for Belding's savannah sparrows; however, they may nest in pickleweed, or forage within the nearby suitable grasslands, saltmarsh, and even agricultural habitat nearby. The special-status species determined to be absent, not expected to occur, or have low potential to occur within the BSA and are fully described in Appendix B, Biological Resources Assessment Report.

In addition, no critical habitat for any federally listed special-status species occurs within the BSA. The closest designated critical habitat is for tidewater goby (*Eucyclogobius newberryi*) and is located approximately 0.24 miles northwest of the BSA within the Ormond Beach Wetland in the Ormond Lagoon Waterway (USFWS 2023b).

Although the project site is entirely paved and developed, remnant ornamental vegetation can still provide some opportunities for nesting birds protected under the Migratory Bird Treaty Act and/or California Fish and Game Code. Nesting birds could be impacted to the degree that the nests may be abandoned, resulting in a direct loss of an active bird nest, or disturbance of nesting activities in adjacent areas, leading to nest abandonment and nest failure. Bird nests with eggs or young of all migratory bird species are protected under the Migratory Bird Treaty Act and/or California Fish and Game Code. The potential loss of an active nest resulting from construction activities would be in conflict with these regulations.

Habitat for ground and tree nesting birds include the disturbed habitat on site, the adjacent streetside ornamental trees, and the coyote brush scrub. Direct impacts may occur to the degree that nests may be directly removed with the removal of ornamental species and crushed underfoot (ground nesters in paved or disturbed areas), or nests may be abandoned in adjacent habitat due to disturbance resulting in a direct loss of an active bird nest. Temporary, indirect impacts (noise, traffic, construction activities, ground vibrations, human presence) may affect wildlife species surrounding the construction site, especially nesting birds, when in season. Absent mitigation, impacts to nesting bird species is considered potentially significant. However, with the implementation of **MM-BIO-3** (Pre-Construction Nesting Bird Survey) from the Biological Resources Assessment Report (Appendix B) impacts would be **less than significant with mitigation**.

MM-BIO-3 Pre-construction Nesting Bird Survey. If construction would occur during the breeding season (generally February 1–August 31), a qualified biologist shall conduct pre-construction nesting bird surveys to determine the presence of nests or nesting birds within 100 feet (300 feet for raptors) of the construction activities. The nesting bird surveys shall be completed no more than 72 hours prior to the start of any construction activities. If an active nest is identified within or adjacent to the project site and construction zones, the nest shall receive a buffer of 100 feet for songbirds and 300 feet for raptors (which may be reduced if deemed appropriate by a professional consulting biologist with expertise with the involved bird species) where no construction activity or personnel are allowed. Fencing shall be installed to delineate the nest buffer.

The nest shall be monitored every other week by a qualified biologist until fledglings become independent of the nest. The monitoring biologist shall halt construction activities if he or she determines that the construction activities are disturbing the nesting activities. The monitor shall make practicable recommendations to reduce the noise or disturbance near the nest. This may include (1) turning off vehicle engines and other equipment whenever possible to reduce noise, (2) working in other areas until the young have fledged, or (3) placing noise barriers to maintain the noise at the nest to 60 A-weighted decibel (dBA) energy equivalent level (L_{eq}) hourly or less or to the pre-construction ambient noise level if that exceeds 60 dBA L_{eq} hourly. A biologist shall monitor the nest and construction activities, verify compliance with the nesting buffers, and verify that the nesting efforts have finished. Unrestricted construction activities can resume when no other active nests are found.

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

The project site is predominantly developed with a narrow band of disturbed habitat along the southern parcel boundary, as shown in Figure 2, Biological Resources, of the Biological Resources Assessment Report (Appendix B). No sensitive vegetation communities were identified within the project site boundary and therefore, no direct impacts are anticipated to occur to sensitive vegetation communities as a result of proposed project implementation.

Indirect impacts to sensitive vegetation communities adjacent to the parcel, such as the Ormond Beach Wetland, located directly west and outside of the project boundaries may occur. Indirect impacts include fugitive dust, lighting spillover, or trash from project construction.

With regard to construction wastes leaving the site, construction of the proposed project is regulated by a National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction Activity (Order No. 2022-0057-DWQ, NPDES No. CAS000002), also known as the Construction General Permit. The Construction General Permit requires the development and implementation of a stormwater pollution prevention plan (SWPPP). The SWPPP would include both structural and non-structural best management practices (BMPs) including straw wattles around storm drains, silt fencing and or other physical controls to divert flows from exposed soil, spill prevention methods, and clean housekeeping methods for storing and refueling machinery. The Contractor would include specifications, installation requirements, and locations of appropriate BMPs to control sediment, coarse particles, concrete, and other materials exposed during construction and drilling to protect aquatic resources adjacent to construction site. During construction activities, washing of concrete or equipment shall occur only in areas where polluted water and materials can be contained for subsequent removal from the site. Washing would not be allowed in locations where the tainted water could enter potential jurisdictional features.

Absent mitigation, indirect impacts to sensitive vegetation communities are considered potentially significant. However, with the implementation of **MM-BIO-1** (Delimiting Construction Area), and **MM-BIO-4** (Lighting) from the Biological Resources Assessment Report (Appendix B) impacts would **be less than significant with mitigation.**

MM-BIO-1 Delimiting Construction Area. Prior to initiation of ground disturbance, grading, or equipment mobilization, the Applicant shall implement the following measures to protect natural resources adjacent to construction areas: install temporary fencing along the perimeter of defined construction areas to protect adjacent natural resources; confine all construction-related activities to areas within the fenced areas; and regularly inspect and maintain the fencing during the duration of construction, including fixing or replacing downed fence.

MM-BIO-4 Lighting. A photometric plan shall be prepared for the project site, which shall plot the ISO footcandle curves displaying the amount of light falling on the property and adjacent Ormond Beach Wetlands from lighting fixtures. Project plans shall be revised to ensure that no lighting (footcandle curves) fall on the adjacent wetlands/habitat.

Lighting shall be downcast, inward facing, no greater than 20 feet in height, and shielded. Lighting shall be limited to what is necessary for operation and safety of the facilities. Lighting shall be accomplished with the lowest practicable level of overall illumination. LED lighting shall be in the 3,000 kelvin or less color temperature range, unless there is a reasonable safety concern which requires a higher temperature range.

In addition, lighting must conform to the City of Oxnard Policy ER-6.5 Control of Lighting and Glare, which requires that all outdoor light fixtures including street lighting use low-energy, shielded light fixtures that direct light downward and, where public safety would not be compromised, and encourages the use of low-pressure sodium lighting for all outdoor light fixtures. The project must conform to: SEC 16-320 of the Oxnard Municipal Code which states that lighting within physical limits of the area required to be lighted shall not exceed seven footcandles, nor be less than one footcandle at any point. A light source shall not shine upon or illuminate directly any surface other than the area required to be lighted. Design standards for the coastal zone, including the southwest corner of the property, include SEC 17-46 B4: Lighting shall be stationary and deflected away from adjacent properties.

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

No potential state or federally protected wetlands were observed within the project site. A seasonal wetland habitat is mapped over 400 feet west of the project site within Ormond Beach Wetland and is classified as an environmentally sensitive habitat. The required 100-foot buffer from the wetlands is depicted in Figure 2 of the Biological Resources Assessment Report (Appendix B), and the project site is located outside of this buffer. Therefore, **no impact** to state or federally protected wetlands would occur as a result of the project.

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

The project site is fenced and provides little to no opportunities for regional wildlife movement nor supports wildlife corridors due to the paved and developed landscape including a fence around the perimeter. Any existing wildlife movement is already constrained to the Ormond Beach Wetland and adjacent agricultural lands. Construction within an already developed, disturbed, and fenced parcel is unlikely to hinder or affect the movements of any wildlife traversing the areas. Wildlife traversing the area is likely to utilize the nearby Ormond Beach Wetlands and agricultural fields, as well as adjacent roads, for movement. The project site is not anticipated to support wildlife movement nor facilitate transport within the region.

Lighting is known to affect wildlife movement. Thirty-eight low-profile, LED tower light fixtures would be placed along the perimeter and interior of the site. The two closest fixtures to the adjacent Ormond Beach Wetland are located at the northwestern and southwestern corners of the site, approximately 30 feet from the adjacent habitat. Based on the current site plan (without photometric plans), there is a potential for project lighting to directly spill into the edge of the adjacent habitat and indirectly affect species within the adjacent Ormond Beach Wetland. The current proposed lighting plan contains the potential for permanent indirect impacts to wetland and upland habitats and the wildlife that utilizes these habitats perennially, seasonally, and/or during migration. Permanent indirect impacts from illumination of the nocturnal environment could potentially result in changes in wildlife behavior and/or altered timing in plant development and inflorescence. Absent mitigation, impacts to wildlife movement is considered potentially significant. However, with the implementation of **MM-BIO-4** (Lighting) impacts would be **less than significant with mitigation.**

5. ***Would the project conflict with any local policies or ordinances protecting biological resources?***

The project would not conflict with any local policies or ordinances protecting biological resources as the project work is proposed within an existing fenced area that is almost completely developed. The project would conform of all local policies and ordinances protecting biological resources. Furthermore, the mitigation measures described above would ensure consistencies with polices and regulations adopted for the purpose of avoiding or minimizing environmental impacts. Therefore, impacts would be **less than significant with mitigation.**

6. Would the project conflict with an adopted Habitat Conservation Plan, Natural Community Conservation Plan?

A substantial adverse effect would occur if the project conflicted with an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan that a project proponent is party to, or impacts a permittee's ability to implement one of these plans, if applicable. However, there are no applicable habitat conservation plans or natural community conservation plans in the project area. Therefore, **no impact** would occur.

2.5 Climate Change and Greenhouse Gas Emissions

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
2. Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases or otherwise conflict with the state goal or reducing greenhouse gas emissions in California?	☐	☐	☒	☐
3. Would the project contribute or be subject to potential secondary effects of climate change (e.g., sea level rise, increase fire hazard?	☐	☐	☒	☐

The greenhouse effect is a natural process that contributes to regulating the earth's temperature, and it creates a livable environment on Earth. Human activities that emit additional GHG emissions to the atmosphere increase the amount of infrared radiation that gets absorbed before escaping into space, thus enhancing the greenhouse effect, and causing the earth's surface temperature to rise. Global climate change is a cumulative impact; a project contributes to this impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs. Thus, GHG impacts are recognized exclusively as cumulative impacts (CAPCOA 2008).

As defined in California Health and Safety Code (HSC) Section 38505(g) for purposes of administering many of the state's primary GHG emissions reduction programs, GHGs include carbon dioxide (CO_2), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride. The three GHGs evaluated for GHG emission impacts are CO_2, methane, and nitrous oxide. Hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride were not evaluated or estimated in this analysis because the proposed project would not generate them in measurable quantities.

Significance Thresholds

Individual projects do not generate sufficient GHG emissions to influence climate change directly. However, physical changes caused by a project can contribute incrementally to significant cumulative effects, even if individual changes resulting from a project are limited. The issue of climate change typically involves an analysis of whether a project's contribution towards an impact would be cumulatively considerable. "Cumulatively considerable" means the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (14 CCR 15064[h][1]).

According to CEQA Guidelines Section 15183.5(b), projects can tier from a qualified GHG reduction plan, which allows for project-level evaluation of GHG emissions through the comparison of the project's consistency with the GHG reduction policies included in a qualified GHG reduction plan. This approach is considered by the Association of Environmental Professionals (AEP 2016) in its white paper, Beyond 2020 and Newhall, to be the most defensible approach presently available under CEQA to determine the significance of a project's GHG emissions. The City formally adopted their Climate Action and Adaptation Plan (CAAP) on December 7, 2022. However, this plan does not contain a formalized threshold for GHG analysis and is not a qualified CAAP for CEQA purposes.

To evaluate whether a project may generate a quantity of GHG emissions with the potential to have a significant impact on the environment, local air districts have developed a number of bright-line significance thresholds. Significance thresholds are numeric mass emissions thresholds that identify the level at which additional analysis of project GHG emissions is necessary. If project emissions are equal to or below the significance threshold, with or without mitigation, the project's GHG emissions would be less than significant. VCAPCD has not established quantitative significance thresholds for evaluating GHG emissions in CEQA analyses, but it recommends using the California Air Pollution Control Officers Association CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act white paper (CAPCOA 2008) and other resources when developing GHG evaluations (VCAPCD 2006b). The CEQA and Climate Change paper provides a common platform of information and tools to support local governments and was prepared as a resource, not as a guidance document. CEQA Guidelines Section 15064.4 expressly provides a "lead agency shall have discretion to determine, in the context of a particular project," whether to "quantify greenhouse gas emissions resulting from a project" and/or "rely on a qualitative analysis or performance based standards." Updates to CEQA Guidelines Section 15064.4 that took effect in December 2018 further state that a lead agency should "focus its analysis on the reasonably foreseeable incremental contribution of the project's emissions to the effects of climate change" and that the analysis should "reasonably reflect evolving scientific knowledge and state regulatory schemes."

This analysis utilizes two thresholds to evaluate the significance of the project's GHG emissions: the South Coast Air Quality Management District (SCAQMD) recommended bright-line threshold and consistency with applicable plans, policies, and regulations for the reduction of GHG emissions.

The City and VCAPCD have not developed a qualified GHG reduction plan. In light of the lack of a specific GHG threshold or qualified GHG reduction plan recommended or adopted by the City or VCAPCD, it is appropriate to refer to guidance from other agencies when discussing GHG emissions. The City generally refers to the SCAQMD methodology for GHG significance analysis. The SCAQMD formed a GHG CEQA Significance Threshold Working Group to work with SCAQMD staff on developing GHG CEQA significance thresholds until statewide significance thresholds or guidelines are established. In December 2008, the SCAQMD adopted a 10,000 metric ton (MT) of CO_2 equivalent (CO_2e) per year screening level threshold for stationary source/industrial projects for which the SCAQMD is the lead agency. From December 2008 to September 2010, the SCAQMD hosted working group meetings and revised the draft threshold proposal several times, although it did not officially provide these proposals in a subsequent document. The SCAQMD has continued to consider adoption of significance thresholds for residential and general land use development projects. The most recent proposal, issued in September 2010, uses the following tiered approach to evaluate potential GHG impacts from various uses (SCAQMD 2010):

Tier 1 Determine if CEQA categorical exemptions are applicable. If not, move to Tier 2.

Tier 2 Consider whether or not the proposed Project is consistent with a locally adopted GHG reduction plan that has gone through public hearing and CEQA review, that has an approved inventory, includes monitoring, etc. If not, move to Tier 3.

Tier 3 Consider whether the Project generates GHG emissions in excess of screening thresholds for individual land uses. The 10,000 MT CO_2e per year threshold for industrial uses would be recommended for use by all lead agencies. Under option 1, separate screening thresholds are proposed for residential projects (3,500 MT CO_2e per year), commercial projects (1,400 MT CO_2e per year), and mixed-use projects (3,000 MT CO_2e per year). Under option 2, a single numerical screening threshold of 3,000 MT CO_2e per year would be used for all non-industrial projects. If the Project generates emissions in excess of the applicable screening threshold, move to Tier 4.

Tier 4 Consider whether the Project generates GHG emissions in excess of applicable performance standards for the Project service population (population plus employment). The efficiency targets were established based on the goal of AB 32 to reduce statewide GHG emissions to 1990 levels by 2020. The 2020 efficiency targets are 4.8 MT CO_2e per service population for project-level analyses and 6.6 MT CO_2e per service population for plan level analyses. If the Project generates emissions in excess of the applicable efficiency targets, move to Tier 5.

Tier 5 Consider the implementation of CEQA mitigation (including the purchase of GHG offsets) to reduce the Project efficiency target to Tier 4 levels.

The City understands that the 3,000 MT CO_2e per year threshold was proposed a decade ago and was never adopted. However, the 3,000 MT CO_2e per year threshold was developed and recommended by SCAQMD, an expert agency, based on substantial evidence as provided in the Draft Guidance Document – Interim CEQA Greenhouse Gas Significance Threshold (SCAQMD 2008) document and subsequent Working Group meetings (latest in 2010). This threshold uses the Executive Order S-3-05 goal as the basis, so it is not tied to only the 2020 target year and is thus not outdated. This threshold is also based on the 90% capture rate methodology, which means that 90% of total emissions from all new or modified projects would be subject to some type of CEQA analysis, which was the approach taken by SCAQMD to establish the stationary/industrial source threshold, as well as by CARB (for interim threshold for stationary source projects); it was also one of the options suggested by the California Air Pollution Control Officers Association (quantitative threshold based on market capture). Further, this threshold has been used for hundreds, if not thousands of GHG analyses performed for projects located within the SCAQMD jurisdiction.

Under Tier 3 option 2, the recommended SCAQMD threshold to apply to the project is the 3,000 MT CO_2e per year for all non-industrial projects. Per the SCAQMD guidance, construction emissions should be amortized over the operational life of the project, which is assumed to be 30 years (SCAQMD 2008). This impact analysis, therefore, adds amortized construction emissions to the estimated annual operational emissions and then compares operational emissions to the proposed SCAQMD threshold of 3,000 MT CO_2e per year.

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

Gases in the atmosphere can contribute to climate change both directly and indirectly.[4] The Intergovernmental Panel on Climate Change developed the global warming potential concept to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The reference gas used is CO_2; therefore, global warming potential–weighted emissions are measured in MTs of CO_2 equivalent.

Construction Emissions

Construction of the project would result in GHG emissions, which are primarily associated with use of off-road construction equipment, on-road vendor and haul trucks, and worker vehicles. As previously stated, SCAQMD recommends that construction emissions be amortized over a 30-year project lifetime. CalEEMod was used to estimate GHG emissions during construction. Construction of the project is anticipated to last approximately 3 months. Table 5 shows the estimated annual GHG construction emissions associated with the proposed project, as well as the amortized construction emissions over a 30-year project life.

Table 5. Estimated Annual Construction Greenhouse Gas Emissions – Unmitigated

Year	CO_2	CH_4	N_2O	CO_2e
	Metric Tons per Year			
2023	70.2	<0.01	<0.01	71.2
			Total	71.2
			Amortized Emissions Over 30 Years	2.37

Notes: CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent; <0.01 = reported value less than 0.01.
Totals may not add due to rounding.
See Appendix A for complete results.

As shown in Table 5, the estimated total GHG emissions during construction would be approximately 71 MT CO_2e over the construction period. Estimated project-generated construction emissions annualized over 30 years would be approximately 2.4 MT CO_2e per year. As with project-generated construction air pollutant emissions, GHG emissions generated during construction of the proposed project would be short term in nature, lasting only for the duration of the construction period, and would not represent a long-term source of GHG emissions. As there is no construction GHG threshold, the amortized construction emissions were added to the operational emissions and evaluated therein.

Operational Emissions

CalEEMod was used to estimate potential project-generated operational GHG emissions from area sources (landscape maintenance), energy sources (electricity), mobile sources, and water supply and wastewater treatment. Emissions from each category are discussed in the following text with respect to the project. For additional details, refer to Appendix A for a discussion of operational emission calculation methodology and

[4] Direct effects occur when the gas itself absorbs radiation. Indirect radiative forcing occurs when chemical transformations of the substance produce other GHGs, when a gas influences the atmospheric lifetimes of other gases, and/or when a gas affects atmospheric processes that alter the radiative balance of the earth (e.g., affect cloud formation or albedo) (EPA 2020).

assumptions. Estimated net annual operation emissions of the proposed project are shown in Table 6, taking into account the emissions of the existing land use.

Table 6. Estimated Net Annual Operational Greenhouse Gas Emissions- Unmitigated

Emission Source	CO_2	CH_4	N_2O	CO_2e
	metric tons per year			
Project Emissions				
Mobile	819	0.02	0.13	859
Area	0.00	0.00	0.00	0.00
Energy	49.1	<0.01	<0.01	49.3
Water supply and wastewater	0.45	<0.01	<0.01	0.45
Solid waste	0.00	0.00	0.00	0.00
Total	868	0.02	0.13	908
Existing Emissions				
Mobile	219	<0.005	0.03	229
Area	0.89	<0.005	<0.005	0.90
Energy	276	0.02	<0.005	277
Water supply and wastewater	27.7	0.46	0.01	42.6
Solid waste	6.77	0.68	0.00	23.7
Total	**530**	**1.16**	**0.05**	**576**
Net Total	**349**	**-1.14**	**0.08**	**332**
Amortized 30-Year Construction Emissions				*2.37*
Project Operations + Amortized Construction Total				**334.4**

Notes: CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent; <0.01 = reported value less than 0.01. See Appendix A for complete results.

As shown in Table 6, the proposed project's operational emissions were estimated to be 908 MT CO_2e per year, which results in a net increase of 332 MT CO_2e per year when the existing emissions of 576 MT CO_2e per year are considered. When combined with the amortized construction emissions, total operational GHG emissions were estimated to be 334 MT CO_2e per year. This would not exceed the SCAQMD threshold of 3,000 MT CO_2e per year. Impacts would be **less than significant.**

2. ***Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases or otherwise conflict with the state goal or reducing greenhouse gas emissions in California?***

Consistency with State Reduction Targets and California Air Resources Board's Scoping Plan

The California State Legislature passed the Global Warming Solutions Act of 2006 (AB 32) to provide initial direction to limit California's GHG emissions to 1990 levels by 2020 and initiate the state's long-range climate objectives. Since the passage of AB 32, the State has adopted GHG emissions reduction targets for future years beyond the initial 2020 horizon year. For the proposed project, the relevant GHG emissions reduction targets include those established by Senate Bill (SB) 32 and AB 1279, which require GHG emissions be reduced to 40% below 1990 levels by 2030, and 85% below 1990 levels by 2045, respectively. In addition, AB 1279 requires the state achieve net zero GHG emissions by no later than 2045 and achieve and maintain net negative GHG emissions thereafter.

As defined by AB 32, CARB is required to develop The Scoping Plan, which provides the framework for actions to achieve the State's GHG emission targets. The Scoping Plan is required to be updated every 5 years and requires CARB and other state agencies to adopt regulations and initiatives that will reduce GHG emissions statewide. The first Scoping Plan was adopted in 2008, and was updated in 2014, 2017, and most recently in 2022. While the Scoping Plan is not directly applicable to specific projects, nor is it intended to be used for project-level evaluations,[5] it is the official framework for the measures and regulations that will be implemented to reduce California's GHG emissions in alignment with the adopted targets. Therefore, a project would be found to not conflict with the statutes if it would meet the Scoping Plan policies and would not impede attainment of the goals therein.

CARB's 2017 Scoping Plan update was the first to address the state's strategy for achieving the 2030 GHG reduction target set forth in SB 32 (CARB 2017), and the most recent CARB 2022 Scoping Plan update outlines the state's plan to reduce emissions and achieve carbon neutrality by 2045 in alignment with AB 1279 and assesses progress is making toward the 2030 SB 32 target (CARB 2022). As such, given that SB 32 and AB 1279 are the relevant GHG emission targets, the 2017 and 2022 Scoping Plan updates that outline the strategy to achieve those targets, are the most applicable to the proposed project.

The 2017 Climate Change Scoping Plan Update (Second Update) included measures to promote renewable energy and energy efficiency (including the mandates of SB 350), increase stringency of the Low Carbon Fuel Standard, measures identified in the Mobile Source and Freight Strategies, measures identified in the proposed Short-Lived Climate Pollutant Plan, and increase stringency of SB 375 targets. The *2022* Scoping Plan for Achieving Carbon Neutrality (Third Update) builds upon and accelerates programs currently in place, including moving to zero-emission transportation; phasing out use of fossil gas use for heating homes and buildings; reducing chemical and refrigerants with high GWP; providing communities with sustainable options for walking, biking, and public transit; and displacement of fossil-fuel fired electrical generation through use of renewable energy alternatives (e.g., solar arrays and wind turbines) (CARB 2022).

Many of the measures and programs included in the Scoping Plan would result in the reduction of project-related GHG emissions with no action required at the project-level, including GHG emission reductions through increased energy efficiency and renewable energy production (SB 350), reduction in carbon intensity of transportation fuels (Low Carbon Fuel Standard), and the accelerated efficiency and electrification of the statewide vehicle fleet (Mobile Source Strategy). Given that the proposed project is also not anticipated to result in substantial increase in mobile trips (see Section 2.15, Transportation and Circulation), the project would also not conflict with the Second Update's goal of reducing GHG emissions through reductions in VMT statewide.

The 2045 carbon neutrality goal required CARB to expand proposed actions in the Third Update to include those that capture and store carbon in addition to those that reduce only anthropogenic sources of GHG emissions. The proposed project would support the state's carbon neutrality goals, as implementation

5 The Final Statement of Reasons for the amendments to the CEQA Guidelines reiterates the statement in the Initial Statement of Reasons that "[t]he Scoping Plan may not be appropriate for use in determining the significance of individual projects because it is conceptual at this stage and relies on the future development of regulations to implement the strategies identified in the Scoping Plan" (CNRA 2009).

includes addition of landscaping throughout the project site, which represent opportunities for potential carbon removal and sequestration over the project lifetime. However, the Third Update emphasizes that reliance on carbon sequestration in the state's natural and working lands will not be sufficient to address residual GHG emissions, and achieving carbon neutrality will require research, development, and deployment of additional methods to capture atmospheric GHG emissions (e.g., mechanical direct air capture). Given that the specific path to neutrality will require development of technologies and programs that are not currently known or available, the project's role in supporting the statewide goal would be speculative and cannot be wholly identified at this time.

Overall, the proposed project would comply with all regulations adopted in furtherance of the Scoping Plan to the extent applicable and required by law. As mentioned above, several Scoping Plan measures would result in reductions of project-related GHG emissions with no action required at the project-level, including those related to energy efficiency, reduced fossil fuel use, and renewable energy production. As demonstrated above, the proposed project would not conflict with CARB's 2017 or 2022 Scoping Plan updates and with the state's ability to achieve the 2030 and 2045 GHG reduction and carbon neutrality goals. Further, the proposed project's consistency with the applicable measures and programs would assist in meeting the City's contribution to GHG emission reduction targets in California.

Consistency with the Southern California Association of Governments' Connect SoCal

On September 3, 2020, SCAG's Regional Council unanimously voted to approve and fully adopt Connect SoCal (2020–2045 Regional Transportation Plan/Sustainable Communities Strategy [RTP/SCS]) and the addendum to the Connect SoCal Program Environmental Impact Report (SCAG 2020). SCAG's Connect SoCal is a regional growth-management strategy that targets per capita GHG reduction from passenger vehicles and light-duty trucks in the Southern California region. The SCS will integrate land use and transportation strategies that will achieve GHG emissions reduction targets that are forecasted to achieve reduction in GHG emissions to achieve the state's 2045 GHG reduction goals. Connect SoCal incorporates local land use projections and circulation networks in city and county general plans. Typically, a project would be consistent with the RTP/SCS if the project does not exceed the underlying growth assumptions within the RTP/SCS. As discussed in Section 2.3, Air Quality, the project would not require any operational employees and would not account for any of the projected employment growth in the City. Therefore, the project would support the VMT and GHG reducing goals of Connect SoCal. The proposed project would not conflict with implementation of the strategies identified in the 2020 RTP/SCS that would reduce GHG emissions.

City of Oxnard Climate Action and Adaptation Plan

The City's CAAP identifies seven areas under which the City can reduce GHG emissions: clean energy, water conservation and reuse, green buildings, waste reduction and recycling, transportation, nature-based solutions, and land use (City of Oxnard 2022). The proposed project would require minimal energy to power lighting and fencing, would require water for landscaping purposes only, does not propose the construction of any buildings, and would create minimal waste; many of the CAAP strategies are not applicable as a result of the nature of the minimal operation of the proposed project. The proposed project would include landscaping and a bioswale, making it consistent with the nature-based solutions goals of the CAAP. The proposed project would involve truck trips to transport vehicles and containers. However, the strategies in the transportation section of the CAAP, including expanding electric vehicle charging, transitioning the City fleet to green vehicles, expanding pedestrian and bike infrastructure, improving public transit effectiveness, and promoting ridesharing are targeted towards the City and residential developments, and the project does not involve any residents or employees. Therefore, the proposed project is consistent with the City's CAAP.

Conclusion

Based on the above considerations, the proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Impacts would be **less than significant.**

3. ***Would the project contribute or be subject to potential secondary effects of climate change (e.g., sea level rise, increase fire hazard)?***

While the project would result in emissions of GHGs during construction and operation, no guidance exists to indicate what level of GHG emissions would be considered substantial enough to result in a significant adverse impact on global climate. However, it is generally believed that an individual project is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory as scientific uncertainty regarding the significance a project's individual and cumulative effects on global climate change remains. The project would result in less than significant GHG emissions (refer to the analysis presented under Threshold 1, above) and would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions (refer to the analysis presented under Threshold 2, above). It can be concluded that the project would have less than significant primary effects on climate change; therefore, it would also have less than significant secondary impacts on climate change.

CalEEMod identified sea level rise, wildfire, and temperature and extreme heat as applicable climate hazards for the project location (note that CalEEMod uses Cal-Adapt for these calculations). However, the City of Oxnard has identified adaptation strategies for each of these hazards within its CAAP. To combat the effects of extreme heat, the City has identified the following measures: ensure access to cooling centers, parks, and shoreline; seek funding for energy improvements for low-income households; promote enforcement of Cal/OSHA standards that protect against extreme heat; give higher priority to urban greening and shading; support and expand the citywide tree program, report, and plan; give higher priority to urban greening in vulnerable communities; and increase the albedo of roofs and pavements. To adapt to sea level rise, the CAAP notes the City's accommodation, managed retreat, green protect, and hard protect strategies. Finally, to combat the effects of extreme drought and wildfires, the CAAP notes the following strategies: expand and protect the city's diversity of water supply, expand community water recycling, use drought-tolerant plants and alternative irrigation, partner with the County to provide information on climate-resistant crops, create/participate in programs to address food insecurity, and consider expanding Project Assist (a program providing credit on utility bills) (City of Oxnard 2022). With the City's prioritization of these strategies, the project would not be particularly susceptible to sea level rise, fire hazards, or other climate-related events. Impacts would be **less than significant.**

2.6 Cultural Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Would the project cause a substantial adverse change in the significance of an historical resource as defined in CEQA guidelines Section 15064.5?	☐	☐	☐	☒
2. Would the project cause a substantial adverse change in the significance of a unique archaeological resource pursuant to State CEQA Guidelines Section 15064.5?	☐	☒	☐	☐
3. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
4. Would the project disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

Regulatory Setting

The project does not have a federal nexus and therefore is not subject to federal regulations.

State

California Environmental Quality Act

Pursuant to CEQA, a historical resource is a resource listed in, or eligible for listing in, the California Register of Historical Resources (CRHR). In addition, resources included in a local register of historic resources or identified as "significant" in a local survey conducted in accordance with state guidelines are also considered historic resources under CEQA, unless a preponderance of the facts demonstrates otherwise. According to CEQA, the fact that a resource is not listed in or determined eligible for listing in the CRHR or is not included in a local register or survey shall not preclude a Lead Agency, as defined by CEQA, from determining that the resource may be a historic resource as defined in California Public Resources Code (PRC) Section 5024.1.

CEQA applies to archaeological resources when: (1) the archaeological resource satisfies the definition of a historical resource, or (2) the archaeological resource satisfies the definition of a "unique archaeological resource." A unique archaeological resource is an archaeological artifact, object, or site that has a high probability of meeting any of the following criteria:

1. The archaeological resource contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information.

2. The archaeological resource has a special and particular quality such as being the oldest of its type or the best available example of its type.
3. The archaeological resource is directly associated with a scientifically recognized important prehistoric or historic event or person.

California Register of Historical Resources

Created in 1992 and implemented in 1998, the CRHR is "an authoritative guide in California to be used by State and local agencies, private groups, and citizens to identify the state's historical resources and to indicate properties that are to be protected, to the extent prudent and feasible, from substantial adverse change."

Certain properties, including those listed in or formally determined eligible for listing in the NRHP and California Historical Landmarks (CHL) numbered 770 and higher, are automatically included in the CRHR. Other properties recognized under the California Points of Historical Interest program, identified as significant in historic resources surveys, or designated by local landmarks programs may be nominated for inclusion in the CRHR. A resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the following criteria: (modeled after NRHP criteria):

- **Criterion 1**: It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
- **Criterion 2:** It is associated with the lives of persons important in our past.
- **Criterion 3:** It embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values.
- **Criterion 4:** It has yielded, or may be likely to yield, information important in history or prehistory.

Resources nominated to the CRHR must retain enough of their historic character or appearance to be recognizable as historic resources and to convey the reasons for their significance. It is possible that a resource whose integrity does not satisfy NRHP criteria may still be eligible for listing in the CRHR. A resource that has lost its historic character or appearance may still have sufficient integrity for the CRHR if, under Criterion 4, it maintains the potential to yield significant scientific or historical information or specific data. Resources that have achieved significance within the past 50 years also may be eligible for inclusion in the CRHR, provided that enough time has lapsed to obtain a scholarly perspective on the events or individuals associated with the resource.

California Historical Landmarks

CHL are buildings, structures, sites, or places that have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value and that have been determined to have statewide historical significance by meeting at least one of the criteria listed below. The resource must also be approved for designation by the County Board of Supervisors or the City or Town Council in whose jurisdiction it is located, be recommended by the State Historical Resources Commission, or be officially designated by the Director of California State Parks. The specific standards in use now were first applied in the "designation" of CHL No. 770. CHL No. 770 and above are automatically listed in the CRHR.

To be eligible for designation as a Landmark, a resource must meet at least one of the following criteria per California Historical Landmarks Registration: Criteria for Designation (Office of Historic Preservation 1995):

- The first, last, only, or most significant of its type in the State or within a large geographic region (Northern, Central, or Southern California)
- Associated with an individual or group having a profound influence on the history of California
- A prototype of, or an outstanding example of, a period, style, architectural movement or construction or one of the more notable works or the best surviving work in a region of a pioneer architect, designer, or master builder

California Points of Historical Interest

California Points of Historical Interest are sites, buildings, features, or events that are of local (City or County) significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value. Points of Historical Interest designated after December 1997 and recommended by the State Historical Resources Commission are also listed in the CRHR. No historic resource may be designated as both a Landmark and a Point. If a Point is later granted status as a Landmark, the Point designation would be retired. In practice, the Point designation program is most often used in localities that do not have a locally enacted cultural heritage or preservation ordinance. To be eligible for designation as a Point, a resource must meet at least one of the following criteria:

- The first, last, only, or most significant of its type within the local geographic region (City or County)
- Associated with an individual or group having a profound influence on the history of the local area
- A prototype of, or an outstanding example of, a period, style, architectural movement or construction or one of the more notable works or the best surviving work in the local region of a pioneer architect, designer, or master builder

The California Public Resources and Health and Safety codes consist of the regulatory, penal, and administrative ordinances for the State of California. A summary of the California codes that are applicable to the subject of the discovery of human remains are provided below.

California Health and Safety Code Section 7050.5

This code establishes that human remains are to not be knowingly mutilated or disinterred, wantonly disturbed, or willfully removed from any location other than a dedicated cemetery without authority of law. The code specifically provides exception to any person carrying out an agreement developed pursuant to subdivision (l) of Section 5097.94 of the PRC or to any person authorized to implement Section 5097.98 of the Public Resources Code. The code also provides protocols to be followed in the case of discovery or recognition of any human remains in any location other than a dedicated cemetery and stipulates the role of the coroner. Finally, the code provides the protocols to follow in the case the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes the human remains to be those of a Native American as well as the role of the Native American Heritage Commission (NAHC).

Public Resource Code 5097.94

This code establishes the powers and duties bestowed on the NAHC. As they relate to those powers and duties that apply to human remains, this code states that the NAHC has the responsibility to: identify and catalog places of special religious or social significance to Native Americans, and known graves and cemeteries of Native Americans on private lands; make recommendations relative to Native American sacred places that are located on private lands; mediate disputes arising between landowners and known descendants relating to the treatment and disposition of Native American human burials, skeletal remains, and items associated with Native American burials; provide protection to Native American human burials and skeletal remains from vandalism and inadvertent destruction; and assist interested landowners in developing agreements with appropriate Native American groups for treating or disposing, with appropriate dignity, of the human remains and any items associated with Native American burials.

Public Resource Code 5097.98

This code outlines the protocols to be followed in the case of a discovery of Native American human remains including the roles and responsibilities of the coroner, NAHC, the individual identified by the NAHC as the most likely descended from the deceased Native American, and the landowner of whose land the discovery was made. The code defines the manner of "conferral" or "discuss and confer" as "the meaningful and timely discussion and careful consideration of the views of each party, in a manner that is cognizant of all parties' cultural values, and where feasible, seeking agreement" and states that all parties involved "shall recognize the other's needs and concerns for confidentiality of information provided to the other."

Public Resource Code 5097.99

This code is intended to protect by prohibiting obtaining or possessing Native American artifacts or human remains taken from grave or cairn on or after January 1, 1984 and states that "any person who removes, without authority of law, any Native American artifacts or human remains from a Native American grave or cairn with an intent to sell or dissect or with malice or wantonness is guilty of a felony which is punishable by imprisonment in the state prison."

Public Resource Code 5097.991

This code establishes the policy of the state that Native American remains and associated grave artifacts shall be repatriated.

California Native American Graves Protection and Repatriation Act

Codified in HSC Sections 8010–8030, the California Native American Graves Protection Act (NAGPRA) of 2001 is consistent with the federal NAGPRA. Intended to "provide a seamless and consistent State policy to ensure that all California Indian human remains, and cultural items be treated with dignity and respect," the California NAGPRA also encourages and provides a mechanism for the return of remains and cultural items to lineal descendants. HSC Section 8025 established a Repatriation Oversight Commission to oversee this process. The Act also provides a process for non–federally recognized tribes to file claims with agencies and museums for repatriation of human remains and cultural items.

Senate Bill 297

SB 297 addresses the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction; establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project; and establishes the NAHC to resolve disputes regarding the disposition of such remains. It has been incorporated into CEQA Guidelines Section 15064.5(e).

Health and Safety Code Sections 7050 and 7052

HSC Section 7050.5 declares that, in the event of the discovery of human remains outside a dedicated cemetery, all ground disturbances must cease, and the County Coroner must be notified. HSC Section 7052 establishes a felony penalty for mutilating, disinterring, or otherwise disturbing human remains, except by relatives.

Penal Code Section 622.5

Penal Code Section 622.5 provides misdemeanor penalties for injuring or destroying objects of historic or archaeological interest located on public or private lands but specifically excludes the landowner.

City of Oxnard

General Plan

The City of Oxnard 2030 General Plan (2030 General Plan) sets out a vision to guide future development in the City to the year 2030 (City of Oxnard 2022). Applicable goals and policies from the 2030 General Plan Environmental Resources Chapter (Chapter 5) are listed below. Only those goals and policies applicable to cultural and paleontological resources are included.

Goal ER-1 Protection of natural and cultural resources, agriculture, and open spaces is well integrated with the built environment and human activities and achieves a symbiotic, mutually-beneficial, sustainable relationship.

Goal ER-11 Identification, protection, and enhancement of the City's archaeological, historical, and paleontological resources.

Policy ER-11.1 Archaeological Resource Surveys. Continue to require a qualified archaeologist to perform a cultural resources study prior to project approval. Inspection for surface evidence of archaeological deposits, and archaeological monitoring during grading should be required in areas where significant cultural resources have been identified or are expected to occur.

Policy ER-11.2 Mitigating the Impact of New Development on Cultural Resources. Ensure that alternatives are considered, including planning construction to avoid archeological sites, deeding archaeological sites into permanent conservation easements, and planning parks, greenspace, or other open space to incorporate archaeological sites in the event that development threatens significant archaeological resources.

Policy ER-11.3 Development Applicants to Conduct Research. Continue to require project applicants to have a qualified archaeologist conduct a record search at the South Central Coast Information Center located at California State University Fullerton and other appropriate historical repositories, conduct field surveys where appropriate, and prepare technical reports, where appropriate, meeting California Office of Historic Preservation Standards (Archaeological Resource Management Reports) prior to project approval.

Policy ER-11.6 Identification of Archaeological Resources. In the event that archaeological/paleontological resources are discovered during site excavation, continue to require that grading and construction work on the project site is suspended until the significance of the features can be determined by a qualified archaeologist/paleontologist.

Policy ER-11.7 Native American Remains. Continue to comply with State laws relating to the disposition of Native American burials consistent with the CEQA Guidelines (Section 15064.5) if human remains of possible Native American origin are discovered during project construction.

City Code

Chapter 16: Zoning Code

City Code Chapter 16: Zoning Code is the zoning ordinance for the City, and is the principal means through which the City's General Plan is implemented. For each defined zoning district, the Zoning Code identifies the permitted uses and applicable development standards (e.g., density, height, parking, landscaping requirements). State law requires that zoning districts be consistent with the General Plan. Only those permitted uses and applicable development standards applicable to cultural and paleontological resources are included.

Chapter 16, Division 17, Planned Development (Additive) Zone, Section 16-270, Purpose

A. The purpose of this division is to authorize the designation of any of the basic zones established by this code as planned development zones by adding the letters "P-D" thereto. The P-D designation is intended to insure the orderly development of land in conformance with the general plan of the city and to permit departures from the restrictions imposed within the basic zones as specified in this chapter where justified by one or more of the following circumstances:
   (1) When development is proposed in an area that the general plan has phased for development at a later time;
   (2) When development is proposed in an area subject to a redevelopment plan;
   (3) When development is proposed adjacent to or near public parks, public buildings or similar areas;
   (4) When disparities between adjacent zones require protection of the more restricted zone;
   (5) When development is proposed that does not conform to the standards of the basic zone, but offers advantages if properly conditioned to protect nearby uses. Such development includes but is not limited to:
      (a) Commercial development near residential development;
      (b) Multiple-family development near single-family development;
      (c) Research and manufacturing development near commercial or residential development;
      (d) When development is proposed near areas of public interest, such as areas of natural beauty, natural resources or historical interest, and public parks, civic centers and monuments. When development of a planned residential group is proposed.

Environmental Setting

Background context

California has one of the best studied archaeological records in the world, and the Santa Barbara Channel is among the most studied regions of California. The basic regional culture-historical patterns (i.e. what life was like at different points in time) have been articulated for many decades, and in spite of the ever increasing intensity of archaeological work in the region, our understanding (or at least our definition) of these general patterns has changed only slightly, in part because our understanding of how to distinguish them has been compromised by conflicting data and interpretations. Notable exceptions include our understanding of the earliest inhabitants, which keeps getting earlier and better defined (Erlandson et al. 2011; Erlandson et al. 2007b), and our perspectives on the late prehistoric evolution of socio-political complexity, which have matured and expanded rapidly since the late 1980s (e.g., Arnold 2001; Arnold 2004; Erlandson and Jones 2002).

The cultural history of the Santa Barbara Channel has seen many iterations, and much of our understanding of change through time is based on foundational efforts by Rogers (1929) and Warren (1968), both of whom conducted substantial primary research on the mainland coast. Higher resolution periodization was later established by King (1990) who used a combination of stylistic change in shell beads, stratigraphic relationships, and absolute ages from radiocarbon dates to build a chronology for California. This bead-based chronology dovetails well with a more recent chronology based on lower-resolution changes in human behavior and material culture (Arnold 1992a), and this has been further refined with a larger set of absolute age estimates pegged to a background of regional environmental change matched with more accurate radiocarbon calibration (Kennett 2005)[6]. Note that the temporal span of each period in the sequence is approximate, and naming conventions for them vary across different authors; the cultural patterns (e.g., subsistence and settlement) and temporal markers (shell bead styles, for example) used to define them, also vary across temporal boundaries by region.

Paleoindian/Paleocoastal Period (The Earliest Inhabitants): 13,000 – 9000 BP

Though the earliest appearance of people in the New World is a contentious issue with new data generating new ideas every few years about who they were and how they got here, the evidence from the California Bight is relatively straightforward: cultural deposits and human remains from a series of sites on Santa Rosa and San Miguel islands date from 13,000-11,500 years ago and suggest that people at the time were well-adapted to life on the sea but also had connections to people who lived much further east, deep in the American continent (Erlandson, et al. 2011). While this isn’t the earliest evidence of human activity in the New World (which, at most is somewhere between 16,000 and 15,000 years old), this early evidence from the West Coast gives credit to the idea that (at least some of) its earliest inhabitants were a marine-adapted people able to move skillfully and quickly between islands and near-shore environments across the southern landmass of the (now submerged) continent of Beringia, down the entire Pacific Coast of North America, and eventually to the southern tip of South America in only a few thousand years (Dixon 2001; Erlandson et al. 2007a; Fladmark 1979). Though the “Paleocoastal” sites from the islands, such as Arlington Springs (CA-SRI-173) and Daisy Cave (CA-SMI-261) are the earliest *known* from the region, we may never find evidence for the earliest coastal inhabitants as the shorelines they lived on are now submerged under more than 50 m of water (Masters and Aiello 2007). Indeed, the oldest sites on the mainland of the Santa Barbara Channel are considerably younger those on the islands. The oldest on the mainland are much further north and west of the project Area, on the open coast, at Cross Creek (CA-SLO-1797), Diablo Canyon (CA-SLO-2), the Surf site (CA-SBA-931), Sudden Flats (CA-SBA-1547), and Honda Canyon (CA-SBA-530), though even these are younger than those on the islands, and differ from those on the islands in terms of material culture and perhaps adaptations. However, occasional discovery of isolated – and undated – fluted projectile points (for example from

6 Note that all dates provided herein are drawn from the literature; dates of cultural periods are approximate and rounded. We attempt to maintain consistency by using calendar, calibrated, years before present (cal BP) which are essentially the same as saying “years ago.” However, most authors prior to the mid-1990s (e.g., Glassow 1996) typically report in uncalibrated radiocarbon years before present, uncorrected for marine reservoir offsets, therefore their cultural chronologies can differ from current age estimates for the same site (or cultural period) by 200 – 1500 years, depending on the age and material dated. This is a general problem for the interpretation of California culture history as even current authors use a mixture of differently reported dates. We’ve tried to account for this, as much as possible, herein, but it further suggests the need to maintain a large, fully vetted, and corrected radiocarbon database, preferably shared across multiple research teams and authors.

Gaviota State Park CA-SBA-1951) may be suggestive of a mainland occupation approximately as old as those on the Channel Islands (Erlandson, et al. 1987).

Milling Stone Horizon: 9000 – 7000 BP

Many scholars of North American archaeology separate the Paleoindian/Paleocoastal period from the succeeding Archaic period on the rough (and now debatable) observation that the earlier people were more focused on large game while the later people exploited a broader range of resources and required a different set of tools to do so. On a continent-wide scale, the Archaic therefore sits in the middle of a trajectory of increasing technological and social intensity, somewhere between big-game hunting and fully-fledged farming; in California, this crude trajectory has little value as farming was never part of the pre-Columbian picture yet use of the term "Archaic" persists. Colloquially, it applies to everything from the early Holocene to the end of the Middle-Late Period transition (ca. 11,500 – 1000 years ago), distinguished only by the late prehistoric intensification of economy, technology, population, and political complexity (though see Glassow 1992a for a slightly different interpretation). Here, the division between Paleoindian and Early Archaic is somewhat arbitrary but follows current convention. Importantly, the record here on the mainland of the Santa Barbara Channel (see Glassow et al. 2007) differs from that of the Central Coast (see Stevens 2013) which includes the coastline around Point Concepción and Point Arguello, at the northwestern boundary of the California Bight.

One of the reasons that sites of this age on the coast are so visible, stratified, and well-preserved is they contain the remains of shellfish, leading many to suggest that this early Holocene occupation of the region was heavily oriented towards the intensive and persistent exploitation of marine resources. The material remains (and perhaps adaptations) of the early Holocene[7] inhabitants of the mainland occasionally differ however from those of their predecessors on the islands, but also from their successors on the mainland. What sets the interval of ca. 9000-7000 BP on the mainland apart from that of the islands, as well as the period on the coast shortly, thereafter, is the presence of millingstones and handstones, which become increasingly common after about 8500 years ago. However, it's important to note that not all sites of this age on the mainland contain abundant milling equipment, and abundant milling equipment is not solely confined to this interval, as there are clearly sites where groundstone dominates the formal lithic assemblage, both on the coast (Fitzgerald 2000) and deep into the interior (McGuire 1993). Contemporaneous variability in site types and artifact assemblages may point to variability in mobile foraging strategies or reveal that very different groups exploited an otherwise sparsely inhabited coastal region at slightly different times. These alternatives beg interrogation, as do the relationships between the evidence for human activity on the coast and that of the California interior and the more distant Desert West (Koerper, et al. 1991).

While the emergence of an adaptation tuned to marine resources seems beyond question (particularly if the first people to come to coastal California brought this ability with them from somewhere else), the emergence of a processing technology centered on the use of groundstone slabs and handstones (i.e. the hallmarks of the Milling Stone Horizon) has been the focus of investigation for decades (see Basgall and True 1985; Warren 1968). Like shell middens, grinding tools, especially in high frequencies, are highly visible in the archaeological record and at face value can bias (indeed have biased) interpretation of their relative economic importance (see Nelson and Lippmeier 1993). Recent efforts to understand the highly visible Milling Stone sites focus on patterns of groundstone manufacture and use. For example, following Basgall and True (1985), Hale (2001) analyzed groundstone (millingstones and handstones) and battered stone (scraper planes, cobble tools, etc.) tools from well-known Milling Stone sites across southern California, including CA-SBA-142 (at Glen Annie Canyon), and found that

[7] Note that the beginning of the Holocene is set at the end of the Younger Dryas, ca. 11,500 years ago (+/-).

Milling Stone sites were places that people visited repeatedly, over hundreds to thousands of years to conduct similar economic activities, perhaps for only short periods of time. The large numbers of reused or expedient groundstone tools at these sites likely reveal the importance food processing in that place. Though such milling tools were most likely used for processing seeds and other plant material such as roots and tubers, they may have also been used to process rodents, reptiles, fish, and other animals. Costs associated with acquiring and transporting raw materials suitable for milling, and investments in shaping them to accomplish specific tasks may be modest (depending on local geology), but significant enough to suggest they were essential for survival; investing in them would make them available for use in less essential tasks, like pulverizing non-essential foods or pigments, that might otherwise be processed in other ways. Therefore, while millingstones may have been used for many things, their prominence indexes their importance to a specific adaptive strategy, and archaeological research should be geared towards understanding that relationship.

Hale (2001) interprets Milling Stone sites as places of seasonal occupation for intensive processing, but not as sedentary villages in the way that Wallace (1955) and others envision. Large, well-used assemblages in single locations (as is typical of the classic Milling Stone identity) result from recurrent seasonal visits to specific locations for food processing over multiple years. The milling equipment in these kinds of sites are typically made from locally abundant stone (encountered either in its raw form or as previously discarded tools). Therefore, analysis of tool shaping and maintenance as well as use-wear reveal much about the nature and intensity of occupation and activity.

Hale (2001) also laments the rarity of other kinds of sites linked both temporally and socioeconomically to those of the Milling Stone period, as they would help to illustrate the full picture of the Archaic in California, and help us to move beyond simple definitions of it as a period marked by economic drudgery imposed by marginalizing climatic regimes (e.g. the Altithermal - see Antevs 1948). Herein lies an important research avenue: assembling well-dated archaeological site data across broad regions to better understand socioeconomic nuance during the Archaic and abandon the site-specific interpretation of the Milling Stone period that is itself an artifact of early archaeological research.

Generally speaking, adaptations attributed to the Archaic (including the Milling Stone period) involved small groups of people who moved regularly throughout the year to exploit a broad range of resources using a very flexible tool kit that could be made relatively easily or expediently and applied to a wide range of scenarios (Hale 2001; Basgall and True 1985; Fitzgerald and Jones 1999; Lantis 1938). Here, and elsewhere throughout the California Bight and Central Coast, the full suite of material hallmarks of the classic Milling Stone horizon is found in a relatively small number of archaeological sites; together with evidence for somewhat different activities at other kinds of sites, presumably within the spatial catchment of annual, or even generational human activity, the Milling Stone pattern reveals a “highly successful strategy of mobility, flexibility, and emphasis on low-risk, moderate-return resources, such as small game, shellfish, and certain plants… (that) seems downright practical” for the environmental and cultural context of the age (Stevens 2013:54).

The Early Period: 8000 – 2500 BP

The identity of the California “Early Period” in the Santa Barbara Channel region (in both definition and timing) differs from that of other parts of California. The problem is really about the naming conventions assigned to trends (i.e. the “Periods”) in the production and use of shell beads which vary around the state (Bennyhoff and Hughes 1987; Groza 2002; Groza, et al. 2011) rather than local conditions or broader patterns of behavior.[8] Instead, here

[8] By contrast, archaeologists in other parts of the state have abandoned this confusion in favor of chronologies based on a broader range of material culture anchored to absolute dates (Rosenthal 2011; Rosenthal et al., 2007) Either way, these names and boundaries are all somewhat arbitrary, imprecise, and/or artificial.

it helps to imagine the shift in quasi-adaptive terms, initially characterized by both Rogers (1929) and Greenwood (1972) as a “Hunting” people or period, marked quite notably by an increase in the abundance of projectile points and a decline in the relative abundance of millingstones. On the Central Coast, Jones and colleagues (Jones 1992; Jones and Codding 2019; Jones, et al. 2007) put the division somewhere between 5500 and 5100 BP, though others (Glassow et al. 2007) put the temporal division at 7000 BP but don’t see the behavioral transition happening around the northern California Bight until somewhere between 6500 and 6000 with both a shift in settlement patterns and an increase in the importance of projectile points. Though the timing of these behavioral shifts seems to differ even across adjacent regions, neither follows the bead-based chronology, which puts the beginning of the Early Period at 8000 BP (King 1990; Kennett 2005). In part, the behavioral distinction between the Milling Stone Horizon and the Early Period is hazy because the use of millingstones continues here, and elsewhere in California, well into the late Holocene (Erlandson 1997a, 1997b; Sutton, et al. 1993), without regard to the presence of specific kinds of shell beads.

The real question is about how different artifact types (groundstone, projectile points, shell beads) figure in with other, perhaps more widespread markers of behavioral change. For example, in the literature from the mainland of the California Bight, some authors identify change in patterns of settlement, specifically a shift away from a practice of relocating the entire residential settlement multiple times throughout the year (i.e. a “residentially mobile” pattern), to a pattern the entails moving the residential base only a few times a year (i.e. a “logistically mobile” pattern). Glassow (1990) sees this shift happening at approximately 8500 years ago for the broader region (prior to the dates he uses for the end of the Milling Stone Horizon); research form the northern end of the California Bight puts this shift at 3000 years ago (Lebow, et al. 2006). Unfortunately, the differences in interpretation make it difficult to identify or define temporal periods on the basis of cultural behavior alone. Perhaps we should abandon definition of cultural periods in favor of a better understanding of how people used different portions of the landscape and its resources differently through time.

Use of milling equipment persists through this period, though the forms and varieties of handstones and slabs change (Gamble and King 1997), while mortars and pestles were “added to the milling repertoire” around 6000 years ago (Glassow et al. 2007:197). Whether any of these things point to a change in diet is still an open question. Hale (2009, 2010) emphasizes the robust cobble mortar assemblage at CA-SBA-53 (on the Goleta Lagoon) associated with radiocarbon dates in excess of 5000 years ago (Harrison and Harrison 1966; Rick & Glassow 1999). Glassow (1997) suggest that the site was a magnet location within local settlement and subsistence patterns, rather than representing an influx of people from the Campbell Tradition, as claimed by Warren (1968). The site is best known for the large numbers of dart points and cobble mortars, but bifaces (including formal knives), formal flake tools, and simple flake tools are also present in unusually high frequencies (see Hale 2010; Harrison and Harrison 1966). Most of the mortars from CA-SBA-53 are whole, carrying more significance than all other mortar assemblages in the broader region that are dominated by fragmentary specimens.

Mortars are costly to make and signal an investment in processing technology much greater than that of millingstones (Hale 2001, 2010). Such an investment was likely made to increase processing efficiency of pulpy nut meat such as acorns, although uncertainty remains regarding the use of the mortars at CA-SBA-53. Glassow (1997) suggests that they could have been used to process bulrush and other estuarine resources, though millingstones would have offered similar efficiency in processing such things. It is certain, however, that the addition of mortars marks a socioeconomic shift that placed emphasis on intensive resource extraction and/or processing beyond that which could be accomplished using a basined millingstone.

A broad range of evidence, such as subsistence diversification, increasing sedentism, status differentiation, ritual activity, rock art, and population growth have all been marshalled to suggest that the second half of this interval (after 4000 years ago, or what Lebow and Moratto call the "Late Early Period") contains some of the earliest evidence for the evolution of cultural complexity in the region (Erlandson and Rick 2002; Glassow et al. 2007), though dramatic change did not happen until the end of the Middle Period and into the Late Period.

The Middle Period: 2500 – 800 BP

Glassow (1996:22) suggests that the defining feature of this period is the elevated importance of fish and marine mammals in the subsistence budget. Appearance of the single-piece shell fishhook around 2900 BP, along with increasing importance of notched stone sinkers corroborates this and may have been essential to the intensification of the marine-based economy on the mainland as well as on the islands (Erlandson 1997a; Rick, et al. 2002). Indeed, intertidal resources (namely shellfish) remained important to everyone living within walking distance of the coast. And though people of the Middle Period acquired more of their protein from large terrestrial and marine mammals than people did in earlier periods (Lebow, et al. 2007), shellfish were still the dominant source of protein throughout the region (Glassow 1992b; Lebow, et al. 2015).

During this time, the old groundstone food processing slabs of the early and middle Holocene are mostly absent throughout the region, while mortars become more common, and with increasing effort invested in their production (Glassow 1996). Whether or not this shift from millingstones to mortars points to the rising importance of the acorn to the subsistence economy, as it is thought to do elsewhere in California (Basgall 1987; Hale 2010), is still an open question. Answering this question depends, in part, on establishing a solid understanding of the distribution of different kinds of oak trees in different parts of the region (for example, oak trees are rare, or entirely absent from the landscape within about 10 km of the coastline throughout the northern end of the California Bight – see Glassow 1996:6); where acorns were scarce, mortars were either used for processing other things, or acorns were transported from considerable distance. Land use patterns observed to the west of Tecolote Canyon, in the Vandenberg region (Lebow, et al. 2006), suggest that these changes in resource use were accompanied by a shift in settlement patterns: though the shift to a logistical pattern of residence began around 3000 years ago, it was fully in place throughout the Middle Period. If the patterns observed from the compilation of radiocarbon dates, both from Vandenberg (Lebow, et al. 2010; Lebow, et al. 2011) and the surrounding region (Glassow 1996) can be used to evaluate change in human population, then the Middle Period is the first episode of measurable and sustained demographic increase in the history of the region, increasing noticeably approximately 2800-1800 years ago, and then dramatically after that. Thereafter, life across the Channel on the Islands starts to change markedly: the number of settlements starts to increase, and people start to live in those settlements for longer periods of time while commanding more rigid territories and controlling the natural resources within them; at the same time, the incidence of inter-personal violence increases while human health and stature start to decline (Kennett 2005; Lambert 1997, 2002; Lambert and Walker 1991; Walker 1989). Together, these things mark the beginning of a trend that continues into the Late Period where it intensifies dramatically. The extent to which these patterns obtained on the mainland and the adjacent interior, or how people in the area were affected by the dramatic change on the Islands, are open questions.

The Late Period: 800 BP – European colonization (ca. AD 1780)

For most of this periodization, the exact starting and ending dates are mostly inconsequential, but the Late Period is different, in part because the bead-based chronology is more precise, the archaeological record is better preserved, change in that record is more pronounced, and because change in the cultural record seems to match dramatic change in well-dated, high-resolution paleo-environmental archives from the Santa Barbara Basin that are also reflected in written records from other parts of the world e.g., (Arnold, et al. 1997; Jones and Kennett 1999; Kennett 2005; Kennett and Kennett 2000; Raab and Larson 1997). Setting it at 800 BP follows King's (1990) bead-based chronology and includes the period of dramatic environmental change (ca. 800-650 BP), and therefore its purported role in rapid Late Period cultural change. However, one could easily define this cultural period by everything that happens after that environmental change, as Arnold (1992b) does, or alternatively by putting it at 1300 BP – the beginning of Lebow and Moratto's (2005) Late Middle Period – by which time many of the material hallmarks of Late Period cultural complexity (the sewn-plank canoe, the bow and arrow, exotic raw materials, intensive fishing, standardized *Olivella* shell beads, status differentiation, skeletal evidence for interpersonal violence, stable primary villages) were all in place, and the pace of cultural change began to increase (Kennett 2005).

Hale (2010) argues that the rate-limiting factors on cultural evolution are socioeconomic, rather than techno-environmental. Therefore, the archaeological signatures of culture change (namely, the types and uses of artifacts, including food remains) that appear to be more rapid during the Late Period are more important when viewed in the light of major socioeconomic shifts, rather than seeing them simply as a rapid accumulation of variability. More to the point, a time-limited strategy would actively resist change while an energy-limited strategy would actively pursue it and would accumulate material representation in the archaeological record accordingly simply through technological improvements to make tools more efficient or specialized, and in specialized subsistence (Bettinger 1999). The causal relationship between the archaeologically visible increase in material diversity over shorter periods of time, and socioeconomic strategy (i.e., time- or energy-limited) on the one hand, or demographic increase on the other (see below), merits further investigation throughout the region.

Since the mid-1980s an enormous body of literature has accumulated on the origins of cultural, social, and political complexity in the Santa Barbara Channel. Much of this has been dedicated to the Late Period and most of that has been done on the Islands. The archaeology of this is spectacular, and dovetails dramatically with the written accounts of European explorers, Mission colonists, and 20th century ethnographers. In addition to basic archaeological reconnaissance, there has been focused attention on understanding subsistence (e.g., Bernard 2004; Martin and Popper 2001), the context of shell bead money production (Arnold and Munns 1994), the production of tools (i.e. microlithic drills) used to manufacture that money (Arnold 1987, 2001), the differential access to exotic goods (Arnold and Graesch 2001), the presence of trade centers (Arnold 2001; Gamble 2008), the production and control of sea-worthy watercraft (Arnold 1995; Gamble 2002), and established patterns of exchange (Arnold 1995; Fauvelle 2011).

By 650 BP the full suite of attributes that early European chroniclers noticed of the Chumash were in place on the Islands: sedentary villages of permanent semi-subterranean architecture, high dietary diversity that also included prestige items like pelagic fish, a monetized market economy, specialized craft production, inter-village and island-mainland exchange networks, political control of natural resources, numerous forms of personal adornment, and an unequal distribution of wealth. Presumably, these things also index the social order documented of the Chumash, including elite offices, formal religious systems, hereditary power and prestige (i.e. the "Dynasty of Nobility"), a ranked social order, institutional inequality, and chiefly control (e.g., Blackburn 1976; Gamble 2008; Harrington 1942; Hollimon 2004; Johnson 1988).

The protohistoric culture of the Chumash was terminated by the arrival of a Spanish expedition led by Gaspar de Portola in 1769. Chumash culture changed dramatically with the establishment of the Missions of San Buenaventura, Santa Barbara, and San Fernando Rey de España.

The historic occupation of the project vicinity can be divided into three settlement periods: the Mission Period (A.D. 1769 – 1830), the Rancho Period (ca. A.D. 1830 -1865), and the American Period (ca. A.D. 1865 – 1915). Construction of the Spanish Missions in the Chumash inhabited area from 1772 (Mission San Luis Obispo de Tolosa) to 1804 (Mission Santa Iñes), especially in the case of the Oxnard Plain area the 1782 establishment of Mission San Buenaventura, altered both the physical and cultural landscape of the region. The missions were the center of Spanish influence in the region and affected native patterns of settlement, culture, trade, industry, and agriculture.

City of Oxnard General Plan Background Report

The following information is cited from the City of Oxnard General Plan Background Report (General Plan Background Report; City of Oxnard 2006). The City of Oxnard Planning Area contains a variety of previously recorded cultural resources, both from the prehistoric and historic eras, including 12 prehistoric sites and 7 isolates. The Planning Area[9] also contains 31 recorded resources in the form of buildings or structures. The County of Ventura also maintains a list of local historic landmarks and points of interest that represent historic resources of local significance.

Historic Archaeological Resources

The evidence from previous survey work and site investigations in the City of Oxnard Planning Area indicates that historic archaeological resources include the following:

- Historic artifact scatters and buried deposits of historic debris and artifacts.
- Building foundations and associated deposits.
- Levees and roads.
- Remains of farms and ranches

Oxnard Historic Resources

Many properties characteristic of the City's historic period have been identified through previous historic building surveys and cultural resource studies. A list of properties maintained by Ventura County were identified as having local significance or those properties listed on or found eligible for listing in the National Register of Historic Places is provided in General Plan Background Report Table 5-3 (City of Oxnard 2006). General Plan Background Report Table 5-4 identifies two properties that are classified as a point of interest by the County of Ventura: Henry T. Oxnard Historic District and Leonard Ranch Historic District (City of Oxnard 2006).

Henry T. Oxnard Historic District. The Henry T. Oxnard National Historic District is a residential neighborhood located west of the City's central business and commercial center (F and G Street from 219 North F to 5th Street and from 131 North G Street to 5th Street). This district was nominated for the National Register of Historic Places in 1998.

Principally, the district qualified for the National Register because most of the homes and the setting appear as they did during the period between 1909 and 1940 (National Register Nomination Form 10-900, 1998). The

[9] Planning Area. Established by the City of Oxnard and Ventura County, the Planning Area includes the incorporated and unincorporated areas beyond the City's current sphere of influence to include the Naval Base Ventura County Point Mugu. Areas included within the Planning Area include those areas the City currently or expects to influence in the foreseeable future. This area serves as the primary study area for the General Plan. Source: City of Oxnard, General Plan Background Report, page 1-9.

neighborhood is primarily comprised of Bungalow and Craftsman style homes along with Mediterranean/Spanish Revival styles. The total number of contributing houses to the district is 137.

Leonard Ranch Historic District. The Leonard Ranch Historic District (Primary Number 56-152763), located at 3779 W. Gonzales Road, is considered eligible for the National Register and is listed in the California Register (OHP 2006 and Scheid 1998, as cited in City of Oxnard 2006). The Leonard Ranch once comprised 1,000 acres on the Oxnard Plain, but now is limited to 3.45 acres of what remains of the ranch buildings. These remains include: the Ranch House, the Main Residence, and a Cook's Cabin. The remaining elements to this district are a variety of landscaped features, such as a pair of Moreton Bay fig trees.

