Initial Study / Mitigated Negative Declaration for Coachella Vault

LEAD AGENCY:

City of Coachella
Development Services Department
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Coachella, CA 92236

APPLICANT:
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Chapter 1 Introduction

1.1 Overview

The Coachella Vault project is proposing the development of a storage facility and office/clubhouse located on approximately 11 acres in the City of Coachella. The site is formed by APN 603-290-005 east of Harrison Street and approximately 1,300 feet south of Avenue 48. The 11-acre property is currently vacant and undeveloped; however, the site has been previously disturbed and cleared of vegetation. Previous onsite disturbance is evident from the vehicle tracks onsite. The 11-acre site has a General Plan designation of Industrial District and is zoned Wrecking Yard (M-W).

At buildout, the project will consist of an office/clubhouse, nine storage buildings, and an industrial lease space. The office/clubhouse will be two stories and 3,970 square feet (1,230 square feet first floor, 2,740 square feet second floor). The industrial space for lease will be 3,140 square feet. The storage buildings will range in size between 17,750 square feet and 34,650 square feet each, for a total building area of 225,230 square feet of storage space. In addition to the proposed buildings, development of the site would also include landscaping, street improvements, drive aisles, and parking. Access to the project will be provided from two entry points on Harrison Street. The project proposes a total of 272 parking spaces (3 ADA spaces, 64 surface parking spaces, and 205 spaces within the storage units). The project will also develop roof-top solar panels and associated electrical equipment (batteries and generator) to support the solar facilities.

1.2 Authority

The City of Coachella is the lead agency for the proposed Coachella Vault project. This City undertook the review of the applicant's submittal, and determined that it is a project, as defined by the California Environmental Quality Act (CEQA). Since the project includes discretionary action, the City concluded that an Initial Study should be prepared. This Initial Study/Mitigated Negative Declaration has been prepared in accordance with Public Resources Code Section 21000 et. seq.

1.3 Scope of Environmental Review

This Initial Study evaluates the proposed project's potential environmental effects on the following topics as contained in Appendix G of the CEQA Guidelines, as follows:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing

- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire
- Mandatory Significance of Findings

1.4 Impact Assessment Terminology

The Environmental Checklist identifies impacts using four levels of significance as follows:

No Impact: When the analysis finds that the project would not affect the environment.

Less than Significant: When the analysis finds that a project would not substantially impact the environment and no mitigation is required to reduce the impact to less than significant.

Less than Significant with Mitigation Incorporated: When the analysis finds that project would result in substantial impact on the environment, but feasible mitigation measures can be successfully implemented to reduce levels to less than significant.

Potentially Significant: When the analysis finds that a project would result in substantial impact on the environment and no mitigation measures can implemented to reduce the impacts to less than significant.

1.5 Organization of the Initial Study

This Initial Study has been completed in the following format:

Chapter 1 Introduction: This chapter provides a brief summary of the proposed project and describes the regulatory framework for the preparation of an Initial Study under CEQA.

Chapter 2 Project Description: This chapter provides a comprehensive description of the applicant's proposal for the project, the General Plan and Zoning for the project and the surrounding land uses.

Chapter 3 Environmental Checklist: This chapter contains the analysis of each topic identified in CEQA Appendix G, and includes a discussion of the environmental setting, the project's impacts, the determination of significance, and mitigation measures where necessary.

Chapter 4 References: This chapter identifies the documents and technical reports used for this Initial Study.

1.6 Documents Incorporated by Reference

In addition to the documents listed in Chapter 4, the City of Coachella's General Plan, General Plan EIR and Municipal Code were used as part of the evaluation of the proposed project. These documents are available on the City's website at www.coachella.org and at the Development Services Department, located at 53990 Enterprise Way.

Chapter 2 Project Description

2.1 Project Description

The Coachella Vault project is located on approximately 11 acres of vacant land in the City of Coachella. The project property sits on APN 603-290-005 east of Harrison Street and 1,300 feet south of Avenue 48. Based on historical aerial imagery, the western one-third of the site was used for storage between 2002 and 2016. Aerial imagery from 2002 indicates storage containers were kept onsite. In 2009, aerial imagery shows both storage containers and automobiles were stored onsite. The western one-third of the site continued to operate as vehicle storage until 2016, when the site was cleared. Since 2016 the site has remained vacant. The eastern two-thirds of the site have remained vacant and undeveloped; however, this portion of the site has been disturbed, as indicated by vehicle tracks and the clearing of vegetation. Currently, the 11-acre site has an Industrial District General Plan land use designation, and Wrecking Yard (M-W) zoning designation.

The project proposes the development of a storage facility, with office/clubhouse, and industrial lease space. At buildout, the project will consist of 225,230 square feet of storage space, 3,970 square feet of associated office/clubhouse space, and 3,140 square feet of industrial space for lease. The table below indicates the proposed buildings areas.

Table 1 Proposed Building Area

Building	Area (SF)
Industrial Lease Area	3,140 SF
Clubhouse First Floor	2,740 SF
Clubhouse Second Floor	1,230 SF
A	24,150 SF
B	28,600 SF
C	19,750 SF
D	23,080 SF
E	34,650 SF
F	17,750 SF
G	24,700 SF
H	33,550 SF
I	19,000 SF
Total	**232,340 SF**

In addition to the 232,340 square feet of building area, development of the site would also include 24,022 square feet (0.55 acres) of landscaping and retention areas, and 211,370 square feet (4.85 acres) of access roads, drive aisles, and parking. Access to the project will be provided from two entry points on Harrison Street, and the project will provide 272 parking spaces onsite. The project will submit a Tentative Tract Map (TTM No. 38943) for condominium purposes. The project will also participate in Coachella's Architectural Review.

The project also proposes roof-top solar panels to power all operations. The first phase will install roof-top solar on Building B, and associated generators and battery backup. The proposed generators and battery backup will be on the east side of Building E and Building D.

Project development is proposed to occur in phases. The first phase will include the two-story office/clubhouse, Building B, and associated power facilities (i.e., solar panels, batteries, and generator equipment), as well as associated street frontage improvements, paved drive aisles, and parking areas. The solar panels proposed on Building B will provide electric power to the buildings developed in the first phase. As funding is obtained, the remaining buildings will be developed. The remaining buildings will also include roof-top solar panels constructed in a similar manner to those used for Building B. Additional battery storage and generators will be developed with the future buildings to accommodate the solar facilities. The project is intended to be 100 percent solar-operated. Although the project is designed to operate on solar power due to the current lack of available Imperial Irrigation District (IID) electrical capacity in the area, it will connect to the IID electrical system once adequate capacity becomes available.

2.2 Proposed Land Use and Parking Breakdown

The proposed breakdown for the project is as follows:

Table 2 Parking Calculations

ONSITE PARKING DATA:	AREA	PARKING RATIO	PARKING %	COUNT
PROPOSED BUILDINGS	-	-	-	-
- INDUSTRIAL LEASE SPACE	3,140 SF	-	-	-
OFFICE	500 SF	1 SPACE PER 250 SF	1%	2 SPACES
WAREHOUSE	2,640 SF	1 SPACE PER 500 SF	2%	6 SPACES
* RV STORAGE (BUILDINGS 'A' - 'I')	223,330 SF	(SEE NOTE*)	91%	244 SPACES
OFFICE / CLUBHOUSE	3,970 SF	1 SPACE PER 250 SF	6%	16 SPACES
TOTAL PARKING REQUIRED	231,320 SF	-	100%	268 SPACES
TOTAL HC PARKING PROVIDED	-	-	-	3 SPACES
TOTAL SURFACE PARKING PROVIDED	-	-	-	64 SPACES
TOTAL RV PARKING PROVIDED	-	-	-	-
WITHIN STORAGE UNITS [3]	-	1.4 SPACES	-	205 SPACES
TOTAL PARKING PROVIDED	-	-	100%	**272 SPACES**

2.3 General Plan and Zoning Designation

The existing General Plan Land Use designation for the project site is Industrial District. The existing zoning designation is Wrecking Yard (M-W).

2.4 Environmental Setting and Surrounding Land Uses

The proposed project site is located within the City's Industrial district. Industrial districts accommodate a range of light and heavy commercial and industrial businesses that provide employment and generate more noise, light, odors, or truck traffic. Allowed uses include industrial and research development uses, with support retail and office use. The site has been disturbed and previously cleared of most vegetation. Surrounding land uses include:

North: Industrial uses, including Duran's Lock and Key and SA Recycling

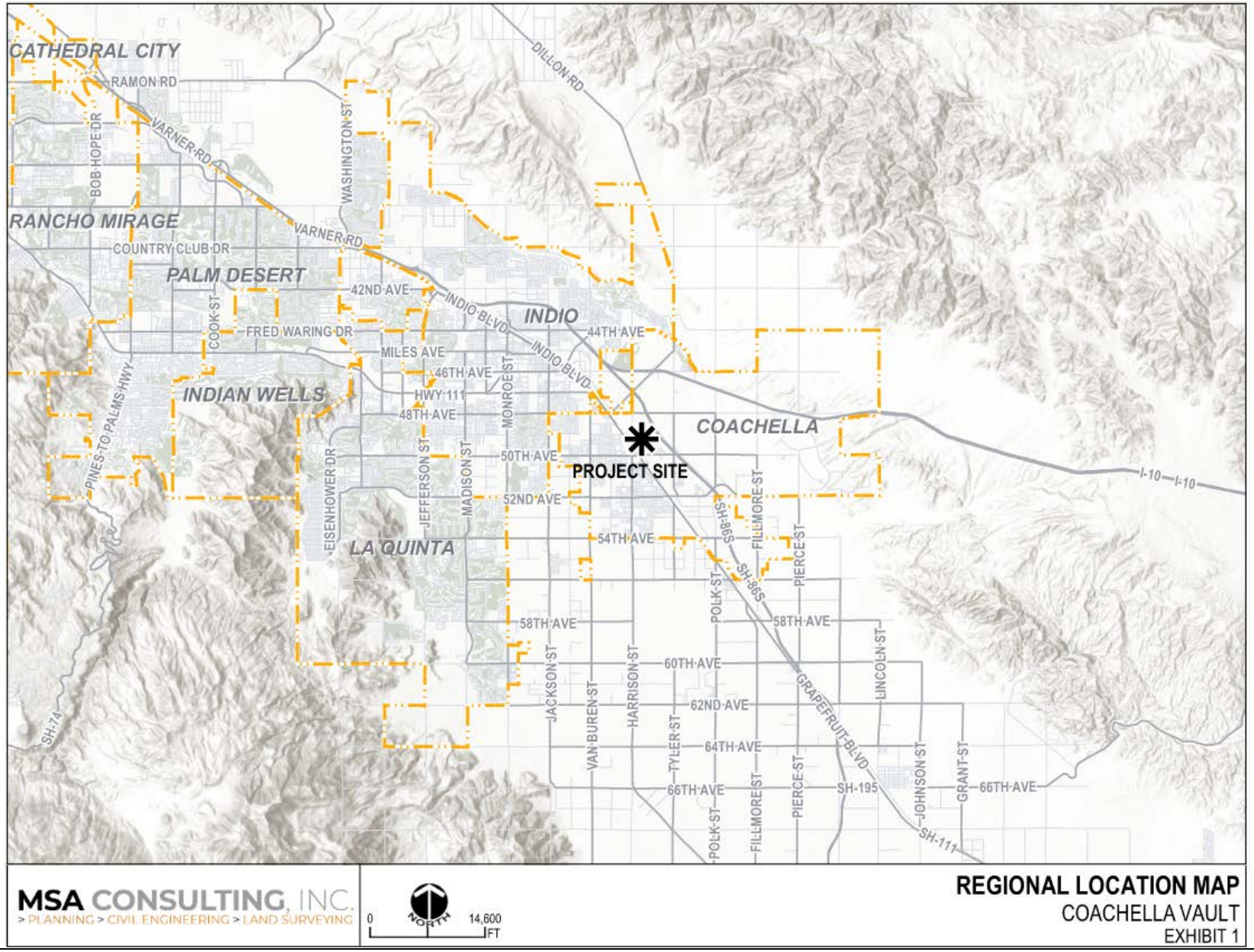
South: Agriculture, date palm grove

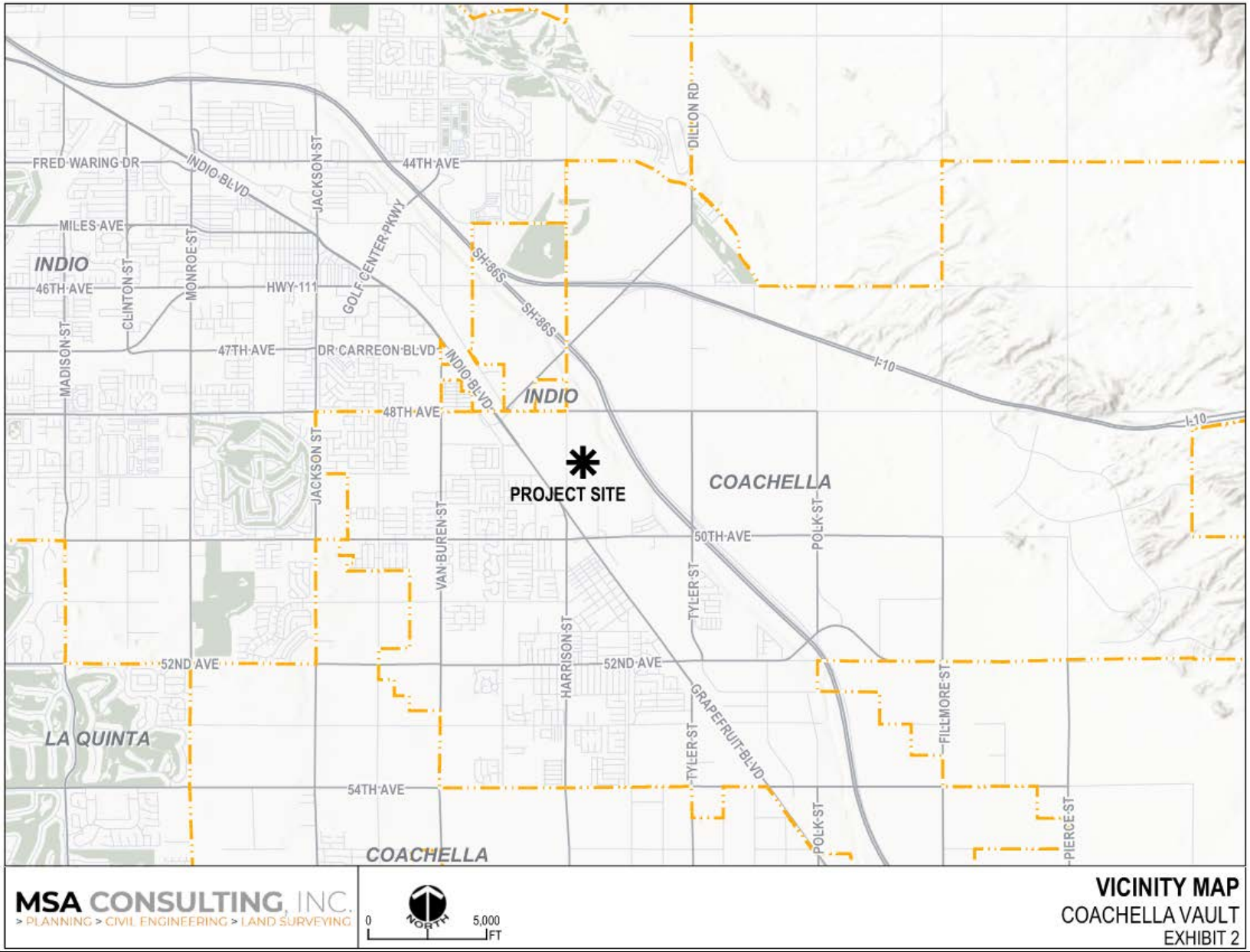
East: Unpaved Avenue 48 alignment, vacant land, Coachella canal

West: Harrison Street, Industrial uses, including Desert Truck and Auto and ABC Towing, and the Desert Rock project

2.5 Permits/Approvals required from other public agencies:

State Water Resource Control Board (SWRCB)
South Coast Air Quality Management District (SCAQMD)

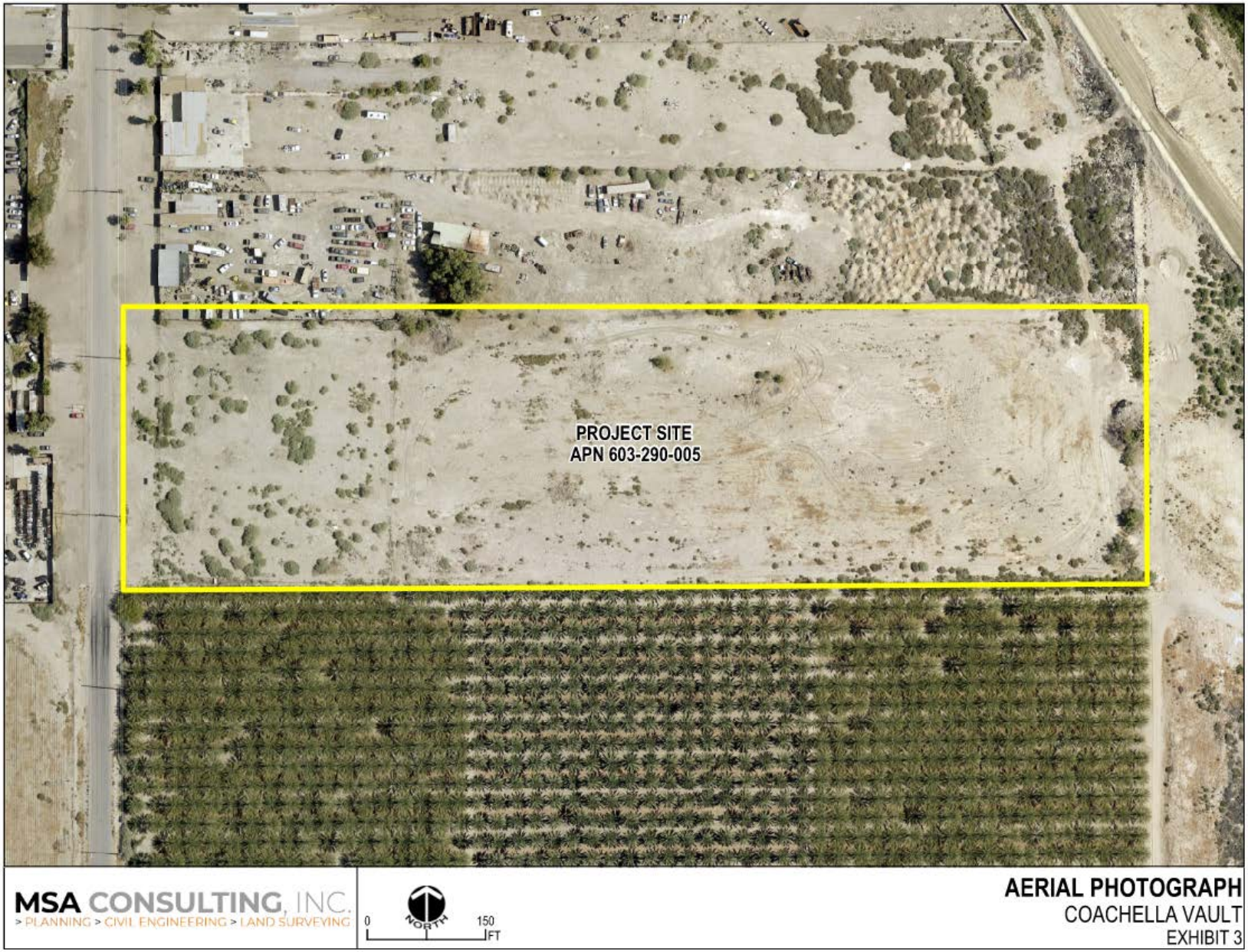

CATHEDRAL CITY
RAMON RD
VARNER RD
BOB HOPE DR
WASHINGTON ST
DILLON RD
RANCHO MIRAGE
COUNTRY CLUB DR
PALM DESERT
42ND AVE
INDIO BLVD
INDIO
44TH AVE
FRED WARING DR
COOK ST
MILES AVE
46TH AVE
HWY 111
48TH AVE
INDIAN WELLS
PINES TO PALMS HWY
MONROE ST
COACHELLA
PROJECT SITE
50TH AVE
52ND AVE
EISENHOWER DR
JEFFERSON ST
MADISON ST
LA QUINTA
54TH AVE
SH-86S
FILLMORE ST
PIERCE ST
POLK ST
58TH AVE
JACKSON ST
VAN BUREN ST
HARRISON ST
60TH AVE
62ND AVE
64TH AVE
66TH AVE
TYLER ST
GRAPEFRUIT BLVD
LINCOLN ST
JOHNSON ST
GRANT ST
SH-195
SH-111
I-10
SH-74
MSA CONSULTING, INC.
> PLANNING > CIVIL ENGINEERING > LAND SURVEYING
NORTH
0
14,600
FT
REGIONAL LOCATION MAP
COACHELLA VAULT
EXHIBIT 1



MSA CONSULTING, INC.
> PLANNING > CIVIL ENGINEERING > LAND SURVEYING

0 NORTH 5,000 FT

VICINITY MAP
COACHELLA VAULT
EXHIBIT 2


PROJECT SITE
APN 603-290-005
MSA CONSULTING, INC.
> PLANNING > CIVIL ENGINEERING > LAND SURVEYING
NORTH
0
150
FT
AERIAL PHOTOGRAPH
COACHELLA VAULT
EXHIBIT 3

ASSESSOR'S PARCEL NUMBERS:	603-290-005

LEGAL DESCRIPTION:

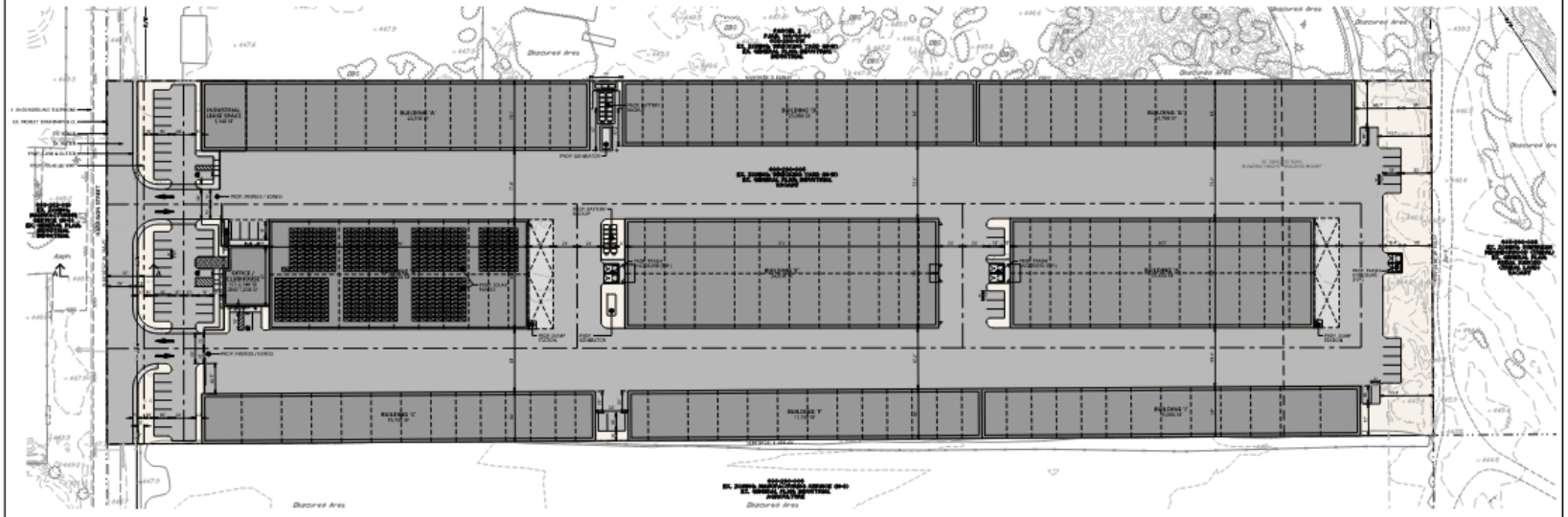
A PORTION OF THE NORTHWEST 1/4, SECTION 32, TOWNSHIP 5 SOUTH, RANGE 8, EAST, SAN BERNARDINO MERIDIAN.