Project Site and Existing Adjacent Uses

Regionally, the site is located approximately 1.5 miles east of the waterfront at the Port of Hueneme and 0.5 miles north of Ormond Beach and the Pacific Ocean. Surrounding land uses include industrial, commercial, agricultural, and undeveloped lands. The agricultural land south of the project site and the undeveloped lands west of the project site are owned by The Nature Conservancy, which is currently in the conceptual planning stages for future restoration. The Ormond Lagoon Waterway is located approximately 0.25 miles northwest of the project site. Approximately 0.63 acres of the southwestern portion of the project site is located within the Coastal Zone.

Significance Threshold Criteria

The issues presented in the City of Oxnard CEQA Guidelines (May 2017) and CEQA Guidelines Appendix G Initial Study Environmental Checklist (January 1, 2020, effective date) have been utilized as thresholds of significance in this section. Accordingly, cultural and tribal cultural resources impacts resulting from the implementation of the proposed project may be considered significant if they would result in the following:

- Threshold CTC-1: Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5.
- Threshold CTC-2: Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to State CEQA Guidelines Section 15064.5.
- Threshold CTC-3: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.
- Threshold CTC-4: Disturb any human remains, including those interred outside of formal cemeteries.
- Threshold CTC-5: Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the California Register of Historical Resources, or in the local register of historical resources as defined in Public Resources Code Section 5020.1(k).
- Threshold CTC-6: Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1.

Based on these significance thresholds and criteria, the proposed project's effects have been categorized as either "no impact," a "less than significant impact," or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant unavoidable impact.

1. Would the project cause a substantial adverse change in the significance of an historical resource as defined in CEQA guidelines Section 15064.5?

As defined by the CEQA Guidelines (14 CCR 15000 et seq.), a "historical resource" is considered to be a resource that is listed in or eligible for listing in the National Register of Historic Places or California Register of Historical Resources (CRHR), has been identified as significant in a historical resource survey, or is listed on a local register of historical resources. Under CEQA, a project may have a significant effect on the environment if it may cause "a substantial adverse change in the significance of an historical resource" (Public Resources Code Section 21084.1; 14 CCR 15064.5(b)). If a site is listed or eligible for listing in the CRHR, or included in a local register of historic resources, or identified as significant in a historical resources survey (meeting the requirements of Public Resources Code Section 5024.1(q)), it is a historical resource and is presumed to be historically or culturally significant for the purposes of CEQA (Public Resources Code Section 21084.1; 14 CCR 15064.5(a)). A records search of the CHRIS database completed by Dudek staff at the South Coastal Information Center on March 6, 2023, as well as a review of the NRHP, the CRHR, the California Points of Historical Interest list, the California Historical Landmarks list, the Archaeological Determinations of Eligibility list, and the California State Historic Resources Inventory list did not identify historical resources within the proposed project site. No structures are currently present within the proposed project site. Although by definition archaeological resources have the potential to be a historical resource, since no historical resources of either an archaeological or built environment nature have been identified, further assessment of yet unidentified archaeological are addressed in the following threshold. Based on the absence of any structures and that no historical resources have been identified within the proposed project site, no impact would occur to an historical resource as defined in CEQA guidelines Section 15064.5.

2. Would the project cause a substantial adverse change in the significance of a unique archaeological resource pursuant to State CEQA Guidelines Section 15064.5?

A CHRIS database records search, background research and an archaeological pedestrian survey were conducted as part of an Archaeological Resources Assessment that was prepared for the proposed project (Confidential Appendix C).

A review of the CHRIS records search (completed March 6, 2023) indicates that fifteen cultural resources studies have been conducted within 0.5 miles of the proposed project site between 1980 and 2016. Of these studies, two intersect or overlap the project site. No cultural resources were identified within the current project site as a result of these previous investigations; however, neither study included an intensive pedestrian survey of the project site. In addition, South Central Coastal Information Center records indicate that one previously recorded cultural resource is located within 0.5 miles of the project site. This resource is a historical archaeological site located 650 meters (2,130 feet) west of the project site.

A review of aerial photographs for all available years indicates that in general, the proposed project site has been subjected to consistent ground disturbance since at least 1967 including grading, building construction and demolition, and utility, pavement, and landscape installation.

An intensive-level archaeological survey of the proposed project site was conducted April 5, 2023. The project site is almost entirely covered in hardscape consisting of asphalt, structural foundations, and compacted fill soils. As such, any exposed soils observed during the archaeological pedestrian survey were likely fill soils from an unknown origin. These soils do not represent the native soils present prior to ground disturbing activities associated with past development. Thus, the current surface expression of observable ground surface is not a good representation of the native soils present prior to development/ground disturbing activities. Given these project site characteristics, approximately 10% of the project site was surveyed for archaeological resources. Remains of a concrete slab foundations from the industrial use of the property was identified within the project site. Archival review indicates that the property occupied this parcel from 1967 through the early 2021s when it was eventually demolished. No further cultural resources considerations are required for this resource as it has been destroyed. No additional historic-period cultural material or material of Native American origin was identified during the survey.

In consideration of all these factors, the potential to encounter intact cultural deposits containing archaeological resources within soils from the current grade to approximately two feet below existing ground surface is unlikely. However, the potential for intact cultural deposits to exist within native soils potentially existent below two feet is unknown. For these reasons, the proposed project site should be treated as potentially sensitive for archaeological resources. In the event that unanticipated archaeological resources are encountered during project implementation, impacts to these resources would be potentially significant.

Thus, mitigation is required to address impacts related to the inadvertent discovery of archaeological resources during construction, as outlined in **MM-CUL-1**, **MM-CUL-2**, and **MM-CUL-3**. **MM-CUL-1** requires that all project construction personnel participate in a Workers Environmental Awareness Program training for the proper identification and treatment of inadvertent discoveries. **MM-CUL-2** requires the retention of an on-call qualified archaeologist and a survey of the proposed project site after the removal of fill soils. **MM-CUL-3** requires construction work occurring within 100 feet of a cultural resource discovery and 100 feet of a human remains discovery be immediately halted until the qualified archaeologist, meeting the Secretary of Interior's Professional Qualification Standards for Archaeology, can assess and evaluate the discovery pursuant to CEQA. Additionally, **MM-CUL-3** requires the inadvertent discovery clause be included on all construction plans. With implementation of **MM-CUL-1**, **MM-CUL-2**, and **MM-CUL-3**, potentially significant impacts to unknown archaeological resources would be reduced to **less than significant with mitigation incorporated.**

MM-CUL-1 Workers Environmental Awareness Program. Prior to the start of construction activities, all construction personnel and monitors shall be trained regarding identification and treatment protocol for inadvertent discoveries of cultural resources (archaeological and tribal) and human remains. A basic presentation and handout or pamphlet shall be prepared in order to ensure proper identification and treatment of inadvertent discoveries of cultural resources and human remains. The purpose of the Workers Environmental Awareness Program (WEAP) training is to provide specific details on the kinds of materials that may be identified during ground disturbing activities and explain the importance of and legal basis for the protection of human remains and significant cultural resources. Each worker shall also be trained in the proper procedures to follow in the event that cultural resources or human remains are uncovered during ground disturbing activities. These procedures include but are not limited to work curtailment or redirection, and the immediate contact of the site supervisor and archaeological monitoring staff.

MM-CUL-2 Retention of an On-Call Qualified Archaeologist. A qualified archaeologist shall be retained and on-call to respond and address any inadvertent discoveries identified project implementation. Additionally, in consideration of the potential to encounter intact cultural deposits beneath fill soils, the qualified archaeologist shall survey the project site once fill soils have been removed to ensure no cultural deposits underly the fill layer. If is determined, based on the aforementioned survey, that cultural resources are present or may be present and may be impacted during project construction, monitoring may be warranted. Additionally, any identified cultural resources shall be assessed and evaluated pursuant to CEQA. If it is determined that monitoring is warranted, a qualified archaeological principal investigator, meeting the Secretary of the Interior's Professional Qualification Standards, shall oversee and adjust monitoring efforts as needed (increase, decrease, or discontinue monitoring frequency) based on the observed potential for construction activities to encounter cultural deposits or material. The archaeological monitor shall be responsible for maintaining daily monitoring logs.

MM-CUL-3 Inadvertent Discovery Clause. In the event that potential archaeological resources (sites, features, or artifacts) are exposed during ground disturbing, all construction work occurring not less than 100 feet of the find shall immediately stop and the qualified archaeologist that has been retained on call must be notified immediately to assess the significance of the find and determine whether or not additional study is warranted. Depending upon the significance of the find under the CEQA, the archaeologist may simply record the find and allow work to continue. If the discovery proves significant under CEQA, additional work (e.g., preparation of an archaeological treatment plan, testing, data recovery, or monitoring) may be warranted if the resource cannot be feasibly avoided.

In the event that human remains are inadvertently encountered during construction activities, the remains and associated resources shall be treated in accordance with state and local regulations that provide requirements with regard to the discovery of human remains, including California Health and Safety Code Section 7050.5, California Public Resources Code Section 5097.98, and CEQA Guidelines Section 15064.5(e). In accordance with these regulations, if human remains are found, the County Coroner must be immediately notified of the discovery. No further excavation or disturbance of the project site or any nearby (no less than 100 feet) area reasonably suspected to overlie adjacent remains can occur until the County Coroner has determined if the remains are potentially human in origin. If the County Coroner determines that the remains are, or are believed to be, Native American, he or she is required to notify the NAHC that shall notify those persons believed to be the most likely descendant. The most likely descendant shall determine, in consultation with the property owner, the disposition of the human remains.

3. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Paleontological resources are the remains or traces of plants and animals that are preserved in the earth's crust, and per Society of Vertebrate Paleontology (SVP 2010) guidelines, are older than written history or older than approximately 5,000 years. They are limited, nonrenewable resources of scientific and educational value and are afforded protection under state laws and regulations.

The project site is located within the Transverse Ranges Geomorphic Province, which extends from Point Conception in the west to the San Bernardino Mountains in the east. The province also includes the San Gabriel, Santa Monica, and Santa Ynez Mountains and the offshore San Miguel, Santa Rosa, and Santa Cruz Islands (CGS 2002a; Morton and Miller 2006). This geomorphic province structure is east-west trending and is oblique to the normal northwest trend of coastal California.

More specifically and according to surficial geological mapping by Johnson et al. (2012) at a 1:24,000 scale and the International Chronostratigraphic Chart of Cohen et al. (2022), the project site is underlain by Holocene (<11,700 years ago) alluvial fan deposits (map unit Qff). Holocene alluvial fan deposits are typically unconsolidated, fine-grained sediments (predominately clay) with interbeds of coarser-grained sands and gravels in this area (Johnson et al. 2012). These sediments were deposited as alluvial fan and overbank deposits onto the Oxnard Plain, likely from the drainage to the west of the project site. Given the young age of these deposits, they are considered to have low paleontological resources sensitivity on the surface and at shallow depths. However, with depth below the surface, the paleontological resources sensitivity increases, where the sediments become old enough to preserve fossils.

Dudek requested a paleontological records search from the Natural History Museum of Los Angeles County (NHMLA) to determine if any fossil localities are known from within and/or nearby the project site. The NHMLA reported three fossil localities near project site; however, the localities are from the Trancas Formation and Topanga Formation, which are not mapped nearby and are not anticipated to be impacted by construction activities.

No paleontological resources were identified within the project site as a result of the NHMLA records search and desktop geological and paleontological review. Furthermore, the project site is located within an area that contains geological units of low paleontological sensitivity and is not anticipated to be underlain by unique geological features. The Oxnard Plain, within which the project site resides, is composed of Holocene sedimentary deposits. Given the lack of older sedimentary deposits nearby and the anticipated shallow excavation depths, it is unlikely that development of the project would result in impacts to paleontological resources. However, as is the case with most other development projects that involve earthwork activity, there is always a possibility that subsurface construction activity could unearth a potentially significant paleontological resource. In the event that intact paleontological resources are inadvertently uncovered during project excavations, there is the potential to destroy a unique paleontological resource or site. Without mitigation, the potential damage to paleontological resources during construction would be a potentially significant impact. If such discoveries occur, a qualified paleontologist should be retained to evaluate the discovery. As such, implementation of **MM-CUL-4** would be required to ensure that subsurface construction activity complies with the standard procedures for treatment of unanticipated discoveries of paleontological resources and would ensure impacts would be **less than significant with mitigation.**

MM-CUL-4 Inadvertent Discovery Clause. In the event that paleontological resources (e.g., fossils) are unearthed during project earthmoving, the area of discovery shall be roped off with a 50-foot radius buffer and qualified paleontologist should be notified and retained to assess the find and provide appropriate mitigation. Once documentation and collection of the find is completed, the qualified paleontologist shall remove the rope and allow grading to recommence in the area of the find. The paleontologist shall prepare a Paleontological Resources Impact Mitigation Program (PRIMP) for the project that outlines the future mitigation required for the project. The PRIMP shall be consistent with the guidelines of (SVP 2010).

4. Would the project disturb any human remains, including those interred outside of formal cemeteries?

No human remains or cemeteries are known to exist in or near the project site. However, there is always the possibility that subsurface construction activities associated with the proposed project improvements, such as trenching and grading, would potentially damage or destroy previously undiscovered human remains. In the event of the accidental discovery or recognition of any human remains, CEQA Guidelines Section 15064.5; HSC Section 7050.5; PRC Section 5097.94, Section 5097.99, and Section 5097.991 must be followed. Implementation of **MM-CUL-2** would reduce potentially significant impacts associated with the discovery of human remains to **less than significant with mitigation.**

2.7 Geology and Soils

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
a. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist or based on other substantial evidence of a known fault?	☐	☐	☐	☒
b. Strong seismic groundshaking that cannot be addressed through compliance with standard Code requirements?	☐	☐	☐	☒
2. Would the project be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in an on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse that cannot be addressed through compliance with standard Code requirements?	☐	☐	☐	☒
3. Would the project be located on expansive soil, creating substantial risks to life or property that cannot be addressed through compliance with standard Code requirements?	☐	☐	☐	☒
4. Would the project expose people or structures to inundation by seiche or tsunami?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
5. Would the project rely on dredging or other maintenance activity by another agency that is not guaranteed to continue?	☐	☐	☐	☒

1. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

a. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist or based on other substantial evidence of a known fault?

The project site is not underlain by a known earthquake fault, as delineated on the Oxnard Quadrangle Seismic Hazard Zone map, issued by the State Geologist (CGS 2002b), or as delineated on any other fault map. The nearest active fault is the Springville Fault, located approximately 7 miles northeast of the project site (CGS 2023a). As a result, the project would not expose people or structures to potential substantial adverse effects involving rupture of a known earthquake fault. No impact would occur.

b. Strong seismic groundshaking that cannot be addressed through compliance with standard Code requirements?

Based on proximity to regional active faults, strong ground shaking can be expected at the project site during moderate to severe earthquakes in the general region. However, no structures would be constructed on site. The project would include minor grading, paving, and landscaping for a large parking lot. As a result, the project would not expose people or structures to potential substantial adverse effects involving strong seismic groundshaking. No impact would occur.

2. Would the project be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in an on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse that cannot be addressed through compliance with standard Code requirements?

The topography of the project site and surrounding area is relatively flat to gently sloping and therefore would not be susceptible to landslides or other slope failure. Per the Geotechnical Engineering Study prepared for the project site by Advanced Geotechnical Engineering (AGS) and included as Appendix D, grading for the proposed project is expected to consist of removal and recompaction of the upper site soils, followed by placement of relatively small quantities of fill in proposed pavement areas to create the new site grades for support of the proposed site paving, and to provide proper site drainage. Final site grades are expected to be within approximately 2 feet of the existing grade (Appendix D). As a result, the project would not create unstable conditions as a result of grading and construction.

Based on exploratory trenches completed to a maximum depth of 10.5 feet for the project-specific geotechnical report (AGS 2021), the site is underlain by artificial fill, to a maximum depth of 5.5 feet, which in turn is underlain by younger alluvium. The alluvium consists of medium firm to firm, sandy to clayey silt, underlain by silty sand, clayey sand, and silty clay. Groundwater was encountered at a depth of 9.5 feet below ground surface. Based on the soil types and shallow depth to groundwater, the project site is located in an area of potential liquefaction (CGS 2002b); however, lateral spreading would not occur due to a lack of on-site slopes. In addition, the project site is located in an area of regional subsidence due to groundwater pumping (USGS 2023). However, the site has already been graded and no structures would be constructed on site. The project would include minor grading, paving, and landscaping for a large parking lot. Grading and paving would be completed in accordance with the recommendations of the project-specific geotechnical report (Appendix D) and City Building Division code requirements. Therefore, **no impact** would occur with respect to potentially unstable soils.

3. ***Would the project be located on expansive soil, creating substantial risks to life or property that cannot be addressed through compliance with standard Code requirements?***

Based on soil sampling completed at the site, on-site soils are in the very low to low expansion categories (AGS 2021). Project construction would be limited to paving (including perimeter curbs) and landscaping. No structures would be built in association with the project. Based on the very low to low expansion potential of on-site soils, **no impact** would occur with respect to potentially expansive soils.

4. ***Would the project expose people or structures to inundation by seiche or tsunami?***

The project site is not located within a tsunami inundation zone (CGS 2023b). In addition, the project is not located adjacent to an enclosed body of water that may be susceptible to a seiche in the event of an earthquake. As a result, the project would not expose people or structures to inundation by seiche or tsunami. **No impact** would occur.

5. ***Would the project rely on dredging or other maintenance activity by another agency that is not guaranteed to continue?***

The proposed project would not include dredging or other maintenance activity. The project includes paving and landscaping for a large parking lot. **No impact** would occur.

2.8 Hazards and Hazardous Materials

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
2. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset or accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
3. Would the project emit hazardous substances or involve handling hazardous or acutely hazardous substances, or waste within one-quarter mile of an existing or proposed school in quantities or a manner that would create a substantial hazard?	☐	☐	☒	☐
4. Would the project be located on a site that 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 substantial hazard to the public or environment?	☐	☒	☐	☐
5. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐

1. ***Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?***

Construction

The project would include construction of a parking lot and outdoor vehicle storage yard on a site that was previously occupied by an industrial manufacturing facility. During construction, a variety of hazardous substances and wastes would be stored, used, and generated on the project site, including fuels for machinery and vehicles, new and used motor oils, cleaning solvents, paints, and storage containers. Typically, quantities for this type of construction would be relatively limited; however, accidental spills, leaks, fires, explosions, or pressure releases involving hazardous materials represent a potential threat to human health and the environment if not properly treated. Provisions to properly manage hazardous substances and wastes during construction are typically included in construction specifications and are under the responsibility of the construction contractors, that must comply with local regulations. For example, construction contractors would be required to comply with Cal/OSHA regulations concerning the use of hazardous materials, including requirements for safety training, exposure warnings, availability of safety equipment, and preparation of emergency action/prevention plans. In addition, construction would be required to adhere to the NPDES Construction General Permit, which includes requirements for the handling of hazardous materials. Typically, adherence to the construction specifications and applicable regulations regarding hazardous materials and hazardous waste, including disposal, would ensure that project construction would not create a significant hazard to the public or the environment during the construction phase of the project.

Once operational, there would be very limited use, storage, or transport of hazardous materials. The proposed use of the site as a vehicle storage area and would not include the transport, use, or disposal of any substantive quantities of hazardous materials or wastes outside of the fuel, oils, and coolant contained within each vehicle as part of their operation. Land uses that use, create, or dispose of hazardous materials are regulated and monitored by federal, state, and local regulations and policies. Specifically, the proposed project would be subject to compliance with the programs administered by nearby agencies, including the County of Ventura. Businesses that handle or store hazardous materials equal to or above the reportable quantities are subject to compliance with these regulatory agencies and applicable regulations around the transport, storage, and disposal of hazardous materials. These programs, as well as other federal, state, and local regulations and policies, provide a high level of protection to the public and the environment. As a result, the proposed project would have a **less than significant** impact related to the routine transport, use, or storage of hazardous materials or wastes.

2. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset or accident conditions involving the release of hazardous materials into the environment?

During construction, hazardous materials such as fuels, oils, and lubricants would be transported to and used on site in construction vehicles and equipment. If not managed appropriately, these hazardous materials could be unintentionally released resulting in adverse effects to workers, the public and/or the environment. However, the potential for accidental releases would be minimized through adherence to existing regulatory requirements.

The project contractor and construction crews would be required to comply with all applicable regulations governing the storage, handling, and disposal of hazardous materials and waste. The project would also be required to comply with the NPDES Municipal Separate Storm Sewer System (MS4) Permit, including the regulation of surface water quality. Under the NPDES MS4 Permit, the development of 1.0 acres or more of land must file a notice of intent with the State Water Resources Control Board to comply with the state NPDES General Construction Permit. Implementation of this Permit would require the development of a site-specific SWPPP for construction activities. The SWPPP is required to identify BMPs that protect stormwater runoff and ensure avoidance of substantial degradation of water quality. Typical BMPs that could be incorporated into the SWPPP to minimize the off-site runoff of pollutants would include the following:

- Refueling vehicles away from the construction site or within a dedicated area that includes secondary containment;
- Using drop inlet protection (filters and sandbags or straw wattles), with sandbag check dams within paved areas;
- On-site storage of spill containment equipment;
- Implementing specifications for construction waste handling and disposal; and
- Training, including for subcontractors, on general site housekeeping.

Incorporation of required BMPs would help control the use of hazardous substances during construction and would minimize the potential for such substances to leave the site. As a result, there would be reduced potential for the public and environment to be exposed to hazardous chemicals and materials as a result of construction activities. The implementation of applicable construction BMPs and adherence to applicable hazardous materials and waste regulations would minimize the risk and exposure of the release of hazardous materials to the public and environmental to less than significant levels.

Similarly, compliance with applicable regulations involving hazardous materials and wastes during operation would ensure that such materials are transported, used, stored, and disposed of in a manner that minimizes the potential for upset and accidental conditions resulting in the release of hazardous materials into the environment. However, the proposed use of the site as a vehicle parking and storage area would not include the storage of any substantive quantities of hazardous materials. Minor amounts of fuels, oils, or coolant may leak from vehicles but not in substantive quantities that would represent a significant threat to human health or the environment. Due to compliance with existing regulations, it is not expected that the project would create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions. Therefore, impacts would be **less than significant.**

3. Would the project emit hazardous substances or involve handling hazardous or acutely hazardous substances, or waste within one-quarter mile of an existing or proposed school in quantities or a manner that would create a substantial hazard?

The project site is not located within 0.25 miles of an existing elementary school. The nearest school to the project site is the Art Haycox Elementary School, which is located at 5400 Perkins Road in Oxnard, and is approximately 0.78 miles northwest of the project site. As previously discussed, the proposed project involves the outdoor storage of vehicles. This proposed use would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste; therefore, the project would not emit hazardous substances or involve handling hazardous or acutely hazardous substances, or waste within 0.25 miles of the project site. Thus, impacts would **be less than significant**.

4. Would the project be located on a site that 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 substantial hazard to the public or environment?

A search of federal, state, and local databases regarding hazardous material releases and site cleanup lists was conducted for this analysis. According to the State Water Resources Control Board's Geotracker database, the project site was listed for a release of diesel that was reported in 1989 and is currently considered by the State Water Resources Control Board as a closed case as of March 15, 1994, indicating that no further threat to human health or the environment remains (SWRCB 2023). The Department of Toxic Substances Control does not list the site in its EnviroStor database (DTSC 2023). However, two other cleanup cases, one of which includes land use restrictions, were identified on the other side of Arcturus Avenue . This includes Reichhold Chemical, located at 5980 Arcutrus Avenue, and Occidential Chemical Corporation, located at 6000 Arcturus Avenue.

The project site was formerly occupied by the Arcturus Manufacturing Corporation which operated a specialized metal forging facility from approximately 1962 to 2017. Activities associated with the manufacturing facility included the transport, use, and disposal of hazardous materials and/or wastes related to metal forging, casting, sand blasting, grinding, metal work, and welding (RWQCB 2018). Outside of the reported diesel leak mentioned above, the Los Angeles Regional Water Quality Control Board (RWQCB), reviewed a closure report request for the site upon cessation of manufacturing activities by Arcturus Manufacturing Corporation in 2017. The request included results from Phase I and Phase II Environmental Site Assessment investigations. Following review of these assessment reports, the Regional Board determined that the site is contaminated with total petroleum hydrocarbons and heavy metals (e.g., lead) that require further delineation to determine the lateral and vertical extents of contamination (RWQCB 2018). The request for further delineation was specified in the 2018 Investigative Order (No. R4-2018-0073) and represents an enforcement action by a regulatory agency that is required by law, pursuant to Water Code Section 13268(a), to be completed. The required work plan and subsequent report of findings would be submitted to the Regional Board for review and approval as well as any requirements for remediation, if deemed necessary based on identified site conditions. Completion of any remediation would be required prior to commencement of the proposed project construction activities. In order to ensure completion prior to construction, **MM-HAZ-1** would be required. Implementation of **MM-HAZ-1** would ensure that the potential for legacy contaminants to be present in the subsurface that could adversely affect construction workers and the public once disturbed and exposed during construction activities for the project (e.g., trenching for utilities) would be reduced through adherence to required Regional Board enforcement actions.

Therefore, even though the past land use as a metal forging facility has resulted in contamination of site soils, adherence to the Regional Board enforcement actions and any required remediation would reduce any exposure risks related to potential legacy contaminants to **less than significant with mitigation.**

MM-HAZ-1 **RWQCB Investigative Order.** Prior to initiation of ground disturbance, grading, or equipment mobilization, the Applicant shall contract a qualified environmental consultant to satisfy the required site-wide soil sampling investigation and work plan in accordance with the Los Angeles Regional Water Quality Control Board (RWQCB) requirements defined in the June 29, 2018 Investigative Order (No. R4-2018-0073) to ensure the health and safety of site workers, visitors, and the protection of the environment. In addition, prior to any soil disturbances, including excavation, stockpiling, or trenching, a soil management plan prepared by a qualified environmental consultant shall be submitted to and approved by the RWQCB. Ground disturbing activities can commence upon written authorization of the RWQCB.

5. ***Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?***

The proposed project would increase the number of visitors to the project site for the transport of vehicles for storage, but the total amount of visitors would be relatively small. No permanent road closures or other physical changes to access would occur under the project and it would not substantively interfere with applicable emergency response or evacuation plans. Therefore, the potential impact related to adopted emergency response and emergency evacuation plans would be **less than significant.**

2.9 Hydrology and Water Quality

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Would the project cause a violation of any adopted water quality standards or waste discharge requirements?	☐	☐	☒	☐
2. Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted?	☐	☐	☒	☐
3. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in on or off-site flooding or exceed the capacity of existing or planned stormwater drainage systems?	☐	☐	☒	☐
4. Would the project place new structures within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☒	☐
5. Would the project impede or redirect flood flows such that it would increase on or off-site flood potential?	☐	☐	☐	☒
6. Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☒	☐
7. Would the project be exposed to a substantial risk related to inundation by seiche, tsunami, or mudflow?	☐	☐	☒	☐

1. *Would the project cause a violation of any adopted water quality standards or waste discharge requirements?*

Construction

The project would include construction of a parking lot and outdoor vehicle storage yard that was previously occupied by an industrial manufacturing facility. The site currently contains approximately 120,000 sf of remnant concrete that would be left in place and incorporated into the proposed parking lot design. Project construction activities would include earthwork activities outside of the existing concrete area as light grading as well as excavation and trenching for utilities that would result in disturbance of soils on the project site. Exposed soils from construction activities can adversely affect site runoff that entrap soil particles and sediments and ultimately discharge off site. Dust from construction sites, in addition to spills or leaks from heavy equipment and machinery, staging areas, or building sites can also be potentially discharged to receiving waters. Typical pollutants could include petroleum products and heavy metals from equipment, as well as products such as paints, solvents, and cleaning agents, which could contain hazardous constituents.

Projects such as the proposed project are regulated by an NPDES General Permit for Storm Water Discharges Associated with Construction Activity (Order No. 2022-0057-DWQ, NPDES No. CAS000002), also known as the Construction General Permit. The Construction General Permit requires the development and implementation of a SWPPP, which describes BMPs the discharger would use to reduce polluted stormwater runoff. The SWPPP would incorporate effective BMPs, such as silt fences installed along limits of work and the project construction site, stockpile containment (e.g., Visqueen, fiber rolls, gravel bags), exposed soil stabilization structures (e.g., fiber matrix on slopes and construction access stabilization mechanisms), construction of temporary sedimentation basins, limitations on work periods during storm events, and street sweeping. A copy of the applicable SWPPP would be kept at the construction site. The SWPPP must contain a visual monitoring program, a chemical monitoring program for non-visible pollutants to be implemented if there is a failure of BMPs, and a sediment-monitoring plan, as the site discharges directly to a water body listed on the 303(d) list for sediment. Routine inspection of all BMPs is required under the provisions of the Construction General Permit. A copy of the applicable SWPPP would be kept at the construction site. In addition, surface water pollution prevention would prevent seepage of contaminants into the underlying groundwater.

Non-stormwater discharges during construction would include periodic application of water for dust control purposes. Because dust control is necessary during windy and dry periods to prevent wind erosion and dust plumes, water would be applied in sufficient quantities to wet the soil but not so excessively as to produce runoff from the construction site. Water applied for dust control would either quickly evaporate or locally infiltrate into shallow surface soils. These stipulations are routine in SWPPPs and other construction contract documents, which normally state that water would only be applied in a manner that does not generate runoff. Therefore, water applied for dust control would not result in appreciable effects on groundwater or surface water features and thus would not cause or contribute to exceedances of water quality objectives contained in the Los Angeles RWQCB Water Quality Control Plan (RWQCB 2019). As such, with implementation of required BMPs, potential impacts relating to violation of surface water and groundwater quality standards or waste discharge requirements during construction would be **less than significant**.

Operations

The proposed project site currently includes a remnant concrete area that represents approximately 31.6% of the proposed project site, with the remaining portion of the site being pervious. The proposed new parking lot would increase the impervious area of the site to approximately 92.9%. Increased impervious areas and non-point source pollutants associated with the proposed project could alter the types and levels of pollutants that could be present in project site runoff. Runoff from parking lots and landscaped areas can contain nonpoint source pollutants such as sediment, trash, oil, grease, heavy metals, pesticides, herbicides, and/or fertilizers. Concentrations of pollutants carried in urban runoff are extremely variable, depending on factors such as the volume of runoff reaching the storm drains, time since the last rainfall, and degree to which street cleaning occurs.

The City is enrolled under RWQCB Order No. R4-2010-0108, NPDES No. CAS004002, Waste Discharge Requirements for the Storm Water and Non-Storm Water Discharges from the MS4 within the Ventura County Watershed Protection District, County of Ventura and The Incorporated Cities Therein (MS4 Permit). Consistent with the Clean Water Act, it is RWQCB's intent that this order requires the implementation of BMPs to reduce, to the maximum extent practicable, the discharge of pollutants in urban storm water from MS4s, in order to support attainment of water quality standards. This order, therefore, includes receiving water limitations based upon water quality objectives, and requires implementation of control measures to protect the beneficial uses. It also prohibits the creation of nuisance and requires the reduction of water quality impairment in receiving waters with an ultimate goal of achieving water quality objectives of the receiving waters. The proposed project design includes bioswale drainage features that would be required to meet City Code Chapter 22: Article XII Storm Water Quality Management and MS4 Permit requirements for stormwater quality. These requirements include Low Impact Development BMPs be constructed as part of the project that can meet minimum thresholds for stormwater detention such that peak storm flows can infiltrate on site. With implementation of these required BMPs and Low Impact Development features that are sized to detain calculated peak storm flows, impacts would be **less than significant.**

2. ***Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted?***

Groundwater Supplies

Proposed construction activities would include the need for relatively minor amounts of water for soil compaction in trench backfill and dust control. This water demand would be temporary and relatively minor. As a result, construction activities would have a negligible effect on groundwater supplies and the impact would be **less than significant**. Water demand during operations would be limited to irrigation for the proposed 27,038 sf of landscaping. The City's water supply consists of three sources: imported surface water from Calleguas Municipal Water District (CMWD), local groundwater from United Water Conservation District (UWCD), and local groundwater from Oxnard's wells. Additionally, the City produces recycled water at its Advanced Water Purification Facility for delivery to select locations. The City purchases imported water from CMWD, which is a regional wholesale agency. CMWD obtains water from the Metropolitan Water District of Southern California (Metropolitan) and imported surface water from the State Water Project. According to the City's 2020 Urban Water Management Plan, the City is forecasted to meet all demands projected out to 2045 during normal, single dry year, and multiple dry year scenarios through management of the various water supply sources that include non-groundwater sources (i.e., imported surface water and recycled water) (City of Oxnard 2021a).

Based on the landscape plans prepared for the project, water demand per year for landscaping would be approximately 283,615 gallons, or 0.87 acre-feet per year (AFY). Assuming a normal year water demand, in 2025, the City is projected to supply a total of 28,810 AFY to its service area, or 25.72 million gallons a day. As such, the proposed project's anticipated demand of 0.87 AFY would be relatively small compared to the City's available supplies and the project would not substantially deplete groundwater supplies. Therefore, the potential impact would **less than significant.**

Groundwater Recharge

The proposed project would substantially increase the number of impervious surfaces at the site with the addition of new asphalt paving for the parking lot. While this would reduce the area that is currently pervious and currently allows for on-site infiltration, the proposed project would also include the construction of bioswale detention basins, which would be designed to infiltrate peak storm flows in accordance with the City's drainage control and MS4 Permit requirements. As a result, the bioswales would continue to allow for infiltration such that the net effect on the underlying groundwater supplies and groundwater table would be negligible. Impacts related to groundwater supplies and groundwater levels would be **less than significant.**

3. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in on or off-site flooding or exceed the capacity of existing or planned stormwater drainage systems?

The proposed project does not include any element that would alter the course of stream of a river. However, the project would alter drainage patterns through the increase in impervious surfaces even though runoff would continue to drain into McWane Boulevard, located directly to the south of the project site, and then on to the culvert that drains low flows beneath the railroad tracks (Jensen Design & Survey Inc. 2022). Nonetheless, as noted above, the project would be required to adhere to the City's drainage control requirements as well as MS4 Permit requirements which include the control of stormwater volumes and discharge rates from the site to avoid exceeding the capacity of the storm drain network or natural drainage systems. According to the drainage control report prepared for the proposed project, the calculated 10- through 100-year storm events result in peak flows of 39-65 cubic feet per second where the existing capacity of the three openings of the railroad track culvert are 8.3 cubic feet per second. However, the flows from the 32-acre drainage area, that include off-site areas, drain toward this culvert are already exceeding the existing capacity of this culvert during most storm events (Jensen Design & Survey Inc. 2022). Under current conditions, excess runoff spills over the railroad crossing as sheet flow. Any increases in runoff attributed to the proposed project would also spill over the crossing as in the existing condition and once runoff drains beyond the paved portion of McWane Boulevard, it would drain south to the Pacific Ocean (Jensen Design & Survey Inc. 2022). Increased peak flows attributed to the project would not have an impact on any public drainage facilities or result in on- or off-site flooding. Therefore, impacts would be **less than significant.**

4. Would the project place new structures within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

The project site is not located within the 100-year flood plain and is in an area defined as being in the 0.2% Annual Chance Flood Hazard (500-year flood) or 1% annual chance with average flood depths of less than 1 foot (FEMA 2023). The proposed project also does not include the construction of any above ground structures. Thus, the proposed project would not place new structures within the 100-year flood plain; impacts related to flood hazards would be **less than significant.**

5. ***Would the project impede or redirect flood flows such that it would increase on or off-site flood potential?***

As noted above, the proposed project does not include the construction of any substantive above-ground improvements and is also located outside of any identified 100-year flood zone. As a result, there would be **no impact** related to impeding or redirecting flood flows.

6. ***Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?***

As noted above, the proposed project site is not located in a 100-year flood zone (FEMA 2023). Several dams are located at least 35 miles to the east and northeast of the City of Oxnard within Ventura and Los Angeles Counties. These include the Santa Felicia Dam at Lake Piru, the Castaic Lake Dam, and the Pyramid Lake Dam (City of Oxnard 2006). The major threat to Oxnard is upstream along the Santa Clara River corridor. The potential for a catastrophic dam failure is considered low largely due to the oversight given by the California Division of Safety of Dams. However, should one or more of these dams fail, the entire City is located within the Dam Inundation Zone, also called Dam Failure Hazard Area. Given the low likelihood of such an event combined with the characteristics of the proposed project and modest improvements included, the potential impact due to flooding from dam or levee failure is considered **less than significant.**

7. ***Would the project be exposed to a substantial risk related to inundation by seiche, tsunami, or mudflow?***

Seiche wave hazards are typically a threat for locations adjacent to enclosed or semi-enclosed bodies of water. The proposed project site is not located in close proximity to any enclosed or semi-enclosed bodies of water and as a result would have a **less than significant** impact related to seiche waves.

According to mapping compiled by the California Geological Survey, the project is outside of the identified tsunami hazard area but is located immediately adjacent to the hazard zone (CGS 2023b). Regardless, even if the project site were to be inundated by a tsunami, the nature of the proposed project does not include substantive improvements and likely does not include many people on site at any one time. Therefore, considering that the site is located outside of the identified tsunami hazard zone and because it does not include substantive improvements or populous land uses, the potential impact would be considered **less than significant.**

The project site is located in a relatively level area that is not adjacent to any substantive slopes. As noted above, the project site is located within the inundation area of a catastrophic failure of one of three dams along the Santa Clara River corridor. Failure of one of these dams could include mudflows and/or debris flows in addition to flooding. However, as discussed above, these dams are regulated by the California Division of Safety of Dams and as a result the potential for catastrophic failure is considered low. Therefore, combined with the fact that the proposed project includes limited improvements, the potential impact related to mudflows would be considered **less than significant.**

2.10 Land Use and Planning

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Would the project conflict with an applicable land use plan, policy or regulation of the City or other agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating a significant environmental effect?	☐	☐	☒	☐
2. Would the project involve land uses that are not allowed under any applicable airport land use compatibility plan?	☐	☐	☐	☒
3. Would the project conflict with an applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒
4. Would the project physically divide an established community?	☐	☐	☒	☐

1. Would the project conflict with an applicable land use plan, policy or regulation of the City or other agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating a significant environmental effect?

The majority of the project site is designated as Light Industrial (ILT) in the City's General Plan, while a small corner of the southwest portion of the site is designated as Industry Priority to Coastal Development (ICD). The project site is zoned Light Manufacturing (M1) (City of Oxnard 2023). The proposed project would include a parking lot and outdoor vehicle storage yard, which would be consistent with the existing General Plan land use designation. With a Special Use Permit, the project would also be consistent with the zoning of the site and would conform to the applicable zoning ordinances outlined in the City's Municipal Code.

The following General Plan Community Development chapter goals and policies are relevant to the proposed project.

Goal CD-1 A balanced community consisting of residential, commercial, and employment uses consistent with the character, capacity, and vision of the City.

Goal CD-5 Development of industrial uses in appropriate areas, assistance in the location of new industry, retention and expansion of existing industry, and maintenance of the City's economic vitality.

Policy CD-5.1 *Industrial Clustering.* Encourage the clustering of industrial uses into areas that have common needs and are compatible in order to maximize their efficiency.

Policy CD-5.2 *Compatible Land Use.* Ensure adequate separation between sensitive land uses (residential, educational, open space, healthcare) to minimize land use incompatibility associated with noise, odors, and air pollutant emissions.

Policy CD-5.3 *Available Services.* Encourage industrial activities to locate where municipal services are available including adequate storm drainage and water facilities, as well as easy access to multiple modes of transportation.

Policy CD-5 *"Green" Major Transportation Routes*. Guide industrial development to locate near transportation facilities capable of handling goods movements in an efficient manner without decreasing the level of service on the transportation network or dividing existing neighborhoods.

Policy CD-9.2 *Revitalization and Redevelopment*. As part of the City's redevelopment programs and planning, promote the revitalization of residential, commercial, and industrial properties that are deteriorated or detract from the visual quality of the City.

The project would include redevelopment and revitalization of an underutilized site that has been previously developed with industrial uses. As discussed above, the project would include development of a parking lot and outdoor vehicle storage yard, as well as associated landscaping, lighting, a wall/fencing, and bioswale. The site currently contains approximately 120,000 sf of remnant concrete surface and is surrounded by a vehicle storage project to the north, an auto parts manufacturer to the northeast, and a disturbed undeveloped parcel to the east. Therefore, the project would be located in an appropriate area, consistent with the existing uses nearby. Thus, the project would be consistent with Goal CD-1, Goal CD-5, and Policy CD-5.11. Open space land is located to the west and the southwest of the project site, while agricultural land is located directly to the south. As shown in Figure 3, the proposed project would include a landscape buffer around the perimeter of the project, which would allow separation between the project and existing open space, consistent with Policy CD-5.2. Similarly, as discussed in Section 2.17, Utilities and Energy, the project would not result in significant impacts to utility infrastructure, including drainage and water facilities. Therefore, the project would be consistent with Policy CD-5.3. The project would generate less trips as compared to existing conditions and is therefore not anticipated to decrease the level of service (LOS) on the transportation network. As discussed under Threshold 4, below, the project would not divide existing neighborhoods. Lastly, as discussed above, the project would include redevelopment and revitalization of an underutilized site, consistent with Policy CD-9.2. Therefore, the project would be consistent with the City's General Plan and Municipal Code and would not conflict with an applicable land use plan, policy, or regulation of the City or other agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating a significant environmental effect. Impacts would be less than significant.

2. Would the project involve land uses that are not allowed under any applicable airport land use compatibility plan?

The project site is not located within an airport land use compatibility plan or in the vicinity of an airport. Therefore, no impact would occur.

3. Would the project conflict with an applicable habitat conservation plan or natural community conservation plan?

As discussed in Section 2.4, Biological Resources, Threshold 5, the project site is not within any habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. Therefore, **no impact** would occur.

4. Would the project physically divide an established community?

The project site currently contains approximately 120,000 sf of remnant concrete surface and is surrounded by undeveloped land to the west, agricultural land to the south, vehicle and trailer storage to the north, and undeveloped but disturbed land to the east, which hosts additional trailer storage. As discussed under Threshold 1, above, the project would include development of a parking lot and outdoor vehicle storage yard, as well as associated landscaping, lighting, a wall/fencing, and bioswale. More specifically, the project would include a combination of screen wall (along Arcturus Avenue) and fence, to be provided around the perimeter of the project site. However, as this component would be located within the perimeter of the project site only, it would not divide an established community. Impacts would be **less than significant.**

2.11 Mineral Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Would the project result in the loss of availability of a known mineral resource of value to the region or state?	☐	☐	☐	☒
2. Would the project result in the loss of availability of a locally important mineral resource recovery site delineated in the 2030 General Plan, specific plan or other land use plan?	☐	☐	☐	☒

1. Would the project result in the loss of availability of a known mineral resource of value to the region or state?

The project site is located in an area of no significant aggregate deposits (CDMG 1993). In addition, the project site is not located within an oil/gas field. The closest field, the Oxnard oil field, is located approximately 1.5 miles northeast of the project site (CalGEM 2023). As a result, the project would not result in the loss of availability of a known mineral resource of value to the region or state. **No impact** would occur.

2. Would the project result in the loss of availability of a locally important mineral resource recovery site delineated in the 2030 General Plan, specific plan or other land use plan?

Chapter 5 of the City General Plan Draft Background Report (City of Oxnard 2006) provides a description and associated map of the sand, gravel, oil, and gas resources found throughout the 2030 General Plan planning area. The Background Report also identifies State and local regulations pertaining to the protection of these resources. Based on this report, the project site is located within Mineral Resource Zone MRZ-3, which is an area containing mineral deposits, the significance of which cannot be evaluated from available data. As a result, the project would not result in the loss of availability of a locally important mineral resource recovery site delineated in the 2030 General Plan, specific plan, or other land use plan. **No impact** would occur.

2.12 Noise

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Would the project generate or expose persons to noise levels in excess of standards established in the Oxnard 2030 General Plan or Noise Ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
2. Would the project generate or expose persons to excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
3. Would the project generate a substantial temporary or periodic increase in ambient noise in the project vicinity above levels existing without the project?	☐	☐	☒	☐
4. Would the project generate a substantial permanent increase in ambient noise in the project vicinity above levels existing without the project?	☐	☐	☒	☐
5. For a project located within the airport land use plan for Oxnard Airport or within two miles of Naval Base, Ventura County at Point Mugu, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐
6. Would the project expose non-human species to excessive noise?	☐	☒	☐	☐

Environmental Setting / Regulatory Background

Noise Characteristics

Pressure fluctuations, traveling as waves through air from a source, exert a force perceived by the human ear as sound. Sound pressure level (referred to as sound level) is measured on a logarithmic scale in decibels that represent the fluctuation of air pressure above and below atmospheric pressure. Frequency, or pitch, is a physical characteristic of sound and is expressed in units of cycles per second or hertz. The normal frequency range of hearing for most people extends from about 20 to 20,000 hertz. The human ear is more sensitive to middle and high frequencies, especially when the noise levels are quieter. To accommodate for this phenomenon, a weighting system to evaluate how loud a noise level is to a human was developed. The frequency weighting called "A" weighting is used for typical environmental sound levels which de-emphasizes the low frequency components of the sound in a manner similar to the response of a human ear. This A-weighted sound level is also often referred to as the "noise level" and is referenced in units of dBA (refer to Attachment D for definitions of acoustical terms). Table 7 provides examples of A-weighted noise levels from common sound sources.

Since sound is measured on a logarithmic scale, a doubling of sound energy results in a 3 dBA increase in the noise level. Changes in a community noise level of less than 3 dBA are not typically noticed by the human ear (Caltrans 2013). Changes from 3 to 5 dBA may be noticed by some individuals who are extremely sensitive to changes in noise. A 5 dBA increase is readily noticeable. The human ear perceives a 10 dBA increase in sound level as a doubling of the sound level (i.e., 65 dBA sounds twice as loud as 55 dBA to a human ear).

Table 7. Typical Sound Levels in the Environment and Industry

Common Outdoor Activities	Noise Level (dB)	Common Indoor Activities
—	110	Rock band
Jet flyover at 1,000 feet	100	—
Gas lawn mower at 3 feet	90	—
Diesel truck at 50 feet, at 50 mph	80	Food blender at 3 feet Garbage disposal at 3 feet
Noisy urban area, daytime gas lawn mower at 100 feet	70	Vacuum cleaner at 10 feet
Commercial area Heavy traffic at 300 feet	60	Normal speech at 3 feet
Quiet urban daytime	50	Large business office Dishwasher, next room
Quiet urban nighttime	40	Theater, large conference room (background)
Quiet suburban nighttime	30	Library
Quiet rural nighttime	20	Bedroom at night, concert hall (background)
—	10	Broadcast/recording studio
Lowest threshold of human hearing	0	Lowest threshold of human hearing

Source: Caltrans 2013.
Notes: mph = miles per hour.

An individual's noise exposure occurs over a period of time; however, noise level is a measure of noise at a given instant in time. Community noise sources vary continuously, being the product of many noise sources at various distances, all of which constitute a relatively stable background or ambient noise environment. Several rating scales have been developed to analyze the adverse effect of community noise on people. Since environmental noise fluctuates over time, these scales consider that the effect of noise upon people is largely dependent upon the total noise level, as well as the time of day when the noise occurs. Table 8 provides a listing of methods to measure sound over a period of time.

Noise levels are generally higher during the daytime and early evening when traffic (including airplanes), commercial, and industrial activity is the greatest. However, noise sources experienced during nighttime hours when background levels are generally lower can be potentially more conspicuous and irritating to the receiver.

Table 8. Noise Descriptors

Term	Definition
Decibel (dB)	The unit for measuring the volume of sound equal to 10 times the logarithm (base 10) of the ratio of the pressure of a measured sound to a reference pressure (20 micropascals).
A-Weighted Decibel (dBA)	A sound measurement scale that adjusts the pressure of individual frequencies according to human sensitivities. The scale accounts for the fact that the region of highest sensitivity for the human ear is between 2,000 and 4,000 cycles per second (hertz).
Equivalent Sound Level (Leq)	The sound level containing the same total energy as a time varying signal over a given time period. Leq is the value that expresses the time averaged total energy of a fluctuating sound level.
Maximum Sound Level (Lmax)	The highest individual sound level (dBA) occurring over a given time period.
Minimum Sound Level (Lmin)	The lowest individual sound level (dBA) occurring over a given time period.
Community Noise Equivalent Level (CNEL)	A rating of community noise exposure to all sources of sound that differentiates between daytime, evening, and nighttime noise exposure. Similar to Ldn except adjustments are +5 dBA for the evening (7:00 p.m. to 10:00 p.m.) and +10 dBA for the night (10:00 p.m. to 7:00 a.m.).
Day/Night Average (Ldn)	The Ldn is a measure of the 24-hour average noise level at a given location, based on a measure of the hourly average noise levels (Leq). The Ldn is calculated by averaging the Leq's for each hour of the day at a given location after penalizing the "sleeping hours" (defined as 10:00 p.m. to 7:00 a.m.) by 10 dBA to account for the increased sensitivity of people to noises that occur at night.
Exceedance Level (Ln)	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% (L01, L10, L50, L90, respectively) of the time during the measurement period.

Source: Harris 1979.

Vibration Characteristics

In contrast to airborne noise, groundborne vibration is not a common environmental problem. Some common sources of groundborne vibration are construction activities such as blasting, pile driving, and operating heavy earth-moving equipment. Trains and similar rail vehicles can also produce vibration. It is unusual for vibration from sources such as buses and trucks to be perceptible. In quantifying vibration, the peak particle velocity (ppv) is most frequently used to describe vibration impacts and is typically measured in inches per second (in/sec). Caltrans employs a vibration damage threshold of 0.2 ppv in/sec for older wood frame structures including residences, and a vibration annoyance threshold for humans of 0.1 ppv in/sec (Caltrans 2020).

Sensitive Receptors

Noise- and vibration-sensitive land uses are locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Residences, schools, hospitals, and guest lodging are considered noise- and vibration-sensitive. Sensitive receptors near the proposed project site include the following:

- Single-family residences that are located along the north side of Hueneme Road, between Arcturus Avenue and Saviers Road, approximately 2,200 feet to the north of the project site.

The above sensitive receptors represent the nearest residential land uses with the potential to be impacted by construction and operation of the proposed project. Additional sensitive receptors are located farther from the project site, in the surrounding community, and would be less impacted by noise and vibration levels from the proposed project.

Existing Noise Conditions

The project site is located at the northwestern corner of the intersection of Arcturus Avenue and East McWane Boulevard, streets that provide vehicular access to an industrial block of properties on the south side of Hueneme Road on the west side of Edison Street. Noise sources contributing to the ambient noise environment of the project site and surroundings include vehicle maneuvers and materials handling on the adjacent industrial properties, and traffic along Arcturus Avenue and East McWane Boulevard.

As indicated above, the closest noise sensitive land uses in the project vicinity consist of existing single-family residences located along the north side of Hueneme Road, between Arcturus Avenue and Saviers Road. According to a recent EIR (Port of Hueneme Temporary Outdoor Vehicle Storage Facility Project; City of Oxnard 2021b), Hueneme Road in the vicinity of the residences closest to the project site currently carries approximately 19,350 average daily trips (ADT). Based upon this ADT, Dudek used the Federal Highway Administration’s Traffic Noise Model (TNM 2.5) to determine the existing noise level in the vicinity of the Hueneme Road residences. The existing noise level at these residences is approximately 66 dBA L_{eq} during the daytime, or 67 dBA Community Noise Equivalent Level (refer to Appendix E, Construction Noise Modeling Data).

Regulatory Setting

City of Oxnard General Plan

The 2030 General Plan sets out a vision to guide future development in the City to the year 2030. Applicable goals and policies from the 2030 General Plan Safety and Hazards Chapter (Chapter 6) are listed below (City of Oxnard 2022).

Goal SH-6 Consideration of noise levels and impacts in the land use planning and development process.

Policy SH-6.1 Construction Noise Control. Provide best practices guidelines to developers for reducing potential noise impacts on surrounding land uses.

Policy SH-6.2 Limiting Construction Activities. Continue to limit construction activities to the hours of 7 a.m. to 7 p.m., Monday through Saturday. No construction shall occur after hours, on Sundays, or national holidays without permission from the City.

Policy SH-6.4 New Development Noise Compatibility. Require that proposed development projects not generate more noise than classified as "satisfactory" based on CEQA Thresholds of Significance on nearby property.

Policy SH-6.5 Land Use Compatibility with Noise. Encourage non-noise sensitive uses to locate in areas that are permanently committed to noise producing land uses, such as transportation corridors and industrial zones.

Policy SH-6.9 Minimize Noise Exposure to Sensitive Receptors. Prohibit the development of new commercial, industrial, or other noise generating land uses adjacent to existing residential uses, and other sensitive noise receptors such as schools, child and daycare facilities, health care facilities, libraries, and churches if noise levels are expected to exceed 70 dBA.

Oxnard City Code

The City has also adopted a Noise Ordinance (Oxnard City Code Chapter 7, Article XI), which identifies noise standards by land use, exemptions, and variances for sources of noise within the City. The Noise Ordinance applies to all noise sources with the exception of any vehicle that is operated upon any public highway, street or right of way, which are regulated separately under the State Vehicle Code. The Noise Ordinance standards are identified in Table 9.

Table 9. City of Oxnard Noise Standards

Sound Zone	Type of Land Use	7:00 a.m. to 10:00 p.m.	10:00 p.m. to 7:00 a.m.
Allowable Exterior Noise Levels			
I	Residential	55 dBA L_{eq}	50 dba L_{eq}
II	Commercial	65 dBA L_{eq}	60 dba L_{eq}
III	Industrial	70 dBA L_{eq}	70 dba L_{eq}
IV	As identified in 2020 General Plan Figure IX-2		
Allowable Interior Noise Levels			
All	Residential	50 dBA L_{eq}	45 dba L_{eq}
Source: City of Oxnard, Oxnard City Code Chapter 7, Article XI			

Oxnard City Code Section 7-188(D) regulates noise from construction, repair, remodeling or grading activities of any real property in the City. Exterior demolition and construction activities that generate noise are permitted between the hours of 7:00 a.m. and 6:00 p.m. Monday through Saturday. These activities are prohibited at any time on Sundays and all federal holidays.

Project Impacts

1. ***Would the project generate or expose persons to noise levels in excess of standards established in the Oxnard 2030 General Plan or Noise Ordinance, or applicable standards of other agencies?***

The proposed project would involve the delivery of vehicles and shipping containers via transport truck, unloading of these items and placement in striped parking spaces for short-term storage, and retrieval of the items and removal from the site by transport trucks. The number of daily trips for truck transport operations would be less than the number of trips associated with the former Arcturus manufacturing facility that occupied the site. Therefore, traffic noise levels along roadways serving the site would be lower than the previous manufacturing use, and consequently would represent a **less than significant impact** with respect to noise-sensitive receivers located along such roadways.

With respect to on-site activities, a comprehensive study of noise levels associated with surface parking lots including industrial parking lots with cargo delivery truck activity was published in the Journal of Environmental Engineering and Landscape Management (Baltrënas et al. 2004). The study concluded that average noise levels from truck loading/unloading areas was 96 dBA at 1 meter (3 feet) from the boundary of the truck activity area. The truck maneuver lane on the project site is no closer than 60 feet from the project site property boundary. Using the outdoor attenuation rate of 6 dBA with each doubling of distance, truck loading activity along the closest (western) property line would produce noise levels of approximately 70 dBA $L_{eq,}$ with noise levels along the northern property boundary at 68 dBA $L_{eq,}$ and along the southern property boundary at 68 dBA $L_{eq.}$ As such, truck loading and unloading activity on site would not generate noise at the property line in excess of the Oxnard municipal code limit of 70 dBA $L_{eq.}$ On-site truck activity noise would therefore constitute a **less than significant impact.**

A proposed sump pump associated with the southern vegetated swale would be installed in an underground vault. Noise levels for the sump pump, which would only operate during rain events, would not be audible off site. Sump pump operational noise would be a **less than significant impact.**

2. ***Would the project generate or expose persons to excessive groundborne vibration or groundborne noise levels?***

Construction activities that might expose persons to excessive ground-borne vibration or ground-borne noise could cause a potentially significant impact. Ground-borne vibration information related to construction activities has been collected by Caltrans (2020). Information from Caltrans indicates that continuous vibrations with a ppv of approximately 0.1 in/sec begin to annoy people, while structural damage to modern buildings can begin at 0.2 in/sec ppv. Heavier pieces of construction equipment, such as bulldozers, generate vibration of approximately 0.089 in/sec ppv or less at a distance of 25 feet, while heavy loaded trucks (including concrete mixing trucks) generate vibration of approximately 0.076 in/sec at 25 feet (Caltrans 2020). Ground-borne vibration is typically attenuated over short distances. The nearest existing building (a warehouse) building to construction on the project site is separated by a minimum of 25 feet; at 25 feet, vibration from heavy construction equipment would be reduced to no greater than 0.089 in/sec ppv. This vibration level would be well below both the 0.2 in/sec ppv structural damage and 0.1 in/sec human annoyance threshold. Vibration is very subjective, and some people may be annoyed at continuous vibration levels near the level of perception (or approximately 0.01 in/sec ppv). However, this level of sensitivity is unlikely to exist where exposure would be during the day and for a relatively short duration while site preparation activities are occurring for the project. Project vibration impacts would therefore be **less than significant**.

3. ***Would the project generate a substantial temporary or periodic increase in ambient noise in the project vicinity above levels existing without the project?***

Construction noise and vibration are temporary phenomena. Noise impacts from construction activities are a function of the noise generated by construction equipment, equipment location, noise-sensitivity of nearby land uses, and timing and duration of the construction activities. The nearest sensitive receptors are single-family homes along the north side of Hueneme Road, east of Saviers Road, approximately 2,200 feet north of the project site.

Construction noise is difficult to quantify because of the many variables involved, including the specific equipment types, size of equipment used, percentage of time, condition of each piece of equipment, and number of pieces of equipment that would actually operate on site. The range of maximum noise levels for various types of construction equipment at a distance of 50 feet is depicted in Table 10. The noise values represent maximum noise generation, or full-power operation of the equipment. As one increases the distance between equipment, and/or the separation of areas with simultaneous construction activity, dispersion and distance attenuation reduce the effects of separate noise sources added together. In addition, typical operating cycles may involve 2 minutes of full-power operation, followed by 3 or 4 minutes at lower levels. The average noise level during construction activity is lower, since maximum noise generation generally occurs less than 50% of the time. Noise levels from construction operations decrease at a rate of approximately 6 dBA per doubling of distance from the source to a receiver point.

Table 10. Construction Equipment Noise Emission Levels

Equipment	Typical Sound Level (dBA) 50 Feet from Source
Backhoe	80
Air compressor	81
Generator	81
Compactor	82
Concrete pump	82
Crane, mobile	83
Concrete mixer	85
Dozer	85
Grader	85
Loader	85
Pneumatic tool	85
Truck	88

Source: FHWA 2006.

The nearest point of construction activities to the closest noise-sensitive receivers (single-family residences located to the north) would be approximately 2,200 feet. This separation distance would address construction activities along the northern project site boundary but would not be representative of more typical construction noise, because in general the construction activities would be distributed across the site. However, the shortest distance is used to provide a conservative (worst-case) analysis of construction noise levels at the closest noise-sensitive receivers.

The Federal Highway Administration's Roadway Construction Noise Model (RCNM) (FHWA 2006) was used to estimate construction noise levels at these closest noise-sensitive land uses. Although the model was developed by the Federal Highway Administration, RCNM is often used for non-roadway projects, because the same types of construction equipment used for roadway projects are also used to construct other project types. Input variables for RCNM consist of the receiver/land use types, the equipment type and number of each (e.g., two graders, a loader, a tractor), the duty cycle for each piece of equipment (e.g., percentage of each hour the equipment typically works per day), and the distance from the noise-sensitive receiver. No topographical or structural shielding was assumed in the modeling of construction noise (i.e., the receivers are modelled with no obstacles to the travel of sound between the construction activity and receiver location, a worst-case assumption). The noise levels from the proposed construction activities are summarized in Table 11. The complete set of RCNM input and output data for construction noise is provided in Appendix E. As shown in Table 11, at the nearest residences, maximum construction noise levels would range from approximately 46 to 50 dBA L_{max} when construction is taking place at or near the northern project site boundary, with average noise levels ranging from 42 to 46 dBA L_{eq}.

Table 11. Construction Noise Model Results Summary

Construction Phase	Construction Noise at Closest Noise Sensitive Receiver Distance	
	Maximum Construction Noise Levels (L_{max})	Average Construction Noise Levels (L_{eq})
Site Preparation	49	45
Storm Drain / Lighting Installation	46	42
Paving	50	46

Notes: L_{eq} = equivalent continuous sound level.

As presented in Table 11, the maximum construction noise levels at the closest residences would be no greater than 50 dBA L_{max} compared to a modeled existing daytime noise level of 67 dBA L_{eq} at these residences from traffic along Hueneme Road. As such, construction noise would not noticeable above existing ambient noise levels at these residence, and therefore daytime construction would result in a **less than significant impact.**

The City regulates construction noise by restricting the allowable hours of construction. Exterior demolition and construction activities that generate noise are permitted between the hours of 7:00 a.m. and 6:00 p.m. Monday through Saturday. The project would be required to comply with City Code, thereby avoiding nighttime noise disturbances. Therefore, temporary construction-related noise impacts for the project would be **less than significant.**

4. *Would the project generate a substantial permanent increase in ambient noise in the project vicinity above levels existing without the project?*

The proposed project would generate fewer traffic trips than the former Arcturus manufacturing facility that occupied the site. The proposed project would not involve structures or on-site manufacturing processes, and therefore on-site operational noise levels are anticipated to be lower than the former Arcturus manufacturing facility that occupied the site. Consequently, the project would not cause a substantial increase in ambient noise levels in the vicinity. Impacts related to project traffic and on-site operational noise are therefore **less than significant.**

5. ***For a project located within the airport land use plan for Oxnard Airport or within two miles of Naval Base, Ventura County at Point Mugu, would the project expose people residing or working in the project area to excessive noise levels?***

According to the Naval Base Ventura County (NBVC) Point Mugu Air Installations Compatible Use Zones (US Naval Department 2015), the project site is located outside of the 60–65 dBA Community Noise Equivalent Level noise contour for Point Mugu. Consequently, employees and transport drivers at the project site would not be exposed to elevated noise levels. The project does not include any residences. Airport-related noise exposure for the project would be a **less than significant impact.**

6. ***Would the project expose non-human species to excessive noise?***

The proposed project would generate fewer traffic trips than the former Arcturus manufacturing facility that occupied the site. The proposed project would not involve structures or on-site manufacturing processes, and therefore on-site operational noise levels are anticipated to be lower than the former Arcturus manufacturing facility that occupied the site. As discussed in Section 2.4, temporary, indirect impacts (noise, traffic, construction activities, ground vibrations, human presence) may affect wildlife species surrounding the construction site, especially nesting birds, when in season. Absent mitigation, impacts to nesting bird species is considered potentially significant. However, with the implementation of **MM-BIO-3** (Pre-Construction Nesting Bird Survey) impacts would be **less than significant with mitigation.**

2.13 Population, Education, and Housing

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Would the project involve a General Plan amendment that could result in an increase in population over that projected in the 2030 General Plan that may result in one or more significant physical environmental effects?	☐	☐	☐	☒
2. Would the project induce substantial growth on the project site or surrounding area, resulting in one or more significant physical environmental effects?	☐	☐	☐	☒
3. Would the project result in a substantial (15 single--family or 25 multi-family dwelling units about one-half block) net loss of housing units through demolition, conversion, or other means that may necessitate the development of replacement housing?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4. Would the project result in a net loss of existing housing units affordable to very low- or low-income households (as defined by federal and/or City standards), through demolition, conversion, or other means that may necessitate the development of replacement housing?	☐	☐	☐	☒
5. Would the project cause an increase in enrollment at local public schools that would exceed capacity and necessitate the construction of new or expanded facilities?	☐	☐	☐	☒
6. Would the project directly or indirect interfere with the operation of an existing or planned school?	☐	☐	☐	☒

1. Would the project involve a General Plan amendment that could result in an increase in population over that projected in the 2030 General Plan that may result in one or more significant physical environmental effects?

2. Would the project induce substantial growth on the project site or surrounding area, resulting in one or more significant physical environmental effects?

3. Would the project result in a substantial (15 single–family or 25 multi-family dwelling units about one-half block) net loss of housing units through demolition, conversion, or other means that may necessitate the development of replacement housing?

4. Would the project result in a net loss of existing housing units affordable to very low-or low-income households (as defined by federal and/or City standards), through demolition, conversion, or other means that may necessitate the development of replacement housing?

The project would include development of a parking lot and outdoor vehicle storage yard, as well as associated landscaping, lighting, a wall/fencing, and bioswale. The project would not include construction, conversion, or demolition of residential uses. In addition, no General Plan Amendment is proposed which would result in an increase in population. The project site would be used to store shipping containers and vehicles; however, there are not anticipated to be any employees or security personnel stationed on site. Therefore, **no impact** associated with population, growth, or housing would occur.

5. ***Would the project cause an increase in enrollment at local public schools that would exceed capacity and necessitate the construction of new or expanded facilities?***

6. ***Would the project directly or indirect interfere with the operation of an existing or planned school?***

As discussed above, under Thresholds 1 through 4, no employees or security personnel are anticipated to be stationed on site. Therefore, the project would not create an influx of new residents to the City requiring public services such as schools and **no impact** would occur.

2.14 Public Services and Recreation

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Would the project increase demand for fire protection service such that new or expanded facilities would be needed to maintain acceptable service levels, the construction of which may have significant environmental effects?	☐	☐	☐	☒
2. Would the project increase demand for law enforcement service such that new or expanded facilities would be needed to maintain acceptable service levels, the construction of which may have significant environmental effects?	☐	☐	☐	☒
3. Would the project increase the use of existing park facilities such that substantial physical deterioration of the facilities would occur or be accelerated or that new or expanded park facilities would be needed to maintain acceptable service levels?	☐	☐	☐	☒
4. Would the project increase the need for or use of existing library or other community facilities such that substantial physical deterioration of the facilities would occur or be accelerated?	☐	☐	☐	☒

1. ***Would the project increase demand for fire protection service such that new or expanded facilities would be needed to maintain acceptable service levels, the construction of which may have significant environmental effects?***

No structures are proposed as a part of the project, which would represent a reduction in fire protection demand compared to the former manufacturing land use on the site. The project operational activities of vehicle and shipping container storage would generate negligible demands for fire protection. Therefore, the project would have **no impact** on fire protection services.