LAND USE DESCRIPTION:	SF	ACREAGE	PERCENTAGE
EXISTING GROSS ACREAGE	480,012 SF	11.02 AC.	-
PUBLIC STREET DEDICATION (HARRISON STREET)	13,510 SF	0.31 AC.	-
PROPOSED NET ACREAGE	466,502 SF	10.71 AC.	100%

ONSITE PARKING DATA:	AREA	PARKING RATIO	PARKING %	COUNT
PROPOSED BUILDINGS	-	-	-	-
- INDUSTRIAL LEASE SPACE	3,140 SF	-	-	-
OFFICE	500 SF	1 SPACE PER 250 SF	1%	2 SPACES
WAREHOUSE	2,640 SF	1 SPACE PER 500 SF	2%	6 SPACES
* RV STORAGE (BUILDINGS 'A' - 'I')	223,330 SF	(SEE NOTE*)	91%	244 SPACES
OFFICE / CLUBHOUSE	3,970 SF	1 SPACE PER 250 SF	6%	16 SPACES
TOTAL PARKING REQUIRED	231,320 SF	-	100%	268 SPACES
TOTAL HC PARKING PROVIDED	-	-	-	3 SPACES
TOTAL SURFACE PARKING PROVIDED	-	-	-	64 SPACES
TOTAL RV PARKING PROVIDED	-	-	-	-
WITHIN STORAGE UNITS [3]	-	1.4 SPACES	-	205 SPACES
TOTAL PARKING PROVIDED	-	-	100%	**272 SPACES**

LAND USE DESCRIPTION CONTINUED:	SF	ACREAGE	PERCENTAGE
TOTAL BUILDING AREA (GROUND FLOOR AREA)	231,110 SF	5.31 AC.	50%
- PROPOSED OFFICE / CLUBHOUSE (1ST FLOOR)	2,740 SF	0.06 AC.	-
- PROPOSED INDUSTRIAL LEASE SPACE	3,140 SF	0.07 AC.	-
- PROPOSED BUILDING 'A'	24,150 SF	0.55 AC.	-
- PROPOSED BUILDING 'B'	28,600 SF	0.66 AC.	-
- PROPOSED BUILDING 'C'	19,750 SF	0.45 AC.	-
- PROPOSED BUILDING 'D'	23,080 SF	0.53 AC.	-
- PROPOSED BUILDING 'E'	34,650 SF	0.80 AC.	-
- PROPOSED BUILDING 'F'	17,750 SF	0.41 AC.	-
- PROPOSED BUILDING 'G'	24,700 SF	0.57 AC.	-
- PROPOSED BUILDING 'H'	33,550 SF	0.77 AC.	-
- PROPOSED BUILDING 'I'	19,000 SF	0.44 AC.	-
ACCESS ROADS, HARDSCAPE & PARKING	207,968 SF	4.77 AC.	45%
LANDSCAPE & RETENTION AREAS	27,424 SF	0.63 AC.	5%

EXISTING ZONING:	WRECKING YARD (M-W)
PROPOSED ZONING:	WRECKING YARD (M-W)
EXISTING GENERAL PLAN LAND USE:	INDUSTRIAL
PROPOSED GENERAL PLAN LAND USE:	INDUSTRIAL



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> PLANNING > CIVIL ENGINEERING > LAND SURVEYING

NORTH

SITE PLAN
COACHELLA VAULT
EXHIBIT 4

Environmental Impact Analysis

	INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Project Title:	Coachella Vault	
Case No.	Architectural Review – AR No. 24-05 Tentative Tract Map – TTM 38943 Conditional Use Permit – CUP 379 Environmental Assessment – EA 24-01	
Assessor's Parcel No.	603-290-005	
Project Location:	East of Harrison St. & 1,300 feet south of Avenue 48 Coachella, CA 92236 Riverside County	
Project Sponsor's Name and Address:	Myers Concrete Corporation c/o Steve Myers; 760-275-6820	78206 Varner Road Suite D152 Palm Desert, CA 92211
General Plan Designation(s):	Industrial District	
Zoning:	Wrecking Yard (M-W)	
Lead Agency Name and Address:	City of Coachella – Planning Division 53990 Enterprise Way Coachella, California 92236	
Lead Agency Contact Person:	Adrian Moreno Associate Planner	
Phone Number:	(760) 398-3502	
Date Prepared:	January 2026	

Environmental Factors Potentially Affected:

The environmental factors checked below would be potentially affected by this project, as indicated by the checklist and corresponding discussion on the following pages.

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

DETERMINATION: The City of Coachella Planning Department

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 (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Adrian Moreno

Adrian Moreno
Associate Planner

1/8/26

Date

PURPOSE OF THIS INITIAL STUDY

This Initial Study has been prepared in accordance with the CEQA Guidelines Section 15063(c) to provide a preliminary analysis of a proposed project's actions and to determine if the project, as proposed, may have a significant effect upon the environment. The findings determined from the preliminary analysis are presented in the form of the Initial Study, which will be used in support of the preparation of a Mitigated Negative Declaration.

EVALUATION OF ENVIRONMENTAL IMPACTS

1) 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 project-specific screening analysis).

2) All answers must take into account the whole action involved, including offsite as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) 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 required.

4) "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 Section XVII, "Earlier Analyses," may be cross-referenced).

5) 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(c)(3)(D). 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.

6) 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.

7) Supporting Information Sources: A list of references used during the preliminary analysis and research should be attached with this document. In addition, other sources used or individuals contacted should be cited in the discussion.

8) 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 impacts to less than significance.

I. AESTHETICS

Except as provided in Public Resources Code Section 21099, would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

(Sources: "California Scenic Highway Mapping System," 2019; 2035 Coachella General Plan Update, 2015; Coachella Municipal Code.)

Setting

The topography in the City of Coachella, and surrounding cities, is defined as a low and relatively flat desert basin bounded by mountainous terrain due to past seismic activity. The most notable surrounding mountain ranges include the Little San Bernardino Mountains to the north and east, San Gorgonio Mountains to the northwest, the Santa Rosa Mountains to the south, and the San Jacinto Mountains to the west. The topographic variety in the Coachella Valley establishes elevations from over 10,000 feet at the Mount San Jacinto peak, 1,000 feet in the Mecca Hills to the east, to approximately 160 feet below sea level south of Thermal. Although the elevation varies widely, the City of Coachella is relatively flat, with a gentle slope from northwest to southeast. The project site is located in the northwestern portion of the City on vacant and previously disturbed, flat land.

Based on historical aerial imagery, the western one-third of the site was used for storage between 2002 and 2016. Aerial imagery from 2002 indicates storage containers were kept onsite. In 2009, aerial imagery shows both storage containers and automobiles were stored onsite. The western one-third of the site continued to operate as vehicle storage until 2016, when the site was cleared. Since 2016 the site has remained vacant, and vegetation started to regrow on the western one-third. The eastern two-thirds of the site has remained vacant and undeveloped.

Surrounding land uses include existing industrial businesses to the north and west, vacant land to the east, and agricultural land to the south. Harrison Street is a paved right-of-way that delineates the project's western boundary.

The project proposes the development of a 225,230-square-foot storage facility with 3,970 square feet of office/clubhouse space, and a 3,140-square-foot space for industrial lease on 11 acres. Associated

improvements include pedestrian walkways and sidewalks, and paved aisles and parking spaces. Development would involve the construction of nine storage buildings ranging in size between 17,750 square feet and 34,650 square feet. The project will improve the existing street frontages with a perimeter wall and landscaping complimenting the desert environment. The buildings will also have modern architecture with a neutral color palate consisting of whites, greys, earth tones and accent colors. Additional discussion of project aesthetics is provided below.

General Plan

The City of Coachella categorizes the different land uses into six specific designations. The project site is located in the City's Industrial District land use category. This designation accommodates a range of light and heavy commercial and industrial businesses that provide employment and generate more noise, light, odors, or truck traffic than would be appropriate in the Urban Employment District. Allowed uses include industrial and research and development uses, with support retail and office uses.

The intended physical character for the Industrial District is characterized by larger blocks, lots and buildings that would be incompatible with the scale and character of Coachella's neighborhoods and centers. This District accommodates higher concentrations of heavy business activity. Nonetheless, the streetscapes of this District are well landscaped and include good quality pedestrian and bicycle routes so employees and visitors may conveniently arrive by bicycle or transit, while safely and comfortably walk to restaurants and service businesses in the course of their workday. Building heights are generally one and two stories but office buildings may be up to three stories. Increased height limits may be allowed if necessitated by specific uses and industries so long as there is no negative impact on health, welfare or the economic development opportunity of other properties in the District or nearby areas (2035 Coachella General Plan Update).

Zoning

Currently, the zoning designation for the site is Wrecking Yard (M-W). This zone is intended to provide for, and to encourage the orderly development of heavy industrial uses and recycling operations deemed to be of regional significance, but of such nature that extra care must be taken in the regulation of said uses to protect the community's health and wellbeing, and where said uses are subject to aesthetic and environmental conditions which require the provision of safeguards to control and suppress some of the heavier manifestations of said uses to prevent adverse effects on the community.

The project's proposed use is consistent with the Industrial District land use designation and M-W zoning designation.

Discussion of Impacts

a) **Less Than Significant Impact.** The City of Coachella lists various aspects of scenic beauty in the City's 2035 General Plan Update (2035 GPU), such as the views of the mountains, the rural, agricultural character, and parks and open space areas. According to the 2023 GPU, the natural topography of the hills, the existing agricultural uses and the views of the surrounding mountains should be maintained and preserved for its scenic quality. The value of scenery can be highly subjective due to personal preference and opinion. Scenic value is generally affected by the presence and intensity of neighboring man-made improvements, such as structures, overhead utilities and landscape, to name a few. Certain man-made features can either add to or detract from a scenic vista.

The project site is located in on approximately 11 acres, in the General Plan's Industrial District land use designation and Wrecking Yard (M-W) zoning designation (see Setting, above). The 11-acre project property is surrounded by existing industrial businesses to the north and west, agricultural date palm grove to the south, and vacant land to the east. Harrison Street delineates the project's western boundary.

The project proposes the development of a 225,230-square-foot storage facility with 3,970 square feet of office/clubhouse space, and a 3,140-square-foot industrial space for lease. Associated improvements include pedestrian walkways and sidewalks, and paved aisles and parking spaces. Ingress and egress from the project will be provided by two access points on Harrison Street. Curb improvements along the eastern side of Harrison Street are proposed as part of project development.

According to the Coachella 2035 GPU, hillsides and mountains in the Coachella Valley create scenic vistas around the City. From the project site, views of the San Jacinto Mountains to the west, Santa Rosa Mountains to the south, and Little San Bernardino Mountains to the north and northeast are distant. The views of these mountain ranges are partially obstructed by existing manmade structures (i.e., buildings, block walls), infrastructure (i.e., streetlights, utility poles) and landscaping. However, due to the distance of these vistas, mid-range and peak views are visible from Harrison Street, adjacent to the proposed project. The surrounding mountains are largely observed by motorists and pedestrians travelling along Harrison Street, and the private properties north, south, and west of the project. The following discussion analyzes the project's impact on scenic vistas from Harrison Street, and the surrounding properties.

<u>From Harrison Street (West)</u>
From the segment of Harrison Street along the project's western frontage, views of the Little San Bernardino Mountains and Indio Hills to the north and northeast, the Santa Rosa Mountains to the south, and the San Jacinto Mountains to the west, are distant. Existing structures, landscaping/vegetation, and manmade facilities obstruct the baseline views of the mountains from Harrison Street. However, mid-range and peak views of the Little San Bernardino Mountains, Indio Hills, and Santa Rosa Mountains are visible. Views of the San Jacinto Mountains (to the west) are obstructed by the existing industrial business west of the project site.

Development of the proposed project would result not result in obstructions to the San Jacinto Mountains (to the west) from motorists and pedestrians traveling along Harrison Street, due to the project's orientation east of Harrison Street. Additionally, development of the project would not result in impacts to views of the Little San Bernardino Mountains and Indio Hills to the north, or the Santa Rosa Mountains to the south. This is because Harrison Street is a north-south trending right-of-way and the project will be situated to the west. However, the project may result in some impacts to the Little San Bernardino Mountains to the northeast, due to the project's orientation east of the right-of-way. The proposed project buildings will be one story, with the exception of the two-story office associated with the storage facility. The building heights will be compliant with the Municipal Code for M-W zones. Additionally, the buildings will be set back from the roadway, compliant with the Municipal Code. The proposed building heights and setbacks are typical of those throughout the City and existing industrial buildings. The project will be developed in compliance with the Coachella Municipal Code. The project's setbacks and restricted building heights of one- and two-stories, will reduce impacts by reducing the massing and scale of the buildings from the frontage. The project buildings will be typical of industrial

buildings within the City. Therefore, the project's impacts to scenic vistas viewed from Harrison Street will be less than significant.

Overall, impacts to the scenic vistas when viewed from Harrison Street would be less than significant.

From Existing Properties - North

As previously stated, the property immediately north of the project consists of an industrial business (Duran's Lock and Key). From the northern property, views of the Little San Bernardino Mountain and Indio Hills to the north, San Jacinto Mountains to the west, and Santa Rosa Mountains to the southwest are distant. Development of the proposed project would not result in impacts to the Mountains north, west, and southwest of the northern property, due to the project's orientation south of the existing industrial business. Minimal impacts to the southwest could be experienced at the eastern end of the adjacent property, however, impacts public viewsheds are the primary consideration under CEQA.