2. *Would the project increase demand for law enforcement service such that new or expanded facilities would be needed to maintain acceptable service levels, the construction of which may have significant environmental effects?*

Although the project site is currently vacant, it is within the existing service area for police service and already requires police protection in case of potential criminal activity on the site. The presence of vehicles and shipping containers could increase the potential for burglaries at the site; however, security fencing and motion-sensor lighting should minimize the incidence of burglaries and avoid significant new demands for police protection. The project would have **no impact** on demand for law enforcement services.

3. *Would the project increase the use of existing park facilities such that substantial physical deterioration of the facilities would occur or be accelerated or that new or expanded park facilities would be needed to maintain acceptable service levels?*

A limited number of employment opportunities would be associated with the project during construction; no employees are expected during operations. Therefore, the project would not be expected to create a significant influx of new residents to the City requiring public services such as parks. Consequently, there would be no significantly increased use of or demand for parks or recreational facilities, and expansion of parks or recreational facilities would not be necessary. The project would have **no impact** on recreational facilities.

4. *Would the project increase the need for or use of existing library or other community facilities such that substantial physical deterioration of the facilities would occur or be accelerated?*

A limited number of employment opportunities would be associated with the project during construction; no employees are expected during operations. Therefore, the project would not be expected to create a significant influx of new residents to the city. The project would not create a substantial increase in demand for library or community facilities and therefore no new or physically altered public service facilities would be required. The project would have **no impact** on public services such as libraries or community facilities.

2.15 Transportation and Circulation

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Would the project cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections) based on adopted City of Oxnard level of service (LOS) standards?	☐	☐	☒	☐
2. Would the project exceed, either individually or cumulatively, and LOS standard established by the Ventura County Congestion Management Program (CMP) for designated roads or highways?	☐	☐	☒	☐
3. Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☒	☐
4. Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
5. Would the project result in inadequate emergency access?	☐	☐	☒	☐
6. Would the project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☒	☐
7. Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3 subdivision (b).	☐	☐	☐	☒

This section analyzes the potential impacts of the project based on CEQA Guidelines Section 15064.3(b), which focuses on adopted criteria of VMT for determining the significance of transportation impacts. Pursuant to SB 743, the focus of transportation analysis changed from LOS or vehicle delay to VMT. The related updates to the CEQA Guidelines required under SB 743 were approved on December 28, 2018. This methodology was required to be used statewide beginning July 1, 2020. For the purposes of this section, the VMT analysis methodology and thresholds identified within the guidance provided in the California Governor's Office of Planning and Research (OPR) Technical Advisory on Evaluating Transportation Impacts in CEQA (OPR 2018) have been used since the City of Oxnard has not yet adopted VMT analysis guidelines.

Project Trip Generation

This section uses the Trip Generation and Parking Analysis for the Hager Pacific Logistics Facility Special Use Permit (SUP) Application – City Oxnard, February 2023, prepared by Associated Transportation Engineers (Appendix F). The existing use trip generation was estimated by using the trip generation rates for manufacturing facility from the Institute of Transportation Engineers, Trip Generation, 11th Edition. The proposed use trip generation for container deliveries and vehicle carriers was estimated based on the past operational experience from similar facilities in the vicinity and the anticipated shipping volumes at the Port over the next several years. The average duration a container is anticipated to remain on site is 5–7 days. The proposed project would operate Monday through Friday from 6:00 a.m. to 6:00 p.m. with no on-site employees. During a peak operational day, there could be up to 50 ship containers transported to/from the Port to the facility or when vehicles are transported to/from the Port to the facility there could be up to 65 vehicle carriers. To account for the effect of heavy vehicles, a passenger car equivalent (PCE) factor of 2.0 was applied to the existing and proposed truck trips.

As shown in the Table 12, Project Trip Generation, when containers are transported to/from the Port, the proposed project would generate 100 daily trips, 10 AM peak hour trips and 10 PM peak hour trips or 200 daily PCE trips, 20 AM peak hour PCE trips and 20 PM peak hour PCE trips. When vehicles are transported to/from the Port using car carriers, the proposed project would generate 130 daily trips, 13 AM peak hour trips and 13 PM peak hour trips or 260 daily PCE trips, 26 AM peak hour PCE trips and 26 PM peak hour PCE trips.

Table 12. Project Trip Generation

			Weekday Peak Hour Trips					
			AM			PM		
Project Component	Quantity	ADT	Total	In	Out	Total	In	Out
Proposed Project (Non-PCE)								
Truck Deliveries - Containers	50 Truck Loads	100	10	5	5	10	5	5
Truck Deliveries – Vehicles Carriers	65 Truck Loads	130	13	7	6	13	6	7
Proposed Project (PCE)								
Truck Deliveries - Containers	50 Truck Loads	200	20	10	10	20	10	10
Truck Deliveries – Vehicles Carriers	65 Truck Loads	260	26	14	12	26	12	14

Source: Appendix F.
Notes: ADT = average daily trips; PCE = passenger car equivalent.

As shown in the Table 13, Existing Trip Generation, the existing manufacturing facility is estimated to generate 291 daily trips, 42 AM peak hour trips and 45 PM peak hour trips. Applying the PCE factor, the existing use generates 318 daily PCE trips, 44 AM peak hour PCE trips and 47 PM peak hour trips.

Table 13. Existing Trip Generation

Land use	Size	ADT	AM Peak Hour	PM Peak Hour
Existing use (Non-PCE)				
Manufacturing Space – Total Trips	61,200 SF	291	42	45
Truck Trips	—	27	2	2
Non-Truck Trips	—	264	40	43
Existing use (PCE)				
Manufacturing Space – Total Trips	61,200 SF	318	44	47
Truck Trips	—	54	4	4
Non-Truck Trips	—	264	40	43

Source: Appendix F.
Notes: ADT = average daily trips; PCE = passenger car equivalent

As shown in the Table 14, Net New Trip Generation, compared to the existing use trip generation, when containers are transported to/from the Port, the proposed project would result in net reduction of 191 daily trips, 32 AM peak hour trips and 35 PM peak hour trips or 118 daily PCE trips, 24 AM peak hour PCE trips and 27 PM peak hour PCE trips.

Compared to the existing use trip generation, when vehicles are transported to/from the Port using car carriers, the proposed project would result in net reduction of 161 daily trips, 24 AM peak hour trips and 27 PM peak hour trips or 58 daily PCE trips, 18 AM peak hour PCE trips and 21 PM peak hour PCE trips.

Table 14. Net New Trip Generation

Land use	Size	ADT	AM Peak Hour	PM Peak Hour
Containers				
Existing use	61,200 SF	291	42	45
Proposed Project	50 truck loads	100	10	10
Net Change (Proposed – Existing) Non-PCE		**-191**	**-32**	**-35**
Existing use	61,200 SF	318	44	47
Proposed Project	50 truck loads	200	20	20
Net Change (Proposed – Existing) PCE		**-118**	**-24**	**-27**
Vehicle Carriers				
Existing use	61,200 SF	291	42	45
Proposed Project	65 truck loads	130	13	13
Net Change (Proposed – Existing) Non-PCE		**-161**	**-24**	**-27**
Existing use	61,200 SF	318	44	47
Proposed Project	65 truck loads	260	26	26
Net Change (Proposed – Existing) PCE		**-58**	**-18**	**-21**

Source: Appendix F.
Notes: ADT = average daily trips; PCE = passenger car equivalent.

1. ***Would the project cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections) based on adopted City of Oxnard level of service (LOS) standards?***

It should be noted that LOS or vehicular delay is not considered a CEQA impact, although it is required to meet a jurisdiction's General Plan consistency requirement.

As shown in the Trip Generation and Parking Analysis for the Hager Pacific Logistics Facility Special Use Permit (SUP) Application – City Oxnard, February 2023, prepared by Associated Transportation Engineers (Appendix F) and summarized above, the project would not cause an increase in traffic or trips. Because the existing use trip generation is higher than the proposed trip generation, the proposed project results in a net reduction of trips to the adjacent street system. Therefore, it can be concluded that the proposed project would not cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of street system based on adopted City of Oxnard LOS standards. The impact would **less than significant.**

2. ***Would the project exceed, either individually or cumulatively, and LOS standard established by the Ventura County Congestion Management Program (CMP) for designated roads or highways?***

The Ventura County Transportation Commission (VCTC) is the designated Congestion Management Agency responsible for implementing the CMP in Ventura County. VCTC has adopted the minimum LOS standard of "E" for the CMP road network. VCTC reviews traffic data submitted by local agencies and Caltrans to identify road segments or intersections listed at LOS "F." Hueneme Road from Ventura Road to Los Posas Road is part the VCTC CMP Program Network. It should be noted that LOS or vehicular delay is not considered a CEQA impact, although it is required to meet a jurisdiction's General Plan consistency requirement.

As mentioned above, because the existing use trip generation is higher than the proposed trip generation, the proposed project results in a net reduction of trips to the adjacent street system. Therefore, the proposed project would not warrant LOS analysis and would not be subject to CMP analysis requirements or LOS standard. Therefore, the project's impact would **less than significant.**

3. ***Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?***

The Oxnard Airport is located approximately 6 miles northwest of the proposed project. The project site is located approximately 8 miles northwest of NBVC Point Mugu. The northwest boundary of NBVC Point Mugu abuts the Oxnard municipal boundary, and other lands in that area are within the City of Oxnard's Sphere of Influence for land use planning. However, as shown on Figure 7-2 2020 Prospective AICUZ Footprint with Zoning, in the City of Oxnard and County of Ventura in the NBVC Point Mugu Air Installations Compatible Use Zones Study, 2015, the project site is zoned Industrial use and would not result in an increase in traffic levels or a change in location that would result in substantial safety risk (US Naval Department 2015).

The proposed project operation is related to transportation of containers and car carriers to and from the Port. The proposed project does not propose a use that would impact air traffic patterns or increase traffic levels at the Oxnard Airport or NBVC Point Mugu. Therefore, implementation of the proposed project would not result in any change in air traffic patterns or levels at either facility. The impact would **less than significant.**

4. Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The proposed project does not include geometric design features, such as sharp curves or dangerous intersections, or incompatible uses. The proposed project would be accessed via Arcturus Avenue. Arcturus Avenue is a two-lane north south roadway between Hueneme Road and McWane Boulevard. It provides access to the industrial land uses and has a signalized intersection at Hueneme Road. Access to the project site would be via existing driveways along Arcturus Avenue which would facilitate separate ingress and egress movements for the proposed project. Vehicle carriers and trucks to and from the Port would enter and exit the site via 40-foot-wide driveways along Arcturus Road. The on-site circulation would be provided by one-way movement along 26-foot-wide internal roadway with adequate turn radii for all vehicles including fire trucks with apparatus. Pedestrian access and ADA ramps would be constructed along the project frontage to facilitate non-vehicular movement.

The project's site plan would be subject to review and approval by the City of Oxnard Community Development and Public Works Departments. Access to the project site would be required to comply with all City design standards thus ensuring adequate design and construction of all required improvements. Therefore, impacts due to design feature or incompatible uses would be **less than significant.**

5. Would the project result in inadequate emergency access?

Construction of the proposed project is not anticipated to require road closures in public right-of-way; construction staging would be within the project site where the previous manufacturing facility has already been demolished. Construction traffic would be temporary and short -term and would cease after construction is completed. If required, the project's contractor would implement construction traffic management measures to ensure that access for all road users is maintained near the proposed project.

The proposed project would operate as a storage facility for containers and cars. Access to the project site would be provided by two driveways on Arcturus Avenue. Trucks and vehicle carriers to and from the Port would enter the site via Arcturus Avenue. Arcturus Avenue is a two-lane street, approximately 60 feet wide, that provides access to similar industrial and vehicle storage uses. Parking is not allowed during nighttime along either side of the roadway. The roadway has adequate capacity and width to provide emergency access to existing and proposed uses along it. The project would be designed and constructed per City's design standards and comply with emergency access requirements of the fire department. Project driveways would be designed and constructed per City of Oxnard design standards. The proposed project would not result in new traffic and the project driveways would provide adequate access to the site during normal operations or any emergency. On-site circulation would be facilitated by 26-foot-wide internal roadway with adequate turn radii for all vehicles including fire trucks with apparatus.

Therefore, the construction or operation of the proposed project would not result in inadequate emergency access and impacts would be **less than significant.**

6. Would the project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

Transit Facilities

Gold Coast Transit District provides public transit services in the City of Oxnard and cities in the Western Ventura County such as Ojai, Port Hueneme, Ventura and to the unincorporated County areas between the cities. Gold Coast Transit District bus routes (Route 1A/1B and Route 23) provide transit service and accessibility near the project site. Route 1A/1B connects Port Hueneme with Oxnard Transit Center with a frequency of approximately 40 minutes on weekdays. It operates along Hueneme Road and Perkins Road with the nearest bus stop located along the north leg of the Hueneme Road/Perkins Road intersection, approximately 1 mile from the project. Route 23 connects Oxnard College with Esplanade via Naval Base and operates at a frequency of 30–45 minutes on weekdays. It operates along Hueneme Road between Ventura Road and Saviors Road with nearest bus stops located approximately 1 mile from the project site, near Courtland Street. The project site is not serviced by high-quality transit (i.e., a fixed route bus service with service intervals no longer than 15 minutes during peak commute hours).

Bike and Pedestrian Facilities

There are existing paved and generally continuous sidewalks along Arcturus Road between Hueneme Road and the project site. The Hueneme Road and Arcturus Road intersection is signalized, including a walk signal for pedestrian crossings and cross walks on all four legs of the Hueneme Road/Arcturus Road intersection. The project would improve and construct sidewalks as part of its frontage improvements along Arcturus Road.

There are no marked bicycle facilities along Arcturus Road. The nearest bike lanes are along Hueneme Road and Saviers Road. A Class II bicycle lane is also marked along portions of Perkins Road and J Street.

As such, the proposed project would not generate any trips that would use alternative transportation facilities adjacent to the project site. The trips to and from the Port would primarily transport containers or car and there would no employees on site. However, the project would not conflict or preclude implementation of any adopted policies, plans, or programs supporting alternative transportation. Impacts would be **less than significant**.

7 Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3 subdivision (b)?

CEQA Guidelines Section 15064.3(b) focuses on VMT for determining the significance of transportation impacts. It is further divided into four subdivisions: (1) land use projects, (2) transportation projects, (3) qualitative analysis, and (4) methodology. The Updated CEQA Guidelines state that “generally, VMT is the most appropriate measure of transportation impacts,” and define VMT as “the amount and distance of automobile travel attributable to a project.” “Automobile” refers to on-road passenger vehicles, specifically cars and light trucks. OPR has clarified in its Technical Advisory (OPR 2018) that heavy-duty truck VMT is not required to be included in the estimation of a project’s VMT. Other relevant considerations may include the effects of a project on transit and non-motorized traveled.

The Technical Advisory includes recommendation regarding methodology, screening thresholds, significance thresholds for residential, office and retail projects, land use plans as well as transportation projects. The proposed project would be categorized under CEQA Guidelines Section 15064.3(b)(1), as a land use project, for the purpose of VMT analysis. A project's VMT analysis follows the process of first using screening criteria, identifying an efficiency metric, identifying the significance threshold and lastly, determining requirements for modeling and assessment.

Based on OPR guidance, projects that generate or attract fewer than 110 daily trips per day can use the Screening Threshold for Small Projects[10] and generally may be assumed to cause a less-than-significant transportation impact. As shown in the project's tip generation analysis, the proposed project would not generate new trips and result in reduction of trips when compared to the existing use trip generation. Therefore, the proposed project would screen out of conducting a detailed VMT analysis. Additionally, per OPR guidance, heavy-duty truck VMT is not required to be included in the estimation of a project's VMT. As such, the project trips would be comprised of trucks (a combination of medium and heavy-duty trucks), therefore, per requirements of SB 743, the estimation of truck VMT would not be warranted. The trip length of the truck transporting containers and cars, to and from the Port, would be less than 2 miles. These trips would be considered local-serving and hence would not have the potential of adding significant VMT or result in a regional VMT impact.

Therefore, the proposed project would not have the potential to conflict or be inconsistent with CEQA Guidelines Section 15064.3 Subdivision (b). As such, the proposed project would have **no impact.**

2.16 Tribal Cultural Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
1. 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	☐	☐	☒	☐

10 CEQA provides a categorical exemption for existing facilities, including additions to existing structures of up to 10,000 sf, so long as the project is in an area where public infrastructure is available to allow for maximum planned development and the project is not in an environmentally sensitive area (CEQA Guidelines, Section 15301, subd. [e][2]). Typical project types for which trip generation increases relatively linearly with building footprint (i.e., general office building, single tenant office building, office park, and business park) generate or attract an additional 110-124 trips per 10,000 sf. Therefore, absent substantial evidence otherwise, it is reasonable to conclude that the addition of 110 or fewer trips could be considered not to lead to a significant impact.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	☐	☒	☐	☐

Regulatory Setting

The evaluation of potential impacts to tribal cultural resources (TCRs) is based on the findings resulting from tribal consultation conducted by the City (Appendix G), as the lead agency, as well as the findings in Section 2.6, Cultural Resources.

Assembly Bill 52

AB 52 of 2014 amended PRC Section 5097.94 and added PRC Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3. AB 52 established that TCRs must be considered under CEQA and also provided for additional Native American consultation requirements for the lead agency. PRC Section 21074 describes a TCR as a site, feature, place, cultural landscape, sacred place, or object that is considered of cultural value to a California Native American Tribe. A TCR is either:

- On the CRHR or a local historic register;
- Eligible for the CRHR or a local historic register; or
- 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 PRC Section 5024.1.

AB 52 formalizes the lead agency–tribal consultation process, requiring the lead agency to initiate consultation with California Native American groups that are traditionally and culturally affiliated with the project area, including tribes that may not be federally recognized. Lead agencies are required to begin consultation prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report by contacting those tribal groups who have previously provided formal written request for notification of projects under the agency's jurisdiction.

Section 1 (a)(9) of AB 52 establishes that "a substantial adverse change to a tribal cultural resource has a significant effect on the environment." Effects on TCRs should be considered under CEQA. Section 6 of AB 52 adds Section 21080.3.2 to the PRC, which states that parties may propose mitigation measures "capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to a tribal cultural resource." Further, if a California Native American tribe requests consultation regarding project alternatives, mitigation measures, or significant effects to TCRs, the consultation shall include those topics (PRC Section 21080.3.2[a]). Finally, the environmental document, for which the tribal consultation is focused, and the mitigation monitoring and reporting program (where applicable), developed in consideration of information provided by tribes during the formal consultation process, shall include any mitigation measures that are adopted (PRC Section 21082.3[a]).

California Historical Records Information System Record Search

CEQA requires a consideration of whether a TCR, eligible for or listed in the CRHR, or a resource/s that has been established through substantial evidence such that the lead agency designates a resource as a TCR, has the potential to be impacted by project implementation. As such, it is appropriate to review findings of archaeological resource assessments including background research, records searches, pedestrian surveys that are intended to determine whether cultural resources exist within or near a project site or have the potential to exist. These resources also have the potential to be identified by consulting tribes as a TCR.

As previously discussed in Section 2.6, Cultural Resources, the cultural resources record search indicated that fifteen previous cultural resource studies have been conducted within 0.5 miles of the project site between 1980 and 2016. Of these studies, two intersect or overlap the project site. No cultural resources were identified within the current project site as a result of these previous investigations; however, neither study included an intensive pedestrian survey of the project site. In addition, South Central Coastal Information Center records indicate that one previously recorded cultural resource is located within 0.5 miles of the project site. This resource is a historic period archaeological site located approximately 650 meters (2,130 feet) west of the project site. No prehistoric resources were identified within the project site or 0.5-mile records search area as a result of the CHRIS database search.

Native American Coordination

Native American Heritage Commission Sacred Lands File Search

A search of the NAHC Sacred Lands File (SLF) was requested on February 20, 2023, and conducted by Cultural Services Analyst Cody Campagne on February 24, 2023, to determine the presence of any reported Native American cultural resources within the proposed project site as listed in the NAHC maintained SLF (see Confidential Appendix C). The NAHC SLF records search result was negative. The NAHC identified ten Native American individuals who would potentially have specific knowledge as to whether or not Native American cultural resources are identified within or near the proposed project site that could be at-risk. To date, Dudek has not initiated contact with the individuals on NAHC's contact list, regarding the proposed project site. Note: The SLF, maintained by NAHC, represent a curation of “ancient places of special religious or social significance to Native Americans and known ancient graves and cemeteries of Native Americans on private and public lands in California” (NAHC 2021) provided by tribal entities and Native American representatives. For various reasons, tribal entities and Native American representatives do no not always report sacred lands or TCRs to the NAHC; as such, the NAHC's SLF is not necessarily a comprehensive list of known TCRs and searches of the SLF must be considered in concert with other research and not used as a sole source of information regarding the presence of TCRs. Additionally, results of the SLF provided relate to the general regional area within and surrounding the proposed project site and don't necessarily equate to the existence of resources within the specific area occupied by the proposed project site.

Assembly Bill 52 Consultation

The project is subject to compliance with AB 52 (PRC Section 21074), which requires consideration of impacts to TCRs as part of the CEQA process, and that the lead agency notify California Native American tribal representatives (that have requested notification) who are traditionally or culturally affiliated with the geographic area of the project. All NAHC-listed California Native American tribal representatives that have requested project notification pursuant to AB 52 were sent letters by the City on May 9, 2022 via United States Postal Service (USPS) certified mailing. The letters contained a project description, an outline of AB 52 timing, request for consultation, and contact information for the appropriate lead agency representative. AB 52 allows tribes 30 days after receiving notification to request consultation. If a response is not received within the allotted 30 days, it is assumed that consultation is declined. To date, one response has been received by the City. Table 2.16-1 summarizes the results of the AB 52 process for the project.

Table 2.16-1. Assembly Bill 52 Native American Tribal Outreach Results

Native American Tribal Representatives	AB 52 Delivery Method and Date of Notification from County to Tribe	Response to County Notification Letters	Consultation Date and Notes
Dayna Barrios, Tribal Chairwoman: Barbareño/Ventureño Band of Mission Indians	**Certified Letters**: Sent by City on May 9, 2023	**May 29, 2023**: Email response received by City	**May 29, 2023**: Ms. Eleanor Fishburn, Cultural Resources Committee for the Barbareño/Ventureño Band of Mission Indians, responded on behalf of the Tribe via email to the City, noting the sensitivity of the project site and requested that a Native American monitor be present for any ground disturbance. **June 5, 2023:** Ms. Brenna Wengert, City of Oxnard representative, stated that the City would include the request in the MMRP for the IS/MND CEQA document as well as a Condition of Approval in the City's Resolution.
Annette Ayala, Cultural Resources Chair: Barbareño/Ventureño Band of Mission Indians	**Certified Letters**: Sent by City on May 9, 2023	N/A	Ms. Ayala is from the same Tribe as Chairwoman Barrios. Therefore, the outreach record for this Tribe is summarized under the correspondence with Chairwoman Barrios.

Source: Appendix G.
Notes: AB = Assembly Bill

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

1. 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)?

As discussed in Section 2.6, a CHRIS records search and NAHC SLF search were conducted for the project site. The SLF was completed with negative results. The results of the CHRIS records search identified one historic period archaeological resource within the records search area. No prehistoric resources were identified within the project site or records search radius as a result of the records search. Additionally, the City notified California Native American Tribal representatives who are traditionally or culturally affiliated with the geographic area of the proposed project area pursuant to AB 52. No TCRs were identified on the project site as a result of AB 52 consultation between the City and the Barbareño/Ventureño Band of Mission Indians. Therefore, the project would not adversely affect known TCRs that are listed or eligible for listing in the state or local register. Impacts would be **less than significant.**

2. 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?

The project is subject to compliance with AB 52 (PRC Section 21074), which requires consideration of impacts to TCRs as part of the CEQA process and requires lead agencies notify California Native American tribal representatives who are traditionally or culturally affiliated with the geographic area of the project. As a result of the City's outreach efforts, the Barbareño/Ventureño Band of Mission Indians responded expressing interest in the project. Although the Barbareño/Ventureño Band of Mission Indians shared that the project site is within a sensitive area, the Tribe did not provide specific TCRs that would be affected by project-related construction activities. While, the City has not identified any TCRs within the project site through Tribal consultation that would warrant discretionary designation of a resource as a TCR, the City, in an abundance of caution, has considered the information provided for review through consultation and determined to implement mitigation measures to ensure if unknown subsurface TCRs were inadvertently encountered, they would be addressed properly. Therefore, in addition to the cultural resources mitigation measures (**MM-CUL-1**, **MM-CUL-2**, and **MM-CUL-3**), TCR mitigation measure **MM-TCR-1** has been included to provide for the retention of a Native American monitor by the applicant to monitor ground disturbing activities within native soils. Implementation of **MM-TCR-1** would ensure that potential construction impacts related to an unknown TCRs would be reduced to a level **less than significant with mitigation.**

MM-TCR-1 Retention of a Native American Monitor. Prior to ground disturbance activities, the Applicant and/or subsequent responsible parties shall retain a Native American/Tribal monitor/entity selected from the list of California Native American Tribes (maintained by the NAHC) and that are traditionally and culturally affiliated with the geographic area of the project site. The Applicant and/or subsequent responsible parties shall make arrangements with the Native American/Tribal monitor/entity to enter into a contract with the intent of securing a total of one Native American/Tribal monitor to be present during initial ground disturbance. Initial ground disturbance is defined as initial construction-related earthmoving of sediments from their place of deposition. As it pertains to cultural resource (archaeological or Native American/Tribal) monitoring, this definition excludes movement of sediments after they have been initially disturbed or displaced by current project-related construction. More than one monitor may be required if multiple areas within the project site are simultaneously exposed to initial ground disturbance causing monitoring to be hindered by the distance (more than 200 feet apart) of the simultaneous activities.

2.17 Utilities and Energy

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
With respect to utilities:				
1. Would the project need new or expanded water supply entitlements that are not anticipated in the current Urban Water Management Plan?	☐	☐	☒	☐
2. Would additional wastewater conveyance or treatment capacity be required to serve project demand and existing commitments?	☐	☐	☐	☒
3. Would the project generate solid waste that would exceed the permitted capacity of a landfill serving the City?	☐	☐	☒	☐
4. Would the project conflict with federal, state, or local statutes or regulations related to solid waste?	☐	☐	☒	☐
With respect to Energy:				
5. Would the project involve wasteful, inefficient, or unnecessary consumption of energy during project construction, operation, maintenance, and/or removal?	☐	☐	☒	☐
6. Would the project require additional energy facilities, the provision of which may have a significant effect on the environment?	☐	☐	☒	☐
7. Would the project be inconsistent with existing energy standards?	☐	☐	☒	☐
8. Would the project preempt future energy development or future energy conservation, or inhibit the future use of renewable energy or energy storage?	☐	☐	☒	☐

With respect to utilities:

1. ***Would the project need new or expanded water supply entitlements that are not anticipated in the current Urban Water Management Plan?***

Water demand during construction would be limited to minor amounts of water for soil compaction in trench backfill and dust control during construction. Grading has already been completed for the site. These water demands would be temporary and relatively minor. Water demand during operations would be limited to watering 27,038 sf of landscaping. Restrooms would not be included on site during project operations.

As discussed in the City's 2020 Urban Water Management Plan (City of Oxnard 2021a), the City's water supply consists of three sources: imported surface water from CMWD, local groundwater from UWCD, and local groundwater from City wells. Additionally, the City produces recycled water at its Advanced Water Purification Facility, and delivers water for agricultural, industrial, and irrigation. The City purchases imported water from CMWD, which is a regional wholesale agency. CMWD obtains water from the Metropolitan and the State Water Project. The City minimizes the amount of water imported from CMWD to minimize costs and water rates. Due to advance planning for water shortage conditions, Metropolitan and CMWD expect to meet all normal and dry year demands. However, because some regional customers completely rely on CMWD for their water, the City is focused on additional supplies sources (City of Oxnard 2021a).

The City extracts groundwater from the Oxnard Plain Groundwater Basin, using their own wells. In addition, through an agreement with UWCD, UWCD extracts additional groundwater further inland, on behalf of the City, to protect against seawater intrusion. The City then imports water from CMWD that is blended with the groundwater for better quality, conserve costs, and to meet the City's demands. All three of these sources are utilized in normal and dry years. The City is also working with neighboring agencies and the Fox Canyon Groundwater Management Agency to ensure sustainability and reliability of the groundwater basin in the future (City of Oxnard 2021a).

The Sustainable Groundwater Management Act was passed by the State of California in 2014 to improve management of groundwater resources in California. The legislation requires that Groundwater Sustainability Agencies are established for groundwater basins ranked as medium- or high-priority, indicating that the basins are at risk of overdraft and/or a decline in water quality. Once Groundwater Sustainability Agencies are formed, Groundwater Sustainability Plans (GSPs) must be adopted, and the groundwater basin must achieve sustainability by 2042. The Fox Canyon Groundwater Management Agency adopted GSPs for groundwater basins within their jurisdiction (Oxnard, Pleasant Valley, and Las Posas Valley Basins) on December 13, 2019. Subsequently, the California Department of Water Resources approved GSPs for the Oxnard and Pleasant Valley Basins on November 22, 2021, and the Las Posas Valley Basin on January 13, 2022. These GSPs are intended to address the long-term sustainability of the basins for municipal and agricultural pumpers and would have significant impacts on the City's future management of groundwater basins (City of Oxnard 2021a; Fox Canyon Groundwater Management Agency 2023).

Based on these water sources, the City has sufficient supplies under normal year, single dry year, and five consecutive dry years (City of Oxnard 2021a). Based on the landscape plans prepared for the project, water demand per year for landscaping would be approximately 283,615 gallons, or 0.87 AFY. Assuming a normal year water demand, in 2025, the City is projected to supply a total of 28,810 AFY to its service area. As such, the proposed project's anticipated demand of 0.87 AFY would be negligible compared to the City's supplies and the project would not need new or expanded water supply entitlements that are not anticipated in the 2020 Urban Water Management Plan. Impacts would be **less than significant.**

2. ***Would additional wastewater conveyance or treatment capacity be required to serve project demand and existing commitments?***

During construction, portable toilets would be used for wastewater disposal. Following construction, no wastewater would be generated on site, as no restrooms would be constructed. As a result, additional wastewater conveyance or treatment capacity would not be required to serve project demand and existing commitments. **No impact** would occur.

3. ***Would the project generate solid waste that would exceed the permitted capacity of a landfill serving the City?***

The structures associated with the previous use of the site, a heavy industrial manufacturing facility, were demolished in September 2021. As a result, no demolition waste would be generated. Construction would be limited to paving and landscaping, which would generate very limited solid waste. As a result, the project would not generate solid waste that would exceed the permitted capacity of a landfill serving the City. Impacts would be **less than significant.**

4. ***Would the project conflict with federal, state, or local statutes or regulations related to solid waste?***

As discussed above for Threshold 3, the project would generate very limited solid waste, and as a result, would not conflict with federal, state, or local statutes or regulations related to solid waste. Impacts would be **less than significant.**

With respect to energy:

5. ***Would the project involve wasteful, inefficient, or unnecessary consumption of energy during project construction, operation, maintenance, and/or removal?***

The short-term construction and long-term operation of the proposed project would require the consumption of energy resources in several forms at the project site and within the project area. Construction and operational energy consumption are evaluated in detail below.

Electricity

Construction Use

Temporary electric power for as-necessary lighting and electronic equipment such as computers inside temporary construction trailers would be provided by Southern California Edison. The electricity used for such activities would be temporary and would have a negligible contribution to the project's overall energy consumption. **No impact** would occur.

Operational Use

Project operation would require electricity for multiple purposes including lighting and gate operation. Operations, including parking lot lighting, would consume approximately 207,554 kilowatt hours (kWh) per year of electricity (Appendix A). For comparison, non-residential electricity demand for Ventura County in 2021 was 3,359 million kWh (CEC 2023). The proposed project would result in a negligible increase in electricity consumption. Impacts related to operational electricity use would therefore be **less than significant.**

Natural Gas

Construction Use

Natural gas is not anticipated to be required during construction of the proposed project. Fuels used for construction would primarily consist of diesel and gasoline, which are discussed below under the Petroleum subsection. Any minor amounts of natural gas that may be consumed as a result of project construction would have a negligible contribution to the project's overall energy consumption. **No impact** would occur.

Operational Use

Natural gas consumption is not anticipated during operation of the proposed project. Without operational employees, any need for natural gas for heating or otherwise is negated. As such, impacts related to operational natural gas use would be **less than significant.**

Petroleum

Construction Use

Heavy-duty construction equipment associated with construction activities would rely on diesel fuel, as would haul and vendor trucks involved in delivery of materials to the project site. Construction workers would travel to and from the project site throughout the duration of construction. It is assumed in this analysis that construction workers would travel to and from the site in gasoline-powered light-duty vehicles.

Heavy-duty construction equipment of various types would be used during each phase of project construction. Appendix A lists the assumed equipment usage for each phase of construction. Fuel consumption from construction equipment was estimated by converting the total CO_2 emissions from each construction phase to gallons using the conversion factors for CO_2 to gallons of gasoline or diesel. The conversion factor for gasoline is 8.78 kilograms per MT CO_2 per gallon, and the conversion factor for diesel is 10.21 kilograms per MT CO_2 per gallon (The Climate Registry 2021). The estimated petroleum usage from construction equipment is shown in Table 15.

Table 15. Project Construction Petroleum Demand

Phase	Off-Road Equipment (diesel)	Haul Trucks (diesel)	Vendor Trucks (diesel)	Worker Vehicles (gasoline)
	gallons			
Construction	5,027	1,189	503	670
			Total Petroleum Consumed	7,391

Notes: See Appendix A for details.

In summary, construction of the project is conservatively anticipated to consume approximately 670 gallons of gasoline and 6,720 gallons of diesel over a period of approximately 3 months.[11] Notably, the project would be subject to CARB's In-Use Off-Road Diesel Vehicle Regulation that applies to certain off-road diesel engines, vehicles, or equipment greater than 25 horsepower. The regulation: (1) imposes limits on idling, requires a written idling policy, and requires a disclosure when selling vehicles, (2) requires all vehicles to be reported to CARB (using the Diesel Off-Road Online Reporting System) and labeled, (3) restricts the adding of older vehicles into fleets starting on January 1, 2014, and (4) requires fleets to reduce their emissions by retiring, replacing, or repowering older engines, or installing Verified Diesel Emission Control Strategies (i.e., exhaust retrofits). The fleet must either show that its fleet average index was less than or equal to the calculated fleet average target rate, or that the fleet has met the Best Achievable Control Technology requirements. Overall, because the project would not be unusual as compared to overall local and regional demand for energy resources and would not involve characteristics that require equipment that would be less energy-efficient than at comparable construction sites in the region or state, the project construction would not result in wasteful, inefficient, or unnecessary consumption of petroleum. Impacts related to construction petroleum would therefore be **less than significant.**

Operational Use

The fuel consumption resulting from the project's operational phase would be attributable to trucks carrying vehicles and containers to and from the project site. Petroleum fuel consumption associated with motor vehicles traveling to and from the project site during operation is a function of VMT. As shown in Appendix A, the annual VMT attributable to the project is expected to be 508,001 VMT per year (as determined via CalEEMod for GHG emissions quantification). Similar to construction worker and truck trips, fuel consumption for operation is estimated by converting the total CO_2 emissions from VMT to gallons using the conversion factors for CO_2 to gallons of gasoline or diesel. Based on the assumption that all vehicles associated with project operation are heavy-duty trucks, the vehicles associated with project operations would likely be 100% diesel powered. The estimated fuel use from the project site during operation is shown in Table 16, Annual Operational Petroleum Demand.

[11] For context, in 2020, California consumed about 524 million barrels of oil (EIA 2021). There are 42 U.S. gallons in a barrel, so California consumes approximately 60 million gallons of petroleum per day.

Table 16. Annual Operational Petroleum Demand

Scenario	Vehicle MT CO2	Kg CO2/Gallon	Gallons
Diesel	819	10.21	80,215
		Total Project Petroleum Use	**80,215**

Sources: Trips and vehicle CO_2 (Appendix A); kg CO_2/Gallon (The Climate Registry 2021).
Notes: MT = metric ton; CO_2 = carbon dioxide; kg = kilogram.

As depicted in Table 16, project operation would result in approximately 80,215 gallons of petroleum fuel usage per year.

Over the lifetime of the project, the fuel efficiency of the vehicles being used by the employees and trucks for the project is expected to increase. As such, the amount of petroleum consumed as a result of vehicular trips to and from the project site during operation would decrease over time. There are numerous regulations in place that require and encourage increased fuel efficiency. For example, CARB has adopted the Advanced Clean Cars and Advanced Clean Trucks programs to accelerate the market for zero-emission vehicles in both the passenger car and medium/heavy-duty truck sectors. As such, operation of the project is expected to use decreasing amounts of petroleum over time, due to advances in fuel economy.

In summary, although project implementation would result in an increase in petroleum use during operation, over time vehicles would use less petroleum due to advances in fuel economy and the additional natural gas demand for the project would not be unusual or wasteful as compared to other warehouses and the overall local and regional demand for petroleum resources. Given these considerations, the petroleum consumption associated with the proposed project would not be considered inefficient or wasteful, and impacts would be **less than significant.**

6. Would the project require additional energy facilities, the provision of which may have a significant effect on the environment?

As stated in Utilities and Energy-5 above, project operations would consume approximately 207,554 kWh per year of electricity, and non-residential electricity demand for Ventura County in 2021 was 3,359 million kWh (CEC 2023). The project would not require the use of natural gas during operation. The project is expected to consume 80,215 gallons of petroleum per year, while California consumes about 60 million gallons per day (EIA 2021). Therefore, the regional energy network has enough capacity to serve the project, and thus, no additional facilities or upgrades would be needed above what is already planned. Impacts would be **less than significant.**

7. Would the project be inconsistent with existing energy standards?

The proposed project would be subject to state regulations for energy efficiency, namely, California's Building Energy Efficiency Standards and the California Green Building Standards (CALGreen), both of which are set forth in the California Code of Regulations, Title 24. California's Building Energy Efficiency Standards were established in 1978 and serve to enhance and regulate California's building standards. These standards include regulations for residential and nonresidential buildings constructed in California to reduce energy demand and consumption. The Building Energy Efficiency Standards are updated periodically (every 3 years) to incorporate and consider new energy efficiency technologies and methodologies. CALGreen institutes mandatory minimum environmental performance standards for all ground-up, new construction of commercial, low-rise residential, and state-owned buildings, as well as schools and hospitals. The 2022 CALGreen standards took effect on January 1, 2023. The proposed project would meet Building Energy Efficiency Standards and CALGreen standards to reduce energy demand and increase energy efficiency.

At a regional level, the proposed project would be subject to the policies set forth in SCAG's RTP/SCS, Connect SoCal (SCAG 2020). The RTP/SCS is a regional growth-management strategy that targets per-capita GHG reduction from passenger vehicles and light-duty trucks in the Southern California region pursuant to SB 375. In addition to demonstrating the region's ability to attain and exceed the GHG emission-reduction targets set forth by CARB, Connect SoCal outlines a series of actions and strategies for integrating the transportation network with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands. Thus, successful implementation of Connect SoCal would result in more complete communities with a variety of transportation and housing choices, while reducing automobile use. With regard to individual developments, such as the project, the strategies and policies set forth in Connect SoCal include improved energy efficiency. Connect SoCal's goal is to actively encourage and create incentives for energy efficiency, where possible. As discussed previously, the project would comply with the 2022 CALGreen standards. For these reasons, the proposed project would be consistent with SCAG's Connect SoCal.

The proposed project would follow applicable energy standards and regulations during construction. In addition, the proposed project would be built and operated in accordance with all existing, applicable regulations at the time of construction. As such, the proposed project would not conflict with existing energy standards and regulations and impacts would be **less than significant.**

8. ***Would the project preempt future energy development or future energy conservation, or inhibit the future use of renewable energy or energy storage?***

The project would in no preempt future energy development or conservation or inhibit the future use of renewable energy or energy storage. The project would comply with any and all regulations requiring renewable energy or energy storage on site. Impacts would be **less than significant.**

2.18 Wildfire

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
1. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
2. 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?	☐	☐	☐	☒
3. 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?	☐	☐	☐	☒
4. 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?	☐	☐	☐	☒

1. ***Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?***

2. ***Due to slope, prevailing winds, and other factors, would the project exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?***

3. ***Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?***

4. ***Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?***

The project site is not located in or near a very high fire severity hazard zone within a State Responsibility Area or Local Responsibility Area, according to the California Department of Forestry and Fire Protection (CAL FIRE 2007, 2010). In addition, the project is located in an urban setting and not among lands prone to wildland fire. Therefore, as the project is not located within a very high fire severity hazard zone, the project would not result in impacts related to wildfire risk. **No impact** would occur.

2.19 Cumulative Impacts

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Would cumulative impact of the project in combination with the impacts of past, present, and reasonably foreseeable future projects exceed a City significance threshold?	☐	☐	☒	☐
2. If so, would the project's contribution to the significant cumulative impact be cumulatively considerable?	☐	☐	☒	☐

1. ***Would cumulative impact of the project in combination with the impacts of past, present, and reasonably foreseeable future projects exceed a City significance threshold?***

2. ***If so, would the project's contribution to the significant cumulative impact be cumulatively considerable?***

As described in Section 2, Initial Study Checklist, above, the project would have no impact, a less than significant impact, or less than significant impact with mitigation measures incorporated with respect to all environmental issues. These include short-term, long-term, and where appropriate, cumulative impacts. Cumulative impacts of the following resource areas have been addressed in the individual resource sections above: air quality, GHG emissions, and transportation. CalEEMod was utilized to assess the air quality and GHG impacts resulting from the proposed project, leading to a conclusion that the impacts associated with air quality and GHG emissions would be less than significant when compared to applicable thresholds that take into account cumulative impacts. Certain resource areas (e.g., agricultural and mineral) were determined to have no impact in comparison to existing conditions. Therefore, the project would not contribute to cumulative impacts related to these issues. Other issues (e.g., geology and hazards and hazardous materials) are by their nature project-specific and impacts at one location do not add to impacts at other locations or create additive impacts. The cumulative impacts of the proposed project would be **less than significant.**

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3.2 List of Preparers

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Appendix A
CalEEMod Results

6001 Arcturus Ave v3 Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	6001 Arcturus Ave v3
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.30
Precipitation (days)	16.0
Location	34.14109955614421, -119.17389250020622
County	Ventura
City	Oxnard
Air District	Ventura County APCD
Air Basin	South Central Coast
TAZ	3419
EDFZ	8
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas

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
Parking Lot	233	1000sqft	5.34	0.00	27,038	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Construction	C-10-A	Water Exposed Surfaces

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.	4.73	3.97	39.9	35.8	0.05	1.81	19.7	21.6	1.66	10.1	11.8	—	5,478	5,478	0.22	0.06	1.69	5,503
Mit.	0.55	0.52	3.04	28.7	0.05	0.11	7.75	7.85	0.10	3.96	4.06	—	5,478	5,478	0.22	0.06	1.69	5,503
% Reduced	88%	87%	92%	20%	—	94%	61%	64%	94%	61%	66%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.14	1.41	9.43	11.0	0.02	0.42	0.36	0.79	0.39	0.10	0.49	—	2,554	2,554	0.09	0.16	0.07	2,604
Mit.	0.59	0.97	3.86	11.6	0.02	0.14	0.36	0.50	0.13	0.10	0.22	—	2,554	2,554	0.09	0.16	0.07	2,604
% Reduced	48%	31%	59%	-6%	—	68%	—	36%	67%	—	54%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.24	0.24	1.86	2.14	< 0.005	0.08	0.33	0.41	0.08	0.15	0.23	—	424	424	0.02	0.02	0.17	430
Mit.	0.11	0.13	0.65	2.12	< 0.005	0.02	0.16	0.19	0.02	0.07	0.09	—	424	424	0.02	0.02	0.17	430
% Reduced	55%	45%	65%	1%	—	72%	50%	55%	72%	55%	61%	—	—	—	—	—	—	—

Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.04	0.04	0.34	0.39	< 0.005	0.02	0.06	0.07	0.01	0.03	0.04	—	70.2	70.2	< 0.005	< 0.005	0.03	71.2
Mit.	0.02	0.02	0.12	0.39	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.02	—	70.2	70.2	< 0.005	< 0.005	0.03	71.2
% Reduced	55%	45%	65%	1%	—	72%	50%	55%	72%	55%	61%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	4.73	3.97	39.9	35.8	0.05	1.81	19.7	21.6	1.66	10.1	11.8	—	5,478	5,478	0.22	0.06	1.69	5,503
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	1.14	1.41	9.43	11.0	0.02	0.42	0.36	0.79	0.39	0.10	0.49	—	2,554	2,554	0.09	0.16	0.07	2,604
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.24	0.24	1.86	2.14	< 0.005	0.08	0.33	0.41	0.08	0.15	0.23	—	424	424	0.02	0.02	0.17	430
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.04	0.04	0.34	0.39	< 0.005	0.02	0.06	0.07	0.01	0.03	0.04	—	70.2	70.2	< 0.005	< 0.005	0.03	71.2

2.3. Construction Emissions by Year, Mitigated

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2023	0.55	0.52	3.04	28.7	0.05	0.11	7.75	7.85	0.10	3.96	4.06	—	5,478	5,478	0.22	0.06	1.69	5,503
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.59	0.97	3.86	11.6	0.02	0.14	0.36	0.50	0.13	0.10	0.22	—	2,554	2,554	0.09	0.16	0.07	2,604
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.11	0.13	0.65	2.12	< 0.005	0.02	0.16	0.19	0.02	0.07	0.09	—	424	424	0.02	0.02	0.17	430
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.02	0.02	0.12	0.39	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.02	—	70.2	70.2	< 0.005	< 0.005	0.03	71.2

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.24	0.14	6.91	1.71	0.05	0.07	0.68	0.75	0.07	0.16	0.23	0.00	5,244	5,244	0.14	0.79	11.0	5,493
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.23	0.13	7.17	1.74	0.05	0.07	0.68	0.75	0.07	0.16	0.23	0.00	5,245	5,245	0.14	0.79	0.28	5,483
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.23	0.14	7.18	1.72	0.05	0.07	0.68	0.75	0.07	0.16	0.23	0.00	5,244	5,244	0.14	0.79	4.73	5,487
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.04	0.03	1.31	0.31	0.01	0.01	0.12	0.14	0.01	0.03	0.04	0.00	868	868	0.02	0.13	0.78	908

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.24	0.10	6.91	1.71	0.05	0.07	0.68	0.75	0.07	0.16	0.23	—	4,944	4,944	0.12	0.78	11.0	5,192
Area	0.00	0.04	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	297	297	0.02	< 0.005	—	298
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	2.70	2.70	< 0.005	< 0.005	—	2.71
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	0.24	0.14	6.91	1.71	0.05	0.07	0.68	0.75	0.07	0.16	0.23	0.00	5,244	5,244	0.14	0.79	11.0	5,493
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.23	0.10	7.17	1.74	0.05	0.07	0.68	0.75	0.07	0.16	0.23	—	4,946	4,946	0.12	0.78	0.28	5,183
Area	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	297	297	0.02	< 0.005	—	298
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	2.70	2.70	< 0.005	< 0.005	—	2.71
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	0.23	0.13	7.17	1.74	0.05	0.07	0.68	0.75	0.07	0.16	0.23	0.00	5,245	5,245	0.14	0.79	0.28	5,483
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.23	0.10	7.18	1.72	0.05	0.07	0.68	0.75	0.07	0.16	0.23	—	4,945	4,945	0.12	0.78	4.73	5,186
Area	0.00	0.04	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	297	297	0.02	< 0.005	—	298
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	2.70	2.70	< 0.005	< 0.005	—	2.71
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	0.23	0.14	7.18	1.72	0.05	0.07	0.68	0.75	0.07	0.16	0.23	0.00	5,244	5,244	0.14	0.79	4.73	5,487

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.04	0.02	1.31	0.31	0.01	0.01	0.12	0.14	0.01	0.03	0.04	—	819	819	0.02	0.13	0.78	859
Area	0.00	0.01	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	49.1	49.1	< 0.005	< 0.005	—	49.3
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.45	0.45	< 0.005	< 0.005	—	0.45
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	0.04	0.03	1.31	0.31	0.01	0.01	0.12	0.14	0.01	0.03	0.04	0.00	868	868	0.02	0.13	0.78	908

2.6. Operations Emissions by Sector, Mitigated

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	0.24	0.10	6.91	1.71	0.05	0.07	0.68	0.75	0.07	0.16	0.23	—	4,944	4,944	0.12	0.78	11.0	5,192
Area	0.00	0.04	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	297	297	0.02	< 0.005	—	298
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	2.70	2.70	< 0.005	< 0.005	—	2.71
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	0.24	0.14	6.91	1.71	0.05	0.07	0.68	0.75	0.07	0.16	0.23	0.00	5,244	5,244	0.14	0.79	11.0	5,493
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.23	0.10	7.17	1.74	0.05	0.07	0.68	0.75	0.07	0.16	0.23	—	4,946	4,946	0.12	0.78	0.28	5,183
Area	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	297	297	0.02	< 0.005	—	298
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	2.70	2.70	< 0.005	< 0.005	—	2.71
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	0.23	0.13	7.17	1.74	0.05	0.07	0.68	0.75	0.07	0.16	0.23	0.00	5,245	5,245	0.14	0.79	0.28	5,483

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.23	0.10	7.18	1.72	0.05	0.07	0.68	0.75	0.07	0.16	0.23	—	4,945	4,945	0.12	0.78	4.73	5,186
Area	0.00	0.04	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	297	297	0.02	< 0.005	—	298
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	2.70	2.70	< 0.005	< 0.005	—	2.71
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	0.23	0.14	7.18	1.72	0.05	0.07	0.68	0.75	0.07	0.16	0.23	0.00	5,244	5,244	0.14	0.79	4.73	5,487
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.04	0.02	1.31	0.31	0.01	0.01	0.12	0.14	0.01	0.03	0.04	—	819	819	0.02	0.13	0.78	859
Area	0.00	0.01	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	49.1	49.1	< 0.005	< 0.005	—	49.3
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.45	0.45	< 0.005	< 0.005	—	0.45
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	0.04	0.03	1.31	0.31	0.01	0.01	0.12	0.14	0.01	0.03	0.04	0.00	868	868	0.02	0.13	0.78	908

3. Construction Emissions Details

3.1. Site Preparation (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.70	3.95	39.7	35.5	0.05	1.81	—	1.81	1.66	—	1.66	—	5,295	5,295	0.21	0.04	—	5,314

Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.54	0.49	< 0.005	0.02	—	0.02	0.02	—	0.02	—	72.5	72.5	< 0.005	< 0.005	—	72.8
Dust From Material Movement	—	—	—	—	—	—	0.27	0.27	—	0.14	0.14	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.10	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.0	12.0	< 0.005	< 0.005	—	12.1
Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.29	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	55.7	55.7	< 0.005	< 0.005	0.26	56.6
Vendor	0.01	< 0.005	0.17	0.05	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	127	127	< 0.005	0.02	0.35	133
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.73	0.73	< 0.005	< 0.005	< 0.005	0.74
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.74	1.74	< 0.005	< 0.005	< 0.005	1.82
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.12	0.12	< 0.005	< 0.005	< 0.005	0.12
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.29	0.29	< 0.005	< 0.005	< 0.005	0.30
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Site Preparation (2023) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	0.50	2.59	28.3	0.05	0.10	—	0.10	0.10	—	0.10	—	5,295	5,295	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.39	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	72.5	72.5	< 0.005	< 0.005	—	72.8
Dust From Material Movement	—	—	—	—	—	—	0.11	0.11	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.0	12.0	< 0.005	< 0.005	—	12.1
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.29	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	55.7	55.7	< 0.005	< 0.005	0.26	56.6
Vendor	0.01	< 0.005	0.17	0.05	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	127	127	< 0.005	0.02	0.35	133
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.73	0.73	< 0.005	< 0.005	< 0.005	0.74
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.74	1.74	< 0.005	< 0.005	< 0.005	1.82

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.12	0.12	< 0.005	< 0.005	< 0.005	0.12
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.29	0.29	< 0.005	< 0.005	< 0.005	0.30
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Building Construction (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	0.65	5.63	7.08	0.01	0.26	—	0.26	0.24	—	0.24	—	1,045	1,045	0.04	0.01	—	1,048
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	0.65	5.63	7.08	0.01	0.26	—	0.26	0.24	—	0.24	—	1,045	1,045	0.04	0.01	—	1,048
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.46	0.58	< 0.005	0.02	—	0.02	0.02	—	0.02	—	85.9	85.9	< 0.005	< 0.005	—	86.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.01	0.08	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.2	14.2	< 0.005	< 0.005	—	14.3
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.08	1.16	0.00	0.00	0.21	0.21	0.00	0.05	0.05	—	223	223	0.01	0.01	1.03	226
Vendor	0.01	< 0.005	0.17	0.05	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	127	127	< 0.005	0.02	0.35	133
Hauling	0.01	< 0.005	0.20	0.05	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	144	144	< 0.005	0.02	0.32	151
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.10	1.05	0.00	0.00	0.21	0.21	0.00	0.05	0.05	—	213	213	0.01	0.01	0.03	215
Vendor	0.01	< 0.005	0.18	0.05	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	127	127	< 0.005	0.02	0.01	133
Hauling	0.01	< 0.005	0.21	0.05	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	144	144	< 0.005	0.02	0.01	151
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.6	17.6	< 0.005	< 0.005	0.04	17.9
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.4	10.4	< 0.005	< 0.005	0.01	10.9
Hauling	< 0.005	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.8	11.8	< 0.005	< 0.005	0.01	12.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.92	2.92	< 0.005	< 0.005	0.01	2.96
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.73	1.73	< 0.005	< 0.005	< 0.005	1.81
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.96	1.96	< 0.005	< 0.005	< 0.005	2.05

3.4. Building Construction (2023) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

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

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	0.38	2.59	7.33	0.01	0.10	—	0.10	0.10	—	0.10	—	1,045	1,045	0.04	0.01	—	1,048
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	0.38	2.59	7.33	0.01	0.10	—	0.10	0.10	—	0.10	—	1,045	1,045	0.04	0.01	—	1,048
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.21	0.60	< 0.005	0.01	—	0.01	0.01	—	0.01	—	85.9	85.9	< 0.005	< 0.005	—	86.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.2	14.2	< 0.005	< 0.005	—	14.3
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.08	1.16	0.00	0.00	0.21	0.21	0.00	0.05	0.05	—	223	223	0.01	0.01	1.03	226
Vendor	0.01	< 0.005	0.17	0.05	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	127	127	< 0.005	0.02	0.35	133
Hauling	0.01	< 0.005	0.20	0.05	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	144	144	< 0.005	0.02	0.32	151

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.10	1.05	0.00	0.00	0.21	0.21	0.00	0.05	0.05	—	213	213	0.01	0.01	0.03	215
Vendor	0.01	< 0.005	0.18	0.05	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	127	127	< 0.005	0.02	0.01	133
Hauling	0.01	< 0.005	0.21	0.05	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	144	144	< 0.005	0.02	0.01	151
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.6	17.6	< 0.005	< 0.005	0.04	17.9
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.4	10.4	< 0.005	< 0.005	0.01	10.9
Hauling	< 0.005	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.8	11.8	< 0.005	< 0.005	0.01	12.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.92	2.92	< 0.005	< 0.005	0.01	2.96
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.73	1.73	< 0.005	< 0.005	< 0.005	1.81
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.96	1.96	< 0.005	< 0.005	< 0.005	2.05

3.5. Paving (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.04	0.88	8.06	10.0	0.01	0.41	—	0.41	0.38	—	0.38	—	1,512	1,512	0.06	0.01	—	1,517
Paving	—	0.47	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.07	0.66	0.82	< 0.005	0.03	—	0.03	0.03	—	0.03	—	124	124	0.01	< 0.005	—	125
Paving	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.12	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	20.6	20.6	< 0.005	< 0.005	—	20.6
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.06	0.66	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	133	133	0.01	< 0.005	0.02	135
Vendor	0.01	0.01	0.27	0.08	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	190	190	< 0.005	0.03	0.01	199
Hauling	0.03	0.01	1.04	0.23	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	—	719	719	0.02	0.11	0.04	753
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.0	11.0	< 0.005	< 0.005	0.02	11.2
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	15.7	15.7	< 0.005	< 0.005	0.02	16.4
Hauling	< 0.005	< 0.005	0.09	0.02	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	< 0.005	—	59.1	59.1	< 0.005	0.01	0.06	61.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.82	1.82	< 0.005	< 0.005	< 0.005	1.85

Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.59	2.59	< 0.005	< 0.005	< 0.005	2.71
Hauling	< 0.005	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.78	9.78	< 0.005	< 0.005	0.01	10.3

3.6. Paving (2023) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.49	0.43	2.49	10.7	0.01	0.13	—	0.13	0.12	—	0.12	—	1,512	1,512	0.06	0.01	—	1,517
Paving	—	0.47	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.20	0.88	< 0.005	0.01	—	0.01	0.01	—	0.01	—	124	124	0.01	< 0.005	—	125
Paving	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.16	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	20.6	20.6	< 0.005	< 0.005	—	20.6
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.06	0.66	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	133	133	0.01	< 0.005	0.02	135
Vendor	0.01	0.01	0.27	0.08	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	190	190	< 0.005	0.03	0.01	199
Hauling	0.03	0.01	1.04	0.23	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	—	719	719	0.02	0.11	0.04	753
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.0	11.0	< 0.005	< 0.005	0.02	11.2
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	15.7	15.7	< 0.005	< 0.005	0.02	16.4
Hauling	< 0.005	< 0.005	0.09	0.02	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	< 0.005	—	59.1	59.1	< 0.005	0.01	0.06	61.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.82	1.82	< 0.005	< 0.005	< 0.005	1.85
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.59	2.59	< 0.005	< 0.005	< 0.005	2.71
Hauling	< 0.005	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.78	9.78	< 0.005	< 0.005	0.01	10.3

3.7. Trenching (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.15	0.12	1.27	1.91	< 0.005	0.06	—	0.06	0.06	—	0.06	—	290	290	0.01	< 0.005	—	291
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.96	7.96	< 0.005	< 0.005	—	7.98
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.32	1.32	< 0.005	< 0.005	—	1.32
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.06	0.66	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	133	133	0.01	< 0.005	0.02	135
Vendor	< 0.005	< 0.005	0.09	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	63.5	63.5	< 0.005	0.01	< 0.005	66.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.67	3.67	< 0.005	< 0.005	0.01	3.72
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.74	1.74	< 0.005	< 0.005	< 0.005	1.82
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.61	0.61	< 0.005	< 0.005	< 0.005	0.62

Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.29	0.29	< 0.005	< 0.005	< 0.005	0.30
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Trenching (2023) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	1.27	1.91	< 0.005	0.06	—	0.06	0.06	—	0.06	—	290	290	0.01	< 0.005	—	291
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.96	7.96	< 0.005	< 0.005	—	7.98
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.32	1.32	< 0.005	< 0.005	—	1.32
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.06	0.66	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	133	133	0.01	< 0.005	0.02	135
Vendor	< 0.005	< 0.005	0.09	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	63.5	63.5	< 0.005	0.01	< 0.005	66.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.67	3.67	< 0.005	< 0.005	0.01	3.72
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.74	1.74	< 0.005	< 0.005	< 0.005	1.82
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.61	0.61	< 0.005	< 0.005	< 0.005	0.62
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.29	0.29	< 0.005	< 0.005	< 0.005	0.30
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	0.24	0.10	6.91	1.71	0.05	0.07	0.68	0.75	0.07	0.16	0.23	—	4,944	4,944	0.12	0.78	11.0	5,192
Total	0.24	0.10	6.91	1.71	0.05	0.07	0.68	0.75	0.07	0.16	0.23	—	4,944	4,944	0.12	0.78	11.0	5,192

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	0.23	0.10	7.17	1.74	0.05	0.07	0.68	0.75	0.07	0.16	0.23	—	4,946	4,946	0.12	0.78	0.28	5,183
Total	0.23	0.10	7.17	1.74	0.05	0.07	0.68	0.75	0.07	0.16	0.23	—	4,946	4,946	0.12	0.78	0.28	5,183
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	0.04	0.02	1.31	0.31	0.01	0.01	0.12	0.14	0.01	0.03	0.04	—	819	819	0.02	0.13	0.78	859
Total	0.04	0.02	1.31	0.31	0.01	0.01	0.12	0.14	0.01	0.03	0.04	—	819	819	0.02	0.13	0.78	859

4.1.2. Mitigated

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	0.24	0.10	6.91	1.71	0.05	0.07	0.68	0.75	0.07	0.16	0.23	—	4,944	4,944	0.12	0.78	11.0	5,192
Total	0.24	0.10	6.91	1.71	0.05	0.07	0.68	0.75	0.07	0.16	0.23	—	4,944	4,944	0.12	0.78	11.0	5,192
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	0.23	0.10	7.17	1.74	0.05	0.07	0.68	0.75	0.07	0.16	0.23	—	4,946	4,946	0.12	0.78	0.28	5,183
Total	0.23	0.10	7.17	1.74	0.05	0.07	0.68	0.75	0.07	0.16	0.23	—	4,946	4,946	0.12	0.78	0.28	5,183
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	0.04	0.02	1.31	0.31	0.01	0.01	0.12	0.14	0.01	0.03	0.04	—	819	819	0.02	0.13	0.78	859
Total	0.04	0.02	1.31	0.31	0.01	0.01	0.12	0.14	0.01	0.03	0.04	—	819	819	0.02	0.13	0.78	859

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	297	297	0.02	< 0.005	—	298
Total	—	—	—	—	—	—	—	—	—	—	—	—	297	297	0.02	< 0.005	—	298
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	297	297	0.02	< 0.005	—	298
Total	—	—	—	—	—	—	—	—	—	—	—	—	297	297	0.02	< 0.005	—	298
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	49.1	49.1	< 0.005	< 0.005	—	49.3
Total	—	—	—	—	—	—	—	—	—	—	—	—	49.1	49.1	< 0.005	< 0.005	—	49.3

4.2.2. Electricity Emissions By Land Use - Mitigated

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	297	297	0.02	< 0.005	—	298
Total	—	—	—	—	—	—	—	—	—	—	—	—	297	297	0.02	< 0.005	—	298
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	297	297	0.02	< 0.005	—	298
Total	—	—	—	—	—	—	—	—	—	—	—	—	297	297	0.02	< 0.005	—	298
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	49.1	49.1	< 0.005	< 0.005	—	49.3
Total	—	—	—	—	—	—	—	—	—	—	—	—	49.1	49.1	< 0.005	< 0.005	—	49.3

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.2.4. Natural Gas Emissions By Land Use - Mitigated

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.3. Area Emissions by Source

4.3.2. 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	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.04	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.01	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.3.1. Mitigated

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	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.04	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landsca Equipment	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.01	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.4. Water Emissions by Land Use

4.4.2. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	2.70	2.70	< 0.005	< 0.005	—	2.71
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	2.70	2.70	< 0.005	< 0.005	—	2.71
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	2.70	2.70	< 0.005	< 0.005	—	2.71
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	2.70	2.70	< 0.005	< 0.005	—	2.71
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.45	0.45	< 0.005	< 0.005	—	0.45
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.45	0.45	< 0.005	< 0.005	—	0.45

4.4.1. Mitigated

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	2.70	2.70	< 0.005	< 0.005	—	2.71
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	2.70	2.70	< 0.005	< 0.005	—	2.71
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	2.70	2.70	< 0.005	< 0.005	—	2.71
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	2.70	2.70	< 0.005	< 0.005	—	2.71
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.45	0.45	< 0.005	< 0.005	—	0.45
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.45	0.45	< 0.005	< 0.005	—	0.45

4.5. Waste Emissions by Land Use

4.5.2. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

4.5.1. Mitigated

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.6.2. Mitigated

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. 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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	9/4/2023	9/8/2023	5.00	5.00	—
Building Construction and Trenching	Building Construction	9/11/2023	10/20/2023	5.00	30.0	—
Paving	Paving	10/23/2023	12/1/2023	5.00	30.0	—
Landscaping	Trenching	12/4/2023	12/15/2023	5.00	10.0	—

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	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Building Construction and Trenching	Forklifts	Diesel	Average	1.00	8.00	82.0	0.20
Building Construction and Trenching	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction and Trenching	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction and Trenching	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Landscaping	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	4.00	8.00	84.0	0.37
Building Construction and Trenching	Forklifts	Diesel	Tier 4 Final	1.00	8.00	82.0	0.20
Building Construction and Trenching	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction and Trenching	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction and Trenching	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Paving	Pavers	Diesel	Tier 4 Final	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Final	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Landscaping	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	4.00	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	4.00	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Building Construction and Trenching	—	—	—	—
Building Construction and Trenching	Worker	16.0	18.5	LDA,LDT1,LDT2

Building Construction and Trenching	Vendor	4.00	10.2	HHDT,MHDT
Building Construction and Trenching	Hauling	2.00	20.0	HHDT
Building Construction and Trenching	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	10.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	6.00	10.2	HHDT,MHDT
Paving	Hauling	10.0	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Landscaping	—	—	—	—
Landscaping	Worker	10.0	18.5	LDA,LDT1,LDT2
Landscaping	Vendor	2.00	10.2	HHDT,MHDT
Landscaping	Hauling	0.00	20.0	HHDT
Landscaping	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	4.00	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	4.00	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Building Construction and Trenching	—	—	—	—
Building Construction and Trenching	Worker	16.0	18.5	LDA,LDT1,LDT2
Building Construction and Trenching	Vendor	4.00	10.2	HHDT,MHDT
Building Construction and Trenching	Hauling	2.00	20.0	HHDT
Building Construction and Trenching	Onsite truck	—	—	HHDT
Paving	—	—	—	—

Paving	Worker	10.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	6.00	10.2	HHDT,MHDT
Paving	Hauling	10.0	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Landscaping	—	—	—	—
Landscaping	Worker	10.0	18.5	LDA,LDT1,LDT2
Landscaping	Vendor	2.00	10.2	HHDT,MHDT
Landscaping	Hauling	0.00	20.0	HHDT
Landscaping	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)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	7.50	0.00	—
Paving	0.00	0.00	0.00	0.00	5.34

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Parking Lot	5.34	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	0.00	532	0.03	< 0.005

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
Parking Lot	85.7	85.7	85.7	31,297	1,392	1,392	1,392	508,001

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Parking Lot	85.7	85.7	85.7	31,297	1,392	1,392	1,392	508,001

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	0.00	0.00	13,950

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

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)
Parking Lot	203,671	532	0.0330	0.0040	0.00

5.11.2. Mitigated

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)
Parking Lot	203,671	532	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Parking Lot	0.00	349,535

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Parking Lot	0.00	349,535

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Parking Lot	0.00	0.00

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Parking Lot	0.00	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

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

5.18.1.2. Mitigated

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)

5.18.2.2. Mitigated

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	9.95	annual days of extreme heat
Extreme Precipitation	4.45	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	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 (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth 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 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
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	1	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	1	1	2
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	26.7
AQ-PM	24.8
AQ-DPM	47.4

Drinking Water	72.3
Lead Risk Housing	59.3
Pesticides	99.6
Toxic Releases	94.3
Traffic	22.6
Effect Indicators	—
CleanUp Sites	87.7
Groundwater	90.3
Haz Waste Facilities/Generators	28.3
Impaired Water Bodies	97.5
Solid Waste	80.0
Sensitive Population	—
Asthma	48.3
Cardio-vascular	63.3
Low Birth Weights	42.8
Socioeconomic Factor Indicators	—
Education	74.7
Housing	53.6
Linguistic	78.0
Poverty	66.9
Unemployment	74.7

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	29.05171308

Employed	59.69459772
Median HI	41.31913255
Education	—
Bachelor's or higher	15.47542666
High school enrollment	18.81175414
Preschool enrollment	83.10021814
Transportation	—
Auto Access	98.98626973
Active commuting	42.61516746
Social	—
2-parent households	48.81303734
Voting	48.7488772
Neighborhood	—
Alcohol availability	35.66020788
Park access	7.878865649
Retail density	14.47452842
Supermarket access	65.16104196
Tree canopy	9.534197357
Housing	—
Homeownership	59.66893366
Housing habitability	24.07288592
Low-inc homeowner severe housing cost burden	4.59386629
Low-inc renter severe housing cost burden	76.22225074
Uncrowded housing	7.35275247
Health Outcomes	—
Insured adults	16.16835622
Arthritis	68.4

Asthma ER Admissions	70.5
High Blood Pressure	45.3
Cancer (excluding skin)	71.8
Asthma	37.3
Coronary Heart Disease	54.4
Chronic Obstructive Pulmonary Disease	45.1
Diagnosed Diabetes	38.1
Life Expectancy at Birth	21.8
Cognitively Disabled	22.1
Physically Disabled	18.7
Heart Attack ER Admissions	73.9
Mental Health Not Good	33.4
Chronic Kidney Disease	35.4
Obesity	33.5
Pedestrian Injuries	19.6
Physical Health Not Good	34.4
Stroke	51.7
Health Risk Behaviors	—
Binge Drinking	40.3
Current Smoker	40.0
No Leisure Time for Physical Activity	26.3
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	49.8
Children	15.5
Elderly	77.3
English Speaking	27.3

Foreign-born	84.7
Outdoor Workers	8.5
Climate Change Adaptive Capacity	—
Impervious Surface Cover	47.3
Traffic Density	16.8
Traffic Access	23.0
Other Indices	—
Hardship	76.8
Other Decision Support	—
2016 Voting	41.2

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	86.0
Healthy Places Index Score for Project Location (b)	40.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Demolition and Grading are already completed. Other phases adjusted to match site plan. Landscaping phase length attached to building construction phase.
Construction: Off-Road Equipment	Changed to match data request.
Construction: Trips and VMT	Changed to match data request
Operations: Vehicle Data	352.501 ksf divided by 130 maximum trips per day equals the trip rate.
Operations: Fleet Mix	In order to model the worst-case vehicle trips, I have modeled 100% HHD trips.

Arcturus Ave - Proposed Project

Project Operational Energy Demand

Mobile Source Gasoline Demand

Project Facility	Vehicle MT CO_2	Kg CO2/Gallon	Gallons
Vehicles	0.00	8.78	0.00
landscaping	0.00	8.78	0.00
Total	**0.00**		**0.00**

Mobile Source Diesel Demand

Project Facility	Vehicle MT CO_2	Kg CO2/Gallon	Gallons
Vehicles	819.00	10.21	80,215.48
Total	**819.00**		**80,215.48**

Electricity Demand

Project Facility	kWh/Year	
Building and Lighting Electricity Demand		
Parking Lot	203,671.00	
		203,671.00
Water/Wastewater Electricity Demand		
Parking Lot	3,883.33	3,883.33
Total	**207,554.33**	

Natural Gas Demand

Project Facility	kBTu/Year		
Building Natural Gas Demand			
Parking Lot	0.00	558.78	0.00
	0.00		
Total	**0.00**		

Arcturus Ave - Proposed Project
Operational Electricity

Total Electricity	kWh/yr
Parking Lot	203671
Building Total	203,671.00
Water/Wastewater	3,883.33
Total	**207,554.33**

Electricity Intensity Factors - Water/Wastewater

Process	Units	
Supply	kwh/MG	9,727
Treat	kwh/MG	111
Distribute	kwh/MG	1,272
Wastewater Treatment	kwh/MG	1,911
Total	**kwh/MG**	**13,021**

* Electricity intensity factors from CalEEMod Appendix D

Electricity Demand - Water/Wastewater

	Units	Potable Water - Indoor	Potable Water - Outdoor	Total
Electricity Intensity Factor				
Supply	kwh/MG	9,727	9,727	N/A
Treat	kwh/MG	111	111	N/A
Distribute	kwh/MG	1,272	1,272	N/A
Wastewater Treatment	kwh/MG	1,911	-	N/A
Total	**kwh/MG**	**13,021**	**11,110**	N/A
Water Consumption				
Parking Lot	MG/yr	0.00	0.35	0.35
Total	**MG/yr**	**0.0**	**0.3**	**0.3**
Electricity Usage	**kwh/yr**	**0**	**3,883**	**3,883**

Project Construction Emission Results

Phase Name	Equipment	Hauling	Vendor	Worker	
CO2 MT/yr	51.3305	12.1435	5.1405	5.8855	(from CalEEMod outputs)
kg CO2/gal	10.21	10.21	10.21	8.78	
	5027.473066	1189.37316	503.476983	670.3302961	
Sum	7390.653509				
Diesel Sum	6720.323213				

Project Uses	CalEEMod		VMT	Annual CO2 MT/yr	Proportion CO2 Gas	Diesel
Parking Lot		Parking Lot	508001	819	0.00	819.00

Arcturus Existing Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Arcturus Existing
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.30
Precipitation (days)	12.0
Location	34.14046307029551, -119.17217668751988
County	Ventura
City	Oxnard
Air District	Ventura County APCD
Air Basin	South Central Coast
TAZ	3419
EDFZ	8
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas

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
Manufacturing	55.5	1000sqft	1.27	55,508	1.00	—	—	—
Manufacturing	5.69	1000sqft	0.13	5,692	1.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.17	1.83	17.6	17.8	0.02	0.83	7.21	8.05	0.77	3.46	4.22	—	2,667	2,667	0.11	0.07	2.53	2,679
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.14	28.5	17.1	17.7	0.02	0.76	0.42	0.92	0.70	0.10	0.74	—	2,660	2,660	0.11	0.07	0.07	2,670
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.94	0.86	6.39	7.20	0.01	0.26	0.33	0.59	0.24	0.11	0.35	—	1,411	1,411	0.06	0.04	0.57	1,424
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.17	0.16	1.17	1.31	< 0.005	0.05	0.06	0.11	0.04	0.02	0.06	—	234	234	0.01	0.01	0.09	236

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2023	2.17	1.83	17.6	17.8	0.02	0.83	7.21	8.05	0.77	3.46	4.22	—	2,667	2,667	0.11	0.07	2.53	2,679
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	2.14	1.80	17.1	17.7	0.02	0.76	0.42	0.92	0.70	0.10	0.74	—	2,660	2,660	0.11	0.07	0.07	2,670
2024	1.51	28.5	10.0	11.8	0.02	0.38	0.42	0.80	0.35	0.10	0.45	—	2,450	2,450	0.10	0.07	0.06	2,475
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.94	0.79	6.39	7.20	0.01	0.26	0.33	0.59	0.24	0.11	0.35	—	1,411	1,411	0.06	0.04	0.57	1,424
2024	0.10	0.86	0.69	0.86	< 0.005	0.03	0.03	0.06	0.02	0.01	0.03	—	167	167	0.01	< 0.005	0.07	168
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.17	0.14	1.17	1.31	< 0.005	0.05	0.06	0.11	0.04	0.02	0.06	—	234	234	0.01	0.01	0.09	236
2024	0.02	0.16	0.13	0.16	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	27.6	27.6	< 0.005	< 0.005	0.01	27.9

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.62	1.91	2.55	3.80	0.02	0.08	0.20	0.27	0.08	0.05	0.12	68.0	3,141	3,209	7.03	0.27	19.8	3,486
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.15	1.47	2.60	1.14	0.02	0.07	0.20	0.27	0.07	0.05	0.12	68.0	3,130	3,198	7.03	0.27	16.0	3,471
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.38	1.68	2.62	2.45	0.02	0.07	0.20	0.27	0.07	0.05	0.12	68.0	3,135	3,203	7.03	0.27	17.6	3,478
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	0.07	0.31	0.48	0.45	< 0.005	0.01	0.04	0.05	0.01	0.01	0.02	11.3	519	530	1.16	0.05	2.91	576

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.07	0.04	1.83	0.55	0.01	0.02	0.20	0.22	0.02	0.05	0.07	—	1,324	1,324	0.03	0.20	3.83	1,387
Area	0.47	1.82	0.02	2.66	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.9	10.9	< 0.005	< 0.005	—	11.0
Energy	0.08	0.04	0.70	0.59	< 0.005	0.05	—	0.05	0.05	—	0.05	—	1,666	1,666	0.13	0.01	—	1,671
Water	—	—	—	—	—	—	—	—	—	—	—	27.1	140	168	2.79	0.07	—	257
Waste	—	—	—	—	—	—	—	—	—	—	—	40.9	0.00	40.9	4.09	0.00	—	143
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	15.9	15.9
Total	0.62	1.91	2.55	3.80	0.02	0.08	0.20	0.27	0.08	0.05	0.12	68.0	3,141	3,209	7.03	0.27	19.8	3,486
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.07	0.04	1.90	0.56	0.01	0.02	0.20	0.22	0.02	0.05	0.07	—	1,324	1,324	0.03	0.20	0.10	1,384
Area	—	1.39	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.08	0.04	0.70	0.59	< 0.005	0.05	—	0.05	0.05	—	0.05	—	1,666	1,666	0.13	0.01	—	1,671
Water	—	—	—	—	—	—	—	—	—	—	—	27.1	140	168	2.79	0.07	—	257
Waste	—	—	—	—	—	—	—	—	—	—	—	40.9	0.00	40.9	4.09	0.00	—	143
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	15.9	15.9
Total	0.15	1.47	2.60	1.14	0.02	0.07	0.20	0.27	0.07	0.05	0.12	68.0	3,130	3,198	7.03	0.27	16.0	3,471
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.07	0.04	1.90	0.55	0.01	0.02	0.20	0.22	0.02	0.05	0.07	—	1,324	1,324	0.03	0.20	1.66	1,385
Area	0.23	1.60	0.01	1.31	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.40	5.40	< 0.005	< 0.005	—	5.42

Energy	0.08	0.04	0.70	0.59	< 0.005	0.05	—	0.05	0.05	—	0.05	—	1,666	1,666	0.13	0.01	—	1,671
Water	—	—	—	—	—	—	—	—	—	—	—	27.1	140	168	2.79	0.07	—	257
Waste	—	—	—	—	—	—	—	—	—	—	—	40.9	0.00	40.9	4.09	0.00	—	143
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	15.9	15.9
Total	0.38	1.68	2.62	2.45	0.02	0.07	0.20	0.27	0.07	0.05	0.12	68.0	3,135	3,203	7.03	0.27	17.6	3,478
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.01	0.01	0.35	0.10	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	219	219	< 0.005	0.03	0.27	229
Area	0.04	0.29	< 0.005	0.24	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.89	0.89	< 0.005	< 0.005	—	0.90
Energy	0.01	0.01	0.13	0.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	276	276	0.02	< 0.005	—	277
Water	—	—	—	—	—	—	—	—	—	—	—	4.49	23.2	27.7	0.46	0.01	—	42.6
Waste	—	—	—	—	—	—	—	—	—	—	—	6.77	0.00	6.77	0.68	0.00	—	23.7
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.64	2.64
Total	0.07	0.31	0.48	0.45	< 0.005	0.01	0.04	0.05	0.01	0.01	0.02	11.3	519	530	1.16	0.05	2.91	576

3. Construction Emissions Details

3.1. Demolition (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.07	1.74	17.0	16.9	0.02	0.76	—	0.76	0.70	—	0.70	—	2,494	2,494	0.10	0.02	—	2,502
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.07	1.74	17.0	16.9	0.02	0.76	—	0.76	0.70	—	0.70	—	2,494	2,494	0.10	0.02	—	2,502
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.10	0.93	0.93	< 0.005	0.04	—	0.04	0.04	—	0.04	—	137	137	0.01	< 0.005	—	137
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.17	0.17	< 0.005	0.01	—	0.01	0.01	—	0.01	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.91	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	174	174	0.01	0.01	0.80	177
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.08	0.82	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	166	166	0.01	0.01	0.02	168
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.17	9.17	< 0.005	< 0.005	0.02	9.30
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.52	1.52	< 0.005	< 0.005	< 0.005	1.54
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Site Preparation (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.84	1.54	15.1	13.7	0.02	0.72	—	0.72	0.66	—	0.66	—	2,063	2,063	0.08	0.02	—	2,070
Dust From Material Movement	—	—	—	—	—	—	6.26	6.26	—	3.00	3.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.3	11.3	< 0.005	< 0.005	—	11.3
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.87	1.87	< 0.005	< 0.005	—	1.88
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.04	0.54	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	104	104	< 0.005	< 0.005	0.48	106
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.55	0.55	< 0.005	< 0.005	< 0.005	0.56
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.09	0.09	< 0.005	< 0.005	< 0.005	0.09
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Grading (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.12	1.78	17.5	16.3	0.02	0.83	—	0.83	0.77	—	0.77	—	2,453	2,453	0.10	0.02	—	2,462
Dust From Material Movement	—	—	—	—	—	—	7.08	7.08	—	3.42	3.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.19	0.18	< 0.005	0.01	—	0.01	0.01	—	0.01	—	26.9	26.9	< 0.005	< 0.005	—	27.0

Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.45	4.45	< 0.005	< 0.005	—	4.47
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.73	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	139	139	0.01	< 0.005	0.64	141
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.47	1.47	< 0.005	< 0.005	< 0.005	1.49
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.24	0.24	< 0.005	< 0.005	< 0.005	0.25
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Building Construction (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.43	1.19	9.81	10.2	0.02	0.41	—	0.41	0.38	—	0.38	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.43	1.19	9.81	10.2	0.02	0.41	—	0.41	0.38	—	0.38	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.71	0.59	4.88	5.06	0.01	0.20	—	0.20	0.19	—	0.19	—	895	895	0.04	0.01	—	898
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.89	0.92	< 0.005	0.04	—	0.04	0.03	—	0.03	—	148	148	0.01	< 0.005	—	149
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.13	0.14	1.86	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	358	358	0.02	0.01	1.65	363
Vendor	0.02	0.01	0.43	0.13	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	318	318	0.01	0.05	0.88	333
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.13	0.16	1.68	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	342	342	0.02	0.01	0.04	346
Vendor	0.02	0.01	0.44	0.14	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	318	318	0.01	0.05	0.02	333
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.08	0.84	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	171	171	0.01	0.01	0.35	174
Vendor	0.01	< 0.005	0.22	0.07	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	158	158	< 0.005	0.02	0.19	165
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.15	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	28.3	28.3	< 0.005	< 0.005	0.06	28.7
Vendor	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	26.2	26.2	< 0.005	< 0.005	0.03	27.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.36	1.13	9.44	10.1	0.02	0.37	—	0.37	0.34	—	0.34	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.50	0.53	< 0.005	0.02	—	0.02	0.02	—	0.02	—	95.2	95.2	< 0.005	< 0.005	—	95.5
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.09	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.8	15.8	< 0.005	< 0.005	—	15.8
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.11	0.15	1.57	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	335	335	0.02	0.01	0.04	339
Vendor	0.01	0.01	0.42	0.13	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	314	314	0.01	0.05	0.02	328
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.8	17.8	< 0.005	< 0.005	0.03	18.1
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	16.6	16.6	< 0.005	< 0.005	0.02	17.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.95	2.95	< 0.005	< 0.005	0.01	2.99
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.75	2.75	< 0.005	< 0.005	< 0.005	2.88
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Paving (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.63	0.53	4.90	6.53	0.01	0.23	—	0.23	0.21	—	0.21	—	992	992	0.04	0.01	—	995
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.13	0.18	< 0.005	0.01	—	0.01	0.01	—	0.01	—	27.2	27.2	< 0.005	< 0.005	—	27.3
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.50	4.50	< 0.005	< 0.005	—	4.51
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.05	0.07	0.76	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	163	163	0.01	0.01	0.02	165
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.50	4.50	< 0.005	< 0.005	0.01	4.56
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.74	0.74	< 0.005	< 0.005	< 0.005	0.76
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Architectural Coating (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	0.91	1.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	28.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.66	3.66	< 0.005	< 0.005	—	3.67
Architectural Coatings	—	0.78	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.61	0.61	< 0.005	< 0.005	—	0.61
Architectural Coatings	—	0.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.03	0.31	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	67.0	67.0	< 0.005	< 0.005	0.01	67.9

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.85	1.85	< 0.005	< 0.005	< 0.005	1.88
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.31	0.31	< 0.005	< 0.005	< 0.005	0.31
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manufacturing	0.07	0.04	1.83	0.55	0.01	0.02	0.20	0.22	0.02	0.05	0.07	—	1,324	1,324	0.03	0.20	3.83	1,387
Total	0.07	0.04	1.83	0.55	0.01	0.02	0.20	0.22	0.02	0.05	0.07	—	1,324	1,324	0.03	0.20	3.83	1,387
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Manufacturing	0.07	0.04	1.90	0.56	0.01	0.02	0.20	0.22	0.02	0.05	0.07	—	1,324	1,324	0.03	0.20	0.10	1,384
Total	0.07	0.04	1.90	0.56	0.01	0.02	0.20	0.22	0.02	0.05	0.07	—	1,324	1,324	0.03	0.20	0.10	1,384
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manufacturing	0.01	0.01	0.35	0.10	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	219	219	< 0.005	0.03	0.27	229
Total	0.01	0.01	0.35	0.10	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	219	219	< 0.005	0.03	0.27	229

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	829	829	0.05	0.01	—	833
Total	—	—	—	—	—	—	—	—	—	—	—	—	829	829	0.05	0.01	—	833
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	829	829	0.05	0.01	—	833
Total	—	—	—	—	—	—	—	—	—	—	—	—	829	829	0.05	0.01	—	833
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	137	137	0.01	< 0.005	—	138
Total	—	—	—	—	—	—	—	—	—	—	—	—	137	137	0.01	< 0.005	—	138

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manufacturing	0.08	0.04	0.70	0.59	< 0.005	0.05	—	0.05	0.05	—	0.05	—	837	837	0.07	< 0.005	—	839
Total	0.08	0.04	0.70	0.59	< 0.005	0.05	—	0.05	0.05	—	0.05	—	837	837	0.07	< 0.005	—	839
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manufacturing	0.08	0.04	0.70	0.59	< 0.005	0.05	—	0.05	0.05	—	0.05	—	837	837	0.07	< 0.005	—	839
Total	0.08	0.04	0.70	0.59	< 0.005	0.05	—	0.05	0.05	—	0.05	—	837	837	0.07	< 0.005	—	839
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manufacturing	0.01	0.01	0.13	0.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	138	138	0.01	< 0.005	—	139
Total	0.01	0.01	0.13	0.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	138	138	0.01	< 0.005	—	139

4.3. Area Emissions by Source

4.3.2. 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	—	1.31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.47	0.44	0.02	2.66	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.9	10.9	< 0.005	< 0.005	—	11.0
Total	0.47	1.82	0.02	2.66	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.9	10.9	< 0.005	< 0.005	—	11.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	1.39	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.24	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.04	0.04	< 0.005	0.24	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.89	0.89	< 0.005	< 0.005	—	0.90
Total	0.04	0.29	< 0.005	0.24	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.89	0.89	< 0.005	< 0.005	—	0.90

4.4. Water Emissions by Land Use

4.4.2. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	27.1	140	168	2.79	0.07	—	257
Total	—	—	—	—	—	—	—	—	—	—	—	27.1	140	168	2.79	0.07	—	257
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	27.1	140	168	2.79	0.07	—	257
Total	—	—	—	—	—	—	—	—	—	—	—	27.1	140	168	2.79	0.07	—	257
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	4.49	23.2	27.7	0.46	0.01	—	42.6
Total	—	—	—	—	—	—	—	—	—	—	—	4.49	23.2	27.7	0.46	0.01	—	42.6

4.5. Waste Emissions by Land Use

4.5.2. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	40.9	0.00	40.9	4.09	0.00	—	143
Total	—	—	—	—	—	—	—	—	—	—	—	40.9	0.00	40.9	4.09	0.00	—	143
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	40.9	0.00	40.9	4.09	0.00	—	143
Total	—	—	—	—	—	—	—	—	—	—	—	40.9	0.00	40.9	4.09	0.00	—	143
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	6.77	0.00	6.77	0.68	0.00	—	23.7
Total	—	—	—	—	—	—	—	—	—	—	—	6.77	0.00	6.77	0.68	0.00	—	23.7

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	15.9	15.9
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	15.9	15.9
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Manufact	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	15.9	15.9
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	15.9	15.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.64	2.64
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.64	2.64

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Demolition	Demolition	3/15/2023	4/12/2023	5.00	20.0	—
Site Preparation	Site Preparation	4/13/2023	4/15/2023	5.00	2.00	—
Grading	Grading	4/16/2023	4/21/2023	5.00	4.00	—
Building Construction	Building Construction	4/22/2023	1/27/2024	5.00	200	—
Paving	Paving	1/28/2024	2/11/2024	5.00	10.0	—
Architectural Coating	Architectural Coating	2/12/2024	2/26/2024	5.00	10.0	—

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
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41

Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	7.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	7.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	6.00	367	0.29
Building Construction	Forklifts	Diesel	Average	1.00	6.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	6.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	1.00	7.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	12.5	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT

Demolition	Hauling	0.00	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	7.50	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	25.7	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	10.0	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	12.5	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	5.14	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	91,800	30,600	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	—	—
Site Preparation	—	—	1.88	0.00	—
Grading	—	—	4.00	0.00	—
Paving	0.00	0.00	0.00	0.00	0.00

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Manufacturing	0.00	0%
Manufacturing	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	0.00	532	0.03	< 0.005
2024	0.00	532	0.03	< 0.005

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
Manufacturing	27.0	27.0	27.0	9,868	439	439	439	160,171

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	91,800	30,600	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO_2 and CH_4 and N_2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Manufacturing	516,164	532	0.0330	0.0040	2,367,400
Manufacturing	52,929	532	0.0330	0.0040	242,762

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Manufacturing	12,836,318	12.9
Manufacturing	1,316,183	12.9

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Manufacturing	68.8	0.00
Manufacturing	7.06	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Manufacturing	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0

Manufacturing	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	9.95	annual days of extreme heat
Extreme Precipitation	4.45	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	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 (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth 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 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

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	1	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	1	1	2
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	26.7
AQ-PM	24.8
AQ-DPM	47.4
Drinking Water	72.3
Lead Risk Housing	59.3
Pesticides	99.6
Toxic Releases	94.3
Traffic	22.6
Effect Indicators	—
CleanUp Sites	87.7
Groundwater	90.3
Haz Waste Facilities/Generators	28.3
Impaired Water Bodies	97.5
Solid Waste	80.0

Sensitive Population	—
Asthma	48.3
Cardio-vascular	63.3
Low Birth Weights	42.8
Socioeconomic Factor Indicators	—
Education	74.7
Housing	53.6
Linguistic	78.0
Poverty	66.9
Unemployment	74.7

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	29.05171308
Employed	59.69459772
Median HI	41.31913255
Education	—
Bachelor's or higher	15.47542666
High school enrollment	18.81175414
Preschool enrollment	83.10021814
Transportation	—
Auto Access	98.98626973
Active commuting	42.61516746
Social	—
2-parent households	48.81303734

Voting	48.7488772
Neighborhood	—
Alcohol availability	35.66020788
Park access	7.878865649
Retail density	14.47452842
Supermarket access	65.16104196
Tree canopy	9.534197357
Housing	—
Homeownership	59.66893366
Housing habitability	24.07288592
Low-inc homeowner severe housing cost burden	4.59386629
Low-inc renter severe housing cost burden	76.22225074
Uncrowded housing	7.35275247
Health Outcomes	—
Insured adults	16.16835622
Arthritis	68.4
Asthma ER Admissions	70.5
High Blood Pressure	45.3
Cancer (excluding skin)	71.8
Asthma	37.3
Coronary Heart Disease	54.4
Chronic Obstructive Pulmonary Disease	45.1
Diagnosed Diabetes	38.1
Life Expectancy at Birth	21.8
Cognitively Disabled	22.1
Physically Disabled	18.7
Heart Attack ER Admissions	73.9

Mental Health Not Good	33.4
Chronic Kidney Disease	35.4
Obesity	33.5
Pedestrian Injuries	19.6
Physical Health Not Good	34.4
Stroke	51.7
Health Risk Behaviors	—
Binge Drinking	40.3
Current Smoker	40.0
No Leisure Time for Physical Activity	26.3
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	49.8
Children	15.5
Elderly	77.3
English Speaking	27.3
Foreign-born	84.7
Outdoor Workers	8.5
Climate Change Adaptive Capacity	—
Impervious Surface Cover	47.3
Traffic Density	16.8
Traffic Access	23.0
Other Indices	—
Hardship	76.8
Other Decision Support	—
2016 Voting	41.2

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	86.0
Healthy Places Index Score for Project Location (b)	40.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Operations: Vehicle Data	291 trips divided by 61.2 ksf equals 4.75 trip rate
Operations: Fleet Mix	Changed to match fleet mix calcs sheet and to represent passenger and truck trips to the manufacturing facility

Existing Land Use Fleet Mix Calcs

Default

FleetMixLandUseSubType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	Sum
Unrefrigerated Warehouse-No Rail	48.84332418	4.78063	20.83753198	15.62307924	3.317527473	0.891962461	1.268579904	0.5877594	0.06949	0.0370035	2.8166	0.096010102	0.8305016	100
Unrefrigerated Warehouse-Rail	48.84332418	4.78063	20.83753198	15.62307924	3.317527473	0.891962461	1.268579904	0.5877594	0.06949	0.0370035	2.8166	0.096010102	0.8305016	100

	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Total Light-Duty	90.08456618												
	0.542194143	0.05307	0.231310788	0.173426813	0	0	0	0	0	0	0	0	0
Check	1												
				4.209489934	0.78810676	0.21189324							

Adjusted

FleetMixLandUseSubType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unrefrigerated Warehouse-No Rail	0.542194	0.05307	0.231311	0.173427	0	0	0	0	0	0	0	0	0
Unrefrigerated Warehouse-Rail	0	0	0	0	0.11	0.05	0.21	0.63	0	0	0	0	0
	0.542	0.053	0.231	0.173	0.999			1					

	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Passenger	54.2194	5.3068	23.1311	17.3427	0	0	0	0	0	0	0	0	0
Trucks	0	0	0	0	11	5	21	63	0	0	0	0	0

Appendix B

Biological Resources Assessment Report

DUDEK
621 CHAPALA STREET
SANTA BARBARA, CALIFORNIA 93101
T 805.963.0651 F 805.963.2074

March 28, 2023 13296.03

Joe Pearson II, Principal Planner
City of Oxnard, Planning Division
214 South C Street
Oxnard, California 93030

Subject: Biological Resources Assessment Report for 6001 Arcturus Avenue Outdoor Storage Yard Project, City of Oxnard, California

Dear Joe Pearson:

This Biological Resources Assessment Report has been prepared for the 6001 Arcturus Avenue Outdoor Storage Yard Project (project) located in the City of Oxnard (City), California (Figure 1, Project Location). This Biological Resources Assessment Report documents existing conditions and potentially occurring biological resources on site, outlines the regulatory framework of the proposed project site and activities, assesses potential impacts to sensitive biological resources, and identifies any recommendations and/or necessary focused surveys and permits for the project as they relate to biological resources.

1 Project Background

1.1 Project Location

The project site is located off Arcturus Avenue in the City of Oxnard, California (Figure 1). The project site is located within one parcel (Assessor's Parcel Number [APN] 231-0-092-215), is zoned as Light Manufacturing (M1) with a land use designation of Light Industrial (ILT) and comprises a total of approximately 9.0 acres. The project site is bounded by industrial development to the north, East McWane Boulevard and agricultural fields to the south, existing trailer truck storage to the east, and a spur line railroad and Ormond Beach Wetlands to the west. The project site is centered at approximately 34°8'27.04'' N 119°10'25.51'' W and falls within the Oxnard U.S. Geological Survey (USGS) 7.5-minute quadrangle. Approximately 0.63 acres in the southwest portion of the project parcel falls within the Coastal Zone Boundary (Figure 2, Biological Resources).

1.2 Project Description

Hager Pacific Properties (Applicant) is proposing the construction of an approximately 9.0-acre outdoor vehicle, shipping container, and truck storage facility at 6001 Arcturus Avenue (see Attachment A, Conceptual Site Plans). The proposed project site was previously utilized by a heavy industrial manufacturing facility, Arcturus Manufacturing, which ceased operations in September 2017. The structures associated with the previous use were demolished in September 2021, with site cleanup and remediation completed in August 2021. The proposed project represents a significant deintensification of industrial land uses, from a metallurgy manufacturing facility to a logistics facility to support the Port of Hueneme (Port).

The project site will be used for the storage of shipping containers or vehicles transiting through the Port. Trucks carrying shipping containers or vehicles preparing to be stored will approach the site and pull into the 40-foot northern throat entrance on Arcturus Avenue. Drivers will utilize a Click2Enter system (or equivalent secure automated entry system) to access the site. Drivers will circulate through the site in counterclockwise fashion, back up to designated spaces, unload or pick up containers, and then exit the site using the southern gate on Arcturus Avenue. The procedure will be the same for vehicles. When used for container storage, the site is anticipated to generate approximately 100 daily trips to or from the Port. No containers will be stacked at the site. When used for vehicles, the site is anticipated to generate approximately 125 daily trips to or from the Port.

The main business hours of the site will be approximately 6:00 a.m. to 6:00 p.m. There will be no employees or security stationed on site; therefore, no restroom facility is necessary. Drivers will be dropping off and picking up containers or vehicles to service nearby sites that have on-site restroom facilities. No equipment will be plugged in for utility services. The only electricity needed for the site will be lights, security cameras, and automated gate access. The proposed parking lot will be surrounded by landscaping with a 6-foot-tall screening wall proposed along the Arcturus Avenue right-of-way to the east. The other property boundaries will be secured via an 8-foot-tall perimeter fence. In addition, thirty-eight low-profile, LED tower light fixtures would be placed along the perimeter and interior of the property.

1.3 Project Objectives

The Applicant has the following objectives for the project:

1. Develop a high-quality, secure logistics facility in close proximity to the Port to support the Port's operations, which generate nearly $2.2 billion in economic activity in Ventura County. The purpose of the project is to relieve cargo pressure at the Port caused by the huge increase of cargo volume due to the COVID-19 pandemic and a massive shift in supply chain shipping routes. Our project would increase the capacity of local commerce and contribute to the growth of jobs and economy in the Greater Oxnard area.
2. Revitalize a blighted heavy industrial manufacturing facility into a modern logistics facility, resulting in a deintensification of industrial uses and the reuse and remediation of a brownfield site. For many decades, the property was used by a heavy industrial manufacturer and operated a variety of heavy forging, heat-treating, and testing/finishing equipment. The user, Arcturus Manufacturing, processed aluminum, stainless steel, titanium, and nickel-based alloys at the site. Forging consists of heating metal to sufficiently high temperatures in furnaces to make them malleable, and then forging using a closed die process. The parts were then water- and/or air-cooled. There were additional support operations including cutting, grinding, and machining. The new proposed use would be a storage lot with very light noise and improved air quality, visual, and traffic impacts compared to the previous use. This upgrade will result in not only a less impactful use, but also one that aligns with the economic future of Oxnard.

1.4 Biological Survey Area

To provide a complete assessment of the potential biological resources within the project site and immediate surroundings, the survey area incorporated the APN property boundary that comprises the project site and an additional 100-foot buffer beyond the boundaries. Collectively, these areas assessed are considered the Biological Survey Area (BSA) as shown in Figure 1.

2 Regulatory Context

There are various federal, state, and local regulations and guidelines pertinent to the biological resources in the project vicinity. These include programs for the recovery of state and federally listed endangered and threatened species, regulation of take of migratory birds, regulation of aquatic resources under state and federal jurisdictions, and local biological resources policies. Specifically, relevant regulations include protection to endangered and threatened species listed under the California Endangered Species Act and the federal Endangered Species Act; protections for native birds and bird nesting under the Migratory Bird Treaty Act and the California Fish and Game Code Sections 3503 and 3503.5; protections for aquatic resources under the jurisdictions of the U.S. Army Corps of Engineers, Regional Water Quality Control Board (RWQCB), and California Department of Fish and Wildlife (CDFW); the Coastal Zone Management Act[1]; and requirements and policies of the City of Oxnard Coastal Land Use Plan[1] (City 1982), General Plan (City 2022), and Oxnard Municipal Code.

3 Methods

To identify the potential biological resource constraints associated with the project, Dudek conducted a review of available literature and data related to the biological resources potentially present within the project site and vicinity. The literature review included a query of CDFW's California Natural Diversity Database (CNDDB; CDFW 2023a); the California Native Plant Society (CNPS) Rare Plant Inventory database (CNPS 2023a); the U.S. Fish and Wildlife Service's (USFWS) Information for Planning and Consultation (USFWS 2023a), western monarch overwintering sites (Western Monarch Count 2023), California amphibian and reptile species of special concern (Thomson et al. 2016), CDFW's *California Natural Community List* (CDFW 2023b), CDFW's *Special Vascular Plants, Bryophytes, and Lichens List* (CDFW 2023c), and CDFW's *Special Animals List* (CDFW 2023d). The CNDDB and CNPS queries incorporated a search of the project USGS quadrangle (Oxnard) and five surrounding quadrangles.

The query of CNDDB and other databases provided information on sensitive biological resources that may be present in the project vicinity, and thus informed the discussion of sensitive resources potentially occurring on the site. Dudek also compiled information on any critical habitat occurring in the area for federally listed species utilizing the USFWS and National Marine Fisheries Services Critical Habitat Mappers (USFWS 2023b; NMFS 2023), as well as wetland and aquatic resources included within the USFWS National Wetlands Inventory (USFWS 2023c) and USGS National Hydrography Dataset (USGS 2023). In addition, Dudek examined recent available aerial images of the area, and other relevant planning documents or technical reports, including:

- City of Oxnard General Coastal Land Use Plan (City 1982)[1]
- City of Oxnard General Plan (City 2022)
- City of Oxnard Municipal Code
- Ormond Beach Restoration and Public Access Project Plan (ESA 2021)

Following the literature review, Dudek biologist Andrea Dransfield conducted a field survey of the BSA on February 14, 2023, to assess existing conditions on site and identify potential biological constraints (Table 1).

[1] Approximately 0.63 acres in the southwest portion of the project parcel falls within the Coastal Zone Boundary (Figure 2).

Table 1. Schedule of Surveys

Date	Time	Biologist	Survey Conditions
02/14/2023	7:00 a.m.–10:00 a.m.	Andrea Dransfield	49–55°F; 10% cloud cover; 3–5 mph wind

Notes: °F = degrees Fahrenheit; mph = miles per hour.

During the reconnaissance survey, Ms. Dransfield walked all project areas, recorded all plant and wildlife species occurring within the BSA, and assessed habitat suitability for sensitive biological resources. Vegetation community mapping was completed during the field survey. A Trimble handheld GPS unit, capable of sub-meter accuracy, was utilized to delineate potential aquatic features, and vegetation communities, where necessary. Classification of vegetation communities follows standard nomenclature in *A Manual for California Vegetation*, Online Edition (CNPS 2023b) and CDFW's *California Natural Community List* (CDFW 2023b). Ms. Dransfield performed a brief follow-up visit on March 15, 2023 to take photo documentation of culverts located directly outside the southwest corner of the project parcel boundary.

3.1 Survey Limitations

Field surveys were general in nature and did not follow established guidelines or focus on a particular species. Due to differences in phenology of the wide array of plant species, the field survey may only capture those species that are blooming in February. The survey was also conducted during daylight hours and would therefore not include nocturnal species. Additionally, responsible agency-developed protocol surveys were not conducted as part of this biological assessment survey. The field survey focused on vegetation mapping and habitat suitability; however, any observed special-status species and the habitat(s) utilized were documented. Areas that were not accessible (private property) or beyond the property fence line were surveyed visually using binoculars from vantage points within the parcel.

4 Results

This section provides the results of the biological assessment, including details on the environmental setting, soils, vegetation communities, and habitats; informal assessment of potential jurisdictional waters of the United States and State; potential for special-status plant and wildlife species to occur; and potential for wildlife movement. Figure 2 provides an aerial overview of the BSA and survey results. Attachment B provides photo documentation of the current site conditions. Attachment C provides a list of plant and wildlife species observed during the site visit. Attachment D provides a list of special-status plant and wildlife species not expected or with a low potential to occur.

4.1 Environmental Setting

The BSA is located within the City of Oxnard, which is situated atop a coastal alluvial plain formed by the Santa Clara River and surrounded by the mountains of the Transverse ranges. This plain was formed by the deposition of sediments from the Santa Clara River and Calleguas Creek. This plain contained a series of marshes, salt flats, sloughs, and lagoons prior to the expansion of agriculture and urbanization.

Regionally, the site is located approximately 1.5 miles east of the waterfront at the Port and 0.5 mile north of Ormond Beach and the Pacific Ocean. Surrounding land uses include industrial, commercial, agricultural, and undeveloped lands. The agricultural land south of the project site and the undeveloped lands west of the project site are owned by The Nature Conservancy, which is currently in the conceptual planning stages for future restoration. The Ormond Lagoon Waterway is located approximately 0.25 mile northwest of the project site. Mapped seasonal wetland habitat is located approximately over 400-feet from the project site western boundary (ESA 2021). Approximately 0.63 acre of the southwestern portion of the project site is located within the Coastal Zone.

The project site has been developed since at least 1982 with multiple structures evident in aerial imagery (UCSB 2023). As described in Section 1.2, the structures were removed in September 2021, which is evident from aerial imagery dated June 2022 (Google Earth 2023), leaving behind a concrete/paved base covering most of the property.

4.2 Soils

Historical soils within the site primarily consist of Hueneme loamy fine sand (Hn; 0% to 2% slopes), characterized as somewhat poorly drained soils with negligible runoff, and a parent material of calcareous alluvium derived from sedimentary rock over sedimentary rock (USDA 2023). A small portion of Camarillo loam (Cd; 0% to 2% slopes) occurs in the southwestern section of the BSA. Camarillo loam soils consist of somewhat poorly drained soils, with a parent material of alluvium derived from sedimentary rock (USDA 2023). Lastly, a very small portion of Camarillo sandy loam (Cc; 0% to 2% slopes), which also consists of somewhat poorly drained soils with a parent material of alluvium derived from sedimentary rock, is located in the northeastern portion of the BSA (USDA 2023).

4.3 Vegetation Communities and Habitats

The majority of the BSA is developed, including almost the entirety of the project site. The project site has historically been subject to previous development, including grading, which has resulted in a flat pad landform. A total of four vegetation community and land cover types were mapped within the BSA (Figure 2). Below are descriptions of each of the vegetation community and land cover types within the BSA. Photo documentation is provided in Attachment B. A summary of the acres for each vegetation community/land cover type is provided in Table 2.

Table 2. Vegetation Communities and Land Covers within the BSA

Vegetation Community or Land Cover Type	Alliance	Association	Ranking[a]	BSA (acres)	Project Site	
					Total Land Use (acres)	Subset In Coastal Zone (acres)
Disturbed Habitat	N/A	N/A	N/A	0.45	0.31	0.08
Developed	N/A	N/A	N/A	13.60	8.37	0.55
Agriculture	N/A	N/A	N/A	0.45	0	0

Table 2. Vegetation Communities and Land Covers within the BSA

Vegetation Community or Land Cover Type	Alliance	Association	Ranking[a]	BSA (acres)	Project Site	
					Total Land Use (acres)	Subset In Coastal Zone (acres)
Coyote Brush Scrub	*Baccharis pilularis* Shrubland Alliance	Annual grass	G5, S5	1.24	0	0
			Total	**15.74**	**8.68**	**0.63**

Notes: N/A = not applicable (i.e., not mapped at this level of detail or not described by CDFW [2023b]).
[a] Ranking as described in CDFW California Natural Community List (CDFW 2023b).
G5 = Secure global ranking (common; widespread and abundant.
S5 = Secure state global ranking (common; widespread, and abundant in the state).

4.3.1 Disturbed

Disturbed areas are not listed in CDFW (2023b) and are not considered sensitive. Disturbed habitat refers to areas where soils have been recently or repeatedly disturbed by grading, compaction, or clearing of vegetation. Structures are typically not present within disturbed habitats, and these areas provide relatively low value for most plant and wildlife species. Within the BSA, disturbed habitat includes a small strip of land within the project site boundary along the southern boundary of the parcel. Disturbed areas may provide foraging opportunities for raptors and/or fossorial wildlife species. A total of 0.31acres of disturbed lands occur within the project site (Figure 2).

This highly disturbed habitat predominantly comprises non-native species, trash and leftover materials from previous operations, small stockpiles, empty barrels, sandbags, tires, concrete pieces, and a sanitary sewer manhole. Common plant species that occur within the disturbed habitat on site include telegraphweed (*Heterotheca grandiflora*), Maltese star thistle (*Centaurea melitensis*), redstem stork's bill (*Erodium cicutarium*), tree tobacco (*Nicotiana glauca*), cheeseweed mallow (*Malva parviflora*), western ragweed (*Ambrosia psilostachya*), New Zealand spinach (*Tetragonia tetragonoides*), Bermudagrass (*Cynodon dactylon*), and Australian saltbush (*Atriplex semibaccata*).

Disturbed areas may provide little to no cover for birds, reptiles, and small mammals as they traverse between more suitable habitats, and very minimal to no food resources. Several small mammal burrows were observed. These burrows were small rodent burrow (e.g., mice) and no California ground squirrel (*Otospermophilus beecheyi*) burrows were observed.

4.3.2 Developed

Developed areas are not listed in CDFW (2023b) and are not considered sensitive. Developed lands refer to areas that have been constructed upon or otherwise physically altered to the extent that native vegetation communities are not supported. These areas are characterized by permanent or semi-permanent structures, hardscapes, and landscaped areas that require irrigation. Within the BSA, areas mapped as developed include the majority of the project parcel, the industrial development to the north, the existing trailer truck storage to the east, the railroad, and the adjacent roads. This is a dominant land cover type in the BSA. A total of 8.37acres of developed lands occur within the project site (Figure 2).

Some non-native, sparsely planted ornamental plant species such as crimson bottlebrush (*Melaleuca citrina*), boxwood (*Buxus* spp.), bird of paradise (*Strelitzia* spp.), Japanese maple (*Acer palmatum*), and juniper trees (*Juniperus* spp.) are planted along roadsides as landscaping in these developed areas, specifically along Arcturus Avenue. The developed areas around the parcel are heavily trafficked and subject to consistent human disturbance, largely lacking ideal habitat to provide cover, feeding, or nesting opportunities for wildlife species; collisions with vehicles along Arcturus Avenue may injure or result in mortality of wildlife. However, some common bird, small mammal, and small reptile species may utilize the very minimal landscape vegetation for cover and minimal food resources.

4.3.3 Agriculture

Agriculture areas are not listed in CDFW (2023b) and are not considered sensitive. Agriculture refers to areas where native vegetation has been removed, soils have been tilled, and the land is used to grow crops. This land use category occurs on the southern side of the BSA, on the south side of East McWane Boulevard, outside of the project site. Agricultural areas provide foraging and nesting opportunities for a variety of wildlife species, including birds. Agriculture doesn’t occur on the project site.

4.3.4 Coyote Brush Scrub

Coyote Brush Scrub is considered not sensitive (G5S5) by CDFW (2023b) indicating that globally and within California the alliance is apparently secure. The coyote brush scrub shrubland alliance includes coyote brush (*Baccharis pilularis*) as the dominant or co-dominant shrub in the canopy. Coyote brush scrub shrubland alliances have a variable shrub canopy less than 3 meters (10 feet) in height and a variable ground layer. Throughout California, the coyote brush scrub shrubland alliance occurs on stream sides, stabilized dunes of coastal bars, river mouths, spits along the coastline, coastal bluffs, open slopes, ridges, and terraces. Soils are moderately deep to deep, well-drained sandy loams and sandy clay loams (Sawyer et al. 2009). This coyote brush scrub shrubland alliance co-occurs with herbaceous species such as bromes, and wild oats.

Coyote brush scrub shrubland alliance occurs within the BSA but not within the project site. This alliance is not Environmentally Sensitive Habitat (ESH). The community occurs within the upland portion of the adjacent Ormond Beach Wetland, which is located directly west of the adjacent spur line railroad tracks. Coyote brush scrub provides nesting habitat and cover for a variety of wildlife species. Among mammals, California pocket mice (*Chaetodipus californicus*) and brush rabbits (*Sylvilagus bachmani*) inhabit this community for refuge. Coast range fence lizards (*Sceloporus occidentalis bocourti*) are the most common reptile found in this community. Birds that commonly nest in California sagebrush include the wrentit (*Chamaea fasciata*), California thrasher (*Toxostoma redivivum*), and spotted towhee (*Pipilo maculatus*).

4.4 Aquatic Resources

No potentially jurisdictional aquatic features were identified within the limits of the project site boundary, and aside from existing culverts outside the southwest corner of the project parcel, no other features were identified within the greater BSA (Figure 2; Attachment C). Mapped seasonal wetland habitat, which is Environmentally Sensitive Habitat (ESH) per the Coastal Land Use Plan (Oxnard 1982), is located approximately over 400-feet west from the project site per the Ormond Beach Restoration and Public Access Project Plan, Preliminary Restoration Plan (ESA 2021). The required 100-foot buffer from the wetlands is depicted in Figure 2, and the project site is located outside of this buffer. In addition, no stormwater conveyance structures were detected within the project site boundary. However, there are two drainage culverts present for stormwater runoff conveyance under the railroad crossing, at the far west end of East McWane Boulevard. Stormwater runoff is conveyed from the road into the adjacent parcel, the Ormond Beach Wetland. There is no riparian habitat associated with these stormwater features; the features are lined with concrete and unvegetated. As a result, these features are likely only under the jurisdiction of RWQCB. They are located outside of the project footprint and will not be directly impacted.

4.5 Common Plant and Wildlife Species

During the field survey, 29 plant species and 14 wildlife species were observed in the BSA. Of the 29 plant species observed, 7 were native species (24%) and 22 were non-native species (76%). Of the 14 wildlife species observed, 13 were native species (93%) and 1 was a non-native species (7%). The wildlife species observed included commonly occurring bird, reptile, and mammal species such as American crow (*Corvus brachyrhynchos*), house finch (*Haemorhous mexicanus*), red-winged blackbird (*Agelaius phoeniceus*), black phoebe (*Sayornis nigricans*), common yellowthroat (*Geothlypis trichas*), white-crowned sparrow (*Zonotrichia leucophrys*), and blue-gray gnatcatcher (*Polioptila caerulea*), among others. A full list of plant and wildlife species observed is provided in Attachment C. In addition, two northern harriers (*Circus hudsonius*) were observed foraging in the adjacent parcel to the west; this species is a Species of Special Concern, specifically during the breeding season (CDFG 2008). A Species of Special Concern is any species of fish or wildlife that does not meet the criteria of an endangered or threatened species but is particularly vulnerable, and could easily become, an endangered, threatened, or extirpated species due to restricted distribution, low or declining numbers, specialized habitat needs or limits, or other factors. No special-status plants were identified within the BSA during the site visit.

4.6 Special-Status Plant and Wildlife Species

The literature review identified 89 special-status species known to occur within the six-quad search, including 41 plant and 48 wildlife species. Of these species, none were observed or determined to have a moderate to high potential to occur within the project site (Attachment D, Special-Status Plant and Wildlife Species Not Expected or with Low Potential to Occur within the BSA). It should be noted that the project site overlaps with CNDDB occurrences of American peregrine falcon (*Falco peregrinus anatum;* federally proposed for delisting, California Fully Protected Species, state candidate for delisting) and Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri;* 1B.1: Plants rare, threatened, or endangered in California, seriously threatened in California) and is adjacent to Belding's savannah sparrow (*Passerculus sandwichensis beldingi*; USFWS Bird of Conservation Concern, state listed as endangered) occurrences, none of which were observed on site (CDFW 2023a; Figure 2). In addition, the project site does not provide suitable foraging or nesting habitat for American peregrine falcons.

The site visit for this project occurred in February, which is during Coulter's goldfields blooming period, and none were observed. This species usually occurs in wetlands, salt marshes, playas, and vernal pools, none of which occur on the project site. Belding's savannah sparrow documented occurrences are noted more than 200 feet southwest of the project site (CDFW 2023a). The project site does not provide suitable salt marsh nesting or foraging habitat for Belding's savannah sparrows; however, they may nest in pickleweed, or forage within the nearby suitable grasslands, saltmarsh, which is located more than 400-feet from the project site. This species may even forage in agricultural habitat located approximately 100-feet south of the project site. The special-status species determined not expected to occur or have low potential to occur within the BSA and are fully described in Attachment D.

No critical habitat for any federally listed special-status species occurs within the BSA. The closest designated critical habitat is for tidewater goby (*Eucyclogobius newberryi*) and is located approximately 0.24 mile northwest of the BSA within the Ormond Beach Wetland in the Ormond Lagoon Waterway (USFWS 2023b).

4.7 Wildlife Movement and Lighting

4.7.1 Wildlife Corridors

Wildlife corridors are natural habitat areas or largely undeveloped lands that can facilitate movement, migration, foraging, breeding, and dispersal of multiple animal or plant species. Wildlife corridors contribute to population viability by assuring continual exchange of genes between populations, which helps maintain genetic diversity. Many activities can disturb wildlife, including lighting, resulting in alteration of behavior and movement. Habitat connectivity is essential for wildlife and native plant survival.

The project site is fenced and provides little to no opportunities for regional wildlife movement nor supports wildlife corridors. The project site is situated within a largely urban and developed landscape. Existing commercial development and Arcturus Avenue are located to the east, existing industrial development is located directly north, and existing agriculture is located directly south of the site. Undeveloped land is located directly west of the project parcel within the Ormond Beach Wetland. Therefore, areas immediately north and east of the project site provide little to no resources or opportunities for movement across the developed landscape.

Wildlife traversing from the west to the site would be met with general development surrounding the site. Farther south and east of the site exists active agriculture and some potential open spaces, in addition to the Ormond Beach Wetlands. Therefore, wildlife traversing across the landscape would likely more efficiently utilize the agricultural and open space lands south and east of the site. In addition, the site is not located within an Essential Connectivity Area (Spencer et al. 2010, accessed via CDFW's online Biogeographic Information and Observation System). Therefore, the project site is not anticipated to support wildlife movement and facilitate transport within the region.

4.7.2 Lighting

Artificial night lighting is a growing area of scientific inquiry and has been known to alter the avian and mammalian circadian rhythm and migration (Reppert and Weaver 2002, Alaasam et al. 2018, Assadi and Fraser 2021). Artificial night lighting is also known to have substantial effects on the timing of reproductive behavior and individual mating patterns in songbirds (Kempenaers et al. 2010). In addition, excessive nighttime lighting may affect plants that are sensitive to day length. Indeed, photoperiod is known to influence leaf shape, pigmentation, root development, surface structures, and bud dormancy timing in trees (Chaney 2002). Night-time lighting may also have the potential to interfere with vascular plant photosynthesis production, change flowering patterns (e.g., promoting continued growth after the appropriate season), or affect the behavior of pollinators. Therefore, increasing the amount of artificial night lighting may have a potential to affect both plant and wildlife species occurring in the adjacent habitat. Lighting color temperatures of 3,000 kelvin, warmer color temperatures, are advocated for the use in nighttime lighting to decrease energetic costs for avian taxa (Alaasam et al. 2018).

The project proposes thirty-eight low-profile, LED tower light fixtures placed along the perimeter and interior of the property (Attachment A, Site Plans). The two closest fixtures to the adjacent Ormond Beach Wetland are located at the northwestern and southwestern corners of the property, approximately 30 feet from the adjacent habitat. However, it should also be noted that the project is located at the interface of industrial development and wetland habitats. As a result, there is generally a moderate amount of lighting in the developed region surrounding Ormond Beach Wetlands. Nevertheless, although a photometric plan was not prepared for the project it is anticipated that some lighting will fall along the edges of the Ormond Beach Wetland site and may have a potential to affect the adjacent Ormond Beach Wetland habitat and species, absent mitigation (as discussed in Section 5.0).

5 Potential Impacts and Recommendations

5.1 Potential Project Impacts

This section provides a review of the potential biological resource impacts associated with development of the project. As shown on Figure 2 and Attachment A, the project proposes to permanently impact 9.0 acres of developed and disturbed land, which encompass the entire APN 231-0-092-215.

5.1.1 Sensitive Vegetation Communities

No sensitive vegetation communities were identified within the project site boundary as discussed in Section 4.3. Therefore, no direct impacts are anticipated to occur to sensitive vegetation communities as a result of proposed project implementation. However, there may be indirect impacts to sensitive vegetation communities adjacent to the parcel. Indirect impacts to sensitive vegetation communities from project construction may include fugitive dust, lighting spillover, or trash. Therefore, **MM-BIO-1** (Delimiting Construction Area), **MM-BIO-2** (Stormwater Pollution Prevention Plan), and **MM-BIO-4** (Lighting) are recommended to minimize potential indirect impacts to sensitive vegetation communities beyond the parcel boundary.

5.1.2 Jurisdictional Waters of the United States and State, CDFW Streambed and Riparian

As discussed in Section 4.4, Aquatic Resources, there are no potential jurisdictional aquatic resources within the project site boundaries. Within the BSA, there are two culverts that directs stormwater flow from East McWane Boulevard under the train tracks and into the adjacent parcel (Ormond Beach Wetland) and is part of the stormwater infrastructure in the City. The culverts are situated near the southwest corner of the project site (outside of the project area) and therefore would not be subject to permanent, direct impacts (Figure 2). The proposed project design includes bioswales on the southern parcel boundary (coinciding with stormwater runoff direction), and a continuous deflection separation system (stormwater treatment) for any on-site trash capture. Curb outlets to East McWane Boulevard are all associated with bioswales that filter stormwater.

However, inadvertent grading or ground disturbance impacting the culverts has the potential to occur due to the proximity to the development footprint and could result in direct impacts to off-site jurisdictional aquatic resources, including to resources within the Ormond Beach Wetland, primarily salt and brackish marshes (ESA 2021). Potential direct impacts could occur as a result of construction site runoff. These impacts may include accidental pollutant/chemical spills or discharge of materials from the use of concrete, oil/gas, water runoff, or on-site fueling stations. Indirect impacts to off-site jurisdictional aquatic resources could result primarily from adverse indirect edge effects. During construction activities, edge effects may include construction-related soil erosion and water runoff. Stormwater pollution prevention plan (SWPPP) requirements are based on the size of the project. In this case, the project impact is greater than 1 acre and so this project requires a SWPPP. Therefore, **MM-BIO-1** (Delimiting Construction Area) and **MM-BIO-2** (Stormwater Pollution Prevent Plan) are recommended to minimize potential impacts to stormwater infrastructure (culverts) and off-site jurisdictional aquatic resources within the Ormond Beach Wetland.

5.1.3 Special-Status Plant Species

No special-status plants were observed or identified as having a moderate to high potential to occur within the project site boundary due to a lack of suitable habitat, as discussed in Section 4.6. Therefore, no direct impacts are anticipated to occur to special-status plants as a result of proposed project implementation.

However, should any special-status plant species occur in the adjacent Ormond Beach Wetland site, indirect impacts may occur from project construction and include fugitive dust, lighting spillover, or trash. Therefore, **MM-BIO-1** (Delimiting Construction Area), **MM-BIO-2** (Stormwater Pollution Prevention Plan), and **MM-BIO-4** (Lighting) are recommended to minimize potential indirect impacts to any special-status plant species occuring beyond the parcel boundary.

5.1.4 Special-Status Wildlife Species

5.1.4.1 Nesting Bird Species

Nesting birds have a potential to be impacted to the degree that the nests may be abandoned, resulting in a direct loss of an active bird nest, or disturbance of nesting activities in adjacent areas, leading to nest abandonment and nest failure. Bird nests with eggs or young of all migratory bird species are protected under the California Fish and Game Code and/or Migratory Bird Treaty Act. The potential loss of an active nest resulting from construction activities would be in conflict with these regulations.

Habitat for ground and tree nesting birds include the disturbed habitat on site, the adjacent streetside ornamental trees, and the coyote brush scrub. Individual adults are unlikely to be directly killed or injured during construction activities because they are highly mobile and would likely leave the area during construction. However, should any of these individuals nest within the Project site, nesting could be disrupted (resulting in nest abandonment or reduced reproductive success) if construction occurs during the breeding season.

Direct impacts may occur to the degree that nests may be directly removed with the removal of ornamental species and crushed underfoot (ground nesters in paved or disturbed areas), or nests may be abandoned in adjacent habitat due to disturbance resulting in a direct loss of an active bird nest. Temporary, indirect impacts (noise, traffic, construction activities, ground vibrations, human presence) may affect nesting bird species behavior surrounding the construction site resulting in nest abandonment or reduced reproductive success. Therefore, **MM-BIO-3** (Pre-Construction Nesting Bird Survey) is recommended to avoid impacts to nesting bird species.

5.1.5 Wildlife Movement and Lighting

Wildlife Corridors

As previously stated in Section 4.7, the project site is fenced and provides little to no opportunities for regional wildlife movement nor supports wildlife corridors due to the developed landscape. Any existing wildlife movement is already constrained to the Ormond Beach Wetland and adjacent agricultural lands. Construction within an already developed, disturbed, and fenced parcel is unlikely to hinder or affect the movements of any wildlife traversing the areas. Wildlife traversing the area are likely to utilize the nearby Ormond Beach Wetlands and agricultural fields, as well as adjacent roads, for movement. The project site is not anticipated to support wildlife movement nor facilitate transport within the region. Therefore, it is anticipated that this project will have no impact on wildlife movements. See lighting section below.

Lighting

As discussed in Section 4.7, lighting is known to affect plant growth and wildlife movement. The two closest fixtures to the adjacent Ormond Beach Wetland are located at the northwestern and southwestern corners of the property, approximately 30 feet from the adjacent habitat. Based on the current site plan (without photometric plans), there is a potential for project lighting to directly spill into the edge of the adjacent habitat; and indirectly affect species within the adjacent Ormond Beach Wetland. The current proposed lighting plan contains the potential for permanent indirect impacts to wetland and upland habitats and the wildlife that utilizes these habitats perennially, seasonally and/or during migration. Permanent indirect impacts from illumination of the nocturnal environment could potentially result in changes in wildlife behavior and/or altered timing in plant development and inflorescence. Therefore, **MM-BIO-4** (Lighting) is recommended to avoid impacts to the movement of wildlife species utilizing the Ormond Beach Wetland.

5.2 Recommended Avoidance and Minimization Measures

As discussed above, direct and indirect impacts to regulated biological resources or inadvertent direct impacts may occur as a result of project development. Therefore, to avoid potential impacts to sensitive biological resources, the following avoidance and mitigation measures are recommended: **MM-BIO-1** (Delimiting Construction Area), **MM-BIO-2** (Stormwater Pollution Prevention Plan), **MM-BIO-3** (Pre-Construction Nesting Bird Survey), and **BIO-4** (Lighting).

MM-BIO-1 Delimiting Construction Area. Prior to initiation of ground disturbance, grading, or equipment mobilization, the Applicant shall implement the following measures to protect natural resources adjacent to construction areas: install temporary fencing along the perimeter of defined construction areas to protect adjacent natural resources; confine all construction-related activities to areas within the fenced areas; and regularly inspect and maintain the fencing during the duration of construction, including fixing or replacing downed fence.

MM-BIO-2 Stormwater Pollution Prevention Plan (SWPPP). It is recommended that the Applicant retain a Qualified SWPPP Developer (QSD) to prepare a SWPPP to minimize the potential for discharge of pollutants from the project during construction activities. The SWPPP shall be designed to meet the requirements of the RWQCB's General Construction Permit (GCP) and/or City permitting process (e.g., grading permit). The SWPPP shall include both structural and non-structural best management practices (BMPs) including straw wattles around storm drains, silt fencing and or other physical controls to divert flows from exposed soil, spill prevention methods, and clean housekeeping methods for storing and refueling machinery.

As part of the SWPPP, the Contractor shall include specifications, installation requirements, and locations of appropriate BMPs to control sediment, coarse particles, concrete, and other materials exposed during construction and drilling to protect aquatic resources adjacent to construction site. Erosion control measures shall be implemented to prevent runoff of any materials. Silt fencing, straw bales, and/or sandbags should be used in conjunction with other methods to prevent turbid waters from entering stormwater infrastructure.

During construction activities, washing of concrete or equipment shall occur only in areas where polluted water and materials can be contained for subsequent removal from the site. Washing will not be allowed in locations where the tainted water could enter potential jurisdictional features.

It is recommended that the Applicant retain a Qualified SWPPP Practitioner (QSP) to monitor the site's SWPPP measures prior to the start of construction and throughout the duration of construction to ensure they remain in good working order and continue to function properly, particularly after rain events.

MM-BIO-3 Pre-Construction Nesting Bird Survey. If construction will occur during the breeding season (generally February 1–August 31), a qualified biologist shall conduct pre-construction nesting bird surveys to determine the presence of nests or nesting birds within 100 feet (300 feet for raptors) of the construction activities. The nesting bird surveys shall be completed no more than 72 hours prior to the start of any construction activities. If an active nest is identified within or adjacent to the project site and construction zones, the nest shall receive a buffer of 100 feet for songbirds and 300 feet for raptors (which may be reduced if deemed appropriate by a professional consulting biologist with expertise with the involved bird species) where no construction activity or personnel are allowed. Fencing shall be installed to delineate the nest buffer.

The nest shall be monitored every other week by a qualified biologist until fledglings become independent of the nest. The monitoring biologist shall halt construction activities if he or she determines that the construction activities are disturbing the nesting activities. The monitor shall make practicable recommendations to reduce the noise or disturbance near the nest. This may include (1) turning off vehicle engines and other equipment whenever possible to reduce noise, (2) working in other areas until the young have fledged, or (3) placing noise barriers to maintain the noise at the nest to 60 A-weighted decibel (dBA) energy equivalent level (Leq) hourly or less or to the pre-construction ambient noise level if that exceeds 60 dBA Leq hourly. A biologist will monitor the nest and construction activities, verify compliance with the nesting buffers, and verify that the nesting efforts have finished. Unrestricted construction activities can resume when no other active nests are found.

MM-BIO-4 Lighting. A photometric plan shall be prepared for the project site, which will plot the ISO footcandle curves displaying the amount of light falling on the property and adjacent Ormond Beach Wetlands from lighting fixtures. Project plans will be revised to ensure that no lighting (footcandle curves) fall on the adjacent wetlands/habitat.

Lighting shall be downcast, inward facing, no greater than 20 feet in height, and shielded. Lighting shall be limited to what is necessary for operation and safety of the facilities. Lighting shall be accomplished with the lowest practicable level of overall illumination. LED lighting shall be in the 3,000 kelvin or less color temperature range, unless there is a reasonable safety concern which requires a higher temperature range.

In addition, lighting must conform to the City of Oxnard Policy ER-6.5 Control of Lighting and Glare, which requires that all outdoor light fixtures including street lighting use low-energy, shielded light fixtures that direct light downward and, where public safety would not be compromised, and encourages the use of low-pressure sodium lighting for all outdoor light fixtures. The project must conform to SEC 16-320 of the Oxnard Municipal Code which states that lighting within physical limits of the area required to be lighted shall not exceed seven footcandles, nor be less than one footcandle at any point. A light source shall not shine upon or illuminate directly any surface other than the area required to be lighted. Design standards for the coastal zone, including the southwest corner of the property, include SEC 17-46 B4: Lighting will be stationary and deflected away from adjacent properties.

6 Conclusion

Overall, the project site is developed, frequently disturbed, and lacks a significant number of biological constraints. However, recommended avoidance and minimization measures have been provided above to ensure avoidance and minimization of impacts to adjacent sensitive biological resources, potential jurisdictional aquatic resources, and nesting birds.

If you have any questions regarding this report, please feel free to contact me by phone at 805.618.5768 or by email at adransfield@dudek.com.