From Existing Properties - West

As previously stated, the property west of the project consists of an industrial business (Desert Truck and Auto, and Desert Rock). From the western property, views of the Little San Bernardino Mountain and Indio Hills to the north and northeast, San Jacinto Mountains to the west, and Santa Rosa Mountains to the southwest are distant. Baseline and midrange views of these mountains are largely obstructed by existing buildings, landscaping, and electric power poles. Development of the proposed project would not result in impacts to the Mountains west and southwest of the northern property, due to the project's orientation east of the existing industrial business. However, the project may result in some impacts to the Little San Bernardino Mountains to the northeast, due to the project's orientation east of the existing business. However, the project's setbacks and restricted building heights of one- and two-stories, will reduce impacts by reducing the massing and scale of the buildings from the frontage. The project buildings will be typical of industrial buildings within the City. Therefore, the project's impacts to scenic vistas viewed from the industrial business to the west will be less than significant.

From Existing Properties - South

The property south of the project consists of a date palm grove. Existing date palm trees line the property's boundary. Currently, the project does not obstruct views of the north-lying mountains, due to the vacant condition of the project. Development of the project would result in impacts to the scenic vistas to the north compared to existing conditions, due to the project's location immediately north of the date palm grove. However, the project proposes uses permitted within Industrial Districts in the City of Coachella. Additionally, it should also be noted that scenic vistas are not typically enjoyed or observed from the date palm grove unless observing from the northern property line, because the date palm trees on the property obstruct views from within the property. Therefore, impacts will be less than significant.

From Existing Properties - East

The existing property east of the project is vacant and undeveloped. From the undeveloped property, views of the Little San Bernardino Mountain and Indio Hills to the north and northeast, San Jacinto Mountains to the west, and Santa Rosa Mountains to the southwest are distant. Views of the Santa Rosa Mountains to the southwest are distant and largely obstructed by the date palm grove to the southwest. Development of the project will not obstruct views of the Little San

Bernardino Mountain, Indio Hills, and Santa Rosa Mountains, due to the project's orientation west of the vacant property. Views of the San Jacinto Mountains to the west are distant and baseline and mid-range views of the mountains are obstructed by existing structures, landscaping, etc. Currently, the project does not obstruct views of the west-lying mountains, due to the vacant condition of the project. Development of the proposed project may result in impacts to the San Jacinto Mountains to the west. However, the project buildings will be set back from the eastern property by a minimum of approximately 40.3 feet. Additionally, the buildings are proposed to be oriented to provide building breaks that allow views of the western mountains. Impacts will be less than significant. The building setbacks and orientation will reduce the building's massing and scale when viewed from the eastern property.

Overall, the proposed project is not anticipated to adversely alter the existing viewshed on any scenic vistas and less than significant impacts are expected.

b) **No Impact.** The approximately 11-acre project property is located east of Harrison Street in a developed area of Coachella. The project site is vacant and undeveloped; however, disturbance is evident onsite from vehicle tracks. The property does not contain any landmarks or scenic resources, such as trees, rock outcroppings, or historic buildings that may be altered or damaged by utilization of the site.

The State Scenic Highway Program was established to preserve and enhance the natural beauty of California. It not only adds to the pleasure of the residents, but also encourages the growth of recreation and tourism in the State. The Department of Transportation (Caltrans) manages the State Scenic Highway Program. To be listed as a scenic highway, the road must traverse an area of outstanding scenic quality, containing striking views, flora, geology, or other unique natural attributes (Caltrans). There are three officially designated state scenic highways in Riverside County. They include Highway 273, 62, and the closest, Highway 74, which is approximately 12 miles northwest of the project site. The northern section Highway 111 (Palm Springs to Palm Desert) and the southern section (Mecca to the Salton Sea) is categorized as an eligible state scenic highway, but it is not officially designated.

According to the Coachella 2023 General Plan Update (GPU) Environmental Impact Report (EIR), certain sections of old Highway 99 (now Dillon Road between Grapefruit Boulevard and Interstate 10), Old Highway 86 (Harrison Street south of Grapefruit Boulevard) and Old Highway 111 (Grapefruit Boulevard) represent visual corridors and serve as an aesthetic resource for the City. The project lies approximately 0.33 miles west of the closest City designated visual corridor, Old Highway 86, thus, development of the project will not impact the aesthetic resource.

Conclusively, the proposed project is not located within close proximity to any designated county scenic highway, as identified by Caltrans. Additionally, there are no significant trees, rock outcroppings, or historical buildings due to the cleared and vacant character of the site. Therefore, the proposed development would not result in adverse impacts to scenic resources adjacent to or near a State scenic highway. Less than significant impacts are expected.

c) **Less Than Significant Impact.** According to the City's GPU, the preservation of the natural beauty and scenic quality of the City is a community goal. Although the alteration of the existing landscape is unavoidable due to future development, the views of the mountains, rural, agricultural character should be respected, maintained and preserved.

The project site is located in an urbanized area of the City. The project site is currently characterized by undeveloped and vacant land. Human disturbance onsite is evident from vehicle tracks on the soil. Scattered vegetation occurs onsite.

As previously stated, the project site is located within the Wrecking Yard (M-W) zoning designation and Industrial District land use designation in the City of Coachella. The Coachella General Plan and Municipal Code provides guidance on the type of buildings that should be constructed in order to create the form and character envisioned by the City. The project shall comply with the City's standards for projects in Industrial District land use and M-W zoning designations. The table below illustrates the development standards established for M-W zones Per Section 17.34.030 of the Municipal Code.

Table I-1 M-W Zone Development Standards

Development Standards	M-W Zone
Minimum Lot Size	10,000 sf
Minimum Lot Width	100 ft
Minimum Lot Depth	100 ft
Maximum Lot Coverage	None
Yard Requirements	Where the zone abuts upon a street or highway where two-thirds of the property in the block on the opposite side of the street is zoned residential, a yard shall be provided of 10 feet in depth.
	Where the zone abuts upon a street or highway and where one or both adjoining zones are residential, a yard shall be provided which is equal in depth to the average of the required yards of the adjoining zones.
	Where the zone abuts upon a Major Arterial, Major Arterial with Enhanced Bicycle Facilities, Primary Arterial with Enhanced Bicycle Facilities as designated on the circulation element of the general plan, a yard of 10 feet in depth shall be provided.
	Where the zone directly abuts a residential zone, there shall be a yard of not less than 30 feet adjoining that zone. This shall be reduced to 20 feet where there exists a public alley separating the two zones
	Permitted Encroachments in Required Yards. The yards required in subsections 1—3 of this section may be used as part of an automobile parking area, provided however that a minimum three-foot wide screen planting shall be maintained adjacent to the planned highway right-of-way line.
Maximum Height Limits	50 feet
Enclosure Required	All operations and storage, including all equipment used in conducting an automobile dismantling or junk and salvage business, other than parking, shall be conducted within an enclosed building, or within an area enclosed by screening.
Parking	Regardless of the size of the yard area, a minimum of six parking spaces shall be provided.
Screening	1. All screening shall be of a uniform height in relation to the ground upon which it stands, and shall be a minimum of eight feet and shall not exceed ten (10) feet in height. Where screening exceeds a height of eight feet and is located on street or highway frontages, it shall be set back at least three feet from the lot line. The area between the screening and the lot line shall be fully landscaped. 2. Two gates not less than eight feet in height and not more than twelve (12) feet in width each, may be installed at a convenient place in said screening. Such gates shall be kept closed when not in use. Such gates shall be of material and color compatible with said screening.
Paving	All driveways, fire lanes, or other access ways shall be paved with an asphalt surfacing or an oil and aggregate mixture to prevent emission of dust or tracking of dust and mud onto public rights-

	of-way, provided however, the Planning Commission may approve other paving materials while provide, in their opinion, the equivalent in service and useful life.
Landscaping	At least two square feet of landscaping shall be provided for each lineal foot of street frontage and said landscaping shall be developed in accordance with a site plan that complies with the following criteria: 1. Landscaping shall be distributed along said frontage in accordance with the site plan approved by the planning commission. 2. No planting area shall have a horizontal dimension of less than three feet. 3. A permanent watering system or hose bibs shall be provided which satisfactorily irrigates all planted area. When hose bibs are utilized, they shall be located not more than twenty-five (25) feet apart. 4. All landscaped areas shall be continuously and properly maintained in good condition.

Source: Section 17.34.030, M-W Property Development Standards, Coachella Municipal Code.

The project will comply with the development standards established for M-W zones.

As previously stated, the project site is located within the City's Industrial District land use designation. Per the General Plan, Industrial Districts accommodate a range of light and heavy commercial and industrial businesses that provide employment and generate more noise, light, odors, or truck traffic compared to other land uses. The General Plan also provides form guidelines for Industrial Districts. The table below outlines the form guidelines and indicates whether the project is consistent with the guidelines.

Table I-2 Industrial District Form Guidelines

Form Guideline	Consistency
Lot coverage is generally in the 25- to 50-percent range but may be lower for uses with significant outdoor operations and higher for uses requiring only small amounts of parking.	Consistent: The project proposes 231,110 square feet of building space on approximately 466,502 square feet (net) of the site. This is 49.6 percent lot coverage. Significant outdoor operations are not proposed for the storage facility and industrial lease space.
Buildings should face the street with simple, attractive facades with main entries and windows, welcoming visitors, providing light and view for the occupants and animating the architecture.	Consistent: The project proposes nine storage buildings, associated two-story office/clubhouse, and industrial lease space. The project buildings are designed with modern architecture and features, including tilt-up concrete walls, steel overhangs, and storefront window systems. See exhibits below illustrating renderings.
Buildings may be set back from the street with appropriate landscaping to provide an attractive visual barrier.	Consistent: From the Harrison Street frontage storage buildings, and industrial lease space will be set back approximately 69 feet, while the office/clubhouse will be set back approximately 87 feet. Landscaping along the Harrison Street frontage will include trees to enhance the frontage.
Allowed building types are office/R&D, Industrial and Suburban Retail.	Consistent: The project proposes industrial uses and building types.
Building heights are generally one and two stories but office buildings may be up to three stories. Higher height limits may be allowed if necessitated by specific uses and industries so long as there is no negative impact on health, welfare or the economic development opportunity of other properties in the District or nearby areas.	Consistent: The project proposes a one-story industrial lease space and storage units, and a two-story office/clubhouse in association with the storage facility. The project proposes a maximum building height of 29 feet.
Other functions and activity areas - such as lunchrooms – should be organized at the frontage when feasible to	Consistent: Activity areas proposed for the project include the office/clubhouse associated with the storage facility. Activity areas are proposed to occur at the western side of the property, along the Harrison

provide a human scale and sense of activity along the streetscapes.	Street frontage. The office/clubhouse use will provide a human scale and sense of activity within the project.
Loading functions should be located toward the rear of the property. Employee parking lots should also be located decide or behind buildings when possible rather than in front.	Not applicable: The project will provide employee and visitor parking areas along the western project boundary. This area is considered the front because it is located along Harrison Street, which is the primary access point for the project.
Simple modern masonry and concrete architecture is recommended. Large buildings should be organized into multiple simple masses and articulated with fenestration. Galleries, arcades, and projecting sunscreens are recommended architectural elements, providing valuable shade and visual depth to the architecture.	Consistent: As previously stated, the project buildings are designed with modern architecture and features, including tilt-up concrete walls, steel overhangs, and storefront window systems. Simple, modern concrete buildings are proposed. See exhibits below illustrating project renderings.
Natural masonry, concrete and metal materials that weather and age with grace, are recommended.	Consistent: As previously stated, painted concrete and steel materials are proposed for the project. Colors used will include greys, beiges, and whites. Steel materials for awnings and gates are proposed as accent features.

The project is designed to have modern architecture that will complement the desert landscape and the existing surroundings. The architectural features will create texture and wall breaks, concrete finishes, and an exterior plaster which will contribute to the modern façade. Project landscaping will include a mix of various trees, shrubs and ground coverings to provide shade for pedestrians, and vertical variation and interest. The images below illustrate building renderings.

Exhibit I-1 Project Rendering (Frontage)



Exhibit I-2 Project



FINISH LEGEND:

1	TILT–UP CONCRETE WALL PANEL W/ BOARD FORM PATTERN, PAINTED, SW7566 WESTHIGHLAND WHITE
2	STOREFRONT WINDOW SYSTEM
3	TILT–UP CONCRETE WALL PANEL, PAINTED, SW7644 GATEWAY GRAY
4	PIVOT DOOR
5	TILT–UP CONCRETE WALL, BOARD FORM AND PAINTED, SW9166 DRIFT OF MIST
6	–NOT USED–
7	CORTEN STEEL OVERHANG
8	ADJACENT STORAGE UNIT
9	CONCRETE SIDEWALK
10	PLANTER STRIP
11	STAIRS
12	NEW HM DOOR, PAINTED SW6235 FOGGY DAY
13	NEW 14' HT ROLL–UP DOOR, (WIDTH VARIES) PAINTED, SW6235 FOGGY DAY





Additionally, the project is required to go through Architectural Review (AR) to provide flexibility in the placement and interrelationship of the proposed structures; to provide for the implementation of sound site plan design concepts while maintaining the overall intensity of land use and density of population; to review the site plan of those uses which are not intrinsically

objectionable to the predominant use category of the district, but which have inherent characteristics which, if not properly handled, have potentials for becoming detrimental to the health, safety, or general welfare of the public, or to neighboring land uses; to determine whether or not a proposed development will properly comply with the architectural guidelines of the city and the provisions and development standards required by this chapter or as prescribed by the planning director, or other authorized agent; to improve the quality of development and to provide a mechanism whereby the city can insure well-designed development (Section 17.72.010, Coachella Municipal Code).