Sincerely,

Andrea Dransfield
Biologist

John Davis IV, MS, CE
Principal, Senior Coastal Ecologist

Att.: Figures 1 and 2
Attachment A, Project Site Plans (May 2022)
Attachment B, Photo Documentation
Attachment C, List of Plant and Wildlife Species Observed
Attachment D, Special-Status Plant and Wildlife Species Not Expected or with Low Potential to Occur within the BSA

cc: Jonathan Leech, Dudek

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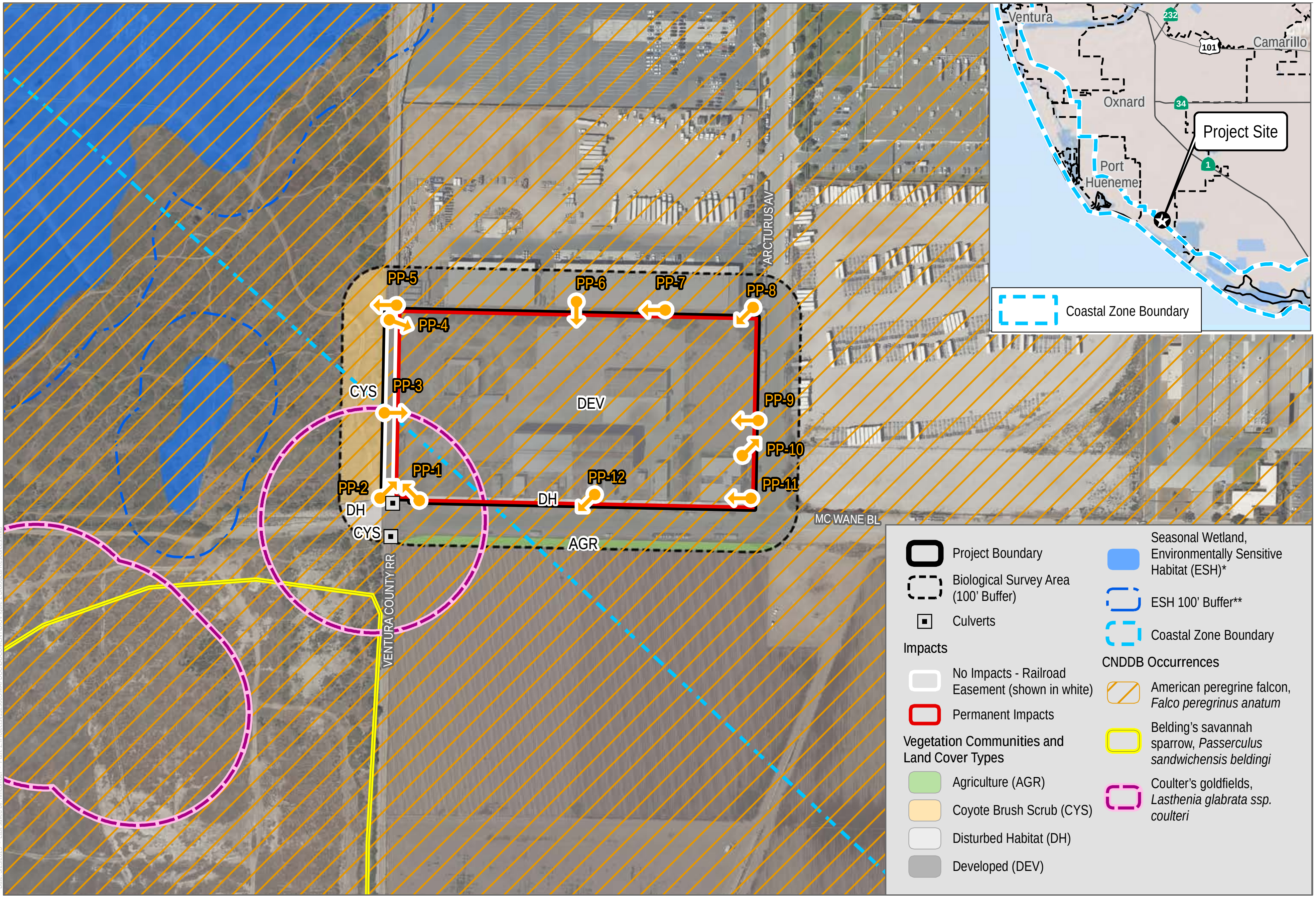
SOURCE: Sanborne 2022; Ventura County 2023

DUDEK

0 100 200 Feet

FIGURE 1
Project Location
6001 Arcturus Avenue Project



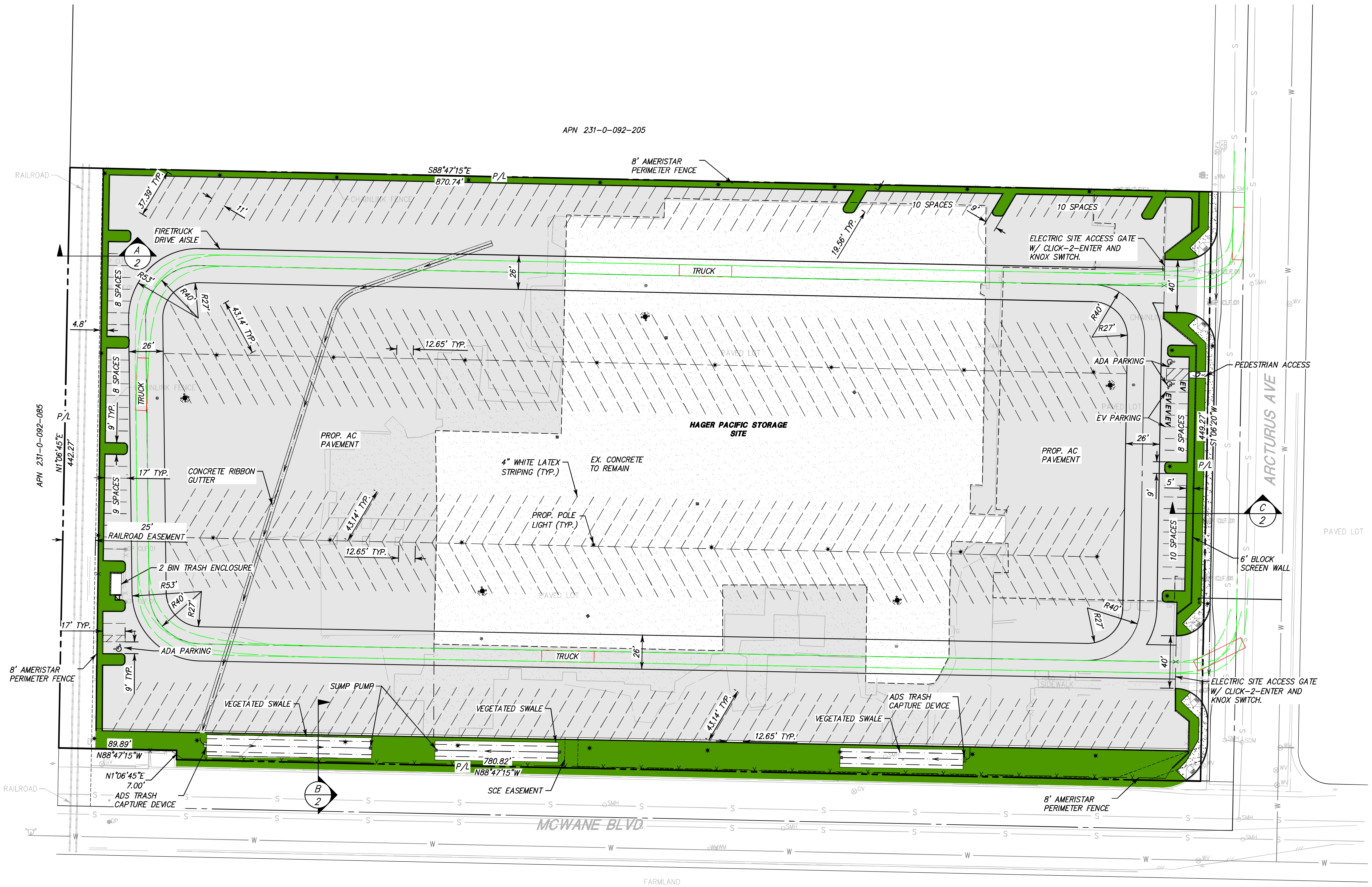
SOURCE: Sanborne 2022; Ventura County 2023; CNDDB 2023; CA Coastal Commission 2012; * ESA 2021; ** Buffer Derived from ESA 2021 Wetland Mapping

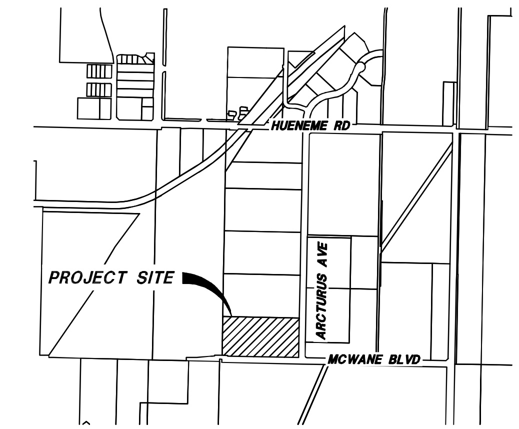
DUDEK

FIGURE 2
Biological Resources
6001 Arcturus Avenue Project

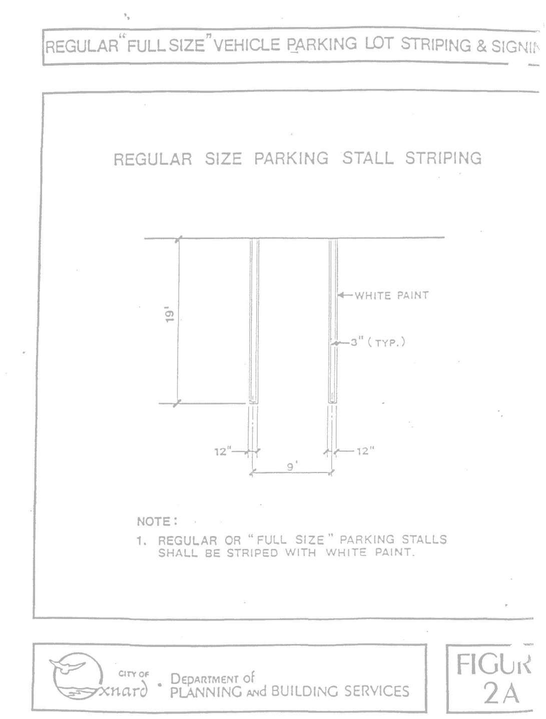
Attachment A

Project Site Plans (May 2022)





VICINITY MAP
1" = 1000'



PROPOSED PARCEL DATA

SITE AREAS

PARCEL SIZE (GROSS):	8.97 ACRES (390,579 S.F.)
RAILROAD DEDICATIONS:	0.25 ACRES (11,040 S.F.)
APPROX. STREET DEDICATIONS:	0.005 ACRES (252.5 S.F.)
PARCEL SIZE (NET):	8.7 ACRES (379,286.5 S.F.)
TOTAL AREA:	8.97 ACRES

LAND USE AREAS

PAVED AREA:	8.10 ACRES (352,501 S.F.)	90.3%
LANDSCAPE AREA:	0.62 ACRES (27,038 S.F.)	6.91%
RAILROAD EASEMENT:	0.25 ACRES (11,040 S.F.)	2.79%

PARKING

REQUIRED PARKING (NON-TRUCK):	66 SPACES (1/2,500 SF PARKING)
PROVIDED PARKING (NON-TRUCKING):	66 SPACES
REQUIRED ADA PARKING:	3 SPACES (1 VAN ACCESSIBLE)
PROVIDED ADA PARKING:	3 SPACES (2 VAN ACCESSIBLE)
PROVIDED TRUCK PARKING:	327 SPACES

LEGEND

- LANDSCAPE AREA
- AC PAVEMENT
- CONCRETE
- TRUCK TURN

40' 20' 0' 40' 80'
GRAPHIC SCALE: 1"=40'

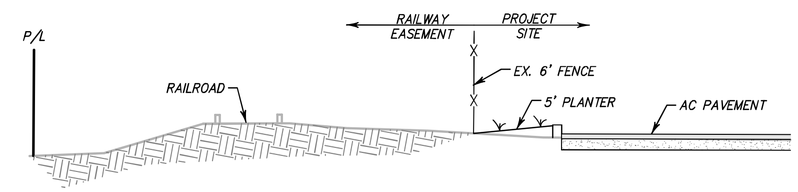
JENSEN DESIGN & SURVEY, INC
www.jdscivil.com
1672 DONLON STREET
VENTURA, CALIF. 93003
PHONE 805/654-6977
FAX 805/654-6979

SCALE: 1" = 40'
J.N.: HAG03.6367
DATE: 5/24/2022
DWG. NAME: 6367 Arch Site Plan.dwg

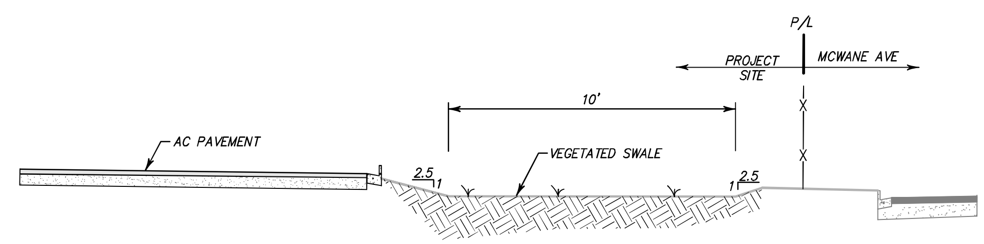
ARCHITECTURAL SITE PLAN
FOR
HAGER PACIFIC

6001 ARCTURUS AVE
CITY OF OXNARD
COUNTY OF VENTURA
STATE OF CALIFORNIA

SHEET 1 OF 2



SECTION A–A
1" = 5'



SECTION B–B
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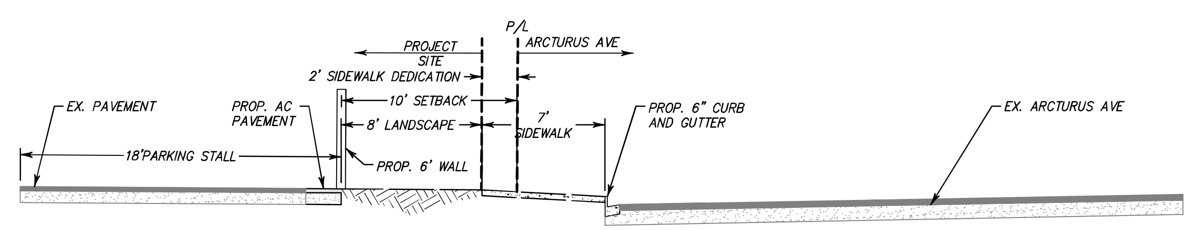
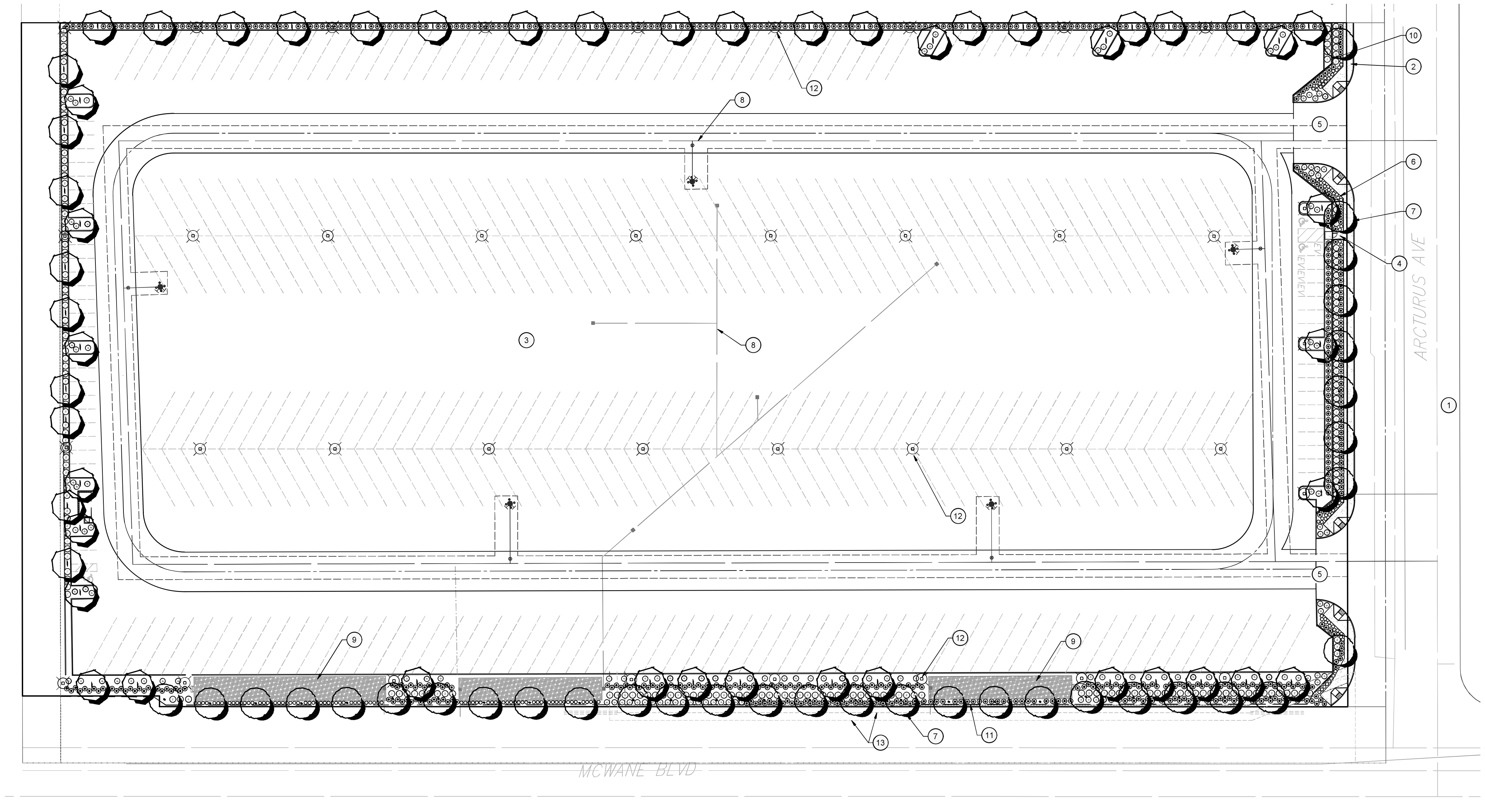


SECTION C–C
1" = 5'

JENSEN DESIGN & SURVEY, INC (www.jdscivil.com)	1672 DONLON STREET VENTURA, CALIF. 93003 PHONE 805/654-6977 FAX 805/654-6979	ARCHITECTURAL SITE PLAN FOR HAGER PACIFIC	SHEET 2
SCALE: ########	J.N.: HAG03.6367	6001 ARCTURUS AVE CITY OF OXNARD	
DATE: 5/24/2022	DWG. NAME: 6367 Arch Site Plan.dwg	COUNTY OF VENTURA STATE OF CALIFORNIA	OF 2



SITE FEATURES KEY

1. EXISTING STREET TO REMAIN. PROTECT IN PLACE
2. SIDEWALK PER SEPARATE CIVIL PLANS BY OTHERS
3. NEW PROPOSED STORAGE LOT PER SEPARATE CIVIL PLANS BY OTHERS
4. PROPOSED CONCRETE WALKWAY TO GATE ENTRANCE
5. PROPOSED DRIVE ENTRANCE PER SEPARATE CIVIL PLANS BY OTHERS
6. PROPOSED PERIMETER LANDSCAPE AREA - TYP. SYM.
7. PROPOSED STREET TREE - TYP. SYM.
8. PROPOSED UTILITIES PER SEPARATE CIVIL PLANS BY OTHERS
9. DETENTION BASIN / LID LANDSCAPE TO BE COORDINATED WITH BMP & CIVIL PLANS
10. PROPOSED 6' HT. PERIMETER BLOCK WALL PER SEPARATE CIVIL PLANS BY OTHERS - TYP. SYM.
11. PROPOSED 8' HT. AMERISTAR PERIMETER SECURITY FENCE PER SEPARATE CIVIL PLANS BY OTHERS - TYP. SYM.
12. PROPOSED POLE LIGHT PER SEPARATE LIGHTING CONCEPT PLAN - TYP. SYM.
13. SCE EASEMENT - TYP.

LANDSCAPE NOTES:

1. ALL PROPOSED LANDSCAPING SHALL CONSIST OF PREDOMINATELY DROUGHT TOLERANT. LOW MAINTENANCE PLANT MATERIALS.
2. ALL REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN A HEALTHY, THRIVING CONDITION, FREE FROM WEEDS, TRASH & DEBRIS.
3. ALL LANDSCAPE AREAS SHALL BE IRRIGATED WITH A WATER EFFICIENT, AUTOMATIC IRRIGATION SYSTEM WITH AUTOMATIC RAIN SHUT OFF AND WEATHER/ SOLAR SENSOR.

I AM FAMILIAR WITH AND AGREE TO COMPLY WITH THE REQUIREMENTS OF THE LANDSCAPE IMPROVEMENT PLANS AS DESCRIBED IN THE CITY OF OXNARD DEVELOPMENT STANDARDS. I HAVE PREPARED THESE PLANS IN COMPLIANCE WITH THOSE REGULATIONS. I CERTIFY THAT THE PLAN IMPLEMENTS THE REGULATIONS TO PROVIDE EFFICIENT WATER USE.

KIM LONIGRO, LLA 5508 EXP. 09/30/2022 05/31/22

WATER EFFICIENT LANDSCAPE WORKSHEET

Project Reference Evapotranspiration (Eto) **42.4**

Hydrozone # / Planting Description	Plant Factor (PF)	Irrigation Method	Irrigation Efficiency (IE)	ETAF (PF/IE)	Landscape Area (Sq. Ft.)	ETAF x Area	Estimated Total Water Use (ETWU)
Regular Landscape Areas							
1 - Shrub Drip	0.3	Drip	0.81	0.37	20,347.00	7,535.93	198,104.42
2 - Tree Bubbler	0.4	Bubbler	0.81	0.49	1,376.00	679.51	17,862.86
3 - LID Bioswale	0.4	Rotary	0.75	0.53	4,825.00	2,573.33	67,647.79
			1	0		0	-
			1	0		0	-
				Totals	**26,548.00**	**10,788.77**	**283,615.07**
Special Landscape Areas							
				1		-	-
				1		-	-
				Totals	-	-	-
						ETWU Total	**283,615.07**
						MAWA	**314,052.22**

Notes:
1. Irrigation Efficiency - 0.75 Spray Head, 0.81 Drip
2. ETWU = Annual Gallons Required = (Eto*0.62*ETAF*Area)
3. MAWA = Annual Gallons Allowed = (Eto) (0.62) [(ETAF*LA)+((1-ETAF)*SLA)]

ETAF Calculations

Regular Landscape Areas

Total ETAF x Area	10,788.77
Total Area	26,548.00
Average ETAF	0.41

Average ETAF for Regular Landscape Areas must be 0.55 or below for residential areas, and 0.45 or below for non-residential areas.

All Landscape Areas

Total ETAF x Area	10,788.77
Total Area	26,548.00
Average ETAF	0.41

PROPOSED PLANT LEGEND

PLANT SPECIES TO BE FINALIZED DURING CONSTRUCTION PLAN DEVELOPMENT

SHRUBS

SYM.	BOTANICAL NAME / COMMON NAME	QTY.
	BACKGROUND SHRUB (5 GAL.) LIGUSTRUM J. 'TEXANUM' / TEXAS PRIVET	206
	MID-GROUND SHRUB (5 GAL.) CALLISTEMON C. 'LITTLE JOHN' / DWARF CALLISTEMON BOUGAINVILLEA 'LA JOLLA' / BOUGAINVILLEA VAR.	611
	ACCENT SHRUB (1/5 GAL.) DIANELLA SPP. / FLAX LILY VAR.	148

GROUNDCOVER / GROUNDCOVER

SYM.	BOTANICAL NAME / COMMON NAME	QTY.
	BOUGAINVILLEA 'OOH LA LA' / BOUGAINVILLEA VAR. LANTANA 'GOLD RUSH' / LANTANA VAR.	125
	CAREX PANSA / MEADOW SEDGE JUNCUS EFFUSUS / SOFT RUSH MIMULUS CARDINALIS / SCARLET MONKEYFLOWER MUHLENBERGIA RIGENS / DEER GRASS LANDSCAPE PLANTING SHALL MEET THE COUNTY OF VENTURA LOW IMPACT DEVELOPMENT HANDBOOK	4,825 SF

TREES

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	QTY.
	LAGERSTROEMIA I. 'MUSKOGEE' / CRAPE MYRTLE VAR.	24" BOX	34
	PLATANUS A. 'COLOMBIA' / LONDON PLANE VAR. SEARSIA LANCEA / AFRICAN SUMAC	24" BOX	52

ADDITIONAL NOTES:

LANDSCAPE CALCULATIONS:
1. WATER BUDGET CALCULATIONS ARE PROVIDED BELOW AND UPDATED TO REFLECT 2015 MWELO AS MANDATED BY THE STATE OF CALIFORNIA.

NORTH

SCALE - 1" = 40'-0"

0 20' 40' 80' 120'

LICENSED LANDSCAPE ARCHITECT
KIM T. LONIGRO
LLA 5508
SIGNATURE
09/30/22
EXP. DATE
05/31/2022
DATE
STATE OF CALIFORNIA

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811
or
1-800-227-2600

WEILAND DESIGN GROUP, INC.
LANDSCAPE ARCHITECTURE + PLANNING + CONSTRUCTION MANAGEMENT
28924 OLD TOWN FRONT STREET, SUITE 202 TEMECULA, CA 92590
P (844) WEILAND, XT 701 F (619) 675-3426 EMAIL - KLONIGRO@W-D-G.COM
CORPORATE OFFICE
291 SIERRA WAVE SWALL MEADOWS, CA 93514

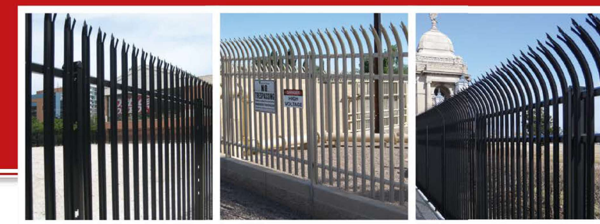
SCALE: SEE SHEET J.N.: 22-010
DATE: 05/31/2022 DWG. NAME:

PRELIMINARY LANDSCAPE PLAN
FOR
HAGER PACIFIC

6001 ARCTURUS AVE
CITY OF OXNARD
COUNTY OF VENTURA STATE OF CALIFORNIA

SHEET 1 OF 3

IMPASSE II®



HIGH SECURITY STEEL PALISADE FENCING

Maintaining a secure perimeter is your first line of defense against potential threats. Impasse II fence systems serve as a *visual deterrent backed with heavy steel components* that give a higher level of protection compared to the traditional chain link or architectural mesh fence alternatives. Impasse II is the *best choice for securing at risk facilities or protecting specific assets within a property.*

DESIGN INTEGRATION

The Impasse II framework is a raceway for wiring, conduits, and/or security cabling required around the perimeter of a project. This integrated design eliminates the need for costly trenching and boring becoming a value added solution for perimeter security upgrades.

When installing these security elements use Impasse II as a platform:

- **Communication & Video Cables**
- **Intrusion Detection / Fiber Optic Cables**
- **Access Control Wiring**
- **Conduits**
- **Anti-Ram Cabling** *(Stalwart)*

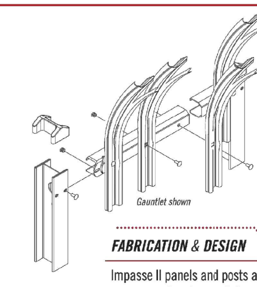
PRIMARY APPLICATIONS

- **Military Sites**
- **Government Facilities**
- **Petroleum & Chemical Facilities**
- **Power Plants & Substations**
- **Airports**
- **Data Centers**
- **Ports of Entry**
- **Water Treatment & Storage**

IMPASSE II®

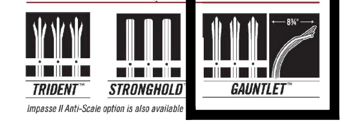
HIGH SECURITY STEEL PALISADE FENCING

2.75"w x 14ga PALES | 2" x 2" x 11ga RAILS | 3" x 2.75" x 12ga & 4" x 2.75" x 11ga I-BEAM POSTS



Gauntlet shown

STYLE OPTIONS



TRIDENT™ STRONGHOLD™ GAUNTLET™

Impasse II Anti-Scale option is also available

FABRICATION & DESIGN

Impasse II panels and posts are manufactured using high-tensile pre-galvanized G-90 steel. Each component has been roll-formed into a unique profile that yields significant strength properties. Impasse II's distinct design enables the fence to traverse aggressive changes in grade in order to maintain security along any perimeter. Each connection point of the Impasse II system is secured with tamper-proof fasteners providing the highest level of security and versatility.

PERMACOAT™ PROTECTIVE FINISH

Ameristar's production facilities use a state-of-the-art polyester powder coating system that provides a durable and scratch resistant finish. Impasse II is protected with Ameristar's PermaCoat multi-layer coating process. The combination of these layers delivers a system that increases weathering resistance and product durability. The Ameristar coating system results in finished surfaces with unmatched performance.

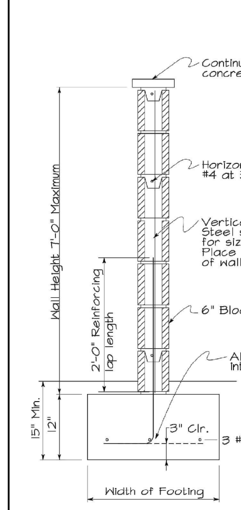
15 YEAR LIMITED WARRANTY

Impasse II is coated using Ameristar's PermaCoat process, this dual-coat finish yields the best results for durability and weathering in the fence industry. Ameristar has over 25 years of experience and research in coating fence products allowing Impasse to support a 15 year warranty.

DOMESTIC MANUFACTURING

Ameristar is committed to providing products that are manufactured in the USA. We have made significant investments in technology, process improvement, and employee training in an effort to secure American jobs and combat inferior import products.

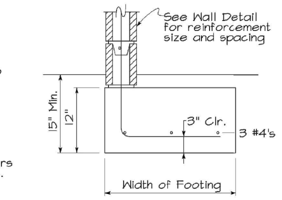
#9792 | REVISED 05/2014



FOOTING A

Height of Wall	Width of Footing
3'-4'	18"
5'	22"
6'	26"
7'	30"

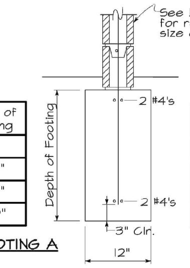
MASONRY FENCE DETAIL & ALTERNATE FOOTING A



FOOTING B

Height of Wall	Width of Footing
3'-4'	22"
5'	28"
6'	34"
7'	39"

ALTERNATE FOOTING B



FOOTING C

Height of Wall	Depth of Footing
3'-4'	24"
5'	28"
6'	32"
7'	36"

ALTERNATE FOOTING C

GENERAL NOTES

1. Concrete blocks shall be Grade N units.
2. Use f'c = 2000 psi for concrete footing.
3. Reinforcing steel shall be A615 Grade 40 or 60.
4. Fill all cells containing steel with grout, including bond beam.
5. The wall shall be plumb and all block courses shall be level.
6. Reinforcing steel splices shall be a minimum of 20".
7. The first course may be set in fresh concrete for footing.
8. No wall or fence shall be allowed within 36" of a fire hydrant and no wall, fence, or foundation shall be allowed within 12" of a water meter.
8. Planning regulates the height, location, and design of the wall based on the zone, location on the property, and community design standards. Planning must approve the plans prior to any permit being issued.

REINFORCING STEEL TABLE

Height of Wall	Vertical Steel
5'-0" or less	#4 @ 32" o.c.
7'-0" or less	#4 @ 24" o.c.

NOTE: This wall is not designed to be used for a retaining wall

CONCRETE BLOCK WALL DETAIL

HELP FOR THE HOMEOWNER
DEVELOPMENT SERVICES

CITY OF Oxnard "The City That Cares" CALIFORNIA

Rob Roshanian 3/14/05
Building Official: Date
Date: 6/7/05 | Sheet 1 of 1 | B801

c:\steve\handouts\b801 concrete block wall detail.dwg

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811
OR
1-800-227-2600

LICENSED LANDSCAPE ARCHITECT
KIM T. LONIGRO
LLA 5508
SIGNATURE
09/30/22
EXP. DATE
05/31/2022
DATE
STATE OF CALIFORNIA

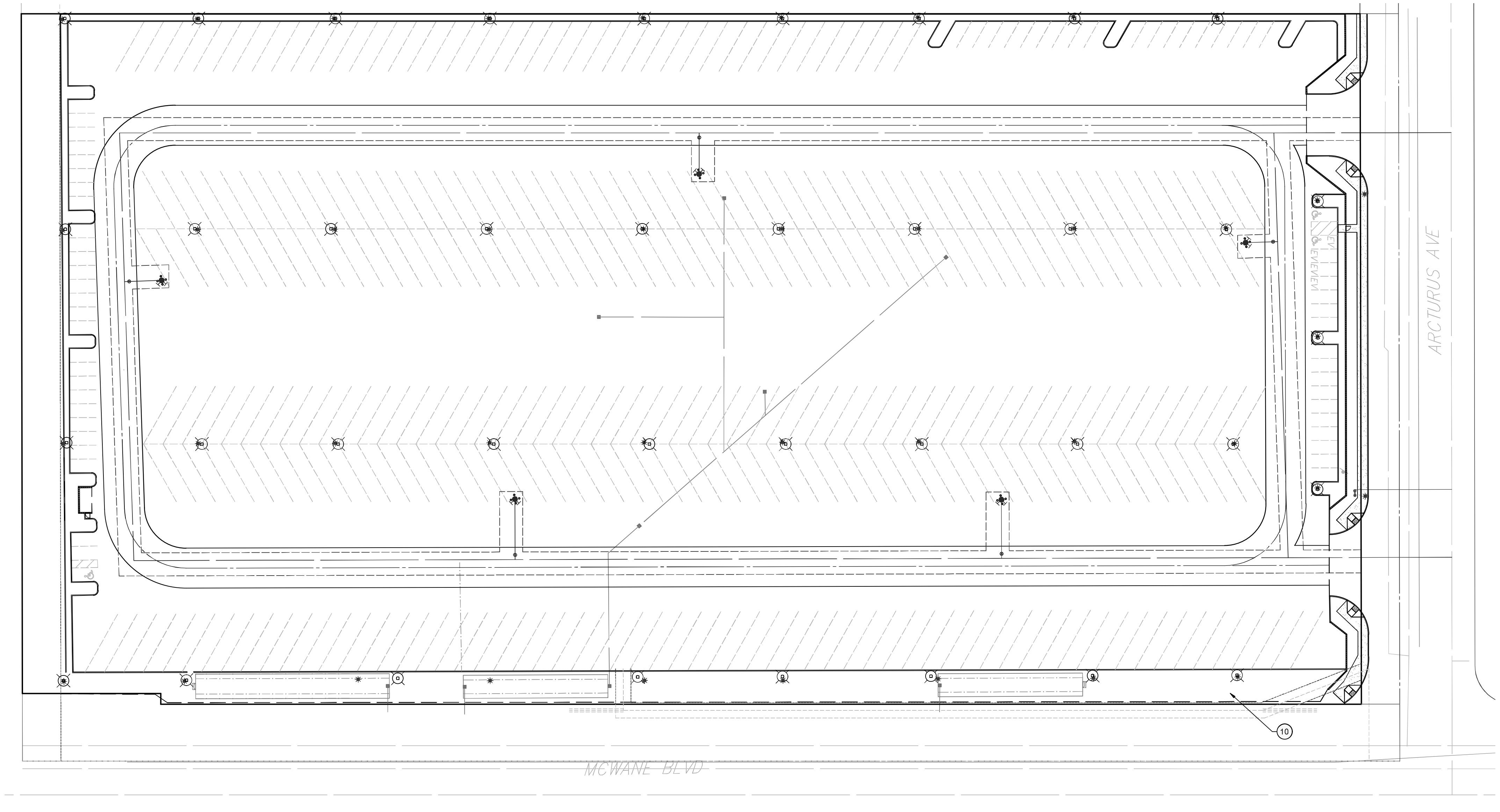
WEILAND DESIGN GROUP, INC.
LANDSCAPE ARCHITECTURE + PLANNING + CONSTRUCTION MANAGEMENT
28924 OLD TOWN FRONT STREET, SUITE 202 TEMECULA, CA 92590
P (844) WEILAND, XT 701 F (619) 675-3426 EMAIL - KLONIGRO@W-D-G.COM
CORPORATE OFFICE
291 SIERRA WAVE SWALL MEADOWS, CA 93514

SCALE: SEE SHEET	J.N.: 22-010
DATE: 05/31/2022	DWG. NAME:

CONCEPTUAL DETAILS
FOR
HAGER PACIFIC

6001 ARCTURUS AVE
CITY OF OXNARD
COUNTY OF VENTURA STATE OF CALIFORNIA

SHEET
2
OF 3

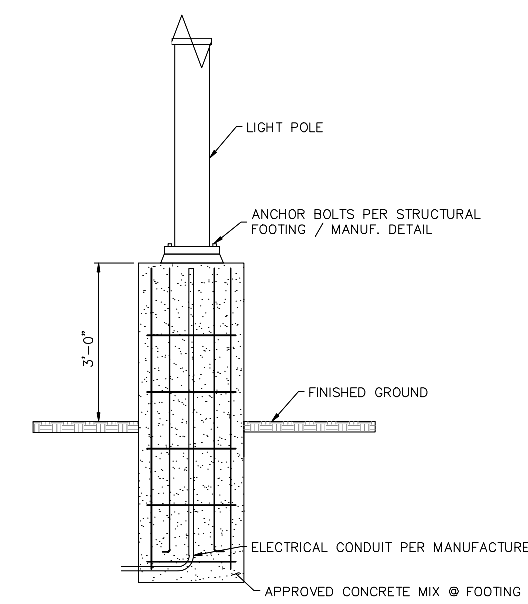


SITE FEATURES KEY

1. PROPOSED POLE LIGHT - NLS LIGHTING, MODEL NV-1 OR APPROVED EQ.

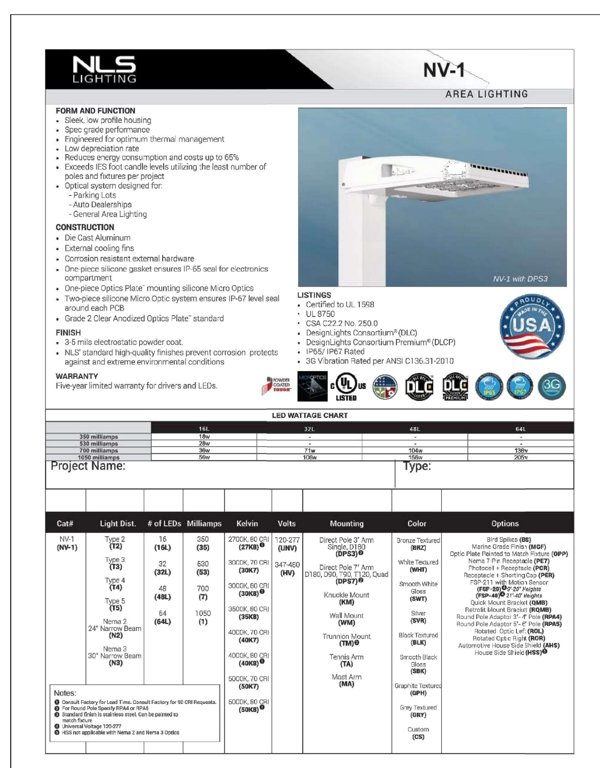
SITE LIGHTING NOTES

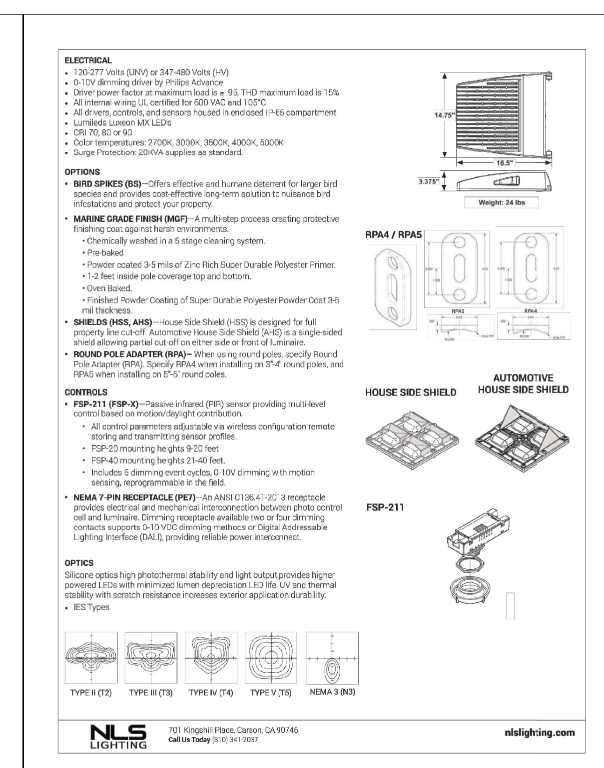
1. LIGHTING SHALL COMPLY WITH TITLE 24, PART 6 OF THE CALIFORNIA CODE OF REGULATIONS: CALIFORNIA ENERGY EFFICIENCY STANDARDS FOR RESIDENTIAL AND NON-RESIDENTIAL BUILDINGS AND OXNARD CITY CODE 16-320
2. FINAL LIGHTING LAYOUT, QUANTITY AND SELECTION SUBJECT TO PHOTOMETRIC STUDY



PROPOSED LIGHT POLE BASE

FINAL FOOTING DESIGN PER STRUCTURAL ENGINEER



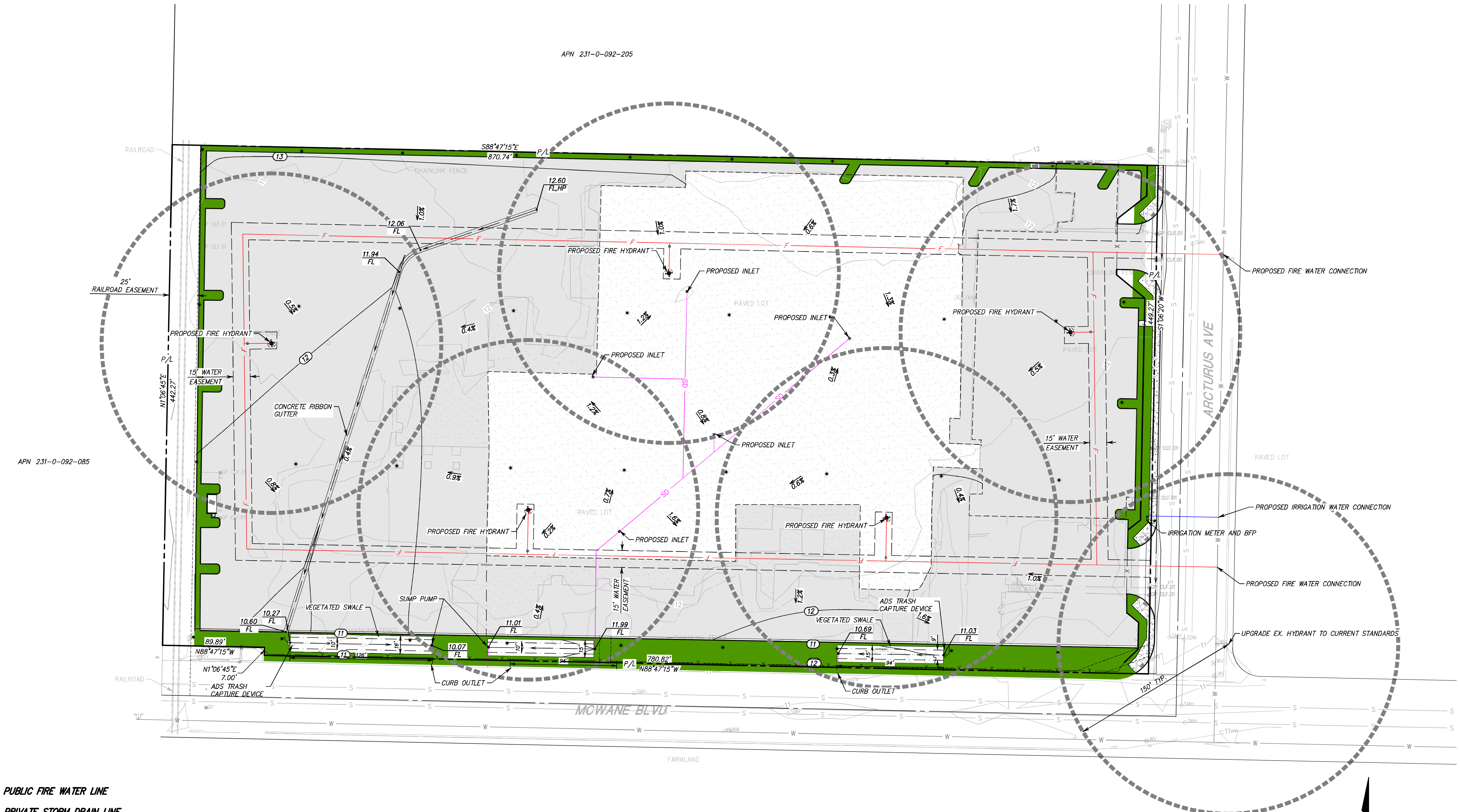


NORTH

SCALE - 1" = 40'-0"

0 20' 40' 80' 120'

WEILAND DESIGN GROUP, INC. LANDSCAPE ARCHITECTURE + PLANNING + CONSTRUCTION MANAGEMENT 28924 OLD TOWN FRONT STREET, SUITE 202 TEMECULA, CA 92590 P (844) WEILAND, XT 701 F (619) 675-3426 EMAIL - KLONIGRO@W-D-G.COM CORPORATE OFFICE 291 SIERRA WAVE SWALL MEADOWS, CA 93514		PRELIMINARY LIGHTING PLAN FOR HAGER PACIFIC	SHEET 3
SCALE: SEE SHEET	J.N.: 22-010	6001 ARCTURUS AVE CITY OF OXNARD	
DATE: 05/23/2022	DWG. NAME:	COUNTY OF VENTURA STATE OF CALIFORNIA	OF 3



LEGEND

- PUBLIC FIRE WATER LINE
- PRIVATE STORM DRAIN LINE
- WATER EASEMENT TO CITY
- IRRIGATION LINE
- FLOW LINE
- LANDSCAPE AREA
- AC PAVEMENT
- CONCRETE
- JONES J4065 FIRE HYDRANT W/ BARRICADE PER PLATE 301, TYPE "B"
- POLE LIGHT – NLS LIGHTING, MODEL NV-1 OR APPROVED EQUAL

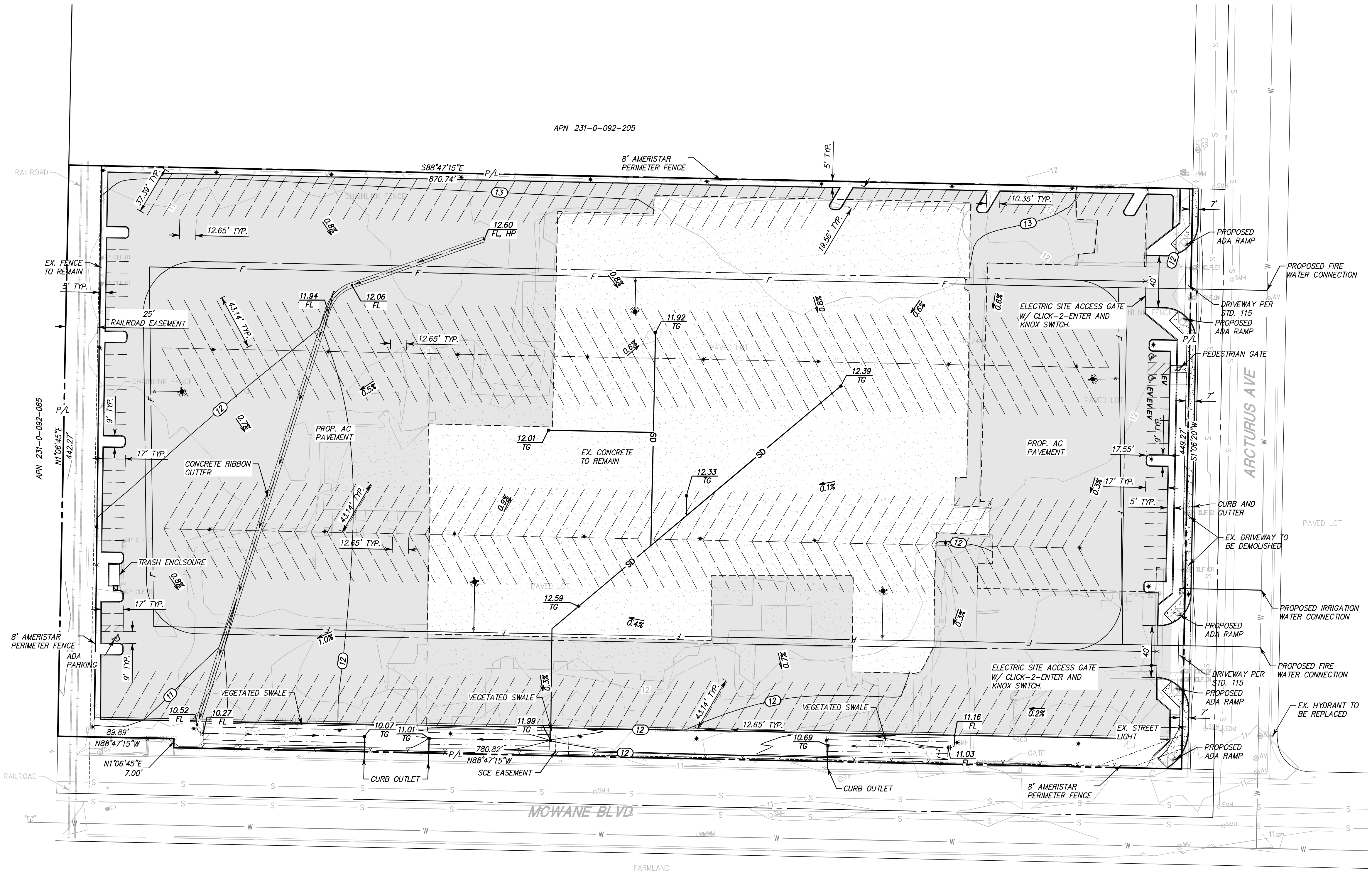
JENSEN DESIGN & SURVEY, INC
www.jdscivil.com
1672 DONLON STREET
VENTURA, CALIF. 93003
PHONE 805/654-6977
FAX 805/654-6979

SCALE: 1" = 40'
J.N.: HAG03.6367
DATE: 5/24/2022
DWG. NAME: 6367 Util Plan.dwg

UTILITY PLAN
FOR
HAGER PACIFIC

6001 ARCTURUS AVE
CITY OF OXNARD
COUNTY OF VENTURA STATE OF CALIFORNIA

SHEET 1 OF 1



LEGEND

PROPOSED		EXISTING
SURFACE DRAIN		WATER VALVE
FLOWLINE		FIRE HYDRANT
BLOCK WALL		STREET LIGHT
FIRE		CONTOUR LINE
STORM DRAIN		STREET SIGN
CONCRETE		SEWER
AC PAVEMENT		STORM DRAIN
FIRE HYDRANT		GAS
POLE LIGHT		ELECTRIC
		TELEVISION
		WATER

ABBREVIATIONS

FS	FINISH SURFACE	WM	WATER METER
FG	FINISH GRADE	SMH	SEWER MANHOLE
WV	WATER VALVE	SDMH	STORM DRAIN MANHOLE
TG	TOP OF GRATE	EM	ELECTRICITY METER
		GM	GAS METER

EARTHWORK VOLUMES

CUT VOLUME = 3,175 CY
FILL VOLUME = 1,325 CY
EXPORT VOLUME = 1,850 CY

40' 20' 0' 40' 80'
GRAPHIC SCALE: 1"=40'

JENSEN DESIGN & SURVEY, INC
www.jdscivil.com
1672 DONLON STREET
VENTURA, CALIF. 93003
PHONE 805/654-6977
FAX 805/654-6979

SCALE: 1" = 40'
J.N.: HAG03.6367
DATE: 5/24/2022
DWG. NAME: 6367 Eng Site Plan.dwg

ENGINEERING SITE PLAN FOR HAGER PACIFIC

6001 ARCTURUS AVE
CITY OF OXNARD
COUNTY OF VENTURA STATE OF CALIFORNIA

SHEET 1 OF 1

Attachment B

Photo Documentation

Photo Point 1. View of the adjacent Ormond Beach Wetland (coyote brush scrub in the foreground and wetland complexes in the background) and existing fence line around the project parcel. Photo facing northwest. February 14, 2023.

Photo Point 2. View of the proposed project site for vehicle storage. Photo facing northeast. February 14, 2023.

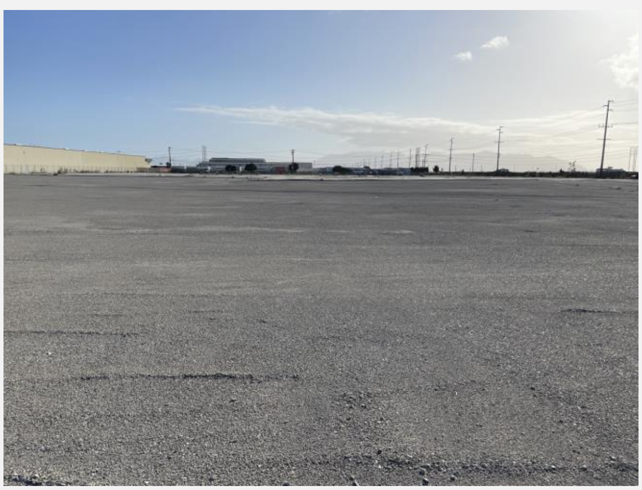


Photo Point 3. The project is situated on developed land. Any previous structures have been removed and the lot is paved. Photo facing east. February 14, 2023.

Photo Point 4. Additional view of the paved lot. Photo facing southeast. February 14, 2023.

Photo Point 5. The adjacent Ormond Beach Wetland (coyote brush scrub in the foreground and wetland complexes in the background) with a railroad spur line in the foreground. Photo facing west. February 14, 2023.

Photo Point 6. A portion of the site has an existing concrete base. Photo facing south. February 14, 2023.

Photo Point 7. The adjacent land use to the north is industrial. Photo facing west-northwest. February 14, 2023.

Photo Point 8. The developed land contains few ruderal plant species. Photo facing southwest. February 14, 2023.

Photo Point 9. Additional view of the parcel taken from the eastern side. Photo facing west. February 14, 2023.

Photo Point 10. View of the main gate off of Arcturus Avenue and the adjacent shipping container storage yard. Photo facing northeast. February 14, 2023.

Photo Point 11. View of a narrow band of disturbed habitat along the southern boundary of the site with predominantly non-native plant species. Photo facing west. February 14, 2023.

Photo Point 12. View of the adjacent agricultural fields south of the property with East McWane Boulevard in the foreground. Photo facing southwest. February 14, 2023.

Photo 13. View of the culvert on the north side of East McWane Boulevard, on the east side of the railroad. Photo facing northwest. March 15, 2023.

Photo 14. View of the culvert on the north side of East McWane Boulevard, on the west side of the railroad. Photo facing northeast. March 15, 2023.

Photo 15. View of the culvert on the south side of East McWane Boulevard, on the east side of the railroad. Photo facing southwest. March 15, 2023.

Photo 16. View of the culvert on the south side of East McWane Boulevard, on the west side of the railroad. Photo facing southeast. March 15, 2023.

Attachment C

List of Plant and Wildlife Species Observed

Plant Species

Eudicots

AIZOACEAE – FIG-MARIGOLD FAMILY

* *Tetragonia tetragonoides* – New Zealand spinach

ASTERACEAE – SUNFLOWER FAMILY

Ambrosia psilostachya – western ragweed

Baccharis pilularis – coyote brush

* *Centaurea melitensis* – Maltese star-thistle
* *Cirsium vulgare* – bull thistle

Erigeron canadensis – Canadian horseweed

Heterotheca grandiflora – telegraphweed

* *Pseudognaphalium luteoalbum* – Jersey cudweed

Senecio flaccidus – threadleaf ragwort

* *Sonchus oleraceus* – common sowthistle

BRASSICACEAE – MUSTARD FAMILY

* *Brassica nigra* – black mustard

CHENOPODIACEAE – GOOSEFOOT FAMILY

* *Atriplex semibaccata* – Australian saltbush
* *Chenopodium album* – lambsquarters
* *Chenopodium murale* – nettleleaf goosefoot

CONVOLVULACEAE – MORNING-GLORY FAMILY

* *Convolvulus arvensis* – field bindweed

CUPRESSACEAE – CYPRESS FAMILY

* *Juniperus chinensis* – Chinese juniper

FABACEAE – LEGUME FAMILY

* Medicago sativa – alfalfa
* Melilotus albus – yellow sweetclover

GERANIACEAE – GERANIUM FAMILY

* *Erodium cicutarium* – redstem stork's bill

MALVACEAE – MALLOW FAMILY

* *Malva parviflora* – cheeseweed mallow

SOLANACEAE – NIGHTSHADE FAMILY

- * *Datura stramonium* – jimsonweed
- * *Nicotiana glauca* – tree tobacco
- * *Solanum nigrum* – black nightshade

Monocots

ARECACEAE – PALM FAMILY

- * *Washingtonia robusta* – Washington fan palm

POACEAE – GRASS FAMILY

- * *Avena barbata* – slender oat
- * *Cynodon dactylon* – Bermudagrass
- *Elymus elymoides* – squirreltail
- * *Eragrostis barrelieri* – Mediterranean lovegrass
- * *Hordeum murinum* – mouse barley

* signifies introduced (non-native) species

_____ signifies that species was only observed within the 100-foot buffer area, not within the project boundary

Wildlife Species

Birds

ICTERIDAE – BLACKBIRDS

Agelaius phoeniceus – red-winged blackbird

FRINGILLIDAE – FRINGILLINE AND CARDUELINE FINCHES AND ALLIES

Haemorhous mexicanus – house finch

TYRANNIDAE – TYRANT FLYCATCHERS

Sayornis nigricans – black phoebe

Sayornis saya – Say's phoebe

ACCIPITRIDAE – HAWKS, KITES, EAGLES, AND ALLIES

Circus hudsonius – northern harrier

CORVIDAE – CROWS AND JAYS

Corvus brachyrhynchos – American crow

POLIOPTILIDAE – GNATCATCHERS

Polioptila caerulea – blue-gray gnatcatcher

COLUMBIDAE – PIGEONS AND DOVES

* *Columba livia* – rock pigeon (rock dove)

LARIDAE – GULLS, TERNS, AND SKIMMERS

Larus occidentalis – western gull

ANATIDAE – DUCKS, GEESE, AND SWANS

Anas platyrhynchos – mallard

PARULIDAE – WOOD-WARBLERS

Geothlypis trichas – common yellowthroat

Leiothlypis celata – orange-crowned warbler

PASSERELLIDAE – NEW WORLD SPARROWS

Melozone crissalis – California towhee

Zonotrichia leucophrys – white-crowned sparrow

* signifies introduced (non-native) species

______ signifies that species was only observed within the 100-foot buffer area, not within the project boundary

INTENTIONALLY LEFT BLANK

Attachment D

Special-Status Plant and Wildlife Species Not Expected or with Low Potential to Occur within the BSA

Special-Status Plant and Wildlife Species Not Expected or With Low Potential to Occur within the BSA[1]

Scientific Name	Common Name	Status Federal/State/CRPR	Habitat	Potential to Occur
Plants				
Abronia maritima	red sand-verbena	None/None/4.2	Coastal dunes/perennial herb/Feb–Nov/0–330	Not expected to occur. The paved and developed project parcel lacks coastal dune habitat to support this species. This species was not observed during the site visit (blooming period Feb–Nov). In addition, this beach-adapted perennial is unlikely to occur in the adjacent coyote brush scrub habitat within the Ormond Beach Wetland. Lastly, there are no occurrences of this species within 5.0 miles of the site (CDFW 2023; Jepson Flora Project 2023).
Aphanisma blitoides	aphanisma	None/None/1B.2	Coastal bluff scrub, Coastal dunes, Coastal scrub; Gravelly (sometimes), Sandy (sometimes)/annual herb/ Feb–June/5–1,000	Not expected to occur. The paved and developed project parcel lacks coastal bluff scrub and coastal dune habitat to support this species. This species was not observed during the site visit (blooming period Feb–June). This species is unlikely to occur in the adjacent coyote brush scrub habitat within the Ormond Beach Wetland. Lastly, there are no occurrences of this species within 5.0 miles of the site (CDFW 2023; Jepson Flora Project 2023).
Astragalus brauntonii	Braunton's milk-vetch	FE/None/1B.1	Chaparral, Coastal scrub, Valley and foothill grassland; Burned areas (sometimes), Carbonate, Disturbed areas (sometimes), Sandstone (usually)/perennial herb/ Jan–Aug/15–2,095	Low potential to occur. The paved and developed project parcel lacks habitat to support this species. This species is unlikely to occur in the adjacent coyote brush scrub habitat within the Ormond Beach Wetland. This species was not observed during the site visit (blooming period Jan–Aug). In addition, there are no occurrences of this species within 5.0 miles of the site (CDFW 2023; Jepson Flora Project 2023; USFWS 2023).
Astragalus didymocarpus var. *milesianus*	Miles' milk-vetch	None/None/1B.2	Coastal scrub/annual herb/Mar–June/65–295	Not expected to occur. The paved and developed project parcel lacks coastal scrub to support this species. This species is unlikely to occur in the adjacent coyote brush scrub habitat within the Ormond Beach Wetland. In addition, there are no

Special-Status Plant and Wildlife Species Not Expected or With Low Potential to Occur within the BSA[1]

Scientific Name	Common Name	Status Federal/State/CRPR	Habitat	Potential to Occur
				occurrences of this species within 5.0 miles of the site (CDFW 2023; Jepson Flora Project 2023).
Astragalus pycnostachyus var. *lanosissimus*	Ventura Marsh milk-vetch	FE/SE/1B.1	Coastal dunes, Coastal scrub, Marshes and swamps/perennial herb/ (June) Aug–Oct/5–115	Not expected to occur. Although this species is known to occur within 5.0 miles of the BSA (CDFW 2023, Jepson Flora Project 2023), these occurrences are historical (e.g., observed in 1901 and 1911 in central Oxnard; Jepson Flora Project 2023) or occur along the beach with the most recent in 2009 along Oxnard Shores (CDFW 2023). In addition, the paved and developed project parcel lacks marshes, coastal dunes, or coastal scrub to support this species. This species is unlikely to occur in the adjacent coyote brush scrub habitat within the Ormond Beach Wetland.
Atriplex coulteri	Coulter's saltbush	None/None/1B.2	Coastal bluff scrub, Coastal dunes, Coastal scrub, Valley and foothill grassland; Alkaline (sometimes), Clay (sometimes)/perennial herb/Mar–Oct/10–1,505	Low potential to occur. The paved and developed project parcel lacks coastal scrub, dunes, and alkaline or clay soils to support this species. This species is unlikely to occur in the adjacent coyote brush scrub habitat within the Ormond Beach Wetland. In addition, there are no occurrences of this species within 5.0 miles of the site (CDFW 2023; Jepson Flora Project 2023).
Atriplex pacifica	south coast saltscale	None/None/1B.2	Coastal bluff scrub, Coastal dunes, Coastal scrub, Playas/annual herb/ Mar–Oct/0–460	Not expected to occur. The paved and developed project parcel lacks coastal scrub, dunes, and playas to support this species. This species is unlikely to occur in the adjacent coyote brush scrub habitat within the Ormond Beach Wetland. In addition, there are no occurrences of this species within 5.0 miles of the site (CDFW 2023; Jepson Flora Project 2023).
Atriplex serenana var. *davidsonii*	Davidson's saltscale	None/None/1B.2	Coastal bluff scrub, Coastal scrub; Alkaline/annual herb/Apr–Oct/35–655	Not expected to occur. The paved and developed project parcel lacks coastal scrub, bluffs, or alkaline soils to support this species. This species is unlikely to occur in the adjacent coyote brush scrub habitat

Special-Status Plant and Wildlife Species Not Expected or With Low Potential to Occur within the BSA[1]

Scientific Name	Common Name	Status Federal/State/CRPR	Habitat	Potential to Occur
				within the Ormond Beach Wetland. Additionally, there are no occurrences of this species within 5.0 miles of the site (CDFW 2023; Jepson Flora Project 2023).
Baccharis plummerae ssp. *plummerae*	Plummer's baccharis	None/None/4.3	Broadleafed upland forest, Chaparral, Cismontane woodland, Coastal scrub; Rocky/perennial deciduous shrub/May–Oct/15–1,390	Not expected to occur. The paved and developed project parcel lacks coastal bluff scrub, woodlands, and chaparral to support this species. This species is unlikely to occur in the adjacent coyote brush scrub habitat within the Ormond Beach Wetland. In addition, there are no occurrences of this species within 5.0 miles of the site (CDFW 2023; Jepson Flora Project 2023).
Calochortus catalinae	Catalina mariposa lily	None/None/4.2	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland/perennial bulbiferous herb/ (Feb) Mar–June/50–2,295	Not expected to occur. The paved and developed project parcel lacks coastal bluff scrub, woodlands, grassland, and chaparral to support this species. This species was not observed during the site visit (blooming period Feb–June). This species is unlikely to occur in the adjacent coyote brush scrub habitat within the Ormond Beach Wetland. In addition, there are no occurrences of this species within 5.0 miles of the site (CDFW 2023; Jepson Flora Project 2023).
Calochortus clavatus var. *gracilis*	slender mariposa-lily	None/None/1B.2	Chaparral, Coastal scrub, Valley and foothill grassland/perennial bulbiferous herb/Mar–June (Nov)/1,045–3,280	Not expected to occur. The site is outside of the species' known elevation range.
Calochortus fimbriatus	late-flowered mariposa-lily	None/None/1B.3	Chaparral, Cismontane woodland, Riparian woodland; Serpentinite (sometimes)/perennial bulbiferous herb/June–Aug/ 900–6,250	Not expected to occur. The site is outside of the species' known elevation range.