With the proposed enhancements, the modern architecture, and Architectural Review, the project is not expected to conflict with applicable zoning and other regulations governing scenic quality. The project shall follow the City of Coachella's standards for buildings in General Commercial zones, thus, less than significant impacts are expected.

d) **Less Than Significant Impact.** As explained previously, the project site is located in the Industrial District land use designation in the City of Coachella. The project site is currently vacant and undeveloped and does not contribute to daytime or nighttime lighting. The project is surrounded by existing industrial businesses to the north and west, and agricultural date palm grove to the south. The existing industrial businesses contribute to the daytime and nighttime lighting in the area. Additional sources of fixed nighttime lighting can be attributed to the streetlights along Harrison Street to the west, and lights associated with the vehicular traffic.

The project proposes the development of a 225,230-square-foot storage facility with 3,970 square feet of office/clubhouse space, and a 3,140-square-foot industrial space for lease on 11 acres. Buildout of the proposed project can be expected to generate increased levels of light and glare from interior and exterior building lighting, safety and security lighting, landscape and signage lighting and vehicles accessing the site. However, lighting and glare levels are not expected to exceed typical levels within the surrounding urban environment. The project will be required to adhere to the lighting standards established in the Coachella Municipal Code. Chapter 17.54.010 (K) (off-street parking and loading: lighting) of the Coachella Municipal Code, states that parking area lighting is not always required; however, if lit parking areas are required, parking lighting fixtures shall include hoods provided and adjusted, so as to preclude the direct glare of the light from shining onto property or streets. The project shall comply with Chapter 17.54.010 (K) in order to provide lighting for cars and pedestrians without generating excess light and spillage.

Pertaining to glare, the project would not introduce buildings with large reflective surfaces that would generate substantial glare, nor would the project involve new sources of high-intensity lighting that would be deemed incompatible with the surrounding existing properties. The proposed structures are expected to have light finishes (including white) combined with earth-tones that do not have highly reflective properties or other conditions that would cause substantial daytime or nighttime glare. Less than significant impacts are expected.

Mitigation Measures: None required

II. AGRICULTURAL RESOURCES **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526) or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

(Sources: 2035 Coachella General Plan, Figure 3-6, 2015; "Riverside County Important Farmland 2014 Map," sheet 2 of 3, California Department of Conservation, updated November 2016.)

Setting

As a part of Riverside County, the city of Coachella's agricultural lands are a key aspect of the county and its character. Agricultural land covers approximately 40 percent of the city's planning area. Though, most of the agricultural land is located in and around the unincorporated areas of Coachella, with the more centralized areas being converted into or being used for urban or industrial use.

Per the California Land Conservation Act, also known as the Williamson Act, was adopted in 1965 in order to encourage the preservation of the State's agricultural lands and to prevent its premature conversion to urban uses. The Act creates an arrangement whereby private land owners' contract with counties and cities to voluntarily restrict land to agricultural and open-space uses. Under the Williamson Act, an agricultural preserve must consist of no less than 100 acres, any development on the property must be related to the primary use of the land for agricultural purposes, and development must be in compliance with local uniform rules or ordinances. Williamson Act contracts are estimated to save agricultural landowners from 20 to 75 percent in property taxes each year.

The vehicle for these agreements is a rolling-term, 10-year contract (i.e., unless either party files a "notice of nonrenewal," the contract is automatically renewed annually for an additional year). In return, restricted parcels are assessed for property tax purposes at a rate consistent with their actual use, rather than potential market value (California Department of Conservation, 2006). If a "notice of nonrenewal" is

filed by a landowner, a nine-year nonrenewal period commences. Over this period of time, the annual tax assessment gradually increases. At the end of the nine-year nonrenewal period, the contract is terminated. Only the landowner can petition to cancel a Williamson Act contract.

Discussion of Impacts

a) **No Impact.** Agricultural lands are a key aspect of the county and City's character. Preservation of agriculture is considered integral to the City's future. According to the City's GPU 2035, agricultural land covers approximately 40 percent (21,840 acres) of the City's planning area.

The project site is located in the Industrial District in the Coachella GPU 2035. The property is currently characterized as vacant land that has been heavily graded/cleared in the past. According to the most recent Riverside County Important Farmland Map, the western portion of the property is designated as Urban and Built-up Land and the remaining portion of the property is designated as Other Land. "Urban and Built-up Land" is defined as land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. Common examples include residential, industrial, commercial, institutional facilities, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, and water control structures. "Other Land" is defined as land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry, or aquaculture facilities; strip mines, borrow pits. Vacant and nonagricultural land surrounded by urban development and greater than 40 acres is mapped as Other Land.

The project site is not designated as Prime Farmland, Unique Farmland or Farmland of Statewide Importance by the California Department of Conservation. Therefore, no impacts are anticipated.

b) **No Impact.** There are no lands with a Williamson Act contract in the immediate project vicinity. According to the California Department of Conservation Williamson Act Enrollment Finder, there is no Williamson Act contract land within a mile of the project site. No impacts are anticipated.

c) **No Impact.** Development of project will not conflict with the existing zoning or result in the re-zoning of forest land, timberland or timberland zoned for timberland production. No impacts are anticipated.

d) **No Impact.** The proposed Project will occur in an existing urban desert setting zoned for Wrecking Yard (M-W) uses. No forest land, timberland or Timberland Production zoning occurs on the project site or in the surrounding area because forest vegetation is not characteristic of the Coachella Valley desert environment. No impacts are anticipated.

e) **No Impact.** As previously described, the Project site and vicinity are designated by the City of Coachella Zoning map as Wrecking Yard (M-W). The proposed storage facility will not result in conversion of any farmland or forest land because no farmland or forest land is situated on the project site. No impacts are anticipated.

Mitigation Measures: None required

III. AIR QUALITY **Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

Sources: *Final 2022 Air Quality Management Plan* (AQMP), by SCAQMD, December 2022; *Final 2003 Coachella Valley PM10 State Implementation Plan* (CVSIP), by SCAQMD, August 2003; *Analysis of the Coachella Valley PM10 Redesignation Request and Maintenance Plan*, by the California Air Resources Board, February 2010; South Coast AQMD Rule Book; California Emissions Estimator Model (CalEEMod) Version 2022.1.1.29, California Air Pollution Officers Association (CAPCOA) and California Air Districts.

Setting

Summary of Existing Air Quality Regulatory Framework:

The project site and Coachella Valley are situated within the Riverside County portion of the Salton Sea Air Basin (SSAB), under the jurisdiction of the South Coast Air Quality Management District (SCAQMD) and the adopted 2022 Air Quality Management Plan (2022 AQMP). The 2022 AQMP builds upon and supersedes the prior 2016 AQMP with updated strategies toward air quality attainment, while recognizing the challenges from experiencing the worst levels of ground-level ozone (smog) and among the highest levels of fine particulate matter (PM2.5) in the nation, despite the progress in air pollution reduction. The 2022 AQMP also recognizes the Coachella Valley's necessity to meet federal ozone standards due to transport of pollution from the upwind South Coast Air Basin. As a result, the updated strategies focus on reducing emissions of nitrogen oxides (NOx) – the key pollutant that creates ozone – by 67 percent more than is required by adopted rules and regulations by 2037. This is to be achieved in part through the extensive use of zero emission technologies across all stationary and mobile sources, combined with additional controls over stationary sources that currently account for approximately 20 percent of NOx emissions. The 2022 AQMP recognizes that the overwhelming majority of NOx emissions are from heavy-duty trucks, ships and other State and federally regulated mobile sources that are mostly beyond the South Coast AQMD's control, so federal regulatory action will help advance AQMP goals. The current AQMP does not involve numeric revisions to the South Coast AQMD Air Quality Significance Thresholds, nor is it understood to implement land use and land development restrictions. The 2022 AQMP incorporates information and assumptions from the 2020 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) to support the integration of land use and transportation toward meeting the federal Clean Air Act requirements.

Local air quality relevant to the standards for criteria air pollutants and attainment status is measured at three established Coachella Valley monitoring stations that are part of the SCAQMD 2025 Annual Air Quality Monitoring Network Plan: Palm Springs (AQS ID 060655001), Indio (AQS ID 060652007), and Mecca (Saul Martinez - AQS ID 060652005).

The 2022 AQMP provides guidance for the State Implementation Plans (SIP) for attainment of the applicable ambient air quality standards. The Coachella Valley region is in non-attainment for Particulate Matter (PM10) and Ozone (O3), which are described below.

Particulate Matter (PM10):

PM10 is a criteria air pollutant consisting of particulate matter (airborne particles) with an aerodynamic diameter of up to 10 microns. In terms of health effects, elevated levels of ambient particulate matter are linked to increases in respiratory infections, number and severity of asthma attacks, the number of hospital admissions, and mortality rates. As indicated in the 2022 AQMP, the Coachella Valley is currently designated as a serious nonattainment area for PM10.

PM10 levels in the Coachella Valley are largely attributed to sources of fugitive dust (e.g., construction activities, re-entrained dust from paved and unpaved road travel, and natural wind-blown sources). The Coachella Valley is subject to frequent high winds that generate wind-blown sand and dust, leading to high episodic PM10 concentrations, especially from disturbed soil and natural desert blow sand areas.

The Final 2003 Coachella Valley PM10 State Implementation Plan (CVSIP) was approved by the U.S. Environmental Protection Agency (EPA) on December 14, 2005. It incorporated updated planning assumptions, fugitive dust source emissions estimates, mobile source emissions estimates, and attainment modeling with control strategies and measure commitments. Some of those measures are reflected in SCAQMD Rules 403 and 403.1, which are enacted to reduce or prevent man-made fugitive dust sources with their associated PM10 emissions.

Rule 403.1 recognizes blowsand as a form of larger particulate matter that can contribute to the production of the smaller PM10 (Particulate Matter with a diameter of 10 micrometers or smaller) particles in two ways: (1) by direct particle erosion and fragmentation as natural PM10, and (2) by secondary effects, as sand deposits on road surfaces.

Ozone and Ozone Precursors:

Ozone (O3) is a photochemical oxidant formed through chemical reactions of nitrogen oxides (NOx), volatile organic compounds (VOCs), and oxygen in the presence of sunlight. In terms of health effects, individuals exercising outdoors, children, and people with preexisting lung disease, such as asthma and chronic pulmonary lung disease, are the most susceptible sub-groups for the effects of ozone.

The Coachella Valley portion of the Salton Sea Air Basin (SSAB) is deemed to be in nonattainment for the 1997 8-hour ozone standard. The Coachella Valley is unique in its geography due to its location downwind from the South Coast Air Basin (SCAB). As such, when high levels of ozone are formed in the South Coast Air Basin upstream, they are transported to the Coachella Valley. Similarly, when ozone precursors such as NOx and VOCs are emitted from mobile and stationary sources located in the South Coast Air Basin, they are also transported to the Coachella Valley. The 2022 AQMP has found and established that the Coachella Valley does not have large sources of smog-forming emissions and therefore, local sources of

air pollution have a limited impact on ozone levels compared to the transport of ozone precursors generated upwind in SCAB. Based on the 2022 AQMP, the attainment date for the said ozone standard is August 2033. SCAQMD continues to reduce ozone and improve air quality in the Coachella Valley, in part by providing more than $50 million in grant funding towards paving dirt roads and parking lots, clean energy projects and cleaner vehicles. Future emission reductions anticipated to occur in the South Coast Air Basin associated with current and planned regulations on mobile and stationary sources are expected to contribute to improvements in ozone air quality in the Coachella Valley and lead to attainment of the standard.

Eastern Coachella Valley Community Emissions Reduction Plan:

The project site is located within the Eastern Coachella Valley (ECV) Community Emissions Reduction Plan (CERP), approved in July of 2021 to implement Assembly Bill (AB) 617, which was signed into law in 2017 to address the disproportionate impacts of air pollution in environmental justice communities. The ECV boundary under AB 617 includes the incorporated and unincorporated portions of the Eastern Coachella Valley and City of Coachella. The CERP was developed to achieve air pollution emission and exposure reductions within the ECV community and address this community's air quality priorities. The plan describes the community outreach conducted to develop the CERP and provides emissions and exposure reduction actions, an implementation schedule, and an enforcement plan. The CERP finds that the primary sources of air pollution emissions in the ECV community are on-road vehicles, farming equipment, trains, off-road equipment, and certain industrial activities. The ECV is also deemed to be highly impacted by the declining Salton Sea levels, resulting in increasing dust emissions from the Salton Sea playa.