Special-Status Plant and Wildlife Species Not Expected or With Low Potential to Occur within the BSA[1]

Scientific Name	Common Name	Status Federal/State/CRPR	Habitat	Potential to Occur
Calochortus plummerae	Plummer's mariposa-lily	None/None/4.2	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Valley and foothill grassland; Granitic, Rocky/ perennial bulbiferous herb/ May–July/330–5,575	Not expected to occur. The site is outside of the species' known elevation range.
Chaenactis glabriuscula var. *orcuttiana*	Orcutt's pincushion	None/None/1B.1	Coastal bluff scrub, Coastal dunes/annual herb/ Jan–Aug/0–330	Not expected to occur. The paved and developed project parcel lacks coastal scrub, bluffs, or dunes to support this species. This species was not observed during the site visit (blooming period Jan–Aug). This species is unlikely to occur in the adjacent coyote brush scrub habitat within the Ormond Beach Wetland. Additionally, there are no occurrences of this species within 5.0 miles of the site (CDFW 2023; Jepson Flora Project 2023).
Chloropyron maritimum ssp. *maritimum*	salt marsh bird's-beak	FE/SE/1B.2	Coastal dunes, Marshes and swamps/annual herb (hemiparasitic)/ May–Oct (Nov)/0–100	Not expected to occur. Although there are multiple recent (2017–2019) occurrences of this species within 0.2 miles west of the BSA (CDFW 2023; Jepson Flora Project 2023), the paved and developed project parcel lacks wetlands, coastal dunes, marshes, swamps, or salt marsh habitat suitable to support this species.
Cistanthe maritima	seaside cistanthe	None/None/4.2	Coastal bluff scrub, Coastal scrub, Valley and foothill grassland; Sandy/annual herb/(Feb) Mar–June (Aug)/15–985	Not expected to occur. The paved and developed project parcel lacks coastal scrub, bluffs, or grasslands to support this species. This species was not observed during the site visit (blooming period Feb–Aug). This species is unlikely to occur in the adjacent coyote brush scrub habitat within the Ormond Beach Wetland. Additionally, there are no occurrences of this species within 5.0 miles of the site (CDFW 2023; Jepson Flora Project 2023).
Convolvulus simulans	small-flowered morning-glory	None/None/4.2	Chaparral, Coastal scrub, Valley and foothill grassland;	Not expected to occur. The paved and developed project parcel lacks coastal scrub, bluffs,

Special-Status Plant and Wildlife Species Not Expected or With Low Potential to Occur within the BSA[1]

Scientific Name	Common Name	Status Federal/State/CRPR	Habitat	Potential to Occur
			Clay, Seeps, Serpentinite/ annual herb/Mar–July/ 100–2,425	chaparral, or grasslands to support this species. This species is unlikely to occur in the adjacent coyote brush scrub habitat within the Ormond Beach Wetland. Additionally, there are no occurrences of this species within 5.0 miles of the site (CDFW 2023; Jepson Flora Project 2023).
Corethrogyne leucophylla	branching beach aster	None/None/3.2	Closed-cone coniferous forest, Coastal dunes/ perennial herb/May–Dec/ 10–195	Not expected to occur. The paved and developed project parcel lacks coastal dunes or forest to support this species. This species is unlikely to occur in the adjacent coyote brush scrub habitat within the Ormond Beach Wetland. Additionally, there are no occurrences of this species within 5.0 miles of the site (CDFW 2023; Jepson Flora Project 2023).
Dichondra occidentalis	western dichondra	None/None/4.2	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland/ perennial rhizomatous herb/ (Jan) Mar–July/165–1,640	Not expected to occur. The paved and developed project parcel lacks coastal scrub, chaparral, woodland, or grasslands to support this species. This species was not observed during the site visit (blooming period Jan–July). This species is unlikely to occur in the adjacent coyote brush scrub habitat within the Ormond Beach Wetland. Additionally, there are no occurrences of this species within 5.0 miles of the site (CDFW 2023; Jepson Flora Project 2023).
Dudleya blochmaniae ssp. *blochmaniae*	Blochman's dudleya	None/None/1B.1	Chaparral, Coastal bluff scrub, Coastal scrub, Valley and foothill grassland; Clay (often), Rocky, Serpentinite/ perennial herb/Apr–June/ 15–1,475	Not expected to occur. The paved and developed project parcel lacks coastal scrub, bluffs, or alkaline soils to support this species. This species is unlikely to occur in the adjacent coyote brush scrub habitat within the Ormond Beach Wetland. Additionally, there are no occurrences of this species within 5.0 miles of the site (CDFW 2023; Jepson Flora Project 2023).
Dudleya verityi	Verity's dudleya	FT/None/1B.1	Chaparral, Cismontane woodland, Coastal scrub;	Not expected to occur. The site is outside of the species' known elevation range.

Special-Status Plant and Wildlife Species Not Expected or With Low Potential to Occur within the BSA[1]

Scientific Name	Common Name	Status Federal/State/CRPR	Habitat	Potential to Occur
			Rocky, Volcanic/perennial herb/May–June/195–395	
Eleocharis parvula	small spikerush	None/None/4.3	Marshes and swamps/perennial herb/ (Apr)June–Aug (Sep)/ 5–9,905	Not expected to occur. The paved and developed project parcel lacks marshes or swamps to support this species. This species is unlikely to occur in the adjacent coyote brush scrub habitat within the Ormond Beach Wetland. Additionally, there are no occurrences of this species within 5.0 miles of the site (CDFW 2023; Jepson Flora Project 2023).
Eriogonum crocatum	conejo buckwheat	None/SR/1B.2	Chaparral, Coastal scrub, Valley and foothill grassland; Rocky, Volcanic/perennial herb/Apr–July/165–1,900	Not expected to occur. The site is outside of the species' known elevation range.
Erysimum insulare	island wallflower	None/None/1B.3	Coastal bluff scrub, Coastal dunes/perennial herb/ Mar–July/0–985	Not expected to occur. The paved and developed project parcel lacks coastal scrub, or dunes to support this species. This species is unlikely to occur in the adjacent coyote brush scrub habitat within the Ormond Beach Wetland. Additionally, there are no occurrences of this species within 5.0 miles of the site (CDFW 2023; Jepson Flora Project 2023).
Erysimum suffrutescens	suffrutescent wallflower	None/None/4.2	Chaparral, Coastal bluff scrub, Coastal dunes, Coastal scrub/perennial herb/Jan–July (Aug)/0–490	Not expected to occur. The paved and developed project parcel lacks coastal scrub, chaparral, or dunes to support this species. This species was not observed during the site visit (blooming period Jan-Aug). This species is unlikely to occur in the adjacent coyote brush scrub habitat within the Ormond Beach Wetland. Additionally, there are no occurrences of this species within 5.0 miles of the site (CDFW 2023; Jepson Flora Project 2023).
Juglans californica	Southern California black walnut	None/None/4.2	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland/	Not expected to occur. The paved and developed project parcel lacks coastal dunes, coastal scrub, chaparral, or woodland to support this species. This species is unlikely to occur in the adjacent

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Scientific Name	Common Name	Status Federal/State/CRPR	Habitat	Potential to Occur
			perennial deciduous tree/ Mar–Aug/165–2,950	coyote brush scrub habitat within the Ormond Beach Wetland. Additionally, there are no occurrences of this species within 5.0 miles of the site (CDFW 2023; Jepson Flora Project 2023).
Juncus acutus ssp. *leopoldii*	southwestern spiny rush	None/None/4.2	Coastal dunes, Marshes and swamps, Meadows and seeps/perennial rhizomatous herb/ (Mar) May–June/10–2,950	Not expected to occur. The paved and developed project parcel lacks coastal dunes, meadows, seeps, marshes, or swamps to support this species. This species is unlikely to occur in the adjacent coyote brush scrub habitat within the Ormond Beach Wetland. Additionally, there are no occurrences of this species within 5.0 miles of the site (CDFW 2023; Jepson Flora Project 2023).
Lasthenia glabrata ssp. *coulteri*	Coulter's goldfields	None/None/1B.1	Marshes and swamps, Playas, Vernal pools/annual herb/Feb–June/5–4,000	Not expected to occur. Although there is an occurrence (2015) that overlaps with the parcel and BSA (CDFW 2023; Jepson Flora Project 2023), the paved and developed project parcel lacks vernal pools, playas, marshes, swamps, or other saline conditions or habitat to support this species. This species is unlikely to occur in the adjacent coyote brush scrub habitat within the Ormond Beach Wetland. This species was not observed during the site visit (blooming period Feb–June).
Lepechinia fragrans	fragrant pitcher sage	None/None/4.2	Chaparral/perennial shrub/Mar–Oct/65–4,295	Not expected to occur. The paved and developed project parcel lacks chaparral to support this species. This species is unlikely to occur in the adjacent coyote brush scrub habitat within the Ormond Beach Wetland. Additionally, there are no occurrences of this species within 5.0 miles of the site (CDFW 2023; Jepson Flora Project 2023).
Malacothrix similis	Mexican malacothrix	None/None/2A	Coastal dunes/annual herb/Apr–May/0–130	Not expected to occur. This species is presumed extinct in California (Jepson Flora Project 2023) with the single documented occurrence in Ventura County located at Port Hueneme Beach Park and observed in 1925 (CDFW 2023; Jepson Flora

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Scientific Name	Common Name	Status Federal/State/CRPR	Habitat	Potential to Occur
				Project 2023). In addition, the paved and developed project parcel lacks coastal dune habitat to support this species.
Monardella hypoleuca ssp. *hypoleuca*	white-veined monardella	None/None/1B.3	Chaparral, Cismontane woodland/perennial herb/ (Apr) May–Aug (Sep–Dec)/ 165–5,000	Not expected to occur. The site is outside of the species' known elevation range.
Monardella sinuata ssp. *gerryi*	Gerry's curly-leaved monardella	None/None/1B.1	Coastal scrub; Openings, Sandy/annual herb/ Apr–June/490–805	Not expected to occur. The site is outside of the species' known elevation range.
Navarretia ojaiensis	Ojai navarretia	None/None/1B.1	Chaparral, Coastal scrub, Valley and foothill grassland/ annual herb/May–July/ 900–2,030	Not expected to occur. The site is outside of the species' known elevation range.
Polygala cornuta var. *fishiae*	Fish's milkwort	None/None/4.3	Chaparral, Cismontane woodland, Riparian woodland/perennial deciduous shrub/ May–Aug/330–3,280	Not expected to occur. The paved and developed project parcel lacks chaparral or woodland to support this species. This species is unlikely to occur in the adjacent coyote brush scrub habitat within the Ormond Beach Wetland. Additionally, there are no occurrences of this species within 5.0 miles of the site (CDFW 2023; Jepson Flora Project 2023).
Pseudognaphalium leucocephalum	white rabbit-tobacco	None/None/2B.2	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland; Gravelly, Sandy/perennial herb/(July) Aug–Nov (Dec)/0–6,885	Not expected to occur. The paved and developed project parcel lacks chaparral, woodland, or scrub habitat to support this species. This species is unlikely to occur in the adjacent coyote brush scrub habitat within the Ormond Beach Wetland. Additionally, there are no occurrences of this species within 5.0 miles of the site (CDFW 2023; Jepson Flora Project 2023).
Senecio aphanactis	chaparral ragwort	None/None/2B.2	Chaparral, Cismontane woodland, Coastal scrub; Alkaline (sometimes)/annual	Not expected to occur. The paved and developed project parcel lacks chaparral, woodland, or scrub habitat to support this species; and the site lacks alkaline soils. This species is unlikely to occur in

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Scientific Name	Common Name	Status Federal/State/CRPR	Habitat	Potential to Occur
			herb/Jan–Apr (May)/ 50–2,620	the adjacent coyote brush scrub habitat within the Ormond Beach Wetland. This species was not observed during the site visit (blooming period Jan–May). Additionally, there are no occurrences of this species within 5.0 miles of the site (CDFW 2023; Jepson Flora Project 2023).
Suaeda californica	California seablite	FE/None/1B.1	Marshes and swamps/ perennial evergreen shrub/ July–Oct/0–50	Not expected to occur. The BSA lacks marshes or swamps to support this species. Additionally, there are no occurrences of this species within 5.0 miles of the site (CDFW 2023; Jepson Flora Project 2023).
Suaeda esteroa	estuary seablite	None/None/1B.2	Marshes and swamps/ perennial herb/(Jan–May) July–Oct/0–15	Not expected to occur. The BSA lacks marshes or swamps to support this species. Additionally, there are no occurrences of this species within 5.0 miles of the site (CDFW 2023; Jepson Flora Project 2023).
Suaeda taxifolia	woolly seablite	None/None/4.2	Coastal bluff scrub, Coastal dunes, Marshes and swamps/perennial evergreen shrub/Jan–Dec/ 0–165	Not expected to occur. The paved and developed project parcel lacks coastal bluff scrub, dunes, marshes, and swamps to support this species. This species was not observed during the site visit (blooming period Jan–Dec). This species is unlikely to occur in the adjacent coyote brush scrub habitat within the Ormond Beach Wetland. In addition, there are no occurrences of this species within 5.0 miles of the site (CDFW 2023; Jepson Flora Project 2023).
Texosporium sancti-jacobi	woven-spored lichen	None/None/3	Chaparral/crustose lichen (terricolous)/195–2,165	Not expected to occur. The site is outside of the species' known elevation range.
Wildlife				
Amphibians				
Rana boylii	foothill yellow-legged frog - south coast DPS	FPE/SE	Rocky streams and rivers with open banks in forest, chaparral, and woodland	Not expected to occur. The BSA lacks suitable aquatic habitat to support this species. In addition, there are no occurrences of this species within

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				5.0 miles of the site (CDFW 2023; Jepson Flora Project 2023).
Rana draytonii	California red-legged frog	FT/SSC	Lowland streams, wetlands, riparian woodlands, livestock ponds; dense, shrubby or emergent vegetation associated with deep, still or slow-moving water; uses adjacent uplands	Not expected to occur. The BSA lacks suitable aquatic habitat to support this species. In addition, the nearest occurrences of this species are more than 10.0 miles northwest, along the Ventura River (CDFW 2023).
Reptiles				
Anniella spp.	California legless lizard	None/SSC	Coastal dunes, stabilized dunes, beaches, dry washes, valley–foothill, chaparral, and scrubs; pine, oak, and riparian woodlands; associated with sparse vegetation and moist sandy or loose, loamy soils	Low potential to occur. The paved and developed parcel lacks suitable habitat for this species. The narrow band of disturbed habitat along the parcel southern boundary lacks loose and loamy sands required by this species for burrowing. It is unlikely this species is present within the coyote brush scrub in the adjacent Ormond Beach Wetland. Lastly, the nearest most recent occurrence is approximately 4.5 miles northwest where *A. stebbinsi* was observed in 2005 (CDFW 2023).
Aspidoscelis tigris stejnegeri	San Diegan tiger whiptail	None/SSC	Hot and dry areas with sparse foliage, including chaparral, woodland, and riparian areas.	Not expected to occur. The paved and developed project parcel lacks suitable habitat for this species. The site is not part of a large, undisturbed, and continuous block of habitat (away from fragmented roads and development) preferred by this species. In addition, it is unlikely this species is present within the coyote brush scrub in the adjacent Ormond Beach Wetland. Lastly, the nearest known occurrence is approximately 8.5 miles southeast of the site along the Santa Monica Mountains (CDFW 2023).
Emys marmorata	western pond turtle	None/SSC	Slow-moving permanent or intermittent streams, ponds, small lakes, and reservoirs	Not expected to occur. The paved and developed project parcel lacks suitable aquatic habitat for this species. In addition, the Ormond Lagoon Waterway

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Scientific Name	Common Name	Status Federal/State/CRPR	Habitat	Potential to Occur
			with emergent basking sites; adjacent uplands used for nesting and during winter.	is located nearly 0.25 miles northwest of the BSA and it is unlikely this species is present within the coyote brush scrub in the adjacent Ormond Beach Wetland adjacent to the parcel. Lastly, the nearest known occurrence is approximately 5.8 miles northeast of the BSA along the Beardsley Wash (CDFW 2023).
Phrynosoma blainvillii	Blainville's horned lizard	None/SSC	Open areas of sandy soil in valleys, foothills, and semi-arid mountains including coastal scrub, chaparral, valley–foothill hardwood, conifer, riparian, pine–cypress, juniper, and annual grassland habitats	Not expected to occur. The paved and developed project parcel lacks suitable habitat to support this species. The narrow band of disturbed habitat along the parcel southern boundary lacks the open and sandy soil areas preferred by this species. In addition, the nearest most recent occurrence is approximately 4.5 miles northwest in Oxnard Shores where the species was observed in 1992 (CDFW 2023). Additional occurrences from 2013 to 2018 occur along the Santa Clara River, more than 7.0 miles north and northwest of the site (CDFW 2023). It is unlikely this species is present within the coyote brush scrub in the adjacent Ormond Beach Wetland adjacent to the parcel.
Thamnophis hammondii	two-striped garter snake	None/SSC	Streams, creeks, pools, streams with rocky beds, ponds, lakes, vernal pools	Not expected to occur. The paved and developed project parcel lacks suitable habitat to support this species. In addition, the adjacent Ormond Beach Wetland lacks freshwater habitat required by this species. Lastly, the nearest known occurrence is approximately 5.7 miles east of the BSA along Calleguas Creek (CDFW 2023).
Thamnophis sirtalis ssp. (Southern California coastal plain from Ventura County to San Diego County, and	south coast garter snake	None/SSC	Marsh and upland habitats near permanent water and riparian vegetation	Not expected to occur. Ventura County is the northern-most range for this species with the majority of occurrences in the county occurring along the Santa Clara River (CDFW 2023; Thomson et al. 2016). The most recent occurrence in

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Scientific Name	Common Name	Status Federal/State/CRPR	Habitat	Potential to Occur
from sea level to about 850 meters)				CNDDB is along the Santa Clara River in 2008 (CDFW 2023).
Birds				
Agelaius tricolor (nesting colony)	tricolored blackbird	BCC/SSC, ST	Nests near freshwater, emergent wetland with cattails or tules, but also in Himalayan blackberry; forages in grasslands, woodland, and agriculture	Not expected to occur. This species has not been documented in Ventura County since 1994 (CDFW 2023). In addition, the paved and developed parcel lacks suitable wetland habitat to support this species.
Athene cunicularia (burrow sites & some wintering sites)	burrowing owl	BCC/SSC	Nests and forages in grassland, open scrub, and agriculture, particularly with ground squirrel burrows	Not expected to occur. The paved and developed parcel lacks suitable habitat and burrows for this species. In addition, the narrow band of disturbed habitat along the parcel southern boundary lacks ground squirrel or other suitably sized burrows. Burrowing owls are only known to winter in the Oxnard Plains (CDFW 2023). In addition, CNDDB (February 2023) and eBird.org (February 2023) occurrences suggest that burrowing owls utilize Ormond Beach and the game preserves. The most recent record in CNDDB is in 2010 (Point Mugu; Occurrence No. 1614) and 2017 (Camarillo; Occurrence No. 2016). However, no CNDDB records within the Oxnard/Camarillo area have confirmed breeding sites.
Buteo regalis (wintering)	ferruginous hawk	None/WL	Winters and forages in open, dry country, grasslands, open fields, agriculture	Not expected to occur. The paved and developed parcel lacks suitable wintering habitat for this species. In addition, although small rodents (e.g., mice) may occur in the narrow band of disturbed habitat along the parcel southern boundary, it is unlikely to support this species. This species has more opportunities to winter and forage in the Ormond Beach Wetland, west of the site. CNDDB documents only one occurrence in Ventura County 5.0 miles southeast of the site in 1991 (CDFW

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Scientific Name	Common Name	Status Federal/State/CRPR	Habitat	Potential to Occur
				2023); with additional more sightings along Ormond Beach (eBird 2023).
Charadrius nivosus nivosus (nesting)	western snowy plover	FT, BCC/SSC	On coasts nests on sandy marine and estuarine shores; in the interior nests on sandy, barren or sparsely vegetated flats near saline or alkaline lakes, reservoirs, and ponds	Not expected to occur. Although federal designated critical habitat and occurrences for this species are located 0.45 miles south of the site (CDFW 2023), the BSA lacks the required coastal sandy substrates required utilized by this species.
Coccyzus americanus occidentalis (nesting)	western yellow-billed cuckoo	FT/SE	Nests in dense, wide riparian woodlands and forest with well-developed understories	Not expected to occur on site. The BSA lacks suitable riparian habitat required by this species. Similarly, the Ormond Lagoon Channel, located approximately 0.25 miles northwest of the BSA, lacks the large contiguous patches of multilayered riparian habitat preferred by this species.
Elanus leucurus (nesting)	white-tailed kite	None/FP	Nests in woodland, riparian, and individual trees near open lands; forages opportunistically in grassland, meadows, scrubs, agriculture, emergent wetland, savanna, and disturbed lands	Not expected to occur. The paved and developed parcel lacks suitable nesting habitat for this species. Similarly, immediately adjacent areas lack suitable nesting substrates for this species. However, this species may have opportunities within other areas of the Ormond Beach Wetland, west of the site. CNDDB documents a handful of occurrences in Ventura County with the most recent near Moorpark in 2011 (CDCFW 2023) and other occurrences near Ormond Beach (eBird 2023).
Empidonax traillii extimus (nesting)	southwestern willow flycatcher	FE/SE	Nests in dense riparian habitats along streams, reservoirs, or wetlands; uses variety of riparian and shrubland habitats during migration	Not expected to occur on site. The BSA lacks suitable riparian habitat required by this species. Similarly, the Ormond Lagoon Channel, located approximately 0.25 miles northwest of the BSA, lacks the large contiguous patches of multilayered riparian habitat preferred by this species. In addition, the only occurrences of this species are documented along the Santa Clara River, more

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				than 10 miles northeast of the site with the most recent occurrence in 2009 (CDFW 2023).
Eremophila alpestris actia	California horned lark	None/WL	This subspecies of horned lark occurs on the state's southern and central coastal slope and in the San Joaquin Valley. Nests and forages in grasslands, disturbed lands, agriculture, and beaches.	Low potential to occur. The paved and developed parcel lacks suitable habitat for this species. In addition, the narrow band of disturbed habitat along the parcel southern boundary contains only small patches of barren terrain that may only be marginally suitable for this species. More suitable undisturbed habitat is located west of the site along Ormond Beach where the species has been observed (eBird 2023).
Falco peregrinus anatum (nesting)	American peregrine falcon	FPD/FP, SCD	Nests on cliffs, buildings, and bridges; forages in wetlands, riparian, meadows, croplands, especially where waterfowl are present	Not expected to occur. The BSA lacks cliffs, ledges, tall trees, or similar structures that are typically used for nesting.
Laterallus jamaicensis coturniculus	California black rail	None/FP, ST	Tidal marshes, shallow freshwater margins, wet meadows, and flooded grassy vegetation; suitable habitats are often supplied by canal leakage in Sierra Nevada foothill populations	Not expected to occur. No suitable marsh, wetlands, or similar aquatic habitat is present within the BSA.
Passerculus sandwichensis beldingi	Belding's savannah sparrow	BCC/SE	Nests and forages in coastal saltmarsh dominated by pickleweed (*Salicornia* spp.)	Not expected to nest. Low potential to forage. The BSA lacks suitable salt marsh nesting habitat for this species. In addition, there are very limited foraging opportunities within the disturbed habitat in the southern boundary of the parcel, and the species would be more likely to be observed foraging in the surrounding grasslands, cultivated fields, and wetlands. Lastly, the nearest known occurrence is approximately 0.05 miles southwest of the BSA within Ormond Beach Wetland (CDFW 2023).

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Scientific Name	Common Name	Status Federal/State/CRPR	Habitat	Potential to Occur
Pelecanus occidentalis californicus (nesting colonies and communal roosts)	California brown pelican	FPD/FP, SCD	Forages in warm coastal marine and estuarine environments; in California, nests on dry, rocky offshore islands	Not expected to occur. Although this species is regularly observed along the coast of California, the BSA lacks suitable undisturbed areas suitable for colony nesting or typical substrates (e.g., jetties, sandbars, islands) for communal roosts.
Polioptila californica californica	coastal California gnatcatcher	FT/SSC	Nests and forages in various sage scrub communities, often dominated by California sagebrush and buckwheat; generally avoids nesting in areas with a slope of greater than 40%; majority of nesting at less than 1,000 feet above mean sea level	Not expected to occur. The BSA lacks suitable coastal sage scrub habitat or similar scrub habitat utilized by this species. In addition, there are no known occurrences of this species within 5.0 miles of the project site (CDFW 2023).
Rallus obsoletus levipes	Ridgway's rail	FE/FP, SE	Coastal wetlands, brackish areas, coastal saline emergent wetlands	Not expected to occur. The BSA lacks suitable wetlands or similar aquatic habitats utilized by this species.
Riparia riparia (nesting)	bank swallow	None/ST	Nests in riparian, lacustrine, and coastal areas with vertical banks, bluffs, and cliffs with sandy soils; open country and water during migration	Not expected to occur. The project site is located outside the current known breeding range of this species and rarely occur during migration in the region, with most colonies now occurring along the Sacramento and Feather Rivers in the northern Central Valley, with isolated colonies in coastal counties in northern California (CDFW 2023). In addition, the BSA lacks suitable cliff or banks required by this species for nesting and the nearest most recent occurrence is located approximately 7.7 miles northwest of the site where two pairs nested in 1976 (CDFW 2023).
Setophaga petechia (nesting)	yellow warbler	None/SSC	Nests and forages in riparian and oak woodlands, montane chaparral, open	Not expected to occur on site. The BSA lacks suitable riparian habitat required by this species. Similarly, the Ormond Lagoon Channel, located

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			ponderosa pine, and mixed-conifer habitats	approximately 0.25 miles northwest of the BSA, lacks the riparian habitat preferred by this species. The nearest occurrence is documented along the Santa Clara River in 2017, approximately 6.5 miles northwest of the site (CDFW 2023).
Sternula antillarum browni (nesting colony)	California least tern	FE/FP, SE	Forages in shallow estuaries and lagoons; nests on sandy beaches or exposed tidal flats	Not expected to occur. Although this species has occurrences approximately 0.46 miles southwest of the site along the shore (CDFW 2023), the BSA lacks estuarian, lagoon, sandy, or similar habitat required by this species.
Vireo bellii pusillus (nesting)	least Bell's vireo	FE/SE	Nests and forages in low, dense riparian thickets along water or along dry parts of intermittent streams; forages in riparian and adjacent shrubland late in nesting season	Not expected to occur. The BSA lacks suitable riparian habitat required by this species. Similarly, the Ormond Lagoon Channel, located approximately 0.25 miles northwest of the BSA, lacks the early successional and dense understory riparian habitat preferred by this species. The nearest occurrence is documented approximately 5.1 miles northwest of the site near Oxnard Shores in 2009 (CDFW 2023).
Fishes				
Catostomus santaanae	Santa Ana sucker	FT/None	Small, shallow, cool, clear streams less than 7 meters (23 feet) in width and a few centimeters to more than a meter (1.5 inches to more than 3 feet) in depth; substrates are generally coarse gravel, rubble, and boulder	Not expected to occur. The BSA lacks suitable aquatic habitat required by this species.
Eucyclogobius newberryi	tidewater goby	FE/None	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County, to the mouth of the Smith River	Not expected to occur. The BSA lacks suitable aquatic habitat required by this species. The closest designated critical habitat is located approximately 0.62 miles west of the BSA within the Ormond Beach wetland (USFWS 2023).

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Gasterosteus aculeatus williamsoni	unarmored threespine stickleback	FE/FP, SE	Slow-moving and backwater areas	Not expected to occur. The BSA lacks suitable aquatic habitat required by this species.
Gila orcuttii	arroyo chub	None/SSC	Warm, fluctuating streams with slow-moving or backwater sections of warm to cool streams at depths >40 centimeters (16 inches); substrates of sand or mud	Not expected to occur. The BSA lacks suitable aquatic habitat required by this species.
Oncorhynchus mykiss irideus pop. 10	southern steelhead - southern California DPS	FE/SCE	Clean, clear, cool, well-oxygenated streams; needs relatively deep pools in migration and gravelly substrate to spawn	Not expected to occur. The BSA lacks suitable aquatic habitat required by this species.
Mammals				
Antrozous pallidus	pallid bat	None/SSC	Grasslands, shrublands, woodlands, forests; most common in open, dry habitats with rocky outcrops for roosting, but also roosts in man-made structures and trees	Not expected to occur. The parcel lacks suitable roosting substrates, including cliffs, caves, mines, trees, or other man-made structures, required by this species. In addition, no suitable crevices or sign was observed along buildings north of the parcel boundary within the BSA. In addition, the nearest species occurrence is approximately 10 miles northwest of the site where the species was observed in 1906 (CDFW 2023).
Chaetodipus californicus femoralis	Dulzura pocket mouse	None/SSC	Open habitat, coastal scrub, chaparral, oak woodland, chamise chaparral, mixed-conifer habitats; disturbance specialist; 0 to 3,000 feet above mean sea level	Not expected to occur. The paved and developed parcel lacks the grassland-chaparral habitats preferred by this species. It is possible that habitat for this species may be present in localized areas in the adjacent Ormond Beach Wetland. In addition, there are no known occurrences within 10.0 miles of site (CDFW 2023).
Choeronycteris mexicana	Mexican long-tongued bat	None/SSC	Desert and montane riparian, desert succulent scrub, desert scrub, and	Not expected to occur. The BSA lacks suitable cliff roosting substrates, including caves, mines, rock crevices or abandoned buildings, utilized by this

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Scientific Name	Common Name	Status Federal/State/CRPR	Habitat	Potential to Occur
			pinyon–juniper woodland; roosts in caves, mines, and buildings	species. In addition, there are no known occurrences of this species within 5.0 miles of the site (CDFW 2023).
Eumops perotis californicus	western mastiff bat	None/SSC	Chaparral, coastal and desert scrub, coniferous and deciduous forest and woodland; roosts in crevices in rocky canyons and cliffs where the canyon or cliff is vertical or nearly vertical, trees, and tunnels	Not expected to occur. The BSA lacks suitable roosting cliff substrates utilized by this species. In addition, there are no known occurrences of this species within 5.0 miles of the site (CDFW 2023).
Microtus californicus stephensi	south coast marsh vole	None/SSC	Tidal marshes	Not expected to occur. No tidal marsh habitat present in the BSA.
Sorex ornatus salicornicus	southern California saltmarsh shrew	None/SSC	Saltmarsh, saltgrass, dense willow, bulrush	Not expected to occur. The BSA lacks saltmarsh, saltgrass, or similar suitable habitat utilized by this species. In addition, this species is only known from one location in Ventura County where it was observed in saltmarsh approximately 2.1 miles southeast of the site in 1941 (CDFW 2023).
Taxidea taxus	American badger	None/SSC	Dry, open, treeless areas; grasslands, coastal scrub, agriculture, and pastures, especially with friable soils	Not expected to occur. The paved and developed project parcel lacks suitable grasslands, coastal scrub, agriculture, or pastures. Should the species occur in the adjacent Ormond Beach Wetland, it would be unlikely to traverse the project parcel as there are only developed landscapes north and east of the parcel. In addition, there are no known occurrences within 5.0 miles of project site (CDFW 2023).
Invertebrates				
Bombus crotchii	Crotch bumble bee	None/None	Open grassland and scrub communities supporting suitable floral resources.	Not expected to occur. The paved and developed project parcel lacks the necessary floral resources utilized by this species. This species is unlikely to occur in the adjacent coyote brush scrub habitat

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				within the Ormond Beach Wetland. In addition, the most recent detection of this species occurred in 2012 at McGrath State Beach, 7.5 miles northwest of the site (CDFW 2023).
Cicindela hirticollis gravida	sandy beach tiger beetle	None/None	Inhabits areas adjacent to non-brackish water along the coast of California from San Francisco Bay to northern Mexico	Not expected to occur. No suitable habitat present within the BSA.
Cicindela senilis frosti	senile tiger beetle	None/None	Inhabits marine shoreline, from Central California coast south to saltmarshes of San Diego; also found at Lake Elsinore	Not expected to occur. The BSA lacks suitable marine and saltmarsh habitat utilized by this species.
Coelus globosus	globose dune beetle	None/None	Inhabitant of coastal sand dune habitat; erratically distributed from Ten Mile Creek in Mendocino County south to Ensenada, Mexico	Not expected to occur. The BSA lacks suitable sand dune habitat utilized by this species.
Danaus plexippus pop. 1	monarch	FC/None	Wind-protected tree groves with nectar sources and nearby water sources	Not expected to occur. The BSA lacks suitable overwintering groves utilized by this species.
Helminthoglypta traskii	Trask shoulderband	None/None	Known from Ventura, Los Angeles, Orange, and San Diego Counties; also reported from northwestern Baja California	Not expected to occur. In addition, this species is known from only one location in Ventura County along the Santa Monica Mountains, more than 8.0 miles southeast of the BSA, where it was last documented in 2008 (CDFW 2023).
Panoquina errans	wandering skipper	None/None	Saltmarsh	Not expected to occur. The BSA lacks suitable saltmarsh habitat required by this species. The nearest and most recent occurrence of this species is along Point Mugu Naval Air Station, approximately 1.55 miles southeast of the site, where the species was last observed in 1982 (CDFW 2023).

Special-Status Plant and Wildlife Species Not Expected or With Low Potential to Occur within the BSA[1]

Scientific Name	Common Name	Status Federal/State/CRPR	Habitat	Potential to Occur
Trimerotropis occidentiloides	Santa Monica grasshopper	None/None	Known only from the Santa Monica Mountains	Not expected to occur. This species is only known from the Santa Monica Mountains, with the closest detection of this species more than 16.0 miles east of the site (CDFW 2023).
Tryonia imitator	mimic tryonia (California brackish water snail)	None/None	Inhabits coastal lagoons, estuaries, and saltmarshes, from Sonoma County south to San Diego County	Not expected to occur. The BSA lacks lagoon, estuary, saltmarsh, or similar aquatic habitat.

Notes: BSA = Biological Survey Area.
1 Biological Survey Area refers to the project parcel boundaries plus a 100-foot buffer.

Status Designations:
Federal
BCC: U.S. Fish and Wildlife Service Bird of Conservation Concern
FC: Federal candidate species (former Category 1 candidates)
FE: Federally listed as endangered
FPD: Federally proposed for delisting
FPE: Federally proposed for listing as endangered
FT: Federally listed as threatened
State
FP: CDFW Fully Protected species
SE: State listed as endangered
ST: State listed as threatened
SR: State listed as rare
SCE: State candidate for listing as endangered
SCD: State candidate for delisting
SSC: California Species of Special Concern
WL: California Watch List Species
CRPR: California Rare Plant Rank
1B: Plants rare, threatened, or endangered in California and elsewhere
2A: Plants presumed extirpated in California, but common elsewhere
2B: Plants rare, threatened, or endangered in California, but more common elsewhere
3: Plants about which we need more information–a review list
4: Plants of limited distribution–a watch list
Threat Ranks:
0.1: Seriously threatened in California (high degree/immediacy of threat)
0.2: Fairly threatened in California (moderate degree/immediacy of threat)
0.3: Not very threatened in California (low degree/immediacy of threats or no current threats known)

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Appendix C
Confidential

Appendix D
Geotechnical Engineering Study

advanced geotechnical services, inc.

November 12, 2021
Client Number 5173
Report Number 10863

Hager Pacific
4100 Newport Place Drive, Suite 700
Newport Beach, CA 92660

Geotechnical Engineering Study
Proposed Site Paving
6001 Arcturus Avenue
Oxnard, California

In accordance with our proposal and your authorization, Advanced Geotechnical Services, Inc., (AGS) has prepared this *Geotechnical Engineering Study* for the proposed paving of the subject site. This report presents the results of our data research, subsurface exploration, laboratory testing, and our professional opinions regarding the geotechnical engineering factors that may affect the proposed development.

Based on the results of this study, it is our opinion that the site is *suitable* for construction of the proposed site paving, provided the recommendations contained within this report are properly incorporated in the design and implemented during construction.

This opportunity to be of service is sincerely appreciated. This report should be read from cover to cover to understand its limitations, and to avoid taking a recommendation out-of-context. If you have any questions, or if we may be of any further assistance, please do *not* hesitate to call. We look forward to being of continued service.

Respectfully submitted,
Advanced Geotechnical Services, Inc.

Kenneth J. Palos
President

Scott Moore, GE
Principal Geotechnical Engineer

REGISTERED PROFESSIONAL ENGINEER
SCOTT W. MOORE
No. 2560
GEOTECHNICAL
STATE OF CALIFORNIA

Enclosure: *Report No. 10863*

cc: (1) Addressee (1) File Copy

advanced geotechnical services, inc.

GEOTECHNICAL ENGINEERING STUDY

Proposed Site Paving
6001 Arcturus Avenue
Oxnard, California

Report to
Hager Pacific
Newport Beach, California

November 12, 2021
Client Number 5173
Report Number 10863

Contents

List of Appendices

1. INTRODUCTION

1.1 General Remarks

This report has been prepared for the proposed grading and paving of the subject site. The purposes of this study are to identify onsite soil conditions that may affect the proposed project, and provide geotechnical recommendations for the proposed grading and paving of the site. This report presents the findings of our data review, subsurface exploration, laboratory testing, engineering analyses and evaluations, and our conclusions and recommendations.

Appendices are attached following the main report. Appendix A includes an explanation of the field exploration, and the boring/test pit logs; Appendix B includes an explanation of the laboratory testing, and the lab test results; Appendix C includes the references used in this study, and the Figures and Plates referenced in this report are included in Appendix D.

1.2 Scope of Services

This geotechnical engineering study included:

a. Reconnaissance of the subject site and the immediate vicinity of the site, and review of geotechnical and geologic data of the general study area. A *Site Location Map* is provided as Figure 1, and an *Existing Site Plan* is provided as Plate 1. The images utilized to create these attachments were obtained from the Google Earth (2021) online web app.

b. Excavation, sampling, and logging of 10 exploratory test pits extending to depths between approximately 5 and 10.5 feet below the existing ground surface. The locations of the test pits were determined in the field using a tape measure and approximate reference points. Thus, the actual locations may deviate slightly from the locations shown on the attached Plates 1 and 2. The boring/test pit logs are included in Appendix A, along with a general description of the field operations.

c. Laboratory testing of selected samples to determine the engineering properties of onsite soils. The results of laboratory testing are presented in Appendix B, and on the test pit logs in Appendix A. Soil samples will be *discarded* 30 days after the date of this report, unless this office receives a specific request and fee to retain the samples for a longer period of time.

d. Engineering analysis of the data and information obtained from our field study, laboratory testing, and literature review.

e. Review of plans of the subject site and proposed improvements provided to our office by the Civil Engineer, Jensen Design and Survey, Inc.

f. Development of geotechnical recommendations for site preparation and grading, underground utility trenches, temporary excavations, pavement and drainage.

g. Preparation of this report summarizing our findings, conclusions, and recommendations regarding the geotechnical aspects of the project site.

The scope of this study did *not* include an assessment of potential environmental issues.

1.3 Site Description and Proposed Development

The site of the proposed development is located at 6001 Arcturus Avenue, in the City of Oxnard, County of Ventura, California, as shown on the attached Plate 1, *Existing Site Plan*. The subject site is roughly rectangular shaped, and based on information obtained from the Ventura County View (2021) website, measures approximately 971 feet in the east-west direction, an average of approximately 446 feet in the north-south direction, and is 9.01 acres in area. According to the site boundary shown on the Ventura County View website, the site includes the existing railroad tracks to the west, but that is not a part of the currently proposed development shown on the plans provided by Jensen Design and Survey. The subject site is bounded by the existing railroad tracks to the west with vacant land beyond, E. McWane Boulevard to the south, Arcturus Avenue to the east, and a developed commercial property to the north. The attached Plate 1, *Existing Site Plan*, shows previously existing structures onsite, prior to the recent demolition, and also shows that there was some type of a pit of unknown depth in the northwest portion of the site. There is currently a large pile of crushed concrete onsite resulting from the recent demolition also.

At the time of our field exploration, the subject site was occupied by an existing single-story building in the southeast corner of the site, and miscellaneous asphalt and concrete paving, and former concrete building floor slabs which remain after demolition of the remainder of the existing onsite structures. The attached Plate 2, *Proposed Site Plan*, which was created utilizing a *Site Plan* dated 10/15/21 by Jensen Design and Survey as a base map, shows the general outlines of the existing paving and remaining building floor slabs (these areas are labeled, and also lighter in color), surrounded by the gray-shaded areas of proposed new asphalt pavement in the western and southern portions of the site. The existing ground surface in the areas of proposed new asphalt pavement range from approximately 1 to 2 feet lower in elevation than the surfaces of the existing asphalt and concrete, but overall the areas of proposed paving are roughly level to gently sloping.

2. GEOLOGIC SETTING

2.1 Geology

Geologic conditions beneath the subject property have been interpreted and characterized based upon our review of published and unpublished references, and our subsurface exploration onsite. Our interpretations involve projections of data and assume that geologic conditions are reasonably constant between points of exposure. Work should continue under the review of the Geotechnical Engineer to ensure that geologic conditions different from those described below are recognized and evaluated as soon as possible. Certain subsurface conditions such as groundwater levels and the consistency of near-surface soils will vary with the seasons.

The subject site is located within the Oxnard USGS 7.5-minute quadrangle. According to the *Geologic Map of the Oxnard 7.5' Quadrangle (USGS, 2003)*, as shown on the attached Regional Geologic Map, Figure 2, the subject site is underlain by younger alluvial materials, which was confirmed during our site exploration.

3. EARTH MATERIALS AND SUBSURFACE CONDITIONS

3.1 Artificial Fill (af)

Artificial fill was encountered to a depth of approximately 5.5 feet below the existing ground surface in Test Pit TP-1, to depths between approximately 2.5 to 4 feet in Test Pit TP-2, and to depths between approximately 2 and 2.5 feet in Test Pit TP-5. In the remainder of the test pits, the artificial fill ranged from only a couple inches to 1 foot thick.

The deeper artificial fill encountered in Test Pits TP-1, TP-2 and TP-5 consisted of silty to clayey gravelly sand, which was generally medium dense, and ranged from slightly moist to very moist. Occasional pockets of clayey silt were encountered in Test Pits TP-1 and TP-2, along with occasional cobbles and concrete fragments. In the remainder of the test pits, the artificial fill consisted of only a relatively thin layer of loose gravelly, silty sand that had been spread across the ground surface, but in Test Pits TP-7, TP-8 and TP-9 there was a layer of gravelly, clayey sandy silt underlying this surface layer, and extending to variable depths of up to approximately 12 inches. The composition of this clayey sandy silt artificial fill resembled the underlying native alluvial soils, but it was found to be relatively dry and loose. More detailed earth material profiles are provided on the attached boring/test pit logs in Appendix A.

3.2 Alluvium (Qa)

Native, younger alluvial soils were encountered below the artificial fill in all exploratory test pits. The upper native soils within the zone to be graded for support of the proposed paving consisted generally of sandy to clayey silt, which ranged from relatively dry to slightly moist and moist, and medium firm to firm. At deeper levels in some areas, below the zone expected to be graded, silty sand, clayey sand and silty clay were encountered. Near the groundwater level in Test Pit TP-10, wet soils were encountered, and overall, the native soils generally increased in moisture content with depth. More detailed earth material profiles are provided on the attached boring/test pit logs in Appendix A.

3.3 Soil Parameters

3.3.1 Compaction

Four compaction curves were developed in this study for representative samples of the upper site soils. The maximum dry density was 130.0 pcf, at an optimum moisture content of 8.5% for a sample obtained from Test Pit TP-2 between the depths of 0 and 2 feet; the maximum dry density was 125.0 pcf, at an optimum moisture content of 10.5% for a sample obtained from Test Pit TP-4 between the depths of 0 and 2 feet; the maximum dry density was 123.0 pcf, at an optimum moisture content of 11.5% for a sample obtained from Test Pit TP-6 between the depths of 0 and 2 feet, and the maximum dry density was 120.0 pcf, at an optimum moisture content of 10.5% for a sample obtained from Test Pit TP-9 between the depths of 0 and 2 feet.

3.3.2 Expansion Category

The potential of the soil to swell or expand increases with an increase in soil density, a decrease in initial moisture content (low percent saturation), an increase in clay content, and an increase in the activity of the clay content. Expansive soils change in volume (shrink or swell) due to changes in the soil moisture content. The risk of soil expansion increases with an increase in expansion index.

The expansion index of the upper site soils was found to range from 4 to 32 for four representative samples of the upper site soils tested, which are in the *very low* to *low* expansion categories. Expansion index test results are provided on the test pit logs in Appendix A.

3.3.3 Corrosivity

The risk of corrosion of construction materials relates to the potential for soil-induced chemical reaction. The rate of deterioration depends on soil resistivity, texture, acidity, and chemical concentration. Representative samples of the upper site soils were transported to an outside laboratory for corrosivity testing, and the results of these tests are attached in Appendix B, and summarized in the following table. Sulfate and chloride concentrations are expressed in mg/kg on a dry weight basis.

Sample	Description	pH	Chloride (mg/kg)	Sulfate (mg/kg)	Resistivity Ohms-cm
TP-2 @ 0'-2'	Silty Gravelly Sand	8.9	12	46	5700
TP-7 @ 0'-2'	Sandy Clayey Silt	8.0	150	1056	900

The sulfate content is between 1,000 and 2,000 mg/kg (*S1* exposure category based on ACI 318), and therefore special considerations for concrete which will be in contact with the onsite soils *are* required. Please refer to the latest version of ACI 318 for a more detailed discussion of the applicable requirements.

3.3.4 R-value Testing

Three representative R-value samples were obtained for the three general earth material types encountered within the upper couple feet of the ground surface across the site. The R-value test results were 37 for Test Pit TP-1, 71 for Test Pit TP-5, and 20 for Test Pit TP-8. Additional R-value testing should be performed on representative samples of the parking lot subgrade areas after the completion of grading, to verify the R-value, as required by the City of Oxnard.

3.4 Groundwater

At the time of our field exploration program, groundwater was present in Test Pit TP-10 at a depth of approximately 9.5 feet below the existing ground surface, and was not encountered in any of the other test pits. Based on the enclosed Figure 3, *Depth to Historically High Groundwater* (CDMG, 2002), the historically highest groundwater level in the vicinity of the site is approximately 5 feet below the existing ground surface.

Groundwater elevations are dependent on seasonal precipitation, irrigation, land use, and climatic conditions, among other factors, and as a result fluctuate. Therefore, water levels at the time of construction and during the life of the project may vary from the observations or conditions at the time of our field exploration.

4. CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusions and Design Requirements

Based on the findings of our data review, subsurface exploration, laboratory testing, field testing, and engineering analysis, and within the scope of this study, the proposed improvements are considered *feasible* from a geotechnical engineering viewpoint, provided the recommendations in this report are incorporated into the project plans and implemented during construction. It is recommended that the upper site soils in the areas to be paved be over-excavated and recompacted for support of the proposed site pavement, as described in more detail in subsequent sections of this report.

4.1.1 Hazardous Materials

AGS has *not* been retained to provide any type of environmental assessment of the subject property, *nor* to provide recommendations with respect to any contamination that might be present.

4.1.2 Cut and Fill Slopes

No cut or fill slopes are proposed as part of the development.

4.1.3 Site Grade Adjustments

Grading for the proposed development is expected to consist of removal and recompaction of the upper site soils, and the placement of relatively small amounts of fill in proposed pavement areas to create the new site grades for support of the proposed site paving, and provide proper site drainage. Final site grades are expected to be within a couple feet of the existing grade at the site.

4.1.4 Stormwater Management and Infiltration Discussion

Due to the presence of the relatively high historically highest groundwater level of 5 feet below existing site grade, as shown on the attached Figure 3, and the requirement that there be a minimum of 5 feet of vertical separation between the bottom of any proposed infiltration features and the historically highest groundwater level, as outlined in the *Ventura County Technical Guidance Manual for Stormwater Quality Control Measures* (Geosyntec, 2018), the use of infiltration as part of the required stormwater mitigation system on the subject site would not be allowed. All surface water runoff should be collected, treated and/or detained as required by Ventura County and the City of Oxnard, and dispersed offsite to an approved location in a controlled manner. The stormwater mitigation system should be designed by a qualified Civil Engineer experienced in the design of these systems.

Based on our experience with other projects within the City of Oxnard where the implementation of an infiltration system was not feasible, the City will allow for a waiver of infiltration requirements. Our understanding of the process of obtaining a waiver of infiltration requirements is that during the plan submittal process, after more complete project plans have been developed, a *Letter of Infeasibility* would be prepared by our office detailing the reasons why infiltration is not feasible on the subject site, although the discussion provided above may be sufficient.

4.1.5 Plan Review
When final Grading Plans become available, they should be reviewed by AGS *prior* to submittal to the city for approval. Approval by this office will be indicated on the plans by signature and stamp.

4.1.6 Additional Recommendations
The following additional geotechnical recommendations should be incorporated into the final design, and construction plans. All such work and design should be in conformance with applicable governmental regulations or the recommendations contained herein, whichever are more restrictive. The following recommendations have *not* been reviewed or approved by any governing agency at this time. These recommendations may change based on obtaining approval from the City. Design of the proposed project should be made following approval from the City.

4.2 Site Preparation
General guidelines are presented below to provide a basis for quality control during the removal and recompaction of the upper site soils for support of the proposed site paving. It is recommended that all compacted fills be placed and compacted with engineering control under continuous observation and testing by the Geotechnical Engineer or their field representative, and in accordance with the following requirements.

4.2.1 Removals
a. When demolishing any existing improvements within the area of the proposed site grading and paving, the contractor should locate any existing foundations, floor slabs, debris pits, loose soil, and subsurface trash which may be present. These materials and structures should be completely removed. The resulting excavations should be cleaned of all loose or organic material, and the excavation backfilled with compacted fill.

b. Based on the existing earth material conditions encountered in the test pits, it is recommended that the upper 12 inches of the existing surficial soils in areas to be paved be initially over-excavated, to expose the underlying soils. The exposed soils should then be inspected by a representative of the Geotechnical Engineer, and any additional loose areas or pockets which may be encountered should be removed down to firm soil and recompacted back into place. The exposed ground surface should then be scarified, moisture conditioned as required (dried and/or wetted), thoroughly mixed, and recompacted back into place. The upper 12 inches of over-excavated materials should then be moisture conditioned as required and thoroughly mixed, and recompacted back into place.

c. It is recommended that the lateral limits of over-excavation for pavement support extend a minimum of 18 inches beyond the outside perimeter of pavement or curbs, where possible, or for a distance equal to the height of new fill placed to achieve final subgrade level, whichever is greater.

d. Compacted fill should be moisture conditioned to at least optimum moisture content, but no more than approximately 5% over optimum, and compacted to a minimum of 90% of the maximum dry density, except for the upper 12 inches of subgrade in pavement areas, which should be compacted to a minimum of 95% of the maximum density. The laboratory maximum dry density should be determined by ASTM D1557. Additional lifts should *not* be placed until the present lift has been tested and shown to meet the compaction requirements.

4.2.2 Bottom Stabilization
a. Depending on the time of year, recent precipitation, the exact type of earth materials exposed at the bottom of over-excavation in any given area, and type of equipment utilized, the bottom of over-excavation may be found to be wet or 'pumping'. In the event of pumping soils,

significant drying and/or stabilization of the bottom of over-excavation may be required, or the use of equipment not as prone to cause pumping may be required (i.e. track mounted equipment instead of wheel-mounted, or the use of excavators staged outside the excavation instead of scrapers inside the excavation). If necessary, stabilization methods may include the use of geogrid such as Mirafi 600X, and/or float rock consisting of 2 to 3 inch gravel. If float rock is utilized, a geofabric such as Mirafi 140N should be placed over the top of the float rock, prior to placing compacted fill. Specific recommendations for which of these methods may be preferable for any given location or situation could be provided in the field on a case by case basis during grading, although it is typically a trial and error procedure.

4.2.3 Suitable Fill Material

a. The excavated onsite soils, cleaned of any deleterious material which may be encountered, can be re-used for fill. Rock larger than 6 inches should *not* be buried or placed in compacted fill. Rock fragments less than 6 inches may be used provided the fragments are *not* placed in concentrated pockets, and a sufficient percentage of finer grained material surrounds and infiltrates the rock voids.

b. Imported material should have engineering properties similar to, or more favorable than the onsite soils. Any proposed import material will require testing, and should be approved by the Geotechnical Engineer *prior* to placement. . The R-value of any potential import should equal or exceed the minimum onsite value, which is 20. This would allow a factor of safety of 1.3 to allow for variations in the material, and still equal the design R-value of 15.

4.2.4 Placement of Compacted Fill

a. All fill materials should be placed in controlled, horizontal layers *not* exceeding 6 to 8 inches in loose thickness, and moisture conditioned to at least optimum moisture content, but no more than approximately 5% over optimum. Fill materials should be compacted to a minimum 90% of the laboratory maximum dry density (95% for the upper 12 inches in pavement areas), as determined by ASTM D1557. If either the relative compaction or moisture content do *not* meet these criteria, the contractor should rework the fill until it does meet the criteria. If the fill materials pump (flex) under the weight of construction equipment, difficulties in obtaining the required minimum compaction may be experienced. Therefore, if soil pumping occurs, it may be necessary to control the moisture content to a closer tolerance (e.g., 2 to 3% above optimum) or use construction equipment that is not as prone to cause pumping.

b. The field test methods to be used to determine the in-place dry density of the compacted fill shall be in conformance with either ASTM D1556 (sand cone test method) or ASTM D2922 (nuclear gauge method).

4.2.5 Testing of Compacted Fill

a. At least one compaction test shall be performed for every 500 yd^3 of the fill material. In addition, at least one test shall be performed for every 2 feet of fill thickness.

4.2.6 Inclement Weather and Construction Delays

a. If construction delays or the weather result in the surface of the fill drying, the surface should be scarified and moisture conditioned before the next layer of fill is added. Each new layer of fill should be placed on a rough surface so planes of weakness are not created in the fill.

b. During periods of wet weather and before stopping work, all loose material shall be spread and compacted, surfaces shall be sloped to drain to areas where water can be removed, and erosion protection or drainage provisions shall be made in accordance with the plans provided by the

Civil Engineer. After the rainy period, the Geotechnical Engineer and/or their field representative should *review* the site for authorization to resume grading and to provide any specific recommendations that may be required. As a minimum, however, surface materials previously compacted before the wet weather shall be scarified, brought to the proper moisture content, and recompacted *prior* to placing additional fill.

4.2.7 Responsibilities

a. Representative samples of material to be used as compacted fill should be analyzed in the laboratory by the Geotechnical Engineer to determine the physical properties of the materials. If any materials other than those previously tested are encountered during grading, the appropriate analysis of this material shall be conducted by the Geotechnical Engineer as soon as practicable. Any imported soil from off-site sources shall be approved *prior* to placement.

b. All grading work shall be observed and tested by the Project Geotechnical Engineer or their field representative to confirm proper site preparation, excavation, scarification, and compaction of on-site soil, selection of satisfactory fill materials, and placement and compaction of fill. All removal areas should be observed by the field representative of the Project Geotechnical Engineer before any fill is placed.

c. The grading contractor has the ultimate responsibility to achieve uniform compaction in accordance with the geotechnical report and grading specifications.

4.3 Utility Trench Backfill

The onsite soils are suitable for backfill of utility trenches from 1-foot above the top of the pipe to the surface, provided the material is free of organic matter and deleterious substances. The natural soils should provide a firm foundation for site utilities, but any soft or unstable material encountered at pipe invert should be removed and replaced with an adequate bedding material.

The site Civil Engineer in accordance with manufacturer's requirements should specify the type of bedding materials. Granular soils will need to be imported for bedding and shading of utilities. Jetting of bedding materials should *not* be permitted unless appropriate drainage is provided and the bedding has a sand equivalent greater than 50.

Trench backfill should be placed in 6 to 8-inch lifts, moisture conditioned to at or above optimum moisture content, and compacted to at least 90% of the maximum density as determined by ASTM D1557, with the exception of the 1 foot below subgrade in any areas subject to vehicular traffic, which should be compacted to a minimum of 95% of the maximum dry density. Jetting of trench backfill is *not* acceptable to compact the backfill.

In areas where utility trenches pass through an existing pavement section, the trench width at the surface shall be enlarged a minimum of 6 inches on each side to provide bearing on undisturbed material for the new base and paving section to match the existing section.

4.4 Temporary Excavations

Temporary excavations of more than a couple feet deep are not anticipated, however, if required they may be made up to a maximum vertical height of 5 feet. Excavations greater than 5 feet in height should be sloped back at a uniform 1:1 gradient. Excavations should *not* be allowed to become soaked with water or to dry out. Surcharge loads should *not* be permitted within a horizontal distance equal to the height of the excavation from the top of the excavation, unless the excavation is properly shored. Excavations that might extend below an imaginary plane inclined at 45 degrees below the edge of an existing foundation should be properly shored to maintain foundation support for the existing structure.

4.5 Concrete and Asphalt Pavement Design

All areas to be paved should be graded in accordance with the recommendations provided in the *Site Preparation* section of this report. It should be confirmed with the City that they will allow construction of pavements and other hardscape in areas where *all* existing artificial fill material is not over-excavated and recompacted, however pavements constructed in these areas would have a greater degree of uncertainty in long term performance, and may possibly have a shorter design life and increased maintenance costs. Where observed in our test pits, the existing artificial fill below a depth of approximately 1 foot appeared to be relatively compact, but may be inconsistent in other areas.

Compaction tests will be required for asphalt and aggregate base. A minimum relative compaction of 95% is required for the asphalt, aggregate base, and upper 12 inches of subgrade soils. The aggregate base should have a minimum *R*-value of 78 and meet Caltrans Class II specifications. Base materials should be placed and compacted in loose lifts not exceeding 8 inches thick. Asphalt should *not* be placed if the base is pumping. Base materials are not required beneath curbs and gutters, however if base materials are not utilized beneath the curbs and gutters, it is recommended that the subgrade soils be scarified to a minimum depth of 12 inches below the bottom of curb and gutter, and recompacted to at least 95% relative compaction.

4.5.1 Proposed New Asphalt Pavement

A total of 10 test pits were excavated at the site at the locations shown on the attached Plates 1 and 2, and three R-values were obtained for the three general earth material types encountered within the upper couple feet of the ground surface across the site. The R-value test results were 37 for Test Pit TP-1, 71 for Test Pit TP-5, and 20 for Test Pit TP-8. The general earth material type represented by the R-value test result from Test Pit TP-1 was only present at the locations of TP-1 and TP-2, and the general earth material type represented by the R-value test result from Test Pit TP-5 was only present at the location of TP-5. However, the general earth material type represented by the R-value test result from Test Pit TP-8 was present at the locations of TP-3, TP-4, TP-6, TP-7, TP-8, TP-9 and TP-10. Based on the general standard of practice to utilize the lowest R-value result for the design of any given project, and the fact that on the subject site the general earth material type represented by the lowest R-value was present throughout the vast majority of the site, it would be our recommendation to utilize the lowest R-value test result of 20 to obtain the final design R-value, utilizing an appropriate factor of safety.

Based on the existing site conditions, and the likely variability in the earth materials which will be present at the final prepared subgrade level after site preparation and grading, it would be our recommendation to utilize a factor of safety of 1.3 on the R-value test result to obtain the final design R-value. Therefore, utilizing an R-value test result of 20, and a factor of safety of 1.3, the final design R-value would be approximately 15. Recommended pavement sections utilizing a design R-value of 15, and at various traffic indices (TI) are provided in the table below. Selection of the appropriate traffic index to use should be made by the Project Civil Engineer based on their knowledge of traffic flow and loadings, however it would be our recommendation to utilize a traffic index of 6 for potential truck traffic and container storage areas, and a traffic index of 5 for passenger vehicles only.

The following structural sections for asphalt pavement were computed in general accordance with the Caltrans method (**California Department of Transportation Highway Design Manual**), using an *R*-value of 15. Additional R-value testing should be performed on representative samples of the paving subgrade areas after the completion of grading, to verify the R-value, as required by the City of Oxnard. The results of the R-value testing are included in Appendix B of this report, and recommended pavement sections are summarized in the following table.

Traffic Index	Thickness, Inches	
	Asphalt	Aggregate Base
5.0	4.0	6.0
6.0	5.0	9.0
7.0	5.0	12.0

4.5.2 *Existing Asphalt Pavement*
The existing asphalt pavement in the northeast portion of the site which is to remain was found in Test Pit TP-10 to be comprised of two separate layers, with a total thickness of approximately 3 to 3.5 inches, and is underlain by approximately 3.5 to 4 inches of a slightly gravelly, silty sand 'base', which would not come close to meeting the specifications of standard aggregate base. The asphalt pavement is also significantly cracked and distressed throughout. It would be our recommendation to consult with a specialty pavement rehabilitation contractor to determine the best way to rehab this pavement if it is to remain.

4.5.3 *Concrete Pavements*
It is recommended that all exterior concrete pavement subject to passenger vehicular traffic only be a minimum of 6 inches thick, and be underlain by a minimum of 4 inches of aggregate base. Exterior concrete pavement subject to truck traffic should be a minimum of 8 inches thick, and be underlain by a minimum of 6 inches of aggregate base. Concrete flatwork subject only to pedestrian traffic (i.e. walkways, patios, etc.) should be a minimum of 4 inches thick, and may be placed directly on compacted subgrade. All exterior concrete should be reinforced with a minimum of #4 steel bars placed on 24-inch centers each way.

4.5.4 *Pavement Maintenance*
Pavement section design assumes that proper maintenance practices, such as sealing and repair of localized areas of distress, are employed throughout the design life of the pavement.

5. OBSERVATIONS AND TESTING
Prior to the start of site preparation and/or construction, *it is recommended that a meeting be held with the Contractor to discuss the project*. We recommend that AGS be retained to perform the following tasks prior to, and/or during construction. Please *advise* AGS a minimum 24 hours *prior* to any required site visit. *All approved plans, permits, and geotechnical reports must be at the jobsite and be made available during inspections.*

a. *Review* grading and drainage plans to *verify* that the recommendations contained in this report have been properly interpreted and are incorporated into the project specifications. *If we are not accorded the opportunity to review these documents, we can take no responsibility for misinterpretation of our conclusions and recommendations.*

b. *Observe and advise* during all grading activities, including site preparation and placement of fill, to *confirm* that suitable fill soils are placed upon competent material, and to allow design changes if subsurface conditions differ from those anticipated.

c. *Test* all fill placed for engineering purposes to *confirm* that suitable fill materials are used and properly compacted.

6. LIMITS AND LIABILITY
All construction sites are subject to elements of risk that cannot be wholly identified and/or entirely eliminated. Construction sites are subject to many detrimental geotechnical hazards, including but *not* limited to the effects of water infiltration, erosion, concentrated drainage, total settlement, differential settlement, expansive soil movement, seismic shaking, fault rupture, landsliding, and slope creep. The risks from these hazards can be reduced by employing subsurface exploration, laboratory testing, analyses, and experienced geotechnical judgment. Many geotechnical hazards, however, are highly dependent on the property owner properly maintaining the site, drainage facilities, and slope and by correcting any deficiencies found during occupancy of the property in a timely manner. Even with a thorough subsurface exploration and testing program, significant variability between test locations and between sample intervals may exist. Ultimately, geotechnical recommendations are based on the experience and judgment of the geotechnical professionals in evaluating the available data from site observations, subsurface exploration, and laboratory tests. Latent defects can be concealed by earth materials, deposition, geologic history, and existing improvements. If such defects are present, they are beyond the evaluation of the geotechnical

professionals. No warranty, expressed or implied, is made or intended in connection with this report, by furnishing of this report, or by any other oral or written statement. Owners and developers are responsible for retaining appropriate design professionals and qualified contractors in developing their property and for properly maintaining the property. Retaining the services of a geotechnical consultant should *not* be construed to relieve the Owner, Developer, or Contractors of their responsibilities or liabilities.

The analysis and recommendations submitted in this report are based in part on our subsurface exploration, laboratory testing, site observations, and provided data on geology and the proposed site development. Our descriptions and the boring/test pit logs may show distinctions between fill and native soils, between native (e.g., alluvium, colluvium, slopewash) and bedrock formation, and between soil type (e.g., sands and silty sands). Such distinctions were based on geologic information, grading plans when available, intermittent recovered soil/bedrock samples, and judgment. Delineations between these categories of materials may not be perfect and may be subject to change as more information becomes available. For example, judgments may be clouded when recovered samples are intermittent and small in comparison to the volume of soil under study, and macrostructure that would aid the identification process are not as apparent as they would be when the borehole is geologically downhole logged by entering the excavation. When the age of the fill is old, the difference between the structure of the fill and native materials may be less pronounced, or the degree of bedrock formation weathering sometimes makes it difficult to distinguish between overlying alluvium, colluvium, or slopewash and weathered bedrock formational material. In general, our recommendations are based more on the properties of the materials than on the category of the material type such as fill, alluvium, colluvium, slopewash, or bedrock formation. Furthermore, the actual stratigraphy may be more variable than shown on the logs.

Although this report may comment on or discuss construction techniques or procedures for the design engineer's guidance, this report should *not* be interpreted to prescribe or dictate construction procedures or to relieve the contractor in any way of their responsibility for the construction.

Please be aware that the contract fee for our services to prepare this report does not include additional work that may be required, such as grading observation and testing, footing observations, plan review, or responses to governmental (regulatory) plan reviews associated with you obtaining a building permit. Where additional services are requested or required, you will be billed for any equipment costs and on an hourly basis for consultation or analysis.

The Geotechnical Engineer's actual scope of work during construction is very limited and does *not* assume the day-to-day physical direction of the work, minute examination of the elements, or responsibility for the safety of the contractor's workers. Our scope of services during construction consists of taking soil tests and making visual observations, sometimes on only an intermittent basis, relating to earthwork or foundation excavations for the project. We do *not* guarantee the contractor's performance, but rather look for general conformance to the intent of the plans and geotechnical report. Any discrepancy noted by us regarding earthwork or foundations will be referred to the Owner, project Engineer, Architect, or Contractor for action.

This report is issued with the understanding that it is the responsibility of the Owner, or of their representative, to ensure that the information and recommendations contained herein are called to the attention of the Architect and Engineers for the project and incorporated into the plan and that the necessary steps are taken to see that the Contractor carry out such recommendations in the field. Advanced Geotechnical Services, Inc., (AGS) has prepared this report for the exclusive use of the Client and authorized agents, and this report should *not* be considered transferable. We do recommend, however, that the report be given to future property Owners for the sole purpose of disclosing the report findings.