To protect public health, the CERP has identified efforts for improved monitoring, collaboration, and enforcement activities to be undertaken by the various responsible agencies across the ECV. Both California Air Resources Board (CARB) and South Coast AQMD enforcement staff have had a presence in the community of Eastern Coachella Valley for many years. From 2017 through 2019, CARB conducted over 1,500 inspections and South Coast AQMD responded to approximately 370 complaints and conducted over 300 inspections within the Eastern Coachella Valley community. The CERP indicates that both CARB and South Coast AQMD will continue to coordinate their enforcement programs to address air pollution sources effectively within their respective jurisdictions. The most relevant topics and concerns of the CERP applicable to the project are 1) pesticides, 2) fugitive road dust and off-roading, and 3) open burning/illegal dumping.

Regional Significance Threshold Criteria:

The SCAQMD has determined that impacts to air quality are significant if there is a potential to contribute or cause regional and/or localized exceedances of the federal and/or state ambient air quality standards, such as the NAAQS and CAAQS. To assist lead agencies in determining the significance of air quality impacts, SCAQMD has established suggested short-term construction-related and long-term operational impact significance thresholds for direct and indirect impacts on air quality. Table III-1 displays the established SCAQMD Air Quality Significance Thresholds applicable to construction and operational activities to which the project-specific air emissions results will be compared. Table III-1 is based on the most current standards, published in March of 2023.

Table III-1
SCAQMD's Air Quality Significance Thresholds
(Pounds/Day)

Emission Source	CO	VOC	NOx	SOx	PM10	PM2.5
Construction	550	75	100	150	150	55
Operation	550	55	55	150	150	55

Source: Air Quality Analysis Guidance Handbook and SCAQMD Air Quality Significance Thresholds, March 2023

Localized Significance Threshold Criteria:

The South Coast Air Quality Management District (SCAQMD) has also developed and published the Final Localized Significance Threshold (LST) Methodology to help identify potential impacts that could contribute or cause localized exceedances of the federal and/or state ambient air quality standards (NAAQS/CAAQS). LST methodology was developed in response to environmental justice and health concerns raised by the public regarding exposure of individuals to criteria pollutants in local communities. The purpose of analyzing LSTs is to determine whether a project may generate significant adverse localized air quality impacts in relation to the nearest exposed sensitive receptors, such as schools, churches, residences, hospitals, day care facilities, and elderly care facilities. The separation distances between project sites and sensitive receptors, set forth by the LST methodology, range from 25 meters (82 feet) to 500 meters (1,640 feet). LST thresholds represent the maximum emissions from a project that will prevent an exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest sensitive receptor, taking into consideration ambient concentrations in each source receptor area (SRA), project, size, and distance to the sensitive receptor. Therefore, meeting the lowest allowable emissions thresholds translates to meeting the most stringent air quality standards for a project locality.

As part of the LST methodology, SCAQMD has divided its jurisdiction into 37 source receptor areas (SRAs) which can be used to determine whether a project may generate significant adverse localized air quality impacts. The proposed development is located in SRA 30, which covers the Coachella Valley and City of Coachella. LSTs only apply to certain criteria pollutants: carbon monoxide (CO), oxides of nitrogen (NOx) particulate matter equal to or less than 10 microns in diameter (PM10), and particulate matter equal to or less than 2.5 microns in diameter (PM2.5).

Geographic Information Systems (GIS) mapping analysis was used to identify the project site in relation to the nearest potential sensitive receptors, such as residential dwelling units or schools. The project site occurs within a designated industrial land use district. For purposes of this analysis, the nearest sensitive receptor is located approximately 1,545 feet (470 meters) northwest of the project site, involving a dwelling unit at 84800 Avenue 48. As a conservative approach, the shortest separation interval (25 meters/82 feet) was used as the basis for analysis. This will ensure that the lowest emissions threshold is used as a standard for determining significance. This will ensure that the lowest emissions threshold is used as a standard for determining significance.

Air Emissions Methodology:

This analysis relies on the quantitative findings from the latest version of the California Emissions Estimator Model™ (CalEEMod™) Version 2022.1.1.29, which serves as an adopted software platform,

developed in conjunction with the California Air Pollution Control Officers Association (CAPCOA) and other California air districts, to calculate both construction emissions and operational emissions of criteria air pollutants and greenhouse gases from land use projects. The parameters considered for CalEEMod and air quality analysis were obtained from the most current technical site plan for the project, as subsequently summarized. The most conservative interpretation of proposed land uses, equitable modelling criteria, and associated air quality impacts have been utilized to capture impacts associated with 100% of the proposed onsite structures and operations.

The CalEEMod 2022.1.1.29 analysis for this project accounted for the proposed development parameters (land uses and facility dimensions) based on the proposed site plan as model inputs for calculating the associated criteria air pollutants. Information from the Coachella Vault Trip Generation and VMT Screening Assessment was utilized to estimate the project trips in an equivalent manner with CalEEMod input requirements and metrics.

The proposed project includes a roof-mounted photovoltaic (PV) solar system to supply power to all on-site facilities. The system would operate as a microgrid, supported by two backup energy storage batteries. Up to two emergency standby generators, each rated between 600 and 700 brake horsepower, would be installed to provide backup power, consistent with the limitations and exemption provisions of South Coast AQMD Rule 1110.2. Operation of the emergency generators would be limited to 200 hours annually, as documented by an elapsed operating time meters. Both the solar facilities and standby generators were factored into CalEEMod.

The model also incorporated the fugitive dust control measures required during construction under the City's Dust Control Ordinance and SCAQMD Rules 403 and 403.1. The measures of temporary soil stabilization required under this local regulatory framework are designed to prevent sediment track-out onto public roads, prevent visible dust emissions from exceeding a 20-percent opacity, and prevent visible dust emissions from extending more than 100 feet (vertically or horizontally from the origin of a source) or crossing any property line. Being a requirement in the Coachella Valley, the dust control practices are not considered mitigation.

Discussion of Impacts

a) **Less Than Significant Impact.** Table III-2 demonstrates that the construction-related activities consisting of site preparation, grading, utilities/building construction, paving, and architectural coating associated with the proposed project will not exceed the applicable SCAQMD Air Quality Significance Thresholds for criteria pollutants, including PM10 and Ozone precursors. As a standard requirement, dust control measures will be implemented during construction as part of a City-approved fugitive dust control plan in accordance with SCAQMD Rule 403/403.1 and the City of Coachella dust control requirements. Thus, a less than significant impact would occur for the construction-related emissions in relation to the applicable South Coast AQMD Air Quality Significance Thresholds.

Table III-2
Short Term Air Pollutant Emissions
Associated With Construction of the Proposed Project
(Unmitigated) (Pounds/Day)

	ROG/VOC	NOx	CO	SO2	PM10	PM2.5
Peak Emissions Resulting from Site Preparation, Grading, Building Construction, Paving, and Architectural Coating	49.6	31.2	29.7	0.08	6.51	3.81
SCAQMD Air Quality Significance Threshold	75	100	550	150	150	55
Threshold Exceeded	No	No	No	No	No	No
Note: The PM10 and PM2.5 emissions account for required compliance with local dust control requirements. Includes an estimated export quantity of 11,663 cubic yards during grading.						

CalEEMod analysis was also used to calculate the long-term operational air pollutant emissions that would occur during the life of the project. These operations include area, energy and mobile sources. As shown in Table III-3 below, the project-related operational emissions of criteria pollutants are also not expected to exceed the SCAQMD Air Quality Significance Thresholds.

Table III-3
Long Term Operational Air Pollutant Emissions
Associated With Development of the Project (Unmitigated) (Pounds/Day)

Emission Source	ROG/VOC	NOx	CO	SO2	PM10	PM2.5
Peak Area Sources, Energy Use, Mobile Sources	9.95	5.33	21.3	0.03	1.67	0.63
SCAQMD Air Quality Significance Threshold	55	55	550	150	150	55
Threshold Exceeded	No	No	No	No	No	No

In summary, the project is not expected to result in emission levels, population growth or land use changes that would interfere with the City or region's ability to comply with the most current air quality plans, such as the 2022 AQMP and State Implementation Plan strategies for PM10 and ozone level attainment efforts. Moreover, the project's short-term construction and long-term operational emissions would not exceed the South Coast AQMD Air Quality Significance Thresholds for criteria pollutants.

In addition to the emission levels discussed above, another measure of determining consistency with the governing AQMP is outlined in Chapter 12, Section 12.2 and Section 12.3 of SCAQMD's CEQA Air Quality Handbook (1993), as provided and evaluated below:

Consistency Criterion No. 1: The proposed project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay the

timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.

The relevant emission standards are compiled in the South Coast AQMD Air Quality Significance Thresholds and also provided in Table III-1 pertaining to construction and operation. As demonstrated by the CalEEMod results in Tables III-3 and III-4, project construction and operation would not result in emission levels exceeding the AQMD Air Quality Significance Thresholds for any criteria air pollutant category, including PM10 and ozone precursors, and therefore would not conflict with the AQMP according to this criterion.

Consistency Criterion No. 2: The project will not exceed the assumptions in the AQMP based on the years of project build-out phase.

Project implementation will not involve land use changes that would exceed the locally adopted land development assumptions and other growth projections in a meaningful manner. Therefore, the project is not expected to result in emission levels, growth or land use changes that would interfere with the City or region's ability to comply with the most current air quality plans, including the 2022 AQMP and State Implementation Plan strategies for PM10 and ozone level attainment efforts. Moreover, the project's short-term construction and long-term operational emissions would not exceed the established regional thresholds for criteria air pollutant emissions.

Eastern Coachella Valley Community Emissions Reduction Plan: As previously introduced, the project is located within the Eastern Coachella Valley (ECV) Community Emissions Reduction Plan (CERP), approved by SCAQMD in July of 2021. The CERP was developed to achieve air pollution emission and exposure reductions within the ECV community and address this community's air quality priorities. The CERP calls for coordination with various agencies, including CARB and South Coast AQMD, to improve air monitoring, collaboration and enforcement across various sectors. The CERP finds that the primary sources of air pollution emissions in the ECV community are on-road vehicles, farming equipment, trains, off-road equipment, and certain industrial activities. The ECV is also deemed to be highly impacted by the declining Salton Sea levels, resulting in increasing dust emissions from the Salton Sea playa. The most relevant topics of the CERP applicable to the project are 1) pesticides, 2) fugitive road dust and off-roading, and 3) open burning/illegal dumping and the Greenleaf Desert View Power Plant (DVP) facility.

Pesticides: The ECV community includes a large amount of agricultural activity with associated use of pesticides that has raised concerns over the adverse health effects. The CERP recognizes that CARB, South Coast AQMD, Department of Pesticide Regulation (DPR), and Office of Environmental Health Hazard Assessment (OEHHA) are to be responsible for undertaking continued research and air monitoring to identify exposure reductions. The proposed development will not constitute a new source of pesticide application. The project would not interfere with the measures undertaken by the responsible agencies.

Fugitive Road Dust and Off-Roading: The CERP identifies a concern over inhalable particulate matter (PM10) emitted from unpaved and paved roadways and from dust resuspended by off-road vehicles. To address community concerns about emissions from fugitive road dust and off-roading in ECV, the CERP has identified additional agency monitoring and enforcement efforts, combined with the pursuit of opportunities to implement paving to reduced unpaved travel.

The project will include the appropriate street improvements (paving) at its property frontage on Harrison Street, thus eliminating the unpaved shoulder condition that would otherwise contribute to fugitive dust. During construction, fugitive dust will be regulated by an approved dust control plan under SCAQMD Rule 403/403.1 and under the City's Dust Control Ordinance (Chapter 8.20). Therefore, project implementation would not interfere or impede CERP implementation on this community concern.

Open Burning and Illegal Dumping: The CERP identified as concern over agricultural burning, particularly associated with grapes, dates, citrus, and other crops. To address community concerns about open burning and illegal dumping emissions and exposures, the CERP has identified additional agency monitoring and enforcement efforts, combined with the pursuit of opportunities to work with agricultural operators for reduced open burning activities. The proposed project would not involve new potential sources of open burning or illegal activity. Therefore, project implementation would not interfere or impede CERP implementation on this community concern.

Greenleaf Desert View Power Plant (DVP): The DVP facility has previously been identified as a community concern for air quality in the ECV study area under this plan. This facility has been in operation since 1992. Since this facility is located on tribal land, it is regulated by Region 9 of the U.S. EPA. The CERP acknowledges the concerns raised about air pollutant emissions from this facility and has established various actions under the SCAQMD responsibility to compile further information about the facility emissions, including monitoring and air quality measurements, and implement reduction measures as necessary. On April 30, 2024, the operator of DVP announced an indefinite idling of operations. The proposed development would not interfere or impede CERP implementation on this community concern involving closed DVP facility.