Findings of this report are valid as of the date of issuance. Changes in conditions of a property may occur with the passage of time whether attributable to natural processes or works of man on this or adjacent properties. Furthermore, changes in applicable or appropriate standards occur due, for example, to legislation and broadening of knowledge. Accordingly, findings of this report may be invalidated wholly or partially by changes outside our control. Therefore, *this report is subject to our review and remains valid for a maximum period of one year*, unless we issue a written opinion of its continued applicability thereafter.

In the event that any changes in the nature and design (including structural loadings different from those anticipated), or other improvements are planned, the conclusions and recommendations contained in this report shall *not* be considered valid unless the changes are reviewed and conclusions of this report modified or verified in writing.

This report may be subject to review by controlling agencies, and any modifications they deem necessary should be made a part thereof, subject to our technical acceptance of such modifications. All submissions of this report should be in its entirety. Under no circumstances should this report be summarized and synthesized to be quoted out of context for any purpose.

Test findings and statements of professional opinion do *not* constitute a guarantee or warranty, and *no* warranties, either expressed or implied, are made as to the professional advice provided under the terms of this agreement. We have strived, however, to provide our services in accordance with generally accepted geotechnical engineering practices in this community at the time of this report.

Appendix A

Field Exploration and Boring/Test Pit Logs

Appendix A
Field Exploration and Boring/Test Pit Logs

The field exploration included a site reconnaissance and subsurface exploration. During the site reconnaissance, the surface site conditions were noted, and the approximate locations of any exploration points were determined. The following descriptions of exploration methods are generic and may include methods not used on this project. Reference to the boring logs can be made to determine which methods are applicable to this project, and any differences between what is described below and actually occurred is described on the boring logs or in the main body of the report.

The test borings were advanced by either hand digging, digging with a backhoe, or drilling. In the case of drilling, a truck-mounted rotary drilling rig with a hollow-stem auger or bucket was used to advance the borings. When we expect to encounter shallow groundwater, a wet rotary drilling operation is usually used. The method actually used is noted on the boring logs. For geologic studies when the need for visual examination of the bedding and other stratigraphic features is needed along with engineering data, the larger bucket augers are used to allow a geologist to enter the excavation for visually logging the hole. When geologically logging borings and trenches, the sides are scraped prior to logging. A prefix B is used to designate a boring made with a drilling rig. When hand dug, the boring numbers have a prefix HB. When a backhoe was used, prefixes TP (test pit) or T (trench) are used. The difference between a trench and test pit being the length of the exploration; a trench being a long narrow exploration, most commonly used for fault studies. In each case, the soils were logged by technical personnel from our office and visually classified in the field in general accordance with the Unified Soil Classification system. The field descriptions have been modified as appropriate to reflect laboratory results when preparing the final boring logs.

Relatively undisturbed samples of the subsurface materials were obtained at appropriate intervals in the borings using a steel drive sampler (2.5-inches inside diameter, 3-inches outside diameter) lined with brass, one-inch-high sample rings with a diameter of 2.4 inches. This is referred to as a modified California sampler. The boring may be advanced by drilling with a hollow-stem auger or with a wet rotary operation. If below the groundwater, the hollow-stem is filled with water or drilling mud to counteract the fluid pressure of the groundwater. The sampler was usually driven into the bottom of the borehole with successive drops of a 140-pound safety hammer connected to the sampler with either A or AW rod and falling 30 inches. An automatic hammer is usually used when drilling with a CME dill rig, and a Safe-T-Driver is used when drilling with a Mobile drill rig. When above the groundwater level, a downhole Safe-T-Driver is usually used. Studies have shown that hammer efficiencies of the automatic hammer is over 90% while that of the Safe-T-Driver is about 70%, based on impact velocities. When a bucket auger is used to advance the boring, the driving weights change with depth, depending on the weight characteristics of the telescoping kelley bar, but the height of fall is usually 18 inches. Sampler driving resistance, expressed as blows per 6 inches of penetration, is presented on the boring logs at the respective sampling depths. When the borings or trenches are excavated with a backhoe, the sampler is pushed into the soil with the force of the backhoe. A hand sampler is used when the borings or trenches are advanced by hand digging or in some cases when a backhoe is used to make the excavation. This hand sampler is similar to the conventional California sampler, but lighter weight. An approximately 8-pound hammer falling about 18 inches is used to drive the hand sampler about 6 inches into the bottom of the exploration. The type of sampler used is noted on the boring logs. In some cases the hammer weight and falling distance deviate from those given above. The actual conditions are shown on the boring logs and supersede the conditions given above.

Ring samples were retained in close-fitting, moisture tight containers for transport to our laboratory for testing. Bulk samples, which were collected from cuttings, were placed in bags and transported to our laboratory for testing.

When noted on the boring logs, standard penetration test (SPT) samples were obtained using either a 20-inch or a 32-inch long split-barrel sampler with a 2-inch outside diameter and a 1.375-inch inside diameter when liners are used (1.5-inch inside diameter without liners). Unless noted otherwise, liners are used. This sampler is driven into the soil with successive drops of a 140-pound, safety hammer falling 30 inches. The blows are recorded for each 6 inches of penetration for a total penetration of 18 or 24 inches. The sum of the number of blows for the last 12 inches of an 18-inch penetration or the middle 12 inches of a 24-inch penetration is referred to as the *N* value.

Logs, which are presented on Plates at the end of this Appendix, include a description and classification of each stratum, sample locations, blow counts, groundwater conditions encountered during drilling, results from selected types of laboratory tests, and drilling information. Keys to *Soil and Bedrock Symbols and Terms* are included on Plate A-1 and Plate A-2.

Each boring or trench, unless noted otherwise, was backfilled with cuttings at the completion of the logging and sampling. The backfill, however, may settle with time, and it is the responsibility of our client to ensure that such settlement does *not* become a liability.

Advanced Geotechnical Services

Key to Soil Symbols and Terms

Major Divisions			USCS Group Symbols	Typical Names
Coarse-Grained Soils (More than half of material is larger than No. 200 sieve)	Gravels (More than half of coarse fraction is larger than No. 4 sieve)	Clean gravels (Little or no fines)	GW	Well-graded gravels, gravel-sand mixtures, little or no fines
			GP	Poorly graded gravels, gravel-sand mixtures, little or no fines
		Gravels with fines (Appreciable amount of fines)	GM	Silty gravels, gravel-sand-silt mixtures
			GC	Clayey gravels, gravel-sand, clay mixtures
	Sands (More than half of coarse fraction is smaller than No. 4 sieve)	Clean sands (Little or no fines)	SW	Well-graded sands, gravelly sand, little or no fines
			SP	Poorly graded sands, gravelly sands little or no fines
		Sands and fines (Appreciable amount of fines)	SM	Silty sands, sand-silt mixtures
			SC	Clayey sands, sand-clay mixtures
Fine-Grained Soils (More than half of material is smaller than No. 200 sieve)	Silts and Clays Liquid Limit < 50		ML	Silts and very fine sands, rock-flour, silty or clayey fine sands, or clayey silts with slight plasticity
			CL	Inorganic clays of low or medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
			OL	Organic silts and organic silty clays of low plasticity
	Silts and Clays Liquid Limit > 50		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
			CH	Inorganic clays of high plasticity, fat clays
			OH	Organic clays of medium to high plasticity, organic silts
	Highly Organic Soils		Pt	Peat and other highly organic soils

Legend of Laboratory Tests

G - Grain Size	C - Consolidation	PP - Pocket Penetrometer
A - Atterberg Limits	DS - Direct Shear	CH - Chemical
P - Compaction	U - Unconfined	
S - Swell/Expansion	T - Triaxial	

Sampler Type

Modified California

SPT

Rock Core

No Recovery

Hand Sampler

Shelby Tube

Bulk

Terms used in this report for describing soils according to their texture or grain size distributions are generally in accordance with the Unified Soil Classification System.

Terms Describing Density and Consistency

Coarse Grained soils (major portion retained on No. 200 sieve) include (1) clean gravels, (2) silty or clayey gravels, and (3) silty, clayey, or gravelly sands. Relative density is related to SPT blow count corrected for overburden pressure or drive energy.

Density		SPT *N* Value Blows/Ft	Relative Density %
Very Loose	vl	0 to 4	0 to 15
Loose	l	4 to 10	15 to 35
Medium Dense	md	10 to 30	35 to 65
Dense	d	30 to 50	65 to 85
Very Dense	vd	> 50	85 to 100

Fine Grained soils (major portions passing No. 200 sieve) inlcude (1) inorganic and organic silts and clays, (2) gravelly, sandy, or silty clays, and (3) clayey silts. Consistency is rated according to shear strength as indicated by penetrometer readings, direct shear, or SPT blow count.

Consistency	Shear Strength, ksf	SPT *N* Value
Very Soft	< 0.25	0 to 2
Soft	0.25 to 0.50	2 to 4
Firm	0.50 to 1.00	4 to 8
Stiff	1.00 to 2.00	8 to 16
Very Stiff	2.00 to 4.00	16 to 32
Hard	> 4.00	> 32

Terms Characterizing Soil Structure

Slickensided	Having inclined planes of weakness that are slick and glossy in appearance.
Fissured	Containing shrinkage cracks, frequently filled with fine sand or silt; usually more or less vertical.
Laminated	Composed of thin layers of varying color and texture.
Interbedded	Composed of alternate layers of different soil types.
Calcareous	Containing appreciable quantities of calcium carbonate.
Well Graded	Having wide range in grain sizes and substantial amounts of intermediate particle sizes.
Poorly Graded	Predominately one grain size, or having a range of grain sizes with some intermediate sizes missing.
Porous	Having visibly apparent void spaces through which water, air, or light may pass.

Soil Moisture

From low to high, the moisture content is indicated by:

Dry	D
Slightly Moist	Sl M
Moist (near optimum for compaction)	M
Very Moist	V M
Wet	W

Size Proportions

Designation	Percent by Weight
Trace	< 5
Few	5 to 10
Little	15 to 25
Some	30 to 45

Grain Size Distribution

Clay | Silt | Sand (Fine, Medium, Coarse) | Gravel (Fine, Coarse)

Sieve Size Number: 200, 40, 10, 4, 3/4", 2", 3"

0.005, 0.01, 0.05, 0.1, 0.5, 1.0, 5.0, 10.0, 50, 100

Particle Diameter in Millimeters

Key to Bedrock Symbols and Terms

Degree of Weathering
Diagnostic Feature

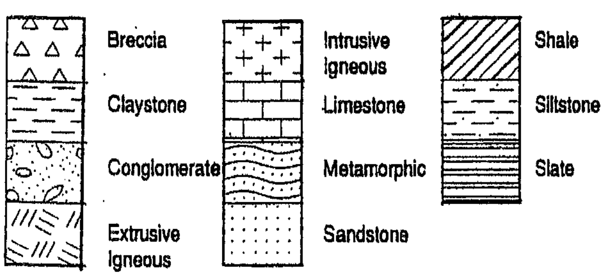
Descriptive Term	Discoloration Extent	Fracture Condition	Surface Characteristics	Original Texture	Grain Boundary Condition
Unweathered	None	Closed or discolored	Unchanged	Preserved	Tight
Slightly Weathered	Less 20% of fracture spacing on both sides of fracture	Discolored, may contain thin filling	Partial discoloration	Preserved	Tight
Moderately Weathered	Greater than 20% of fracture spacing on both sides of fracture	Discolored, may contain thick filling, cemented rock	Partial to complete discoloration, not friable except poorly cemented rocks	Preserved	Partial Opening
Highly Weathered	Throughout		Friable and possibly pitted	Mainly Preserved	Partial Separation
Completely Weathered	Throughout		Resembles a soil	Partly Preserved	Complete Separation

Discontinuity Spacing

Description for Structural Feature: Bedding, Foliation, or Flow Banding	Spacing		Description for Joints, Faults, or Other Fractures
Very Thickly (Bedded, Foliated, or Banded)	More than 2 m	More than 6 ft	Very Widely (Fractured or Jointed)
Thickly	60 cm to 2 m	2 to 6 ft	Widely
Moderately	20 to 60 cm	8 to 24 in.	Medium
Thinly	60 to 200 mm	2.5 to 8 in.	Closely
Very Thinly	20 to 60 mm	0.75 to 2.5 in.	Very Closely

Description for Microstructural Features: Bedding, Foliation, or Cleavage			
Intensely (Laminated, Foliated, or Cleaved)	6 to 20 mm	0.25 to 0.75 in.	Extremely Close
Very Intensely	< 6 mm	< 0.25 in.	

Graphic Symbols - Bedrock



Rock Hardness

Classification	Field Test
Very Weak	Can be dug by hand and crushed with fingers.
Weak	Friable, can be gouged deeply with a knife and will crumble readily under light hammer blows.
Moderately Strong	Can be peeled with a knife. Material crumbles under firm blows with the sharp end of a geologic pick.
Strong	Cannot be scaped or peeled with a knife point. Hand held specimen breaks with firm blows of the pick.
Very Strong	Difficult to scratch with knife point. Cannot break hand held specimen.

Separation of Fracture Walls

Description	Separation of Walls, mm
Closed	0
Very Narrow	0 to 0.1
Narrow	0.1 to 1.0
Wide	1.0 to 5.0
Very Wide	> 5.0

Fracture Filling

Description	Definition
Clean	No fracture filling material
Stained	Discoloration of rock only. No recognizable filling material.
Filled	Fracture filled with recognizable filling material.

Surface Roughness

Description	Classification
Smooth	Appears smooth and is essentially smooth to the touch. May be slickensided.
Slightly Rough	Asperities on the fracture surfaces are visible and can be distinctly felt.
Medium Rough	Asperites are clearly visible and fracture surface feels abrasive to the touch.
Rough	Large angular asperites can be seen. Some ridge and high-side angle steps evident.
Very Rough	Near vertical steps and ridges occur on the fracture surface.

Where slickensides are observed, the direction of the slickensides should be recorded after the standard discontinuity surface description.

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Boring Log TP-1

Sheet 1 of 1

Project **Hager Pacific** Client No. **5173** Date Drilled **10/19/21**

Comment **6001 Arcturus Ave. Oxnard CA**

Drilling Company/Driller **KT Construction** Equipment **Backhoe**

Driving Weight (lbs) ______ Average Drop (in.) ______ Hole Diameter (in.) **~2'x10'**

Elevation ______ ft Depth to Water ______ ft After ______ hrs on ______ Logged By ______

Depth, ft	Sample	Blows/6"	Graphic Symbol	Description of Material This log, which is part of the report prepared by Advanced Geotechnical Services, Inc. for the named project, should be read together with that report for complete interpretation. This summary applies only at this boring location and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.	Attitudes	Dry Unit Weight, pcf	Moisture Content, %	#200, %	Other Tests
				Artificial Fill (af) Predominantly orange-brown Silty Gravelly SAND, with variable intermixed layers and pockets of dark brown to black Clayey SILT, moist to very moist, medium dense, fine to coarse grained; the soil profile is highly variable along the length of the test pit					
				Becomes generally darker brown Clayey Gravelly SAND with occasional cobbles, and large concrete fragments up to 18", with random pockets of dark brown Clayey SILT		112.7	9.0		
5						106.8	18.3		
				Alluvium (Qa) Dark brown Clayey to Sandy SILT, moist to very moist, medium firm					
				Total Depth Explored = 6 ft. No Groundwater Encountered Backfilled with Spoils 10/19/2021					
10									
15									

advanced geotechnical services, inc.

Boring Log TP-2

Sheet 1 of 1

Project: **Hager Pacific** Client No. **5173** Date Drilled **10/19/21**

Comment: **6001 Arcturus Ave. Oxnard CA**

Drilling Company/Driller: **KT Construction** Equipment: **Backhoe**

Driving Weight (lbs) ______ Average Drop (in.) ______ Hole Diameter (in.) **~2'x10'**

Elevation ______ ft Depth to Water ______ ft After ______ hrs on ______ Logged By ______

Depth, ft	Sample	Blows/6"	Graphic Symbol	Description of Material This log, which is part of the report prepared by Advanced Geotechnical Services, Inc. for the named project, should be read together with that report for complete interpretation. This summary applies only at this boring location and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.	Attitudes	Dry Unit Weight, pcf	Moisture Content, %	#200, %	Other Tests
				Artificial Fill (af) Predominantly grey-brown Silty Gravelly SAND, slightly moist, medium dense, fine to coarse grained, with occasional pockets of dark brown Clayey SILT, with occasional cobbles and concrete fragments up to 12 inches; the soil profile is highly variable along the length of the test pit		112.0	17.5		E.I. = 0
5				**Alluvium (Qa)** At 2.5 to 4 feet (varies across test pit) Mottled greenish grey to black Clayey to Sandy SILT, moist, medium firm to firm, with pockets of very moist olive colored, more clayey material		111.0	15.9		
				Total Depth Explored = 5.5 ft. No Groundwater Encountered Backfilled with Spoils 10/19/2021					
10									
15									

advanced geotechnical services, inc.

Boring Log TP-3

Sheet 1 of 1

Project: **Hager Pacific** Client No. **5173** Date Drilled **10/19/21**

Comment: **6001 Arcturus Ave. Oxnard CA**

Drilling Company/Driller: **KT Construction** Equipment: **Backhoe**

Driving Weight (lbs) ______ Average Drop (in.) ______ Hole Diameter (in.) **~2'x10'**

Elevation ______ ft Depth to Water ______ ft After ______ hrs on ______ Logged By ______

Depth, ft	Sample	Blows/6"	Graphic Symbol	Description of Material This log, which is part of the report prepared by Advanced Geotechnical Services, Inc. for the named project, should be read together with that report for complete interpretation. This summary applies only at this boring location and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.	Attitudes	Dry Unit Weight, pcf	Moisture Content, %	-#200, %	Other Tests
				Artificial Fill (af) At ground surface: ~ 3" to 8" thick Grey-brown Gravelly Silty SAND, slightly moist, loose, fine to coarse grained					
				Alluvium (Qa) At ~3 to 8 inches (varies across test pit) Dark brown to black Sandy to slightly Clayey SILT, moist, firm, orange staining		98.2	22.8		
				Grades to brown Sandy SILT, moist, medium firm					
5						87.3	33.2		
				Total Depth Explored = 5.5 ft. No Groundwater Encountered Backfilled with Spoils 10/19/2021					
10									
15									

advanced geotechnical services, inc.

Boring Log TP-4

Sheet 1 of 1

Project: **Hager Pacific** Client No. **5173** Date Drilled **10/19/21**

Comment: **6001 Arcturus Ave. Oxnard CA**

Drilling Company/Driller: **KT Construction** Equipment: **Backhoe**

Driving Weight (lbs) ______ Average Drop (in.) ______ Hole Diameter (in.) **~2'x10'**

Elevation ____ ft Depth to Water ____ ft After ____ hrs on ____ Logged By ____

Depth, ft	Sample	Blows/6"	Graphic Symbol	Description of Material	Attitudes	Dry Unit Weight, pcf	Moisture Content, %	-#200, %	Other Tests
				This log, which is part of the report prepared by Advanced Geotechnical Services, Inc. for the named project, should be read together with that report for complete interpretation. This summary applies only at this boring location and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.					
				Artificial Fill (af) At ground surface: ~ 2" to 3" thick Lt. Grey-brown Gravelly Silty SAND, dry, loose, fine to coarse grained					E.I. = 32
				Alluvium (Qa) Mottled greenish grey to dark brown Sandy to Clayey SILT, slightly moist, firm, orange staining		117.5	13.3		
				grades more clayey, moist					
5				Grades to dark greyish brown Clayey SAND, moist to very moist, medium firm		100.8	17.3		
10				Total Depth Explored = 5.5 ft. No Groundwater Encountered Backfilled with Spoils 10/19/2021					
15									

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Boring Log TP-5

Sheet 1 of 1

Project: **Hager Pacific** Client No. **5173** Date Drilled **10/19/21**

Comment: **6001 Arcturus Ave. Oxnard CA**

Drilling Company/Driller: **KT Construction** Equipment: **Backhoe**

Driving Weight (lbs) ______ Average Drop (in.) ______ Hole Diameter (in.) **~2'x10'**

Elevation ______ ft Depth to Water ______ ft After ______ hrs on ______ Logged By ______

Depth, ft	Sample	Blows/6"	Graphic Symbol	Description of Material	Attitudes	Dry Unit Weight, pcf	Moisture Content, %	-#200, %	Other Tests
				This log, which is part of the report prepared by Advanced Geotechnical Services, Inc. for the named project, should be read together with that report for complete interpretation. This summary applies only at this boring location and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.					
				Artificial Fill (af) Lt. Grey-brown Gravelly Silty SAND, dry, medium dense, fine to coarse grained		89.8	14.5		
				Alluvium (Qa) At ~2 to 2.5 feet (varies across test pit): Brown to dark brown Sandy SILT, with darker clayey pockets, moist, medium firm					
				grades generally sandier with depth					
5						95.4	24.5		
				Total Depth Explored = 5.5 ft. No Groundwater Encountered Backfilled with Spoils 10/19/2021					
10									
15									

advanced geotechnical services, inc.

Boring Log TP-6

Sheet 1 of 1

Project: **Hager Pacific** Client No. **5173** Date Drilled **10/19/21**

Comment: **6001 Arcturus Ave. Oxnard CA**

Drilling Company/Driller: **KT Construction** Equipment: **Backhoe**

Driving Weight (lbs) ______ Average Drop (in.) ______ Hole Diameter (in.) **~2'x10'**

Elevation ______ ft Depth to Water ______ ft After ______ hrs on ______ Logged By ______

Depth, ft	Sample	Blows/6"	Graphic Symbol	Description of Material This log, which is part of the report prepared by Advanced Geotechnical Services, Inc. for the named project, should be read together with that report for complete interpretation. This summary applies only at this boring location and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.	Attitudes	Dry Unit Weight, pcf	Moisture Content, %	-#200, %	Other Tests
				Artificial Fill (af) At ground surface: ~ 2" to 4" thick Lt. Brown Gravelly Silty SAND, dry, loose, fine to coarse grained					E.I. = 25
				Alluvium (Qa) Dark brown Sandy to Clayey SILT, dry, firm slightly moist		110.3	13.0		
				becomes more clayey, mottled grey-brown to dark brown, moist					
5						93.2	28.0		
				Total Depth Explored = 5.5 ft. No Groundwater Encountered Backfilled with Spoils 10/19/2021					
10									
15									

advanced geotechnical services, inc.

Boring Log TP-7

Sheet 1 of 1

Project: **Hager Pacific** Client No. **5173** Date Drilled **10/19/21**

Comment: **6001 Arcturus Ave. Oxnard CA**

Drilling Company/Driller: **KT Construction** Equipment: **Backhoe**

Driving Weight (lbs) ______ Average Drop (in.) ______ Hole Diameter (in.) **~2'x10'**

Elevation ______ ft Depth to Water ______ ft After ______ hrs on ______ Logged By ______

Description of Material

This log, which is part of the report prepared by Advanced Geotechnical Services, Inc. for the named project, should be read together with that report for complete interpretation. This summary applies only at this boring location and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

Depth, ft	Sample	Blows/6"	Graphic Symbol	Description of Material	Attitudes	Dry Unit Weight, pcf	Moisture Content, %	#200, %	Other Tests
				Artificial Fill (af) Very thin dry gravelly sand surface, then 3" to 12" (varies across test pit) Lt. grey-brown Gravelly, Clayey Sandy SILT, dry, loose					
				Alluvium (Qa) At ~3 to 12 inches (varies across test pit) Dark brown Sandy Clayey SILT, slightly moist, firm					
				grades sandier and less clayey and lighter brown with depth, moist		95.2	11.0		
				mottled grey-brown to brown Clayey Sandy SILT, very moist, medium firm					
5						97.8	13.9		
				Total Depth Explored = 5.5 ft. No Groundwater Encountered Backfilled with Spoils 10/19/2021					
10									
15									

advanced geotechnical services, inc.

Boring Log TP-8

Sheet 1 of 1

Project: Hager Pacific — Client No.: 5173 — Date Drilled: 10/19/21

Comment: 6001 Arcturus Ave. Oxnard CA

Drilling Company/Driller: KT Construction — Equipment: Backhoe

Driving Weight (lbs): ____ Average Drop (in.): ____ Hole Diameter (in.): ~2'x10' & 4"

Elevation ____ ft Depth to Water ____ ft After ____ hrs on ____ Logged By ____

Description of Material

This log, which is part of the report prepared by Advanced Geotechnical Services, Inc. for the named project, should be read together with that report for complete interpretation. This summary applies only at this boring location and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

Depth, ft	Sample	Blows/6"	Graphic Symbol	Description of Material	Attitudes	Dry Unit Weight, pcf	Moisture Content, %	-#200, %	Other Tests
				Artificial Fill (af) At ground surface: ~3" to 6" thick Gravelly SAND surface, and then Lt. grey-brown Clayey to Sandy SILT, dry, loose					
				Alluvium (Qa) Dark brown Sandy to Clayey SILT, slightly moist, firm					
				grades sandier and less clayey and lighter brown with depth, moist		100.4	13.4		
				mottled grey-brown to brown Clayey Sandy SILT, very moist, medium firm					
5				Dark brown Silty CLAY, moist, medium firm			40.8		
				gravelly layer					
				gravelly layer					
				Total Depth Explored = 8 ft. (Backhoe excavation to 5 feet, 4-inch diameter hand auger 5 to 8 feet) No Groundwater Encountered Backfilled with Spoils 10/19/2021					
10									
15									

advanced geotechnical services, inc.

Boring Log TP-9

Sheet 1 of 1

Project: **Hager Pacific** Client No. **5173** Date Drilled **10/19/21**

Comment: **6001 Arcturus Ave. Oxnard CA**

Drilling Company/Driller: **KT Construction** Equipment: **Backhoe**

Driving Weight (lbs): ____ Average Drop (in.): ____ Hole Diameter (in.): **~2'x10'**

Elevation ____ ft Depth to Water ____ ft After ____ hrs on ____ Logged By ____

Depth, ft	Sample	Blows/6"	Graphic Symbol	Description of Material	Attitudes	Dry Unit Weight, pcf	Moisture Content, %	#200, %	Other Tests
				This log, which is part of the report prepared by Advanced Geotechnical Services, Inc. for the named project, should be read together with that report for complete interpretation. This summary applies only at this boring location and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.					
				Artificial Fill (af) At ground surface: ~3" to 6" thick Gravelly SAND, and then Lt. grey-brown Clayey to Sandy SILT, dry, loose					E.I. = 4
				Alluvium (Qa) Dark brown Sandy Clayey SILT, slightly moist, firm					
				grades sandier and less clayey and lighter brown with depth, moist					
5				mottled grey-brown to brown Clayey Sandy SILT, very moist, medium firm					
				Total Depth Explored = 5.5 ft. No Groundwater Encountered Backfilled with Spoils 10/19/2021					
10									
15									

advanced geotechnical services, inc.

Boring Log TP-10

Sheet 1 of 1

Project: Hager Pacific | Client No.: 5173 | Date Drilled: 10/28/21

Comment: 6001 Arcturus Ave. Oxnard CA

Drilling Company/Driller: AGS | Equipment: 4" Diam. Hand-Operated Auger

Driving Weight (lbs) ______ Average Drop (in.) ______ Hole Diameter (in.): 4" Diam

Elevation ______ ft Depth to Water ______ ft After ______ hrs on ______ Logged By ______

Description of Material

This log, which is part of the report prepared by Advanced Geotechnical Services, Inc. for the named project, should be read together with that report for complete interpretation. This summary applies only at this boring location and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

Depth, ft	Sample	Blows/6"	Graphic Symbol	Description of Material	Attitudes	Dry Unit Weight, pcf	Moisture Content, %	#200, %	Other Tests
				Asphalt, 2 layers: Top layer approx. 1.5 inches thick +/-; Bottom layer approx. 1.5 to 2 inches thick (varies)					
				'Base': Slightly gravelly, Silty SAND, moist, dense					
				Alluvium (Qa) Brown Sandy SILT, moist, medium firm, fine grained					
				grades lighter brown and slightly sandier with depth					
							12.8		
				Light brown to brown Silty SAND, moist, dense, fine grained					
5				Brown Silty CLAY, very moist, medium firm			24.7		
				sandy lense			25.9		
				very moist to wet					
10							39.8		
15									

Total Depth Explored = 10.5 ft.
Groundwater Encountered at a depth of approx. 10 feet; after 1 hour, water standing at 9.5 feet below ground surface
Backfilled with Spoils 10/28/2021

Appendix B

Laboratory Testing

Appendix B
Laboratory Testing

A laboratory test program is designed for each project to evaluate the physical and mechanical properties of the soil and bedrock materials encountered at the site during our field exploration program. Laboratory tests were conducted on representative samples for the purpose of classification and determining their properties for use in analyses and evaluations. The most common laboratory tests include moisture-density, Atterberg limits, grain-size analyses (sieve and hydrometer analyses), sand equivalent, direct shear, consolidation, compaction, expansion index, and *R*-values. The following descriptions of test methods are generic and may include methods not used on this project. Reference to the boring logs and test results on Plates attached to this appendix will show which tests were performed for this project. Laboratory testing is performed in general accordance with the most recent ASTM test designations available at the time of testing.

Classification Tests

Classification testing is performed to identify differences in material behavior and to correlate the results with shear strength and volume change characteristics of the materials. Classification testing includes unit weight (e.g., dry density), moisture content, Atterberg limits, grain size analyses (sieve and hydrometer), and sand equivalent.

Moisture-Density Test

Site soils were classified in the laboratory in accordance with the Unified Soil Classification System. Moisture contents are performed in general accordance with ASTM Test Designation D2216 and unit weights were determined in general accordance with ASTM Test Designation D2937. Field moisture contents and dry unit weights were determined for the ring samples obtained in the field. Field moisture contents and dry unit weights are shown on the boring logs in Appendix A.

Sieve Analysis

Sieve analysis tests were conducted on the on-site soils in general accordance with sieve analysis test procedure from ASTM Test Designation D422. This method covers the quantitative determination of the distribution of particle sizes in soils. If this test was performed, the results are presented on Plates attached to this appendix.

Hydrometer Test

Hydrometer tests were performed in general accordance with ASTM Test Designation D422. If this test was performed, the results are presented on Plates attached to this appendix. Samples with obviously little course material and a high percentage of fines were prepared with a wet method (ASTM Test Designation D2217) rather than air-drying the sample and pulverizing with a mortar and pedestal.

Shear Tests

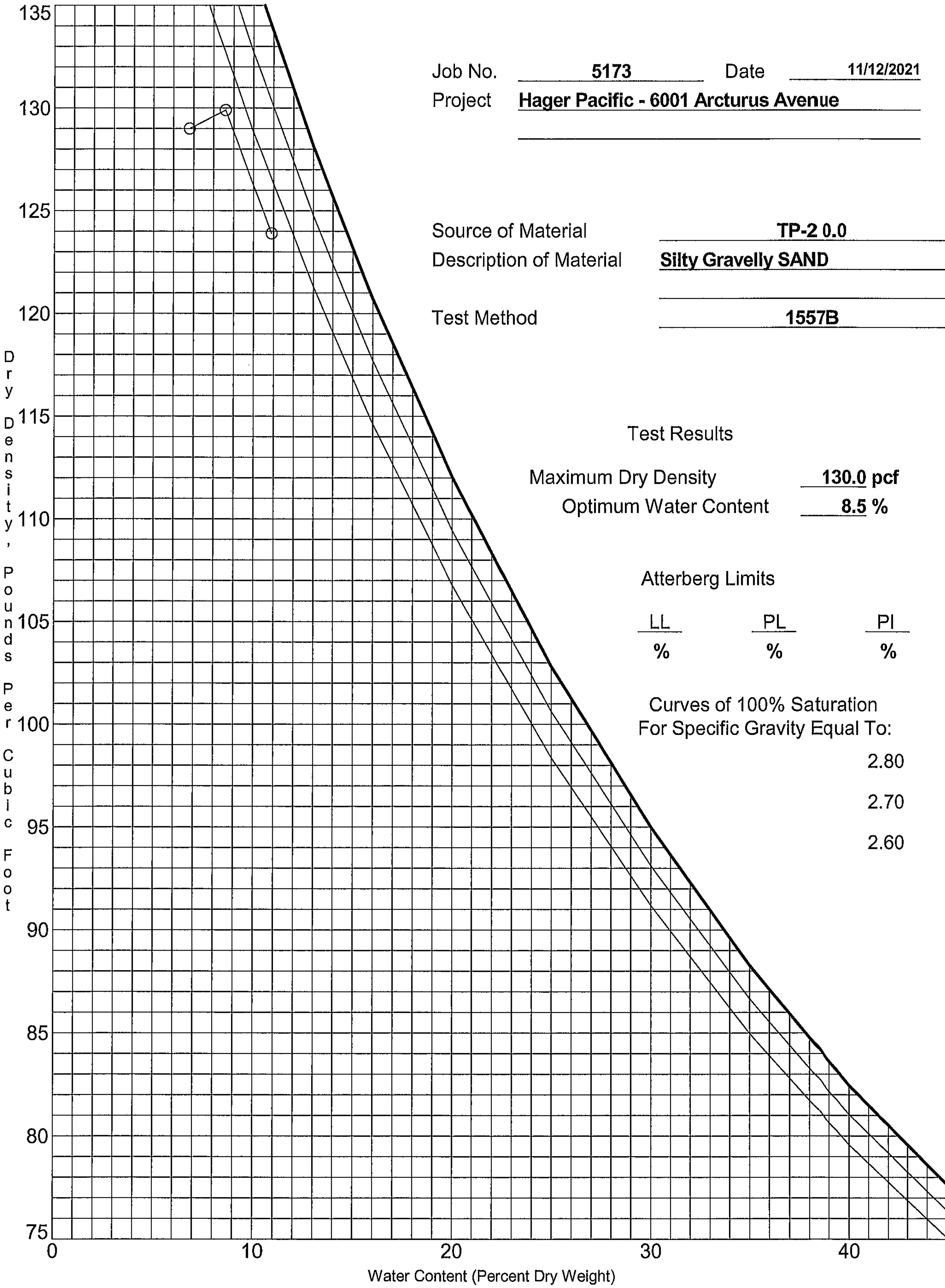
Direct shear tests were performed in general accordance with ASTM D3080 to determine the shear strength parameters of undisturbed on-site soils or remolded soil specimens. The samples are usually tested in an artificially saturated condition. This is accomplished by soaking the specimens in a confined container for a period of one or 2 days, depending on the permeability of the material. The specimen, 1-inch-high and 2.4-inch-diameter, is placed in the shear device, and a vertical stress is applied to the specimen. The specimen is allowed to reach an equilibrium state (swell or consolidate). The specimen is then sheared under a constant rate of deformation. The rate of deformation for a slow test, sufficiently slow to presumably allow drainage, is selected from computed or measured consolidation rates to simulate full drainage (full dissipation of any tendency for pore water pressure changes) during shear. A rate of displacement of 0.005 inches per minute was used for the most tests. The process usually is repeated for 3 specimens, each under different vertical stresses. The results from the 3 tests are plotted on a diagram of shear stress and normal (vertical) stress at failure, and linear approximations are drawn of the failure curves to determine the angle of internal friction and cohesion. The first moisture content shown on the graphs (associated with peak values) is for either the in-situ condition or the remolded condition, and the second moisture content (associated with ultimate value) is for the soaked condition.

Consolidation Test
Consolidation tests were performed in general accordance with ASTM D2435 and D5333 on selected samples to evaluate the load-deformation characteristics of the earth soils. The tests were performed primarily on material that would be most susceptible to consolidation under anticipated foundation loading. The soil specimen, contained in a 2.4-inch-diameter, 1.0-inch-high sampling ring, is placed in a loading frame under a seating pressure of 0.1 ksf. Vertical loads are applied to the samples in several geometric increments, and the resulting deformations were recorded at selected time intervals. When the pressure reaches a preselected effective overburden pressure (often 2 ksf) and the specimen has consolidated under that pressure, the laboratory technician adds water to the test cell and records the vertical movement. After the specimen reaches equilibrium with the addition of water, the technician continues the loading process, usually up to a pressure of about 8 ksf. The specimen is then unloaded in increments, and the test is dismantled. The results of the test are presented in terms of percent volume change versus applied vertical stress. If this test was performed, the results are presented on Plates attached to this appendix.

Compaction Test
Compaction tests provide information on the relationship between moisture content and dry density of the soil compacted in a given manner. The maximum density is obtained for a given compaction effort at an optimum moisture content. Specifications for earthwork are in terms of the unit weight (or dry density) expressed as a percentage of the maximum density, and the moisture content compared to the optimum moisture content. Compaction tests were performed in general accordance with ASTM Test Designation D1557 to determine the maximum dry densities and optimum moisture contents of the on-site soils. If this test was performed, the results are presented on Plates attached to this appendix.

Expansion Index Test
The expansion index test provides an assessment of the potential for expansion or heave that could be detrimental to foundation or slab performance. Expansion Index tests are performed on shallow on-site soils in general accordance with expansion test procedures in ASTM D4829. In this test, a specimen is compacted at a degree of saturation between 45% and 55% in a 4.01-inch-diameter, 1.0-inch-high ring. The specimen is subjected to a seating pressure of 144 psf, water is added to the test cell, and swell is monitored until the expansion stops. The volume of swell is converted to an expansion index. Any test results are summarized on the boring logs in Appendix A.

Sample Remolding
In some cases remolded samples are used when performing direct shear tests and consolidation tests. Samples are remolded to a specified moisture and density by compacting the soil in a 2.42-inch-diameter sample ring. The specified moisture content is either at optimum or a few percentage points above optimum. The specified dry density is usually at a relative compaction of 90%. The required moisture is added to and mixed with dry soil, providing a homogeneous mixture. A 2.42-inch-diameter ring is placed in a 6-inch-diameter compaction mold, and soil is placed in the mold to above the ring. The soil is then compacted with a 5.5-pound hammer with a free-fall drop of 12 inches. The sample is trimmed, and the dry density is determined. If the dry density deviates more than about one pound per cubic foot from the specified dry density, the process is repeated with the number of blows altered to better achieve the specified dry density.



Job No. 5173 Date 11/12/2021

Project Hager Pacific - 6001 Arcturus Avenue

Source of Material TP-2 0.0

Description of Material Silty Gravelly SAND

Test Method 1557B

Test Results

Maximum Dry Density 130.0 pcf

Optimum Water Content 8.5 %

Atterberg Limits

LL	PL	PI
%	%	%

Curves of 100% Saturation
For Specific Gravity Equal To:

2.80

2.70

2.60

Moisture-Density Relationship

Advanced Geotechnical Services, Inc.

Plate B- 3

Job No. 5173 Date 11/12/2021

Project Hager Pacific - 6001 Arcturus Avenue

Source of Material TP-4 0.0

Description of Material Sandy to Clayey SILT

Test Method 1557A

Test Results

Maximum Dry Density 125.0 pcf

Optimum Water Content 10.5 %

Atterberg Limits

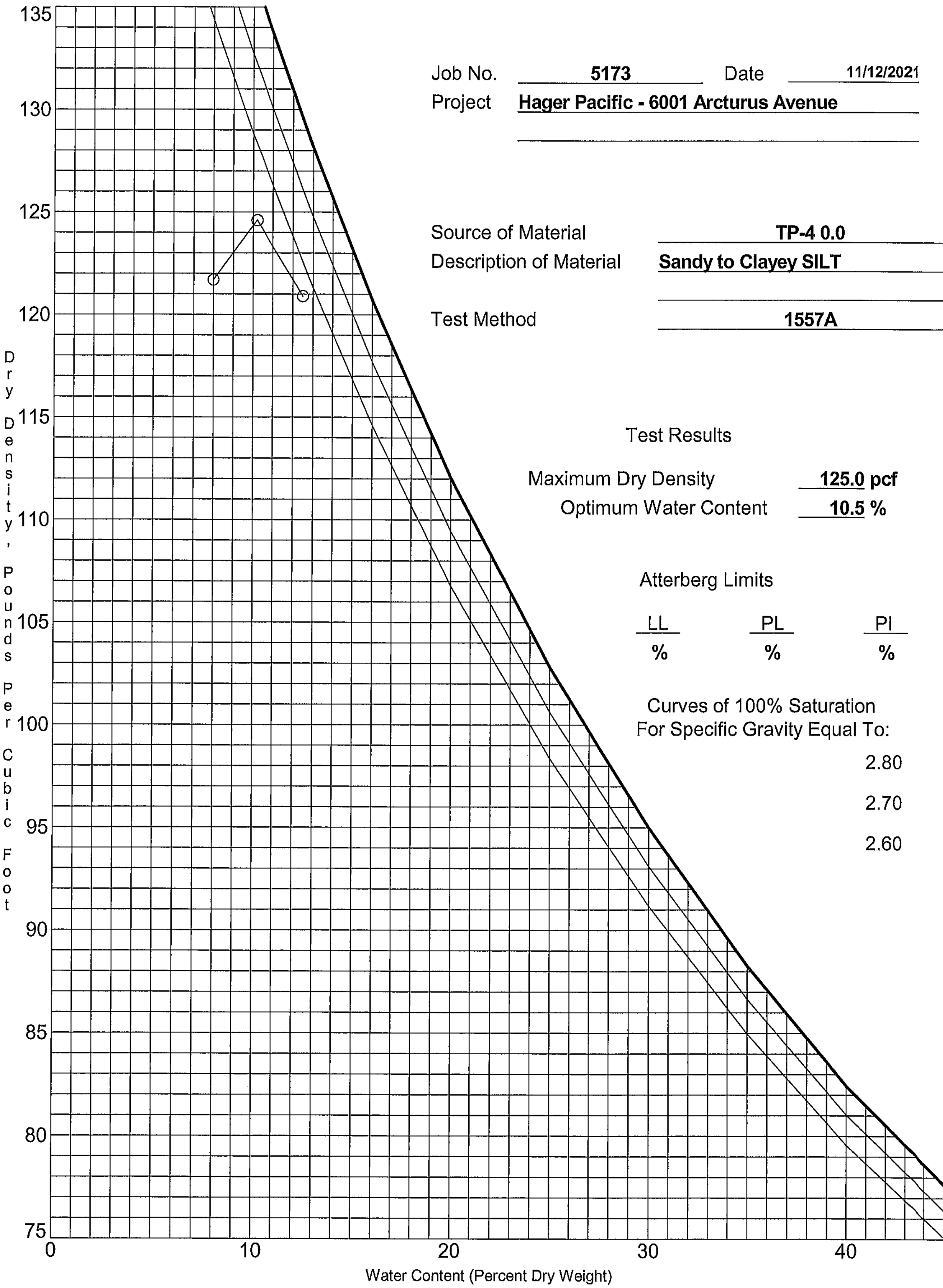
LL	PL	PI
%	%	%

Curves of 100% Saturation
For Specific Gravity Equal To:

2.80

2.70

2.60



Moisture-Density Relationship

Advanced Geotechnical Services, Inc.

Plate B- 4

Job No. **5173** Date **11/12/2021**

Project **Hager Pacific - 6001 Arcturus Avenue**

Source of Material **TP-6 0.0**

Description of Material **Sandy to Clayey SILT**

Test Method **1557A**

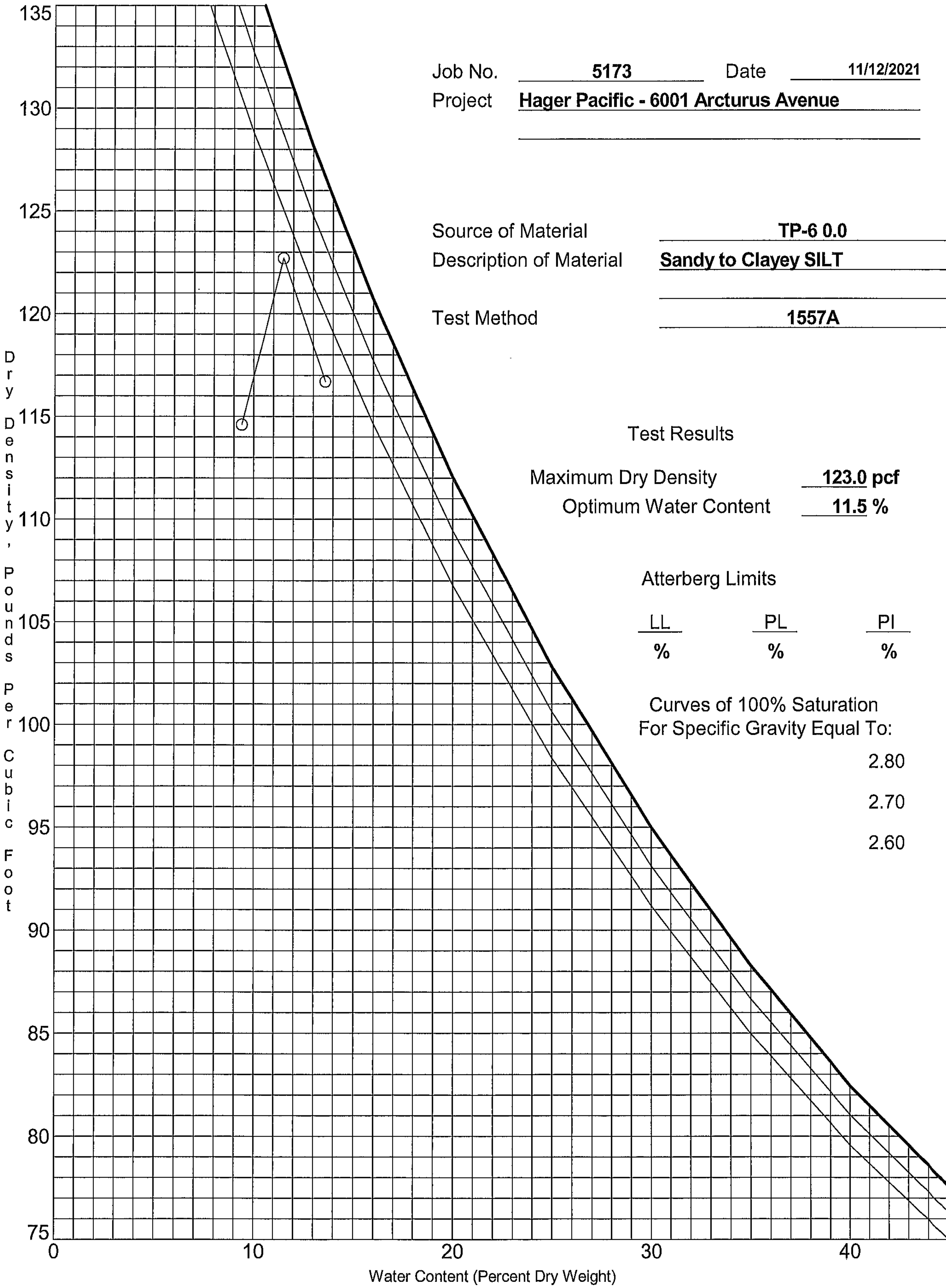
Test Results

Maximum Dry Density **123.0** pcf

Optimum Water Content **11.5** %

Atterberg Limits

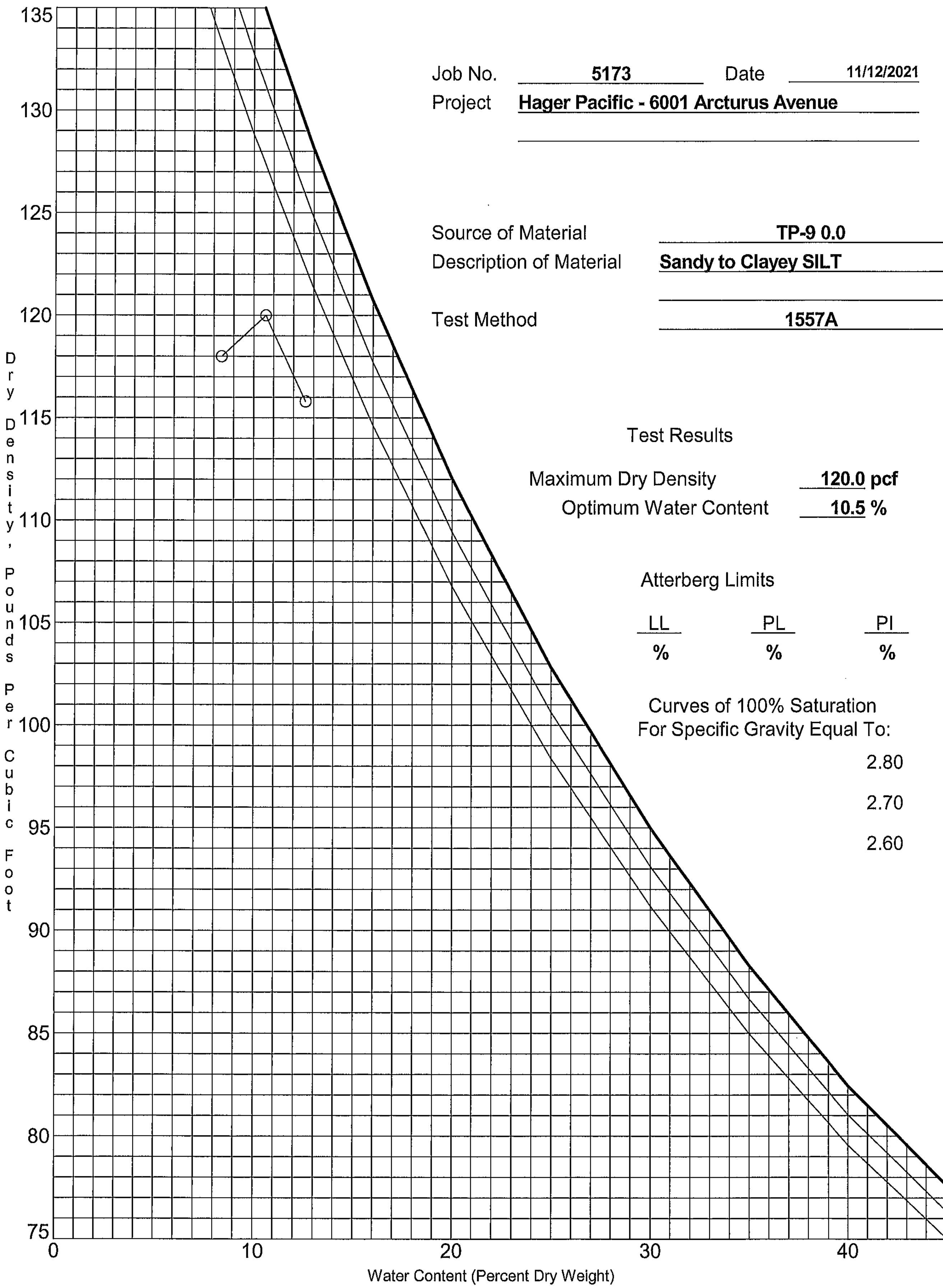
LL	PL	PI
%	%	%



Moisture-Density Relationship

Advanced Geotechnical Services, Inc.

Plate B- 5



Job No. **5173** Date **11/12/2021**

Project **Hager Pacific - 6001 Arcturus Avenue**

Source of Material **TP-9 0.0**

Description of Material **Sandy to Clayey SILT**

Test Method **1557A**

Test Results

Maximum Dry Density **120.0** pcf

Optimum Water Content **10.5** %

Atterberg Limits

LL	PL	PI
%	%	%

Curves of 100% Saturation
For Specific Gravity Equal To:

2.80

2.70

2.60

Moisture-Density Relationship

Advanced Geotechnical Services, Inc.

Plate B- 6

October 23, 2021

Toro Project No: AGS-TEST

Toro Lab No: 2595

Project: On Call Materials Testing - Hager Pacific

Customer: AGS

Summary of Laboratory Test Results

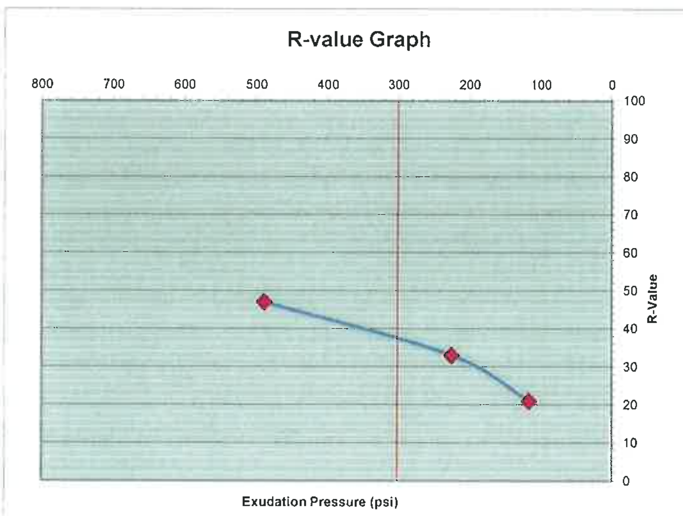
Material: Silty Sand with gravel (SM); dark brown, moist

Location: TP-1 at 0' - 2'

Sampled By: AGS

Date Sampled: 10/20/2021

R-Value			
Test Method		Tested By	Date Tested
CT301		Adam Sinutko	10/22/2021
Dry Unit Weight (pcf)	Water Content (%)	Exudation Pressure (psi)	R-Value
125.9	9.1	489	47
124.8	9.8	226	33
124.5	11.0	117	21
Initial Moisture Content:	7.1%	R-Value by stabilometer controls	
R-Value at Exudation Pressure of 300 psi		Specification	
37		-	



All tests included in this report were tested in accordance with the applicable test methods listed above. Please do not hesitate to contact Toro Quality Management with any questions or comments.

Respectfully Submitted,

Adam Sinutko
Lab Manager

Reviewed By

October 22, 2021

Toro Project No: AGS-TEST

Toro Lab No: 2596

Project: On Call Materials Testing - Hager Pacific

Customer: AGS

Summary of Laboratory Test Results

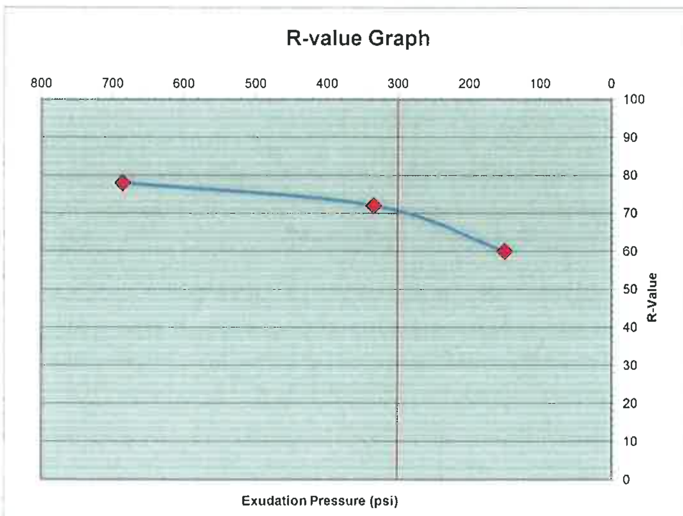
Material: Silty Sand with gravel and trace clay (SM); yellowish brown, moist

Location: TP-5 at 0' - 2'

Sampled By: AGS

Date Sampled: 10/20/2021

R-Value			
Test Method		Tested By	Date Tested
CT301		Adam Sinutko	10/21/2021
Dry Unit Weight (pcf)	Water Content (%)	Exudation Pressure (psi)	R-Value
126.3	8	686	78
127.1	9	335	72
125.9	9.9	150	60
Initial Moisture Content:	3.1%	R-Value by stabilometer controls	
R-Value at Exudation Pressure of 300 psi		Specification	
71		-	



All tests included in this report were tested in accordance with the applicable test methods listed above. Please do not hesitate to contact Toro Quality Management with any questions or comments.

Respectfully Submitted,

Adam Sinutko
Lab Manager

Reviewed By:

October 22, 2021

Toro Project No: AGS-TEST

Toro Lab No: 2597

Project: On Call Materials Testing - Hager Pacific

Customer: AGS

Summary of Laboratory Test Results

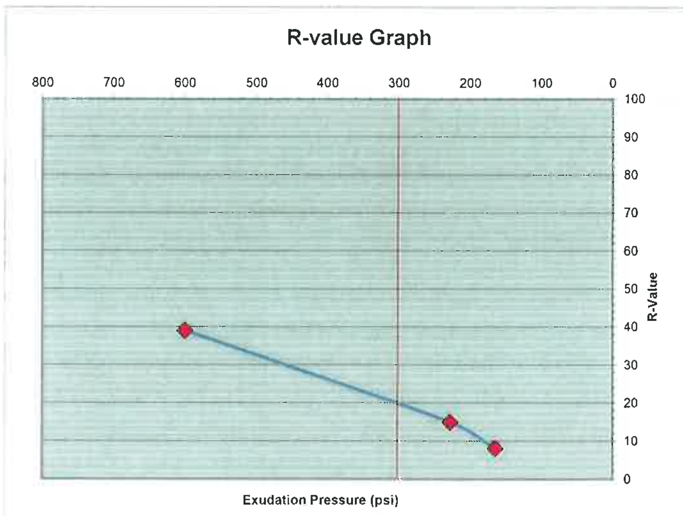
Material: Sandy Silt (ML); Dark Brown, moist

Location: TP-8 at 0' - 2'

Sampled By: AGS

Date Sampled: 10/20/2021

R-Value			
Test Method		Tested By	Date Tested
CT301		Adam Sinutko	10/21/2021
Dry Unit Weight (pcf)	Water Content (%)	Exudation Pressure (psi)	R-Value
115.4	13.8	601	39
113.5	14.8	228	15
110.8	15.8	165	8
Initial Moisture Content:	10.8%	R-Value by stabilometer controls	
R-Value at Exudation Pressure of 300 psi		Specification	
20		-	



All tests included in this report were tested in accordance with the applicable test methods listed above. Please do not hesitate to contact Toro Quality Management with any questions or comments.

Respectfully Submitted,

Adam Sinutko
Lab Manager

Reviewed By:

CAPCO Analytical Services, Inc.

Prepared for: Advanced Geotechnical Services
5251 Verdugo Way, Suite L
Camarillo, CA 93012
Attn: Jim Bruss

Report Date: October 27, 2021
Laboratory Number: 211754
Purchase Order No: 5173-1162
Project Name: Hager Pacific 5173 Lab 1162
Sampled by: Jim Bruss

Enclosed are the analysis results for samples received October 20, 2021 with the Chain of Custody document. The samples were received in good condition, at 20.0°C, and they were identified and assigned the laboratory ID numbers listed below:

SAMPLE DESCRIPTION	CAS LAB NUMBER ID
TP-2@0-2'	211754-01
TP-7@0-2'	211754-02

By my signature below, I certify that the results contained in this laboratory report comply with applicable standards for certification by the California Department of Public Health's Environmental Laboratories Accreditation Program (ELAP), both technically and for completeness, and that, based on my inquiry of the person or persons directly responsible for performing the analyses, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

Anahit Aivazyan

Anahit Aivazyan, MS
Laboratory Director

If you have any further questions or concerns, please contact me at your convenience. This report consists of 3 pages excluding the cover letter and the Chain of Custody.

CERTIFICATE OF ANALYSIS

Client: Advanced Geotechnical Services
CAS LAB NO: 211754-01
Sample ID: TP-2@0-2′
Analyst: GP

Date Sampled: 10/20/21
Date Received: 10/20/21
Sample Matrix: Soil

WET CHEMISTRY SUMMARY

COMPOUND	RESULTS	UNITS	DF	PQL	METHOD	ANALYZED
pH (Corrosivity)	8.9	S.U.	1	---	9045	10/21/21
Resistivity*	5700	Ohms-cm	1	---	SM 120.1M	10/21/21
Chloride	12	mg/Kg	1	0.3	300.0M	10/21/21
Sulfate	46	mg/Kg	1	0.6	300.0M	10/21/21

*Sample was extracted using a 1:3 ratio of soil and DI water.

DF: Dilution Factor
PQL: Practical Quantitation Limit
BQL: Below Quantitation Limit
mg/Kg: Milligrams/Kilograms(ppm)

CERTIFICATE OF ANALYSIS

Client: Advanced Geotechnical Services
CAS LAB NO: 211754-02
Sample ID: TP-7@0-2′
Analyst: GP

Date Sampled: 10/20/21
Date Received: 10/20/21
Sample Matrix: Soil

WET CHEMISTRY SUMMARY

COMPOUND	RESULTS	UNITS	DF	PQL	METHOD	ANALYZED
pH (Corrosivity)	8.0	S.U.	1	---	9045	10/21/21
Resistivity*	900	Ohms-cm	1	---	SM 120.1M	10/21/21
Chloride	150	mg/Kg	4	1.2	300.0M	10/21/21
Sulfate	1056	mg/Kg	4	2.4	300.0M	10/21/21

*Sample was extracted using a 1:3 ratio of soil and DI water.

DF: Dilution Factor
PQL: Practical Quantitation Limit
BQL: Below Quantitation Limit
mg/Kg: Milligrams/Kilograms (ppm)

CAPCO
Analytical Services, Inc.