In summary, the project is not expected to result in emission levels, population growth or land use changes that would interfere with the City or region's ability to comply with the most current air quality plans, such as the 2022 AQMP, State Implementation Plan strategies for PM10 and ozone level attainment efforts, and the CERP strategies. The project's short-term construction and long-term operational emissions would not exceed the established regional thresholds for criteria air pollutant emissions. Pertaining to the obstruction of an applicable air quality plan, including the CERP, less than significant impacts are anticipated.

b) Less Than Significant Impact. As discussed previously, the Coachella Valley portion of the Salton Sea Air Basin (SSAB) is in nonattainment for the 1997 8-hour ozone standard. Under the 2022 AQMP, the target attainment date for this standard is August 2033. SCAQMD has established that the Coachella Valley does not have large sources of smog-forming emissions and therefore, local sources of air pollution have a limited impact on ozone levels compared to the transport of ozone precursors generated upwind in SCAB. As demonstrated in tables III-2 and III-3, project-related short-term construction and long-term operational emissions would not exceed the SCAQMD Air Quality Significance Thresholds for ozone precursors, such as NOx and ROG/VOC. Therefore, pertaining to the ozone nonattainment status, the proposed project would not result in an exceedance to the applicable threshold or result in a cumulatively considerable net increase in the precursors of this criteria pollutant.

Furthermore, the Coachella Valley is currently designated as a serious nonattainment area for PM10 and is under the EPA-approved Coachella Valley PM10 State Implementation Plan with an attainment strategy for meeting the PM10 standard. Some of the existing measures include the requirement of detailed dust control plans from builders that specify the use of more aggressive and frequent watering, soil stabilization, wind screens, and phased development to minimize fugitive dust. Appropriate air quality measures to prevent fugitive dust are required by the City's Fugitive Dust Control ordinance and plan implementation requirements, which are consistent with SCAQMD Rules 403 and 403.1 that apply to the Coachella Valley strategy for reducing fugitive dust emissions. Under the City's dust control regulations, a Local Air Quality Management Plan (LAQMP) must be prepared and approved prior to any grading, earth-moving, demolition, or building operation with a disturbed surface area of more than five thousand (5,000) square feet. Consistent with SCAQMD Rules 403 and 403.1, implementation of the Fugitive Dust Control Plan is required to occur under the supervision of an individual with training on Dust Control in the Coachella Valley. The plan will include methods to prevent sediment track-out onto public roads, prevent visible dust emissions from exceeding a 20-percent opacity, and prevent visible dust emissions from extending more than 100 feet (vertically or horizontally from the origin of a source) or crossing any property line. The most widely used measures include proper construction phasing, proper maintenance/cleaning of construction equipment, soil stabilization, installation of track-out prevention devices, and wind fencing. As shown in tables III-2 and III-3, project-related short-term construction and long-term operational emissions that factor in the required soil stabilization measures are expected to not exceed the applicable SCAQMD Air Quality Significance Thresholds for PM10. Therefore, pertaining to the PM10 nonattainment status, the proposed project would not result in an exceedance to the applicable threshold or result in a cumulatively considerable net increase in the precursors of this criteria pollutant. Less than significant impacts are anticipated.

c) Less Than Significant Impact. A sensitive receptor is a person or group in the population particularly susceptible (i.e. more susceptible than the population at large) to health effects due to exposure to an air contaminant. Sensitive receptors and the facilities that house them are of particular concern if they are located in close proximity to localized sources of carbon monoxide, toxic air contaminants, or odors. Residences, long-term health care facilities, schools, rehabilitation centers, playgrounds, convalescent centers, childcare centers, retirement homes, and athletic facilities are generally considered sensitive receptors.

The SCAQMD has developed and published the Final Localized Significance Threshold (LST) Methodology to help identify potential impacts that could contribute or cause localized exceedances of the federal and/or state ambient air quality standards (NAAQS/CAAQS). LST methodology was developed in response to environmental justice and health concerns raised by the public regarding exposure of individuals to criteria pollutants in local communities. The purpose of analyzing LSTs is to determine whether a project may generate significant adverse localized air quality impacts in relation to the nearest exposed sensitive receptors, such as those listed above. LSTs represent the maximum emission levels that comply with the most stringent applicable federal or state ambient air quality standard at the nearest sensitive receptor, taking into consideration ambient concentrations in each source receptor area (SRA), project, size, and distance to the sensitive receptor. Therefore, meeting the lowest allowable emissions thresholds translates to meeting the most stringent air quality standards for a project locality in consideration of sensitive receptors. As part of the LST methodology, SCAQMD has divided its jurisdiction into 37 source receptor areas (SRAs) which can be used to determine whether a

project may generate significant adverse localized air quality impacts. The proposed development is located in SRA 30, which covers the Coachella Valley and City of Coachella. LSTs only apply to certain criteria pollutants: carbon dioxide (CO), oxides of nitrogen (NOx) particulate matter equal to or less than 10 microns in diameter (PM10), and particulate matter equal to or less than 2.5 microns in diameter (PM2.5).

For purposes of this analysis, the nearest sensitive receptor is located approximately 1,545 feet (470 meters) northwest of the project site, involving a dwelling unit at 84800 Avenue 48. As a conservative approach, the shortest separation interval (25 meters/82 feet) as the basis for analysis. This will ensure that the lowest emissions threshold is used as a standard for determining significance.

Table III-4
Localized Significance Thresholds (LSTs) Associated with Project Construction with Receptors at 25 Meters (82 Feet), (In Pounds/Day)

Emission Source	NOx	CO	PM10	PM2.5
Peak Unmitigated Construction Emissions	31.2	29.7	6.51	3.81
SCAQMD LST Threshold for SRA 30	304	2,292	14	8
LST Threshold Exceeded?	No	No	No	No

Sources: CalEEMod Results and AQMD LST Look-Up Tables
Note: The PM10 and PM2.5 emissions factor dust control compliance with SCAQMD Rule 403 and 403.1 and City's dust control requirements.

The results provided in Table III-4 demonstrate that the construction-related emission levels would occur below the applicable thresholds, taking into account the source receptor area and nearest sensitive receptor location to the project. Therefore, the project would not result in emissions capable of exposing sensitive receptors to localized substantial pollutant concentrations. Moreover, the proposed project would not situate new housing in a location known to be exposed to existing or planned sources of substantial emissions. Less than significant impacts are anticipated.

d) **Less Than Significant Impact**. Objectionable odors can be associated with toxic or non-toxic emissions. While offensive odors seldom cause physical harm, they can be unpleasant and lead to considerable annoyance and distress among the public. Examples of facilities commonly known to generate considerable odors include wastewater treatment plants, sanitary landfills, composting/green waste facilities, recycling facilities, petroleum refineries, chemical manufacturing plants, painting/coating operations, rendering plants, and food packaging facilities, none of which are located in the project vicinity. The land uses and populations considered more likely to experience concern over odors include residences, retirement homes, schools, playgrounds, and athletic facilities, among others.

As demonstrated in the discussions above, construction-related and operational emissions resulting from the proposed development would occur below the applicable South Coast AQMD Air Quality Significance Thresholds. The project would also comply with the numeric Localized Significance Thresholds relevant to the localized project setting.

The project will result in potential short-term odor emissions associated with the temporary operation of construction equipment, handling of petroleum-based products, and application of certain materials, such as asphalt pavement. These temporary odors would be perceptible within close proximity to the active construction areas dissipate with distance, to the point of becoming undetectable.

During the life of the project, storage, office, and warehousing activities within the respective structures are not expected to represent a source of odor to the surrounding uses. Therefore, the project is not expected to result in odor or other emissions adversely affecting nearby neighbors or a substantial number of people. Less than significant impacts are anticipated.

Mitigation Measures: None Required

IV. BIOLOGICAL RESOURCES **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Setting

The proposed storage development, comprised of 231,110 square feet of building uses, would exist on approximately 11 acres. The approximate 11-acre site was investigated for the biological survey and impact analysis. The site has been cleared and graded in the past. The site is currently surrounded by fencing, some of which has been damaged. The site is littered with various automotive and household refuse, building materials, garbage, and domestic dog and cat scat.

Prior uses of the site based off aerial imagery include automotive storage on the western side of the subject property in 2002 until at least 2018. Previous grading and clearing of the site deteriorated the condition of the site; therefore, the subject property does not support natural vegetation communities. The project is located within the Coachella Valley Multiple Species Habitat Conservation Plan area (CVMSHCP) but is not within a Conservation Area.

To ascertain the impacts of a storage development on the biological resources of the project site and immediate vicinity, a biological survey and impact analysis was conducted by BIOCON2, Biological

Consulting. General and focused surveys were conducted from October 1st through October 20th, 2023. Surveys were conducted during the morning and early evening hours. Surveys were conducted by walking cardinal direction transects at ten-meter intervals. The triangular polygon was walked two times within a two-week period. Each successive transect was walked at right angles to the previous cardinal direction to create a crisscross pattern thereby maximizing search efforts. This survey pattern is both more effective and more stringent than the U.S.F.W.S. requirement for determining the presence or absence of desert tortoise & burrowing owl. This type of intensive survey method exceeds the federal standard and results in no officially listed or federally protected species being overlooked. Animal surveys were conducted simultaneously with plant surveys. Attempts to identify plants listed in previous surveys were accomplished using dichotomous keys, websites, and field guides. Animals were identified through direct observation and reading signs. No pitfall traps or small mammal traps were deployed.

Invertebrate identification was established with area expertise, websites, field guides, and consultation with area ecologists. In order to determine if large animal corridors existed within the boundaries of the project, special attention was given to observation and identification of animal tracks. Smoothing the loose windblown sand in a given area produced very easily identifiable tracks. Area roadkill and depredation sites were monitored for activity. Surveys were conducted in early fall. Most days exceeded 80 degrees Fahrenheit. The region's long-term drought can adversely affect plant germination and distribution and reproduction.

Findings from the biological surveys are discussed below in regard to project impacts.

Discussion of Impacts

a) **Less Than Significant Impact with Mitigation Incorporated.** The approximate 11-acre site would be developed into an enclosed storage facility. The project's surroundings include automotive locksmith services to the north, a tow shop, truck and auto shop, and Harrison Street to the west, a date palm grove to the south, and vacant land and the Coachella Valley Stormwater Channel to the east.

As discussed above, the site has been graded in the past. Based off aerial imagery, prior uses of the site include automotive storage on the western side of the subject property by 2002 until at least 2018.

During the biological survey, a search of the California Natural Diversity Database shows there were nine plant taxa identified during previous surveys in the vicinity; however, no evidence of any listed plants was found on site. The partially developed edges of the site show a limited mixture of native and nonnative shrubs and trees. Observed plants were tamarix, saltbush (*Atriplex canescens*), and arrow weed (*Pluchea sericea*). No special status vegetation was observed, and none are expected; therefore, no impacts are expected on special status plant species.

The fauna of the project site is composed of very few species, which could be expected in a severely disturbed environment that is mostly fenced off. Four mammals were detected during the surveys: coyote (*Canis latrans*), desert cottontail (*Sylvilagus audobonii*), common house cat (*Felis catus*), and common dog (*Canis lupus familierus*). Two reptile species were observed, side blotched lizard (*Uta*) and desert iguana (*Dipsosaurus dorsalis*). Three birds were observed: raven

(*Corvus corax*), mourning dove (*Zenaida macroura*), and northern mockingbird (*Mimus poly glottis*). These bird species were observed flying over the site.

No burrowing owls (*Athene cunicularia*) were observed during the surveys, and no sign of the presence of burrowing owls were observed. However, the project site has a history of burrowing owl sightings and contains prime foraging habitat for the species. Additionally, several large holes were observed on the project site. In order to ensure that burrowing owls are not impacted by the development of the project, a pre-construction survey shall be required 30 days prior to any ground disturbance in order to locate owls or active burrows if any. If burrowing owls are found on site or with 550 yards of the site, certain standards shall be followed, as stated below under "Mitigation Measures" in **Mitigation Measure BIO-1**. With the implementation of **Mitigation Measure BIO-1**, impacts to the burrowing owl, a special status avian species, would be less than significant.

No observation was made of Coachella Valley fringe toed lizard (*Uma inornata*) although there is suitable habitat in the region. A significant effort was made to locate signs of the species. The Coachella Valley fringe toed lizard is officially listed as protected, Threatened, and Endangered. This species is covered under the CVMSHCP. No sign of the species and no firsthand observations or evidence of any kind was found on or near the site. No impact is expected on the species.

The desert tortoise (*Gopherus agassizi*) is officially listed as Federally Protected and Threatened and Endangered. There were no individuals observed, no burrows or sign of desert tortoise, no firsthand observations, or evidence of any kind on or near the site. There were also no observations from previous surveys. No further action is necessary, and no impact on this species is expected.