Environmental and Analytical Services-Since 1994

Quality Control Report

Client:	Advanced Geotechnical Services	Date Sampled:	10/20/21
Sample ID:		Date Received:	10/20/21
CAS LAB NO:	**211754**	Date Analyzed:	10/21/21
Sample Matrix:	SOIL	Analyst:	GP

Sample Name	Qualifier	Sample Result	QC Result	Unit	Spike Level	%REC	Control Limits
	Chloride (by EPA 300)						
Method Blank			**BQL**	mg/L			
Lab Control Sample			**30.03**	mg/L	30	100	90-110
211755-01 Matrix Spike		**3.24**	**33.62**	mg/L	30	101	80-120
211755-01 Matrix Spike Duplicate		**3.24**	**33.34**	mg/L	30	100	80-120
	Sulfate (by EPA 300)						
Method Blank			**BQL**	mg/L			
Lab Control Sample			**29.32**	mg/L	30	98	90-110
211755-01 Matrix Spike		**3.20**	**32.60**	mg/L	30	98	80-120
211755-01 Matrix Spike Duplicate		**3.20**	**32.59**	mg/L	30	98	80-120

*ALL QC SAMPLES ARE PREPARED IN LIQUID PHASE

mg/L:Milligrams/Liter(ppm)

%Rec:Percent Recovered

BQL:Below Practical Quantitation Limit

2978 Seaborg Ave. Unit 4, Ventura, California 93003 Ph: (805)644-1095 FAX: (805)644-9947
www.capcoenv.com

Appendix C

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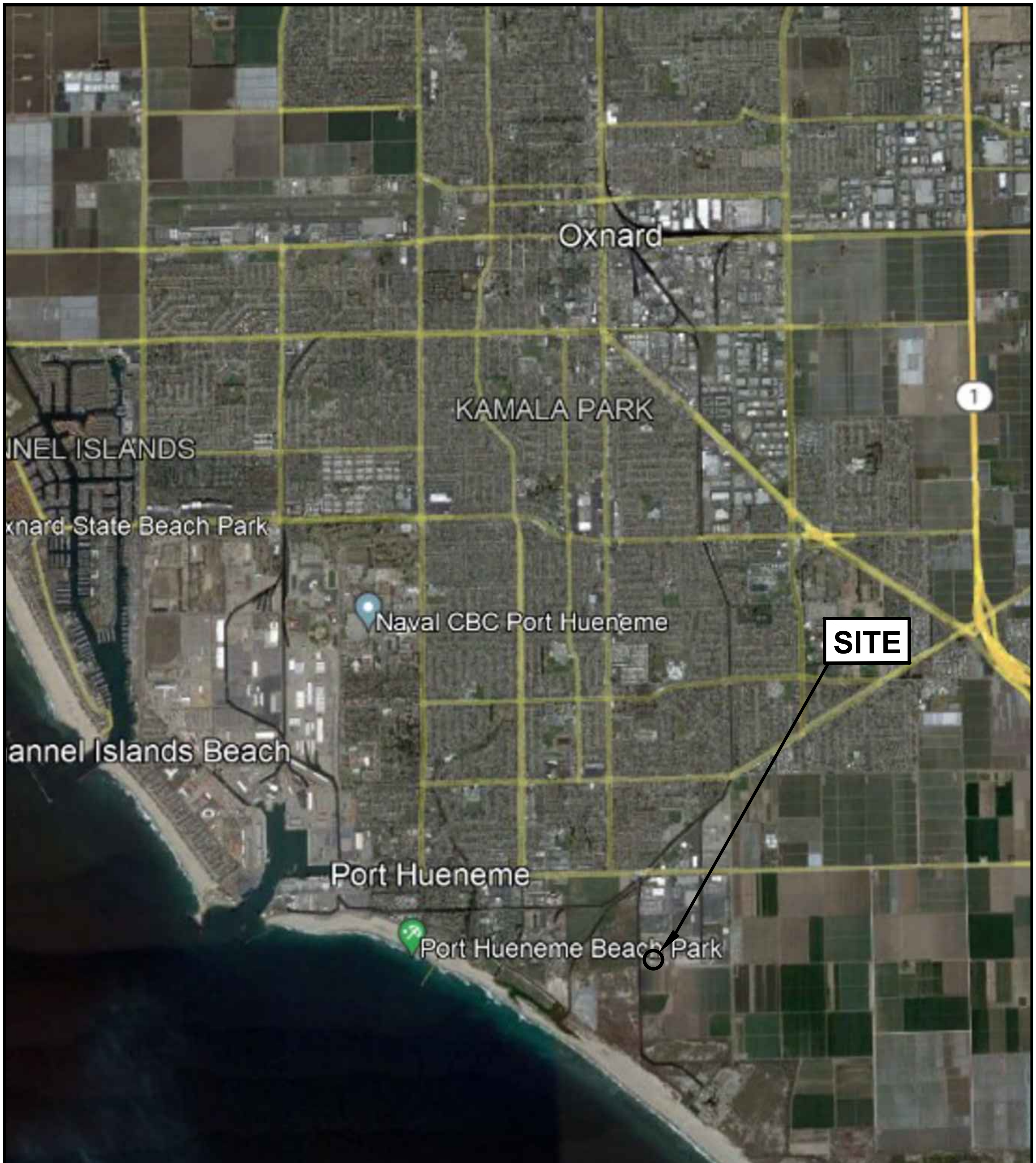
Appendix D

Report Figures and Plates



Reference: Google Earth 2021

N

No Scale

Advanced Geotechnical Services

SITE LOCATION MAP

HAGER PACIFIC
6001 Arcturus Avenue
Oxnard, California

Client # 5173
Report # 10863

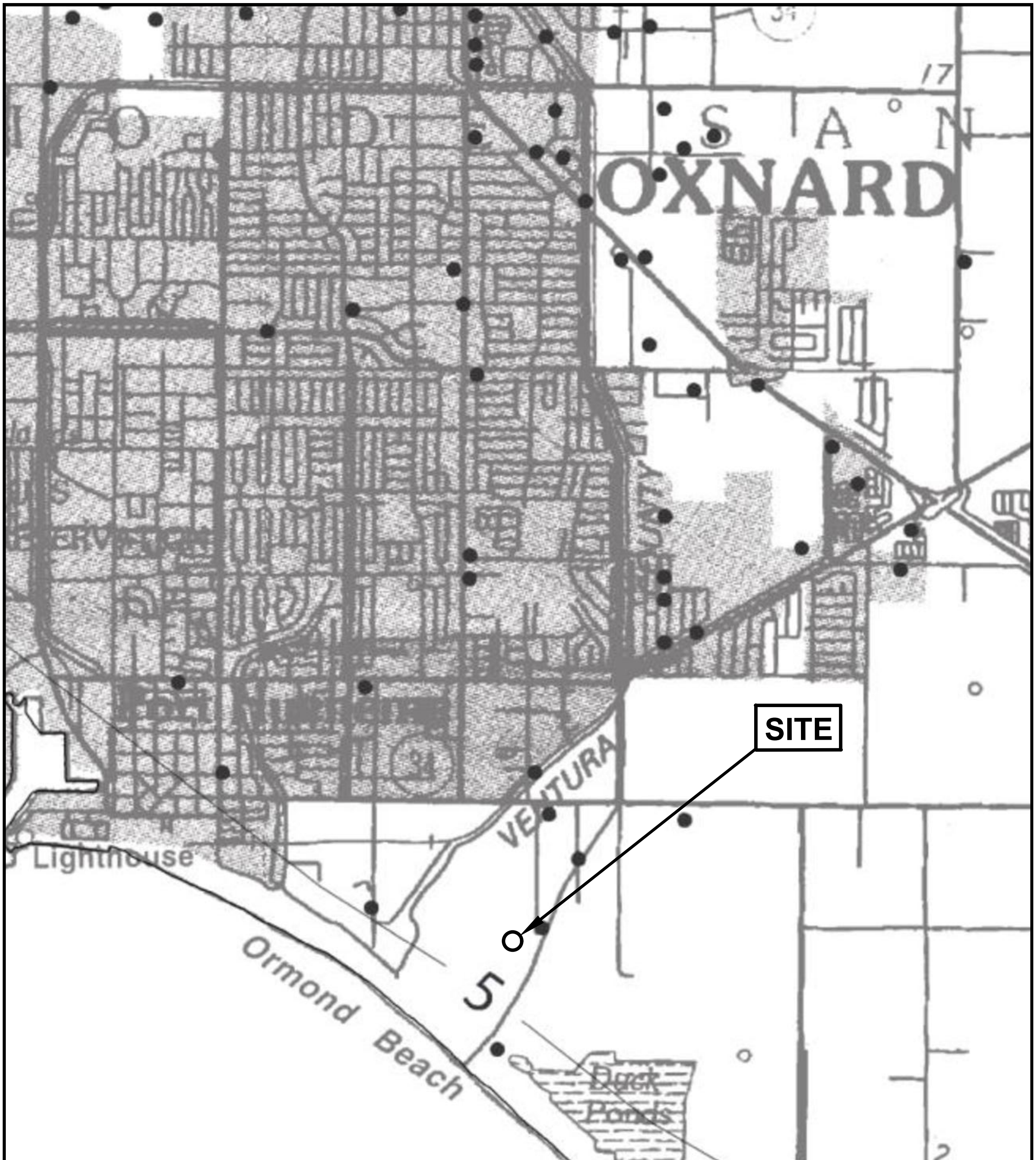
FIGURE 1

Reference: USGS, 2003, Geologic Map of the Oxnard 7.5' Quadrangle, Ventura County, California

N

Scale: 1" = ½ mile

Advanced Geotechnical Services	**REGIONAL GEOLOGIC MAP**	**HAGER PACIFIC** **6001 Arcturus Avenue** **Oxnard, California**	
		Client # 5173 **Report # 10863**	**FIGURE 2**



Reference: CDMG, 2002, Seismic Hazard Zone Report 052

N

Scale: 1" = ½ mile

Advanced Geotechnical Services

DEPTH TO HISTORICALLY HIGH GROUNDWATER

HAGER PACIFIC
6001 Arcturus Avenue
Oxnard, California

Client # 5173
Report # 10863

FIGURE 3

REFERENCE: Google Earth 2021

EXISTING SITE PLAN

N

60' 0' 60' 120'

APPROXIMATE SCALE: 1" = 60'

EXPLANATION

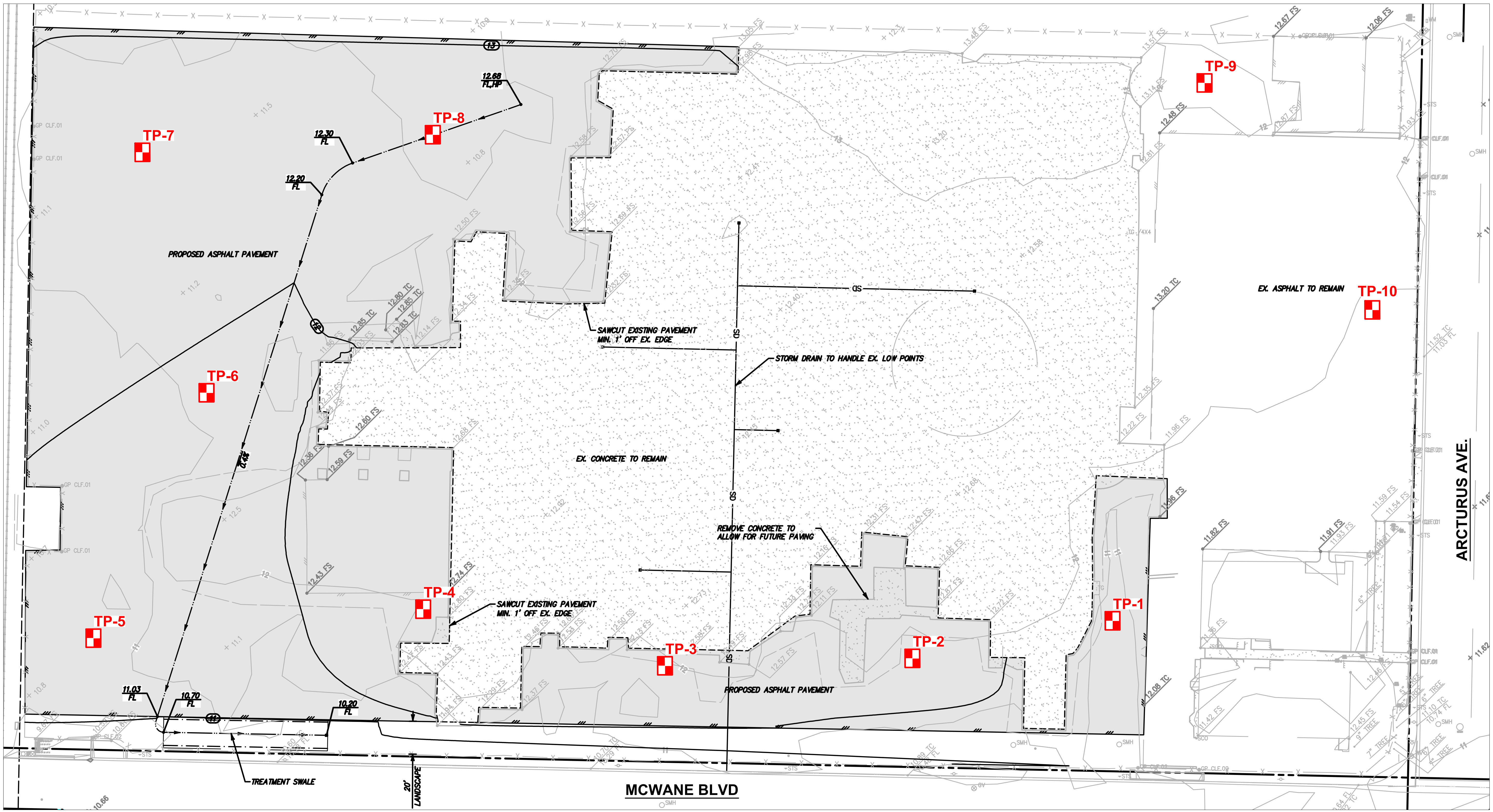
TP-10 Approximate Location of Exploratory Test Pit

Advanced Geotechnical Services
5251 Verdugo Way, Suite L
Camarillo, California 93012
Office (805) 388-6162/Fax (805) 388-6167

HAGER PACIFIC

Geotechnical Engineering Study
Proposed Site Paving
6001 Arcturus Avenue
Oxnard, California

Client No.	5173	PLATE 1
Report No.	10863	
Date	11/12/21	
Drawing No.	10863cn5173-1	



REFERENCE: SITE PLAN PROVIDED BY JENSEN DESIGN & SURVEY, INC., DATED 10/15/21

PROPOSED SITE PLAN

60' 0' 60' 120'

APPROXIMATE SCALE: 1" = 60'

EXPLANATION

TP-10 Approximate Location of Exploratory Test Pit

Advanced Geotechnical Services
5251 Verdugo Way, Suite L
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Office (805) 388-6162/Fax (805) 388-6167

HAGER PACIFIC

Geotechnical Engineering Study
Proposed Site Paving
6001 Arcturus Avenue
Oxnard, California

Client No.	5173	PLATE
Report No.	10863	2
Date	11/12/21	
Drawing No.	10863cn5173-2	

Appendix E
Construction Noise Modeling Data

NOISE APPENDIX

Construction Noise Modeling Data

Construction Activity	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Lmax @ 50 ft. for quantify of equipment	Source to NSR Distance (ft.)	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 1-hour Leq
Site Preparation	dozer	3	40	82	86.8	2200	46.9	1	60	43
	front end loader	2	40	79	82.0	2200	42.2	1	60	38
	backhoe	2	40	78	81.0	2200	41.2	1	60	37
						Total Lmax for phase:	**49.0**	**Total Leq 1hr for phase:**		**45.0**
Building Erection	front end loader	1	40	79	79.0	2200	39.2	1	60	35
	gradall	1	40	83	83.0	2200	43.2	1	60	39
	generator	1	50	72	72.0	2200	32.2	1	60	29
	backhoe	1	40	78	78.0	2200	38.2	1	60	34
	welder / torch	1	40	73	73.0	2200	33.2	1	60	29
						Total Lmax for phase:	**45.9**	**Total Leq 1hr for phase:**		**42.0**
Paving	All Other Equipment > 5 HP	2	50	85	88.0	2200	48.2	1	60	45
	paver	2	50	77	80.0	2200	40.2	1	60	37
	roller	2	20	80	83.0	2200	43.2	1	60	36
						Total Lmax for phase:	**49.9**	**Total Leq 1hr for phase:**		**46.2**

Equipment Description	Impact Device?	Acoustical Use Factor (%)	Lesser of or available Lmax	Spec. 721 Lmax	Measured L_{max} @50ft (dBA, slow)
All Other Equipment > 5 HP	No	50	85	85	-- N/A --
Auger Drill Rig	No	20	84	85	84
Backhoe	No	40	78	80	78
Bar Bender	No	20	80	80	-- N/A --
Blasting	Yes	-- N/A --	94	94	-- N/A --
Boring Jack Power Unit	No	50	80	80	83
Chain Saw	No	20	84	85	84
Clam Shovel (dropping)	Yes	20	87	93	87
Compactor (ground)	No	20	80	80	83
Compressor (air)	No	40	78	80	78
Concrete Batch Plant	No	15	83	83	-- N/A --
Concrete Mixer Truck	No	40	79	85	79
Concrete Pump Truck	No	20	81	82	81
Concrete Saw	No	20	90	90	90
Crane	No	16	81	85	81
Dozer	No	40	82	85	82
Drill Rig Truck	No	20	79	84	79
Drum Mixer	No	50	80	80	80
Dump Truck	No	40	76	84	76
Excavator	No	40	81	85	81
Flat Bed Truck	No	40	74	84	74
Front End Loader	No	40	79	80	79
Generator	No	50	72	72	81
Generator (<25KVA, VMS signs)	No	50	70	70	73
Gradall	No	40	83	85	83
Grader	No	40	85	85	-- N/A --
Grapple (on backhoe)	No	40	85	85	87
Horizontal Boring Hydr. Jack	No	25	80	80	82
Hydra Break Ram	Yes	10	90	90	-- N/A --
Impact Pile Driver	Yes	20	95	95	101
Jackhammer	Yes	20	85	85	89
Man Lift	No	20	75	85	75
Mounted Impact Hammer (hoe ram)	Yes	20	90	90	90
Pavement Scarafier	No	20	85	85	90
Paver	No	50	77	85	77
Pickup Truck	No	40	55	55	75
Pneumatic Tools	No	50	85	85	85
Pumps	No	50	77	77	81
Refrigerator Unit	No	100	73	82	73
Rivit Buster/chipping gun	Yes	20	79	85	79
Rock Drill	No	20	81	85	81
Roller	No	20	80	85	80
Sand Blasting (Single Nozzle)	No	20	85	85	96
Scraper	No	40	84	85	84
Shears (on backhoe)	No	40	85	85	96
Slurry Plant	No	100	78	78	78
Slurry Trenching Machine	No	50	80	82	80
Soil Mix Drill Rig	No	50	80	80	-- N/A --
Tractor	No	40	84	84	-- N/A --
Vacuum Excavator (Vac-truck)	No	40	85	85	85
Vacuum Street Sweeper	No	10	80	80	82
Ventilation Fan	No	100	79	85	79
Vibrating Hopper	No	50	85	85	87
Vibratory Concrete Mixer	No	20	80	80	80
Vibratory Pile Driver	No	20	95	95	101
Warning Horn	No	5	83	85	83
Welder / Torch	No	40	73	73	74

NOISE APPENDIX

Traffic Noise Modeling Worksheets

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	6001 Arcturus Avenue Vehicle Storage	JN:	13296.03
ROADWAY:	Port Hueneme Road, East of Saviers Road	DATE:	2/21/2023
Scenario:	**Existing**	BY:	J. Leech

ADT	19,350		PK HR VOL	1,935
SPEED	45			
PK HR %	10			
DIST CTL	65			
DIST N/F	52	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE	59.8
DIST WALL	0		MED TRUCK SLE DIST	59.6
DIST W/OB	65		HVY TRUCK SLE DIST	59.6
HTH WALL	0.0	********		
HTH OBS	5.0			
AMBIENT	45.0			
ROADWAY VIEW:				
LF ANGLE	-90			
RT ANGLE	90			
DF ANGLE	180			

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)
AUTOM	15.0	
MED TR	15.0	
HVY TR	15.0	
BARRIER	0	(0=WALL,1=BERM)

ELEVATIONS:				
PAD	0.0	AUTOMOBILES =	0.00	
ROAD	0.0	MEDIUM TRUCKS=	2.30	
		HEAVY TRUCKS =	8.01	
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9700
MEDIUM TRUCKS	0.874	0.051	0.075	0.0200
HEAVY TRUCKS	0.891	0.028	0.081	0.0100

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	66.9	65.0	63.2	57.2	66.4
MEDIUM TRUCKS	61.0	59.7	53.3	50.3	59.8
HEAVY TRUCKS	62.8	61.5	52.6	52.3	61.5
VEHICULAR NOISE	69.1	67.4	63.9	59.0	68.3

Appendix F

Trip Generation and Parking Analysis for the Hager Pacific Logistics Facility Special Use Permit Application

ASSOCIATED TRANSPORTATION ENGINEERS

100 N. Hope Avenue, Suite 4, Santa Barbara, CA 93110 • (805)687-4418 • main@atesb.com

Since 1978

Richard L. Pool, P.E.
Scott A. Schell

February 20, 2023 21092L02

TK McWhertor
Hager Pacific Logistics
4100 Newport Place Drive, Suite 700
Newport Beach, California 92660

TRIP GENERATION AND PARKING ANALYSIS FOR THE HAGER PACIFIC LOGISTICS FACILITY SPECIAL USE PERMIT (SUP) APPLICATION – CITY OXNARD

The following letter presents the trip generation and parking analysis prepared by Associated Transportation Engineers (ATE) for the Hager Pacific Logistics facility (the "Project") located in the City of Oxnard. The trip generation and parking analysis was prepared to assist City of Oxnard staff in processing the Project's SUP application.

PROJECT DESCRIPTION

The Hager Pacific Logistics facility is located 6001 Arcturus Avenue in the City of Oxnard. The Project site is zoned Light Manufacturing (M1). Hager Pacific is converting the property to a logistics facility to support the Port of Hueneme. This critically needed infrastructure will have approximately 327 parking stalls for shipping containers, which will support shipping transiting the Port of Hueneme. More specifically, the property shall be used for parking and storage of shipping containers, tractors, trailers, trucks, automobiles, and other vehicles. There could be approximately 50 ship containers transported to/from the Port to the facility (100 one-way vehicle trips). When vehicles are transported to/from the Port to the facility there could be 130 one-way vehicle trips (65 truckloads). The Hager Pacific facility will operate Monday through Friday between the hours of 6:00 AM to 6:00 PM. There will be no permanent structures constructed to house facility employees or visitors and no transportation or security personnel will be stationed on-site. Site access will be provided via a driveway connection to Arcturus Avenue. Figure 1 (attached) illustrates the Project site plan.

The Project site was until recently occupied by the Arcturus Manufacturing Corporation. The Arcturus Manufacturing Corporation was an industrial manufacturer and operated a variety of heavy forging, heat treated and testing/finishing equipment. The Arcturus Manufacturing Corporation processed aluminum, stainless steel, titanium, and nickel-based alloys and occupied 8,000 square feet of office space and 53,200 square feet of manufacturing space.

PROJECT TRIP GENERATION

Trip generation estimates are typically developed based on rates presented in the Institute of Transportation Engineers (ITE), Trip Generation, 11th Edition. However, there are no trip generation rates published for ship container storage facilities. Trip generation estimates for the Project were therefore calculated using the following operational data provided by the applicant. The potential lessee of the site operates several other logistic support facilities in the area that serve the Port of Hueneme. The trip generation estimates provided by the applicant are based on past operational experience from similar facilities in the vicinity of the Project and the anticipated shipping volumes at the Port over the next several years. The average duration a container is anticipated to remain on site is 5 - 7 days. The Hager Pacific facility will operate Monday through Friday from 6:00 AM to 6:00 PM with no on-site employees. During a peak operational day, there could be up to 50 ship containers transported to/from the port to the facility (100 one-way vehicle trips). When vehicles are transported to/from the Port to the facility there could be 65 truckloads (130 one-way vehicle trips). It is estimated that 0 employee trips will occur during the 7:00 - 9:00 AM and 4:00 - 6:00 PM peak hour commute periods since employees begin the workday before 7:00 AM and end work after 6:00 PM. The following represents the maximum daily operations that potentially could occur:

50 Truckloads - Ship Containers	100 trips/day (50 In and 50 Out)
65 Truckloads - Vehicle Carriers	130 trips/day (65 In and 65 Out)

Table 1 summarizes the average daily trips, AM and PM peak hour trip generation estimates for the Project based on the peak day operational data for the transportation of ship containers or vehicles to and from the Port.

Table 1
Project Peak Day Trip Generation - Non P.C.E. Trips

Project Component	Number	ADT	Weekday Peak Hour Trips	
			AM Peak Hour	PM Peak Hour
Truck Deliveries - Containers	50 Truck Loads	100	10 (5 In/5 Out)	10 (5 In/5 Out)
Truck Deliveries - Vehicles	65 Truck Loads	130	13 (7 In/6 Out)	13 (6 In/7 Out)

Note: Truck trips assume 10 percent in the AM and PM peak hour periods.

The data presented in Table 1 show that based on the operational data provided by the applicant, the Project would generate a total of 100 average daily trips, 10 AM peak hour trips, and 10 PM peak hour trips when containers are transported to and from the Port. Based on the operational data provided by the applicant, the Project would generate a total of 130 average daily trips, 13 AM peak hour trips, and 13 PM peak hour trips when vehicles are transported to and from the Port.

To account for the effect if the "heavy duty" trucks, a Passenger Car Equivalent (P.C.E.) factor of 2.0 was applied to the Project truck trips. Table 2 summarizes the average daily, AM, and PM peak hour trip generation estimates for the Project based with the P.C.E. adjustments.

Table 2
Project Peak Day Trip Generation – P.C.E. Trips

Project Component	Number	ADT	Weekday Peak Hour Trips	
			AM Peak Hour	PM Peak Hour
Truck Deliveries - Containers	50 Truck Loads	200	20 (10 In/10 Out)	20 (10 In/10 Out)
Truck Deliveries - Vehicles	65 Truck Loads	260	26 (14 In/12 Out)	26 (12 In/14 Out)

Note: Truck trips assume 10 percent in the AM and PM peak hour periods.

The data presented in Table 2 show that with the P.C.E. adjustments, the Project would generate a total of 200 average daily trips, 10 AM peak hour trips, and 10 PM peak hour trips when containers are transported to and from the Port; and 260 average daily trips, 26 AM peak hour trips, and 26 PM peak hour trips when vehicles are transported to and from the Port.

Existing Building

In order to determine the Project's potential traffic impact, trip generation estimates were also calculated for the Arcturus Manufacturing Corporation based on the rates published in the Institute of Transportation Engineers (ITE), Trip Generation, 11th Edition for Manufacturing (Land Use Code #140).

Tables 3 and 4 present the trip generation estimates for the Arcturus Manufacturing Corporation and compare them to the trip generation estimates developed for the Project with no P.C.E. adjustments. Trip generation estimates for the Arcturus Manufacturing Corporation include both employee and truck trips.

Table 3
Trip Generation Comparison - Container Deliveries

Land Use	Size	ADT	AM Peak Hour	PM Peak Hour
Arcturus Manufacturing Corporation:				
Manufacturing Space	61,200 S.F.	291	42	45
- Truck Trips (9.3%)		27	2	2
- Non-Truck Trips		264	40	43
Hager Pacific Logistics - Truck Trips		100	10	10
	Net Change:	-191	-32	-35

The data presented in Table 3 indicate that the Arcatures Manufacturing Corporation generated 291 ADT, 42 AM peak hour trips and 45 PM peak hour trips. The Project is estimated to generate 100 ADT, 10 AM peak hour trips and 10 PM peak hour trips on days when containers are transported. The Project therefore results in a net reduction of 191 ADT, 32 AM peak hour trips and 35 PM peak hour trips.

Table 4
Trip Generation Comparison - Vehicles Deliveries

Land Use	Size	ADT	AM Peak Hour	PM Peak Hour
Arcturus Manufacturing Corporation:				
Manufacturing Space	61,200 S.F.	291	42	45
- Truck Trips (9.3%)		27	2	2
- Non-Truck Trips		264	40	43
Hager Pacific Logistics – Truck Trips		130	13	13
Net Change:		-161	-29	-32

The data presented in Table 4 indicate that the Arcatures Manufacturing Corporation generated 291 ADT, 42 AM peak hour trips and 45 PM peak hour trips. The Project is estimated to generate 130 ADT, 13 AM peak hour trips and 13 PM peak hour trips on days when vehicles are transported. The Project results in a net reduction of 161 ADT, 29 AM peak hour trips and 32 PM peak hour trips.

To account for the effect if the "heavy duty" trucks, the P.C.E. factor of 2.0 was applied to the Project and Arcturus Manufacturing Corporation truck trips. Tables 5 and 6 present the trip generation estimates for the Arcturus Manufacturing Corporation and compare them to the trips generated by the Project. The trip generation estimates for the Arcturus Manufacturing Corporation included employee and truck trips.

Table 5
Trip Generation Comparison - Container Deliveries

Land Use	Size	ADT	AM Peak Hour	PM Peak Hour
Arcturus Manufacturing Corporation:				
Manufacturing Space	61,200 S.F.	318	44	47
- Truck Trips (9.3%)		54*	4*	4*
- Non-Truck Trips		264	40	43
Hager Pacific Logistics		200*	20*	20*
Net Change:		-118	-24	-27

Note: * P.C.E. factor of 2.0 applied to truck trips.

The data presented in Table 5 indicate that with the P.C.E. factor, the Arcturus Manufacturing Corporation generated 318 ADT, 44 AM peak hour trips and 47 PM peak hour trips. The Project is estimated to generate 200 ADT, 20 AM peak hour trips and 20 PM peak hour trips on days when containers are delivered. The Project therefore results in a net reduction of 118 ADT, 24 AM peak hour trips and 27 PM peak hour trips.

Table 6
Trip Generation Comparison - Vehicles Deliveries

Land Use	Size	ADT	AM Peak Hour	PM Peak Hour
Arcturus Manufacturing Corporation:				
Manufacturing Space	61,200 S.F.	318	44	47
- Truck Trips		54*	4*	4*
- Non-Truck Trips		264	40	43
Hager Pacific Logistics		260*	26*	26*
Net Change:		-58	-18	-21

Note: * P.C.E. factor of 2.0 applied to truck trips.

The data presented in Table 6 indicate that with the P.C.E. factor, the Arcturus Manufacturing Corporation generated 318 ADT, 44 AM peak hour trips and 47 PM peak hour trips. The Project is estimated to generate an adjusted 260 ADT, 26 AM peak hour trips and 26 PM peak hour trips on days when vehicles are delivered. The Project results in a net reduction of 58 ADT, 18 AM peak hour trips and 21 PM peak hour trips.

PARKING ANALYSIS

The following parking analysis reviews the City of Oxnard parking requirements for the Project, then provides an analysis of the Project's parking demands based on operational data provided by the applicant to assess the need for on-site parking.

City of Oxnard Zoning Ordinance Parking Requirements

City of Oxnard Zoning Ordinance parking requirement ratio for the site is summarized below.

- Exterior industrial uses in approved industrial area: One space per 2,500 square feet of open storage area being utilized for storage area exclusive of excess landscaping, etc.

The City's Zoning Ordinance the parking requirements were calculated for the Hager Pacific Logistics Facility is shown in Table 7.

Table 7
City Zoning Ordinance Parking Requirements

Land Use	Storage Area	Zoning Ordinance Requirement	Required Parking
Outdoor Storage	165,000 S.F.	1 space/2,500 S.F.	66 Spaces

As shown in Table 7, the Zoning Ordinance requirement is 66 parking spaces.

PARKING DEMAND AND UTILIZATION

The need for on-site parking was assessed based on the operational data provided by the applicant. The intended use of the site is for the storage of shipping containers being transported to and from the Port of Hueneme. No permanent structures will be constructed to house facility employees or visitors and there would be no transportation or security personnel stationed on-site. Therefore, there will be no daily parking demands generated by employees of visitors at the facility.

SUMMARY

The Project site was previously occupied by the Arcturus Manufacturing Corporation. The Arcturus Manufacturing Corporation was an industrial manufacturer and operated a variety of heavy forging, heat treated and testing/finishing equipment. The Arcturus Manufacturing Corporation processed aluminum, stainless steel, titanium, and nickel-based alloys and occupied 8,000 square feet of office space and 53,200 square feet of manufacturing space.

Hager Pacific is converting the property to a logistics facility to support the Port of Hueneme. This critically needed infrastructure will have approximately 327 parking stalls for shipping containers, which will support shipping transiting the Port of Hueneme. More specifically, the property shall be used for parking and storage of shipping containers, tractors, trailers, trucks, automobiles, and other vehicles. There could be approximately 50 ship containers transported to/from the Port to the facility (100 one-way vehicle trips). The Project is estimated to generate 100 ADT, 10 AM peak hour trips and 10 PM peak hour trips. The Arcturus Manufacturing Corporation generated 291 ADT, 42 AM peak hour trips and 45 PM peak hour trips. The Project results in a net reduction of 191 ADT, 32 AM peak hour trips and 35 PM peak hour trips. When vehicles are transported to/from the Port to the facility there could be 65 truckloads (130 one-way vehicle trips). The Project is estimated to generate 130 ADT, 13 AM peak hour trips and 13 PM peak hour trips. The Arcatures Manufacturing Corporation generated 291 ADT, 42 AM peak hour trips and 45 PM peak hour trips. The Project results in a net reduction of 161 ADT, 29 AM peak hour trips and 32 PM peak hour trips. When Project and Arcatures Manufacturing Corporation trips are adjusted to account for the effect of the "heavy duty" trucks with a P.C.E. factor of 2.0, the Project also results in a net reduction of ADT, AM peak hour and PM peak hour trips.

The City of Oxnard Zoning Ordinance parking requirement for the Hager Pacific Logistics Facility is 66 parking spaces. However, there will be no transportation or security personnel stationed on-site and there will be no permanent structures constructed to house facility employees or visitors. Therefore, there will be no daily parking demands generated by employees or visitors at the facility. A reduction in the City's parking requirement of 66 parking spaces can be supported.

Associated Transportation Engineers

By: Scott A. Schell
Principal Transportation Planner

attachment: Project Site Plan

Appendix G

Assembly Bill 52 Consultation

COMMUNITY DEVELOPMENT DEPARTMENT
PLANNING DIVISION
214 SOUTH C STREET
OXNARD, CALIFORNIA 93030
(805)385-7858
Fax (805) 385-7417

May 9, 2022

Dayna Barrios
Tribal Chairwoman
PO Box 364, Ojai CA 93024 805 890.6855
barrios dayna@yahoo.com

RE: Formal Notification, Pursuant to Assembly Bill 52, for the 6001 Arcturus Avenue Outdoor Storage Yard Project

Dear Chairwoman Barrios,

Pursuant to California Assembly Bill (AB) 52, the City of Oxnard (City) is providing you with formal notification of the 6001 Arcturus Avenue Outdoor Storage Yard Project (proposed Project). The City, as California Environmental Quality Act (CEQA) lead agency, is contacting all California Native American entities, as recognized by the Native American Heritage Commission (NAHC), that have formally requested, in writing, AB 52 notification from the City for eligible projects under the City's jurisdiction. The City received your request for formal notification of proposed projects subject to AB 52 and under the City's jurisdiction. This correspondence is intended as formal notification of the proposed Project pursuant to AB 52. Below please find a brief description of the proposed project, project location (see also attached figure), and the City's contact information and point of contact.

Proposed Project: 6001 Arcturus Avenue Outdoor Storage Yard Project

Project Location: The proposed Project is located at 6001 Arcturus in the City of Oxnard, Ventura County, California within public land survey system (PLSS) Section 27, Township 1 North, Range 22 West on the *Oxnard*, California 7.5-minute USGS Quadrangle. The approximately 8.7-acre rectangular-shaped proposed Project site, located at the northwest corner of East McWane Boulevard and Arcturus Avenue, is composed of a single parcel (APN 231-0-092-215). The site is bound by commercial development to the north, Arcturus Avenue to the east, East McWane Boulevard to the south, and railroad tracks and vacant land to the west.

Project Description:

The Project would involve the construction of a parking lot and accompanying landscaping, lighting, fencing, and bioswale on an 8.7-acre site in Oxnard, California (Project site). The Project site was previously occupied by manufacturing structures that have since been demolished. However, the Project site currently includes approximately 120,000 square feet (sf) of remnant concrete surface that would not be removed or paved over; instead, the concrete remnants would be incorporated into the proposed be removed or paved over; instead, the concrete remnants would be incorporated into the proposed parking lot. Project site improvements would include a total of 352,501 sf of paving, 27,038 sf of landscaping, 327 parking spaces for vehicles or shipping containers, combination of screen wall (along Arcturus Avenue) and perimeter fence, 38 overhead lights, 4 fire hydrants, and a bioswale and storm drain on the southern edge of the parking lot.

Native American Heritage Commission Sacred Land Files Search Result: negative

Lead Agency Contact Information:

Joe Pearson II
City of Oxnard, Planning Division
214 South C Street
Oxnard, California 93030
Email at: joe.pearson@oxnard.org

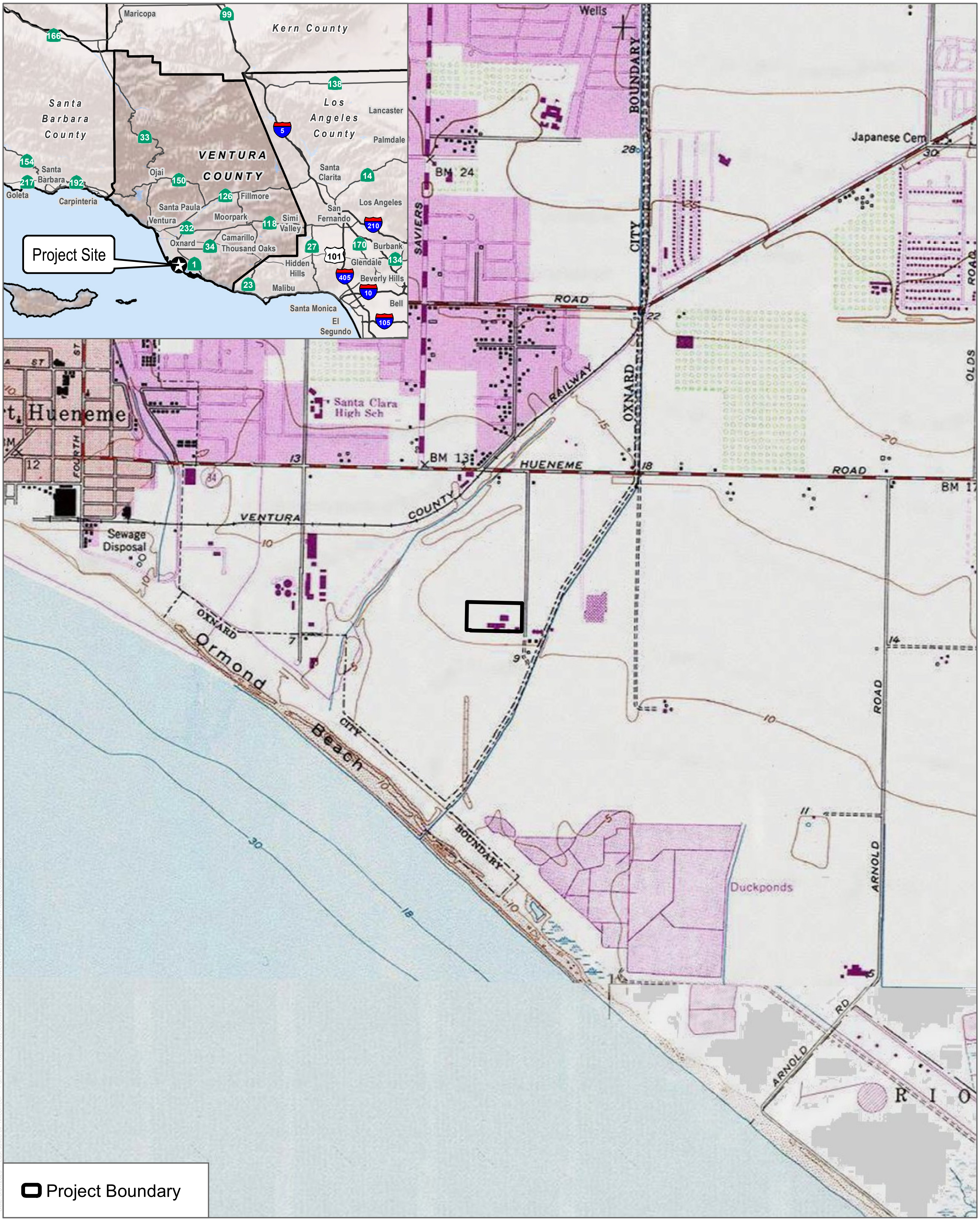
The City welcomes any comments regarding potential impacts to tribal cultural resources (as defined in Public Resources Code § 21074) in relation to the proposed Project as well as requests for proposed Project related information. All formal requests for consultation will only be accepted within 30 days of receipt of this notice. Please include the name of a designated lead contact person in all correspondence to ensure an expedient response. The City carefully adheres to provisions of Public Resources Code section 21082.3, subd. (c)(2)(A) to maintain the confidentiality of the information provided by Tribes.

Your comments and concerns are important to the City, and we welcome the opportunity to consult with the Barbareño/Ventureño Band of Mission Indians, if it is so desired. If you have any questions regarding the proposed Project, please do not hesitate to contact Joe Pearson II at the contact information provided above.

Very Respectfully,

Joe Pearson II, AICP | Planning Manager
Community Development Department
City of Oxnard

Enclosed: Project Location Map and Site Plan

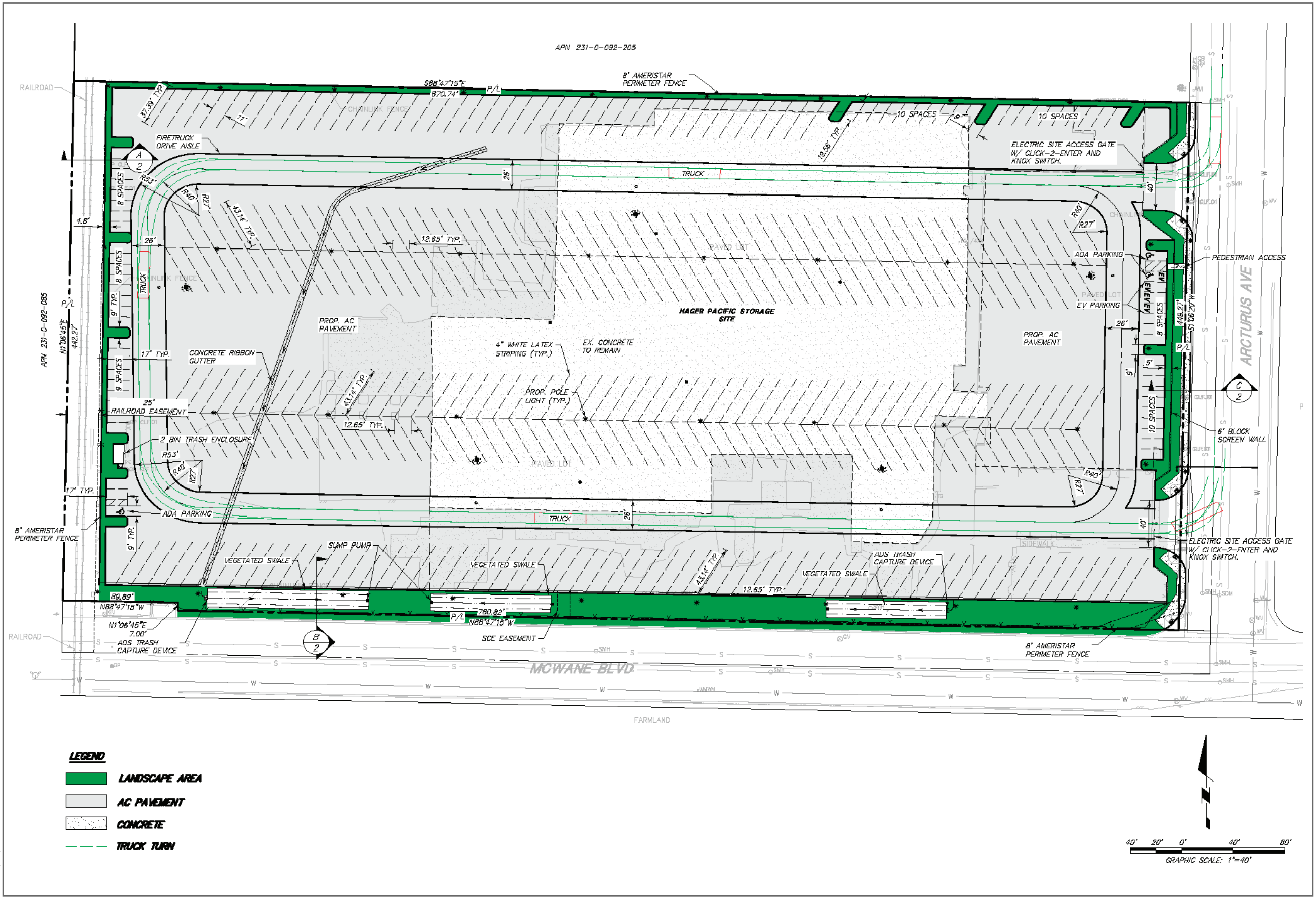


SOURCE: USGS 7.5 Minute Series Oxnard Quadrangle
Township 11N; Range 22W; Section 27

0 300 600 Meters
0 1,000 2,000 Feet

DUDEK

FIGURE 1
Project Location
6001 Arcturus Avenue Project



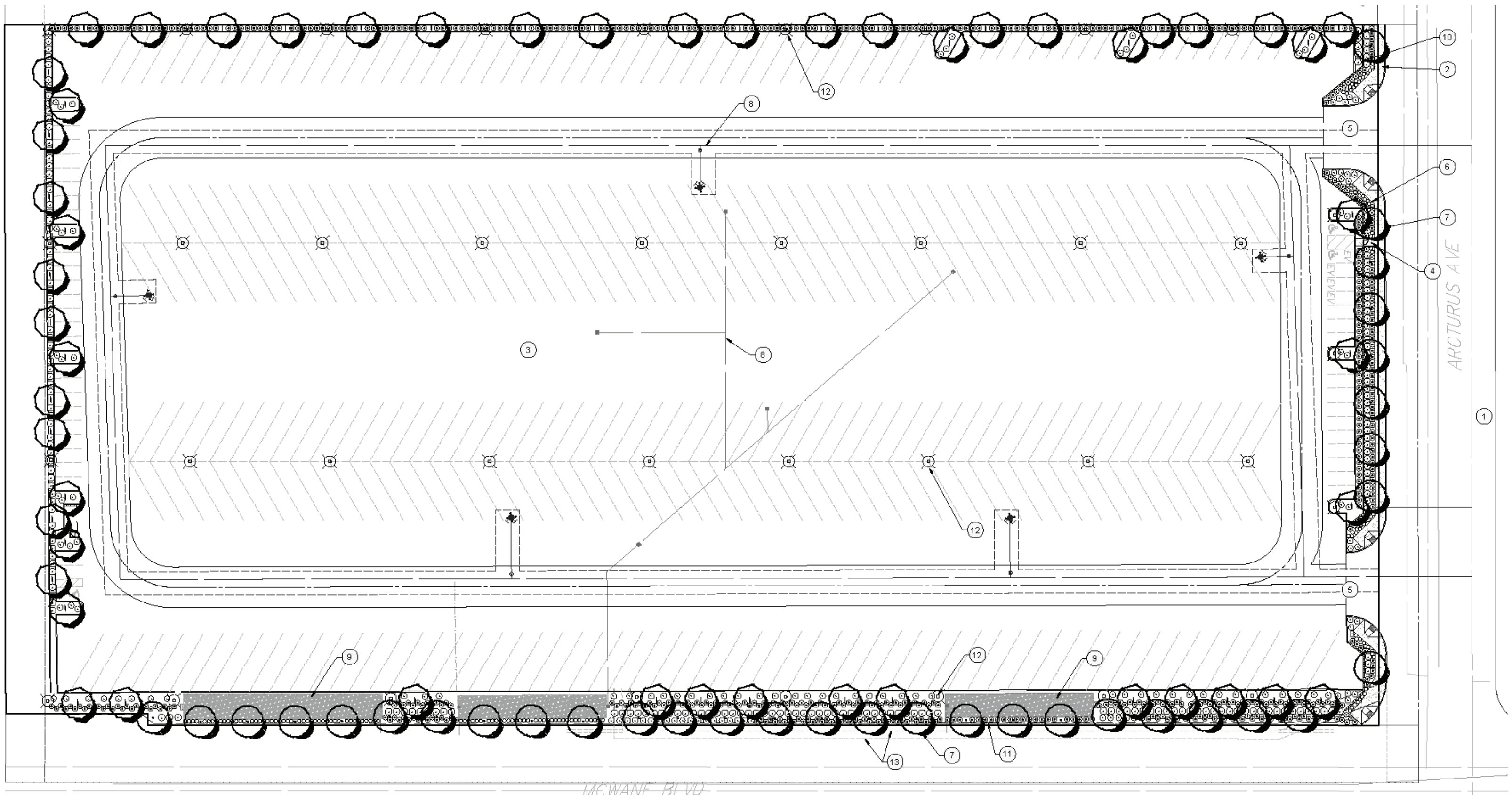
SOURCE: Jensen Design and Survey, Inc. 2022

DUDEK

FIGURE 3

Site Plan

6001 Arcturus Avenue Project



PROPOSED PLANT LEGEND

PLANT SPECIES TO BE FINALIZED DURING CONSTRUCTION PLAN DEVELOPMENT

SHRUBS

SYM.	BOTANICAL NAME / COMMON NAME	QTY.
ⓧ	BACKGROUND SHRUB (5 GAL.) LIGUSTRUM J. 'TEXANUM' / TEXAS PRIVET	206
⊙	MID-GROUND SHRUB (5 GAL.) CALLISTEMON C. 'LITTLE JOHN' / DWARF CALLISTEMON BOUGAINVILLEA 'LA JOLLA' / BOUGAINVILLEA VAR.	611
○	ACCENT SHRUB (1/5 GAL.) DIANELLA SPP. / FLAX LILY VAR.	148

GROUNDCOVER / GROUNDCOVER

SYM.	BOTANICAL NAME / COMMON NAME	QTY.
	BOUGAINVILLEA 'OOH LA LA' / BOUGAINVILLEA VAR. LANTANA 'GOLD RUSH' / LANTANA VAR.	125
	CAREX PANSA / MEADOW SEDGE JUNCUS EFFUSUS / SOFT RUSH MIMULUS CARDINALIS / SCARLET MONKEYFLOWER MUHLENBERGIA RIGENS / DEER GRASS LANDSCAPE PLANTING SHALL MEET THE COUNTY OF VENTURA LOW IMPACT DEVELOPMENT HANDBOOK	4,825 SF

TREES

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	QTY.
	LAGERSTROEMIA I. 'MUSKOGEE' / CRAPE MYRTLE VAR.	24" BOX	34
	PLATANUS A. 'COLOMBIA' / LONDON PLANE VAR. SEARSIA LANCEA / AFRICAN SUMAC	24" BOX	52

ADDITIONAL NOTES:

NORTH

SCALE - 1" = 40'-0"

0 20' 40' 80' 120'

SOURCE: Wetland Design Group, Inc. 2023

DUDEK

FIGURE 4

Landscape Plan

6001 Arcturus Avenue Project

COMMUNITY DEVELOPMENT DEPARTMENT
PLANNING DIVISION
214 SOUTH C STREET
OXNARD, CALIFORNIA 93030
(805)385-7858
Fax (805) 385-7417

CITY OF OXNARD CALIFORNIA

May 9, 2022

Annette Ayala
Cultural Resource Chair
188 So. Santa Rosa, Ventura CA 93001
805 515.9844
annetteayala78@yahoo.com

RE: Formal Notification, Pursuant to Assembly Bill 52, for the 6001 Arcturus Avenue Outdoor Storage Yard Project

Dear Chairwoman Ayala,

Pursuant to California Assembly Bill (AB) 52, the City of Oxnard (City) is providing you with formal notification of the 6001 Arcturus Avenue Outdoor Storage Yard Project (proposed Project). The City, as California Environmental Quality Act (CEQA) lead agency, is contacting all California Native American entities, as recognized by the Native American Heritage Commission (NAHC), that have formally requested, in writing, AB 52 notification from the City for eligible projects under the City's jurisdiction. The City received your request for formal notification of proposed projects subject to AB 52 and under the City's jurisdiction. This correspondence is intended as formal notification of the proposed Project pursuant to AB 52. Below please find a brief description of the proposed project, project location (see also attached figure), and the City's contact information and point of contact.

Proposed Project: 6001 Arcturus Avenue Outdoor Storage Yard Project

Project Location: The proposed Project is located at 6001 Arcturus in the City of Oxnard, Ventura County, California within public land survey system (PLSS) Section 27, Township 1 North, Range 22 West on the *Oxnard*, California 7.5-minute USGS Quadrangle. The approximately 8.7-acre rectangular-shaped proposed Project site, located at the northwest corner of East McWane Boulevard and Arcturus Avenue, is composed of a single parcel (APN 231-0-092-215). The site is bound by commercial development to the north, Arcturus Avenue to the east, East McWane Boulevard to the south, and railroad tracks and vacant land to the west.

Project Description:

The Project would involve the construction of a parking lot and accompanying landscaping, lighting, fencing, and bioswale on an 8.7-acre site in Oxnard, California (Project site). The Project site was previously occupied by manufacturing structures that have since been demolished. However, the Project site currently includes approximately 120,000 square feet (sf) of remnant concrete surface that would not be removed or paved over; instead, the concrete remnants would be incorporated into the proposed parking lot. Project site improvements would include a total of 352,501 sf of paving, 27,038 sf of landscaping, 327 parking spaces for vehicles or shipping containers, combination of screen wall (along Arcturus Avenue) and perimeter fence, 38 overhead lights, 4 fire hydrants, and a bioswale and storm drain on the southern edge of the parking lot.

Native American Heritage Commission Sacred Land Files Search Result: negative

Lead Agency Contact Information:

Joe Pearson II
City of Oxnard, Planning Division
214 South C Street
Oxnard, California 93030
Email at: joe.pearson@oxnard.org

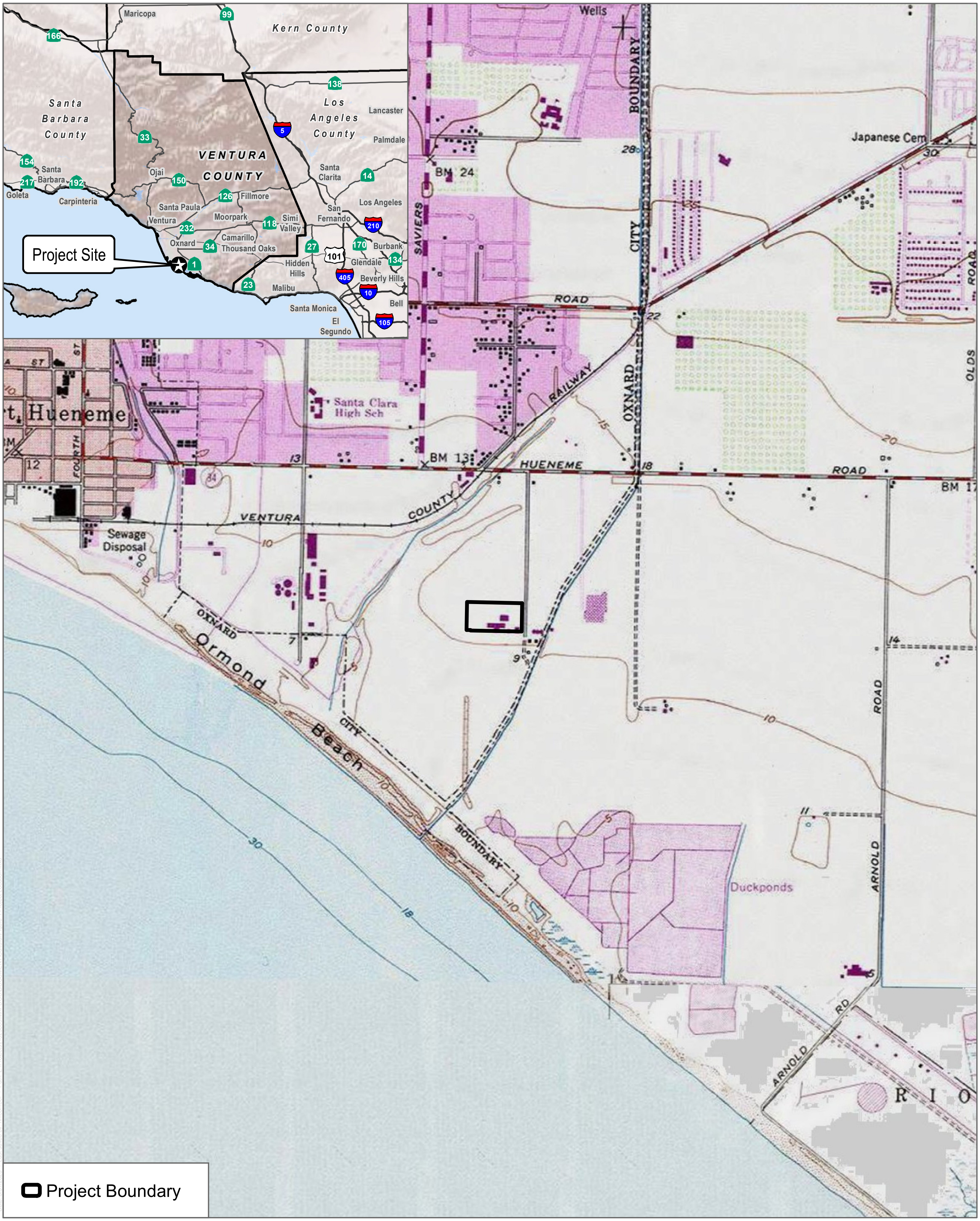
The City welcomes any comments regarding potential impacts to tribal cultural resources (as defined in Public Resources Code § 21074) in relation to the proposed Project as well as requests for proposed Project related information. All formal requests for consultation will only be accepted within 30 days of receipt of this notice. Please include the name of a designated lead contact person in all correspondence to ensure an expedient response. The City carefully adheres to provisions of Public Resources Code section 21082.3, subd. (c)(2)(A) to maintain the confidentiality of the information provided by Tribes.

Your comments and concerns are important to the City, and we welcome the opportunity to consult with the Barbareño/Ventureño Band of Mission Indians, if it is so desired. If you have any questions regarding the proposed Project, please do not hesitate to contact Joe Pearson II at the contact information provided above.

Very Respectfully,

Joe Pearson II, AICP | Planning Manager
Community Development Department
City of Oxnard

Enclosed: Project Location Map and Site Plan



SOURCE: USGS 7.5 Minute Series Oxnard Quadrangle
Township 11N; Range 22W; Section 27

0 300 600 Meters

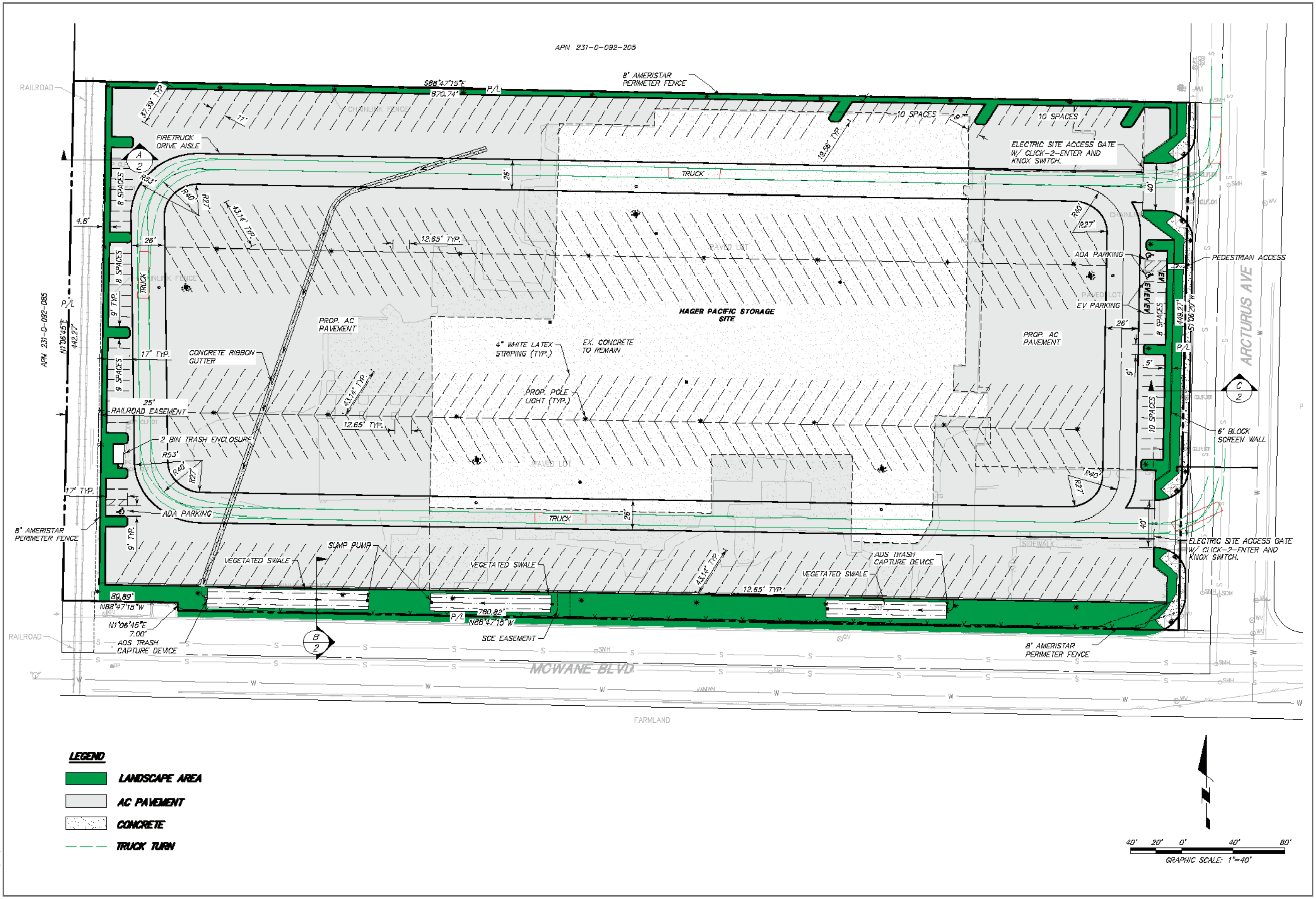
0 1,000 2,000 Feet

DUDEK

FIGURE 1

Project Location

6001 Arcturus Avenue Project



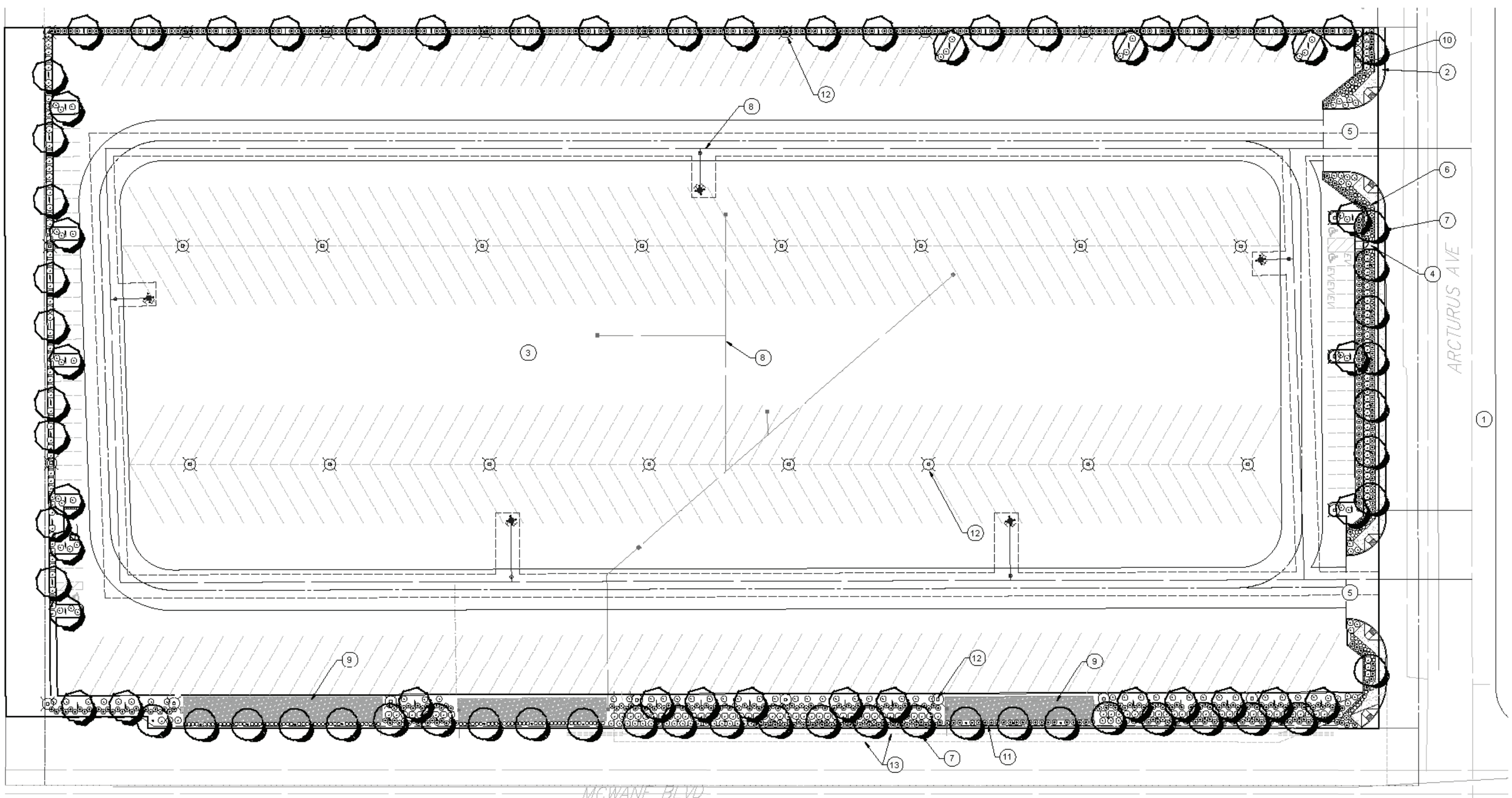
SOURCE: Jensen Design and Survey, Inc. 2022

DUDEK

FIGURE 3

Site Plan

6001 Arcturus Avenue Project



PROPOSED PLANT LEGEND

PLANT SPECIES TO BE FINALIZED DURING CONSTRUCTION PLAN DEVELOPMENT

SHRUBS

SYM.	BOTANICAL NAME / COMMON NAME	QTY.
	BACKGROUND SHRUB (5 GAL.) LIGUSTRUM J. 'TEXANUM' / TEXAS PRIVET	206
	MID-GROUND SHRUB (5 GAL.) CALLISTEMON C. 'LITTLE JOHN' / DWARF CALLISTEMON BOUGAINVILLEA 'LA JOLLA' / BOUGAINVILLEA VAR.	611
	ACCENT SHRUB (1/5 GAL.) DIANELLA SPP. / FLAX LILY VAR.	148

GROUNDCOVER / GROUNDCOVER

SYM.	BOTANICAL NAME / COMMON NAME	QTY.
	BOUGAINVILLEA 'OOH LA LA' / BOUGAINVILLEA VAR. LANTANA 'GOLD RUSH' / LANTANA VAR.	125
	CAREX PANSA / MEADOW SEDGE JUNCUS EFFUSUS / SOFT RUSH MIMULUS CARDINALIS / SCARLET MONKEYFLOWER MUHLENBERGIA RIGENS / DEER GRASS LANDSCAPE PLANTING SHALL MEET THE COUNTY OF VENTURA LOW IMPACT DEVELOPMENT HANDBOOK	4,825 SF

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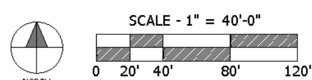
ADDITIONAL NOTES:



SOURCE: Wetland Design Group, Inc. 2023

FIGURE 4

Landscape Plan

6001 Arcturus Avenue Project

DUDEK

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☐ Certified Mail Restricted Delivery	$ $0.00
☐ Adult Signature Required	$ $0.00
☐ Adult Signature Restricted Delivery	$
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0030
18

GOLETA BRANCH
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SANTA BARBARA, CA 93111

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05/09/2023

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Street an

City, Sta

Annette Ayala
188 So. Santa Rosa,
Ventura, CA 93001

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7022 2410 0002 5509 4043

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☐ Adult Signature Required	$ $0.00
☐ Adult Signature Restricted Delivery	$
Postage $	$0.87
Total Postage and Fees $	$8.37

0030
18

GOLETA BRANCH
MAY - 9 2023
SANTA BARBARA, CA 93111

Postmark Here

05/09/2023

Sent To

Street an

City, Stat

Dayna Barrios
PO Box 364
Ojai, CA 93024

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

From:	Eleanor Fishburn (nee Arellanes)
To:	brenna.wengert@oxnard.org
Cc:	joe.pearson@oxnard.org; crm@bvbmi.net; vicechair@bvbmi.net; leila.carver@oxnard.org
Subject:	Re: 6001 Arcturus
Date:	Monday, June 5, 2023 3:12:53 PM

Good afternoon Ms. Wengert,

Thank you for the update. I look forward to reviewing the documents.

Eleanor Fishburn, Secretary
Barbareno Ventureno Band of Mission Indians

Eleanor Fishburn (nee Arellanes)

On Mon, Jun 5, 2023 at 3:08 PM <brenna.wengert@oxnard.org> wrote:

> Good Afternoon, Eleanor!
>
> I hope my email finds you well. My name is Brenna Wengert, I am a contract planner with the City of Oxnard overseeing the 6001 Arcturus project.
>
> Thank you for email and condition provided below for requesting that a Native Monitor be present for any ground disturbance. I will reach out to the applicant and let them know, and we will include this in the MMRP for the IS/MND CEQA document as well as a Condition of Approval in the City's Resolution.
>
> Please let me know if you have any additional information or concerns that you would like addressed. If not, upon close of the Consultation period this Friday, we anticipate release of the document for public review on June 15th. Please let me know if you have any questions.
>
> Sincerely,
>
> Brenna Wengert, AICP
>
> **Brenna Wengert, AICP | Contract City Planner**
>
> **Community Development Department**

214 S C Street | Oxnard, CA 93030

Brenna.Wengert@Oxnard.org

www.oxnard.org

From: Eleanor Fishburn (nee Arellanes) <eleanor@spiritinthewind.net>
Sent: Monday, May 29, 2023 1:57 PM
To: joe.pearson@oxnard.org; brenna.wengert@oxnard.org
Cc: crm@bvbmi.net; vicechair@bvbmi.net
Subject: 6001 Arcturus

Good Afternoon Mr. Pearson and Ms. Wengert,

Thank you for reaching out to the Barbareno Ventureno Band of Mission Indians regarding the above property. We have reviewed the notice and after careful consideration, request that a native monitor be present for any ground disturbance. As stated in the document provided, under Project Description the mention of a perimeter fence, four fire hydrants, and the bioswale storm drain is of concern. The area is coastal plain with the sensitivity of Ormond Beach within the perimeters.

We look forward to discussing further if needed.

Thank you for your time and consideration on this matter.

Sincerely,

Eleanor Fishburn

Cultural Resource Committee