Due to the overall lack of biodiversity and the results from the biological survey, less than significant impacts to candidate, sensitive or special status species are anticipated to result from project implementation.

b) **No Impact.** The project does not contain nor is it adjacent to any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California department of Fish and Wildlife, or U.S. Fish and Wildlife service. There is no blue line stream within the project property as depicted on the United States Geological Survey topographic maps or National Hydrography Dataset. The proposed project will comply with the City's development standards. As a result, no impacts to riparian habitat or other sensitive natural communities are anticipated.

c) **No Impact.** The project site does not contain, nor is adjacent to, federally protected wetlands, marshes, or other drainage features. The Coachella Valley Stormwater Channel is to the east of the project site; however, vacant land separates the project site from the channel. As a result, implementation of the proposed project would not result in the direct removal, filing or other hydrological interruption of these resources. The project applicant will also be required to develop and implement a Project-Specific Water Quality Management Plan (WQMP) to ensure that the project does not contribute pollutants of concern from storm runoff (see *Hydrology and Water Quality* for further discussion). Therefore, no impacts are anticipated.

d) **Less than Significant with Mitigation Incorporated.** No migratory wildlife corridors or native wildlife nursery sites are found on the project or adjacent properties. The project site has been heavily impacted by pervious grading efforts and development, with no sign of untouched habitat contained. There is little chance of impacting any crucial interaction with surrounding biota. Moreover, there are no existing drainages that would support wildlife nursery sites or corridors, and the site is not located in a known wildlife corridor.

No burrowing owls (*Athene cunicularia*) were observed during the surveys, and no sign of the presence of burrowing owls were observed. However, the project site has a history of burrowing owl sightings and contains prime foraging habitat for the species. Additionally, several large holes were observed on the project site. To ensure that burrowing owls are not impacted by the development of the project, a pre-construction survey shall be required 30 days prior to any ground disturbance in order to locate owls or active burrows if any. If burrowing owls are found on site or with 550 yards of the site, certain standards shall be followed, as stated below under "Mitigation Measures" in **Mitigation Measure BIO-1**. With the implementation of **Mitigation Measure BIO-1**, impacts to the burrowing owl would be less than significant.

With the implementation of **Mitigation Measure BIO-1**, less than significant impacts to movement of any native resident or migratory fish or wildlife species, corridors or wildlife nursery sites are expected.

e) **No Impact.** The site has been disturbed for a number of years and as a result does not support natural vegetation communities or habitats. The proposed project will include landscaping improvements in a manner that is consistent with local development standards. The project will comply with the CVMSHCP and there are no other unique local policies or ordinances protecting biological resources that would cause a conflict nor does the site support high valuable biological resources that could be affected. There are no applicable tree preservation policies or ordinances, and no impacts are expected.

f) **No Impact.** The project lies within the boundary of the CVMSHCP, which outlines policies for conservation of habitats and natural communities. However, the project is not located within or adjacent to a designated Conservation Area under this plan. Therefore, it is not subject to CVMSHCP requirements regarding lands adjoining Conservation Areas. The CVMHSCP implements a Local Mitigation Development Fee (LDMF) for all new development to support the acquisition of conservation lands. The fee would be applied per Chapter 4.48.060 of the City of Coachella Municipal Code. Based on these provisions, the applicable fees would be collected by the City and the project is expected to comply with the provisions of the CVMSHCP. No impact is expected.

Mitigation Measures

BIO-1: Per the 2012, California Department of Fish and Wildlife (CDFW) *Staff Report on Burrowing Owl Mitigation* (CDFW Staff Report), a burrowing owl clearance survey shall be performed by a certified avian biologist 30 days prior to any site disturbance (grubbing, grading, and construction). The pre-construction survey is required to use the accepted protocol of the CDFW Staff Report. The survey shall contain the project site and a 550-yard radius of the site. If no active

burrows are found in the survey area, site disturbance may commence providing a biological monitor is onsite.

Another pre-construction survey shall be conducted 24 hours before ground disturbance. If owls are observed during this survey, a biological monitor, with the authority to halt or redirect grading, should be present whenever grading or construction vehicles are present and operating at the project site. The function of the monitor is to protect burrowing owls that arrive on or near the project site after the clearance survey during the construction period.

If owls are found to be present during the breeding season (February 1 through August 31), no construction disturbances of any kind should occur within 550 yards of an active burrow, as demarcated by the certified avian biologist, during this time period. No construction activity shall occur until the certified avian biologist has determined that the nest site is inactive. Thus, on a project site, it is recommended that grading should take place from September 1st though January 30th to avoid restriction or cancellation of grading permits because of the presence of burrowing owls during the breeding season.

If resident owls are present on or near the project site outside of breeding season, in some cases, the owl(s) can be relocated to other sites by a permitted biologist under the authorization of the U.S. Fish and Wildlife Service.

Monitoring

BIO-A The project applicant shall submit complete preconstruction survey and provide the survey to the City, prior to the commencement of ground disturbing activities.

Responsible Parties: Project Applicant, Project Biologist/Certified Avian Biologist, Community Development Department, City Engineer

V. CULTURAL RESOURCES **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

(Source: City of Coachella General Plan 2035, 2015; City of Coachella General Plan 2035 Draft Environmental Impact Report, 2015; Cultural Resources Assessment Report, Statistical Research, Inc (SRI), December 2023)

Setting

The City of Coachella is in the middle of the Coachella Valley, a low valley sandwiched between the Santa Rosa Mountains to the south and southeast and the Little San Bernardino Mountains to the north. The valley is part of the Colorado Desert geomorphic province, an area that includes both sides of the lower Colorado River as well as the Coachella and Imperial Valleys of California.

The first known human inhabitants of the Coachella Valley included the Cahuilla Indians, whose occupancy spread from the Banning Pass to the Salton Sea. Anthropologists divided the Cahuilla into three groups based on their geographic setting: (1) the Pass Cahuilla of the San Gorgonio Pass-Palm Springs area; (2) the Mountain Cahuilla of the San Jacinto and Santa Rosa Mountains; and (3) the Cahuilla Valley, and the Desert Cahuilla of the eastern Coachella Valley. Varying clan groups of the Desert Cahuilla had many villages throughout the Coachella Valley. Planted crops, as well as hunting and gathering, were identified as the primary way of life for the Cahuilla.

The first official United States land survey in Southern California in the mid-1850's noted eight Indian villages or Indian rancherias within, or just outside, the present boundaries of Coachella, presumably occupied by the Desert Cahuilla people. The City of Coachella contains a significant number of archeological resources due to its rich cultural history and historical settlements within its boundaries.

The project proposes a luxury storage facility for RV's, and other high end luxury vehicles. At buildout, the project will consist of an office/clubhouse, industrial lease space, and nine storage buildings. The office/clubhouse will be two stories and 3,970 square feet (2,740 square feet first floor, 1,230 square feet second floor). The industrial lease space will be 3,140 square feet. The storage buildings will range in size between 17,750 square feet and 34,650 square feet, for a total building area of 225,230 square feet of storage space. In addition to the proposed buildings, development of the site would also include landscaping, street improvements, drive aisles, and parking. Access to the project will be provided from two entry points on Harrison Street. The project proposes 273 parking spaces onsite.

The discussion below evaluates the property's potential impact on cultural resources.

Discussion of Impacts

a) **No Impact.** Records searches and other archival research were conducted at the California Historic Research Information System (CHRIS) Eastern Information Center (EIC), Department of Anthropology, University of California, Riverside, on October 18, 2023, by SRI**.** The records search looked at all reports of archaeological work done within a 1-mile radius of the project site. The search included examining USGS topographical maps held by EIC that show locations of previous cultural resource surveys and known archaeological sites as well as survey reports and records for previously recorded sites. The records search also included consulting the National Register of Historic Places (NRHP) and/or designated California Historical Landmarks. SRI conducted additional archival research, reviewing primary and secondary sources for information pertinent to historical-period activities within the project area, consulting the USGS's online collection of Historical Topographic Maps, online U.S. General Land Office (GLO) records, and historical aerial imagery for information regarding specific historical-period land use in and around the project area.

GLO records identified that the project area was once part of two land patents. The first land patent (Patent No. 1013387) was granted to Louisa Jim, a member of the Cabazon Indian Reservation, on March 10, 1928. The second land patent (Patent No. 1143736) was granted to LeRoy J. Alvarez, heir of Louisa Jim, on April 5, 1954, and consisted of the same plot of land.

The earliest imagery available and on file is from 1953. From 1953 to 1996, the parcel was vacant and covered with sparse scatters of brush and trees. By 1996, the site was cleared of all trees and suggests the site was being prepared for use. In 2002, the western (approx. 2-acre) portion of the site along Harrison Street has been graded flat for use as a shipping container or semi-truck trailer storage. Possible structures also appear in this area in imagery from 2009. By 2016, aerial imagery shows the site completely cleared out and returned to a vacant state by 2018.

No structures have been recorded within the project area maps dated from 1944 to now. Information gathered from historical aerial imagery suggests that the surface of the project area has been mechanically stripped or flattened, although no information is available to indicate that the depth of that disturbance was anything more than surficial.

The records search identified 43 previously recorded cultural resources within the records-search area, none of which is within the project area. The previously recorded cultural resources are 24 prehistoric resources (14 prehistoric sites and 10 prehistoric isolated artifacts [flaked stone and ceramic]), 13 multicomponent sites, and 6 historical-period resources. The historical period resources are identified as two refuse scatters, a segment of Dillon Road, a segment of Avenue 48, a segment of the Southern Pacific Railroad/Union Pacific Railroad line, and a single-family home.

Of the 43 resources, only 10 were evaluated for eligibility for listing in the NRHP, the California Register of Historical Resources (CRHR), or local registers. Eight of those resources are recommended not eligible for listing in the NRHP due to a lack of site integrity. One of the resources, a segment of Dillon Road, was "found ineligible for NRHP, CRHR or local designation through survey evaluation. Segments of the Southern Pacific/Union Pacific Railroad have been evaluated as "individually eligible for local listing or designation" or determined ineligible for NRHP by consensus through Section 106 process.

The approximately 11-acre site was surveyed by SRI. There were numerous fragments of modern-day refuse, including discarded tires and plastic barrels. During the survey, three isolated resources were discovered. They consisted of fragments of sun-colored amethyst and pieces of glass that appeared to originate from a single vessel.

The three isolated artifacts fail to meet any of the four criteria for eligibility for listing in the CRHR. They lack association with events that have made a significant contribution to the broad patterns of California's history and cultural heritage (Criterion 1); cannot be shown to be associated with the lives of persons important in our past (Criterion 2); do not embody distinctive characteristics of a type, period, region, or method of construction, or represent the work of an important creative individual, or possess high artistic values (Criterion 3); and are unlikely to yield information important in prehistory or history (Criterion 4).

No historical-period or prehistoric sites were identified within the project area. No undocumented historical-period resources were identified through archival research. Also, the NAHC Sacred Lands File search was negative for known Tribal resources.

Therefore, there are no recognizable potential historical resources as defined in Section 15064.5 of the CEQA Guidelines that would be adversely affected by the proposed project. No impacts are anticipated.

b) **Less Than Significant Impact with Mitigation Incorporated.** As previously discussed, SRI conducted a records search with the EIC. The results of the records search indicated that 48 previous cultural resource projects had been conducted within the records-search area. Three of the previous cultural resource projects (RI-03245, RI-10406, and RI-11025) intersected the project area. RI-0345 consisted of a 1990 cultural resource sensitivity overview of the Coachella Valley Enterprise Zone—a 27,000-acre area that includes the Cities of Coachella and Indio as well as the unincorporated communities of Thermal, Mecca, Bermuda Dunes, and Thousand Palms. RI-10406 consisted of an archaeological sensitivity model for the Whitewater River Stormwater Channel. RI-11025 was a cultural resource survey of the property in support of the development of the planned High Hampton Coachella Cannabis Farm project; although no cultural resources were discovered during the project, CRM TECH recommended that because of the presence of previously recorded prehistoric resources east of the project area, the eastern portion of the project area should be considered sensitive for buried prehistoric materials (Tang et al. 2017).

As noted above, the records search also identified 43 previously recorded cultural resources within the records-search area, none of which is within the project area. The previously recorded cultural resources are 24 prehistoric resources (14 prehistoric sites and 10 prehistoric isolated artifacts [flaked stone and ceramic]), 13 multicomponent sites, and 6 historical-period resources. The prehistoric sites largely consist of artifact scatters, and there are three habitation sites. Two of the sites (CA-RIV-2985 and CA-RIV-4127) included cremations. The multicomponent sites are composed of prehistoric lithic and/or ceramic scatters or habitation sites and historical-period refuse. One of the multicomponent sites (CA-RIV-2982) included human cremations.

The archaeological survey of the project area identified three isolated resources consisting of fragments of sun colored amethyst glass. None of the three isolated resources is eligible for listing in the CRHR. No historical-period or prehistoric sites were identified within the project area. No undocumented historical-period resources were identified through archival research.

However, based on the soil sensitivity and the several prehistoric sites and isolated resources identified within the records-search area, there is potential for buried resources in the project area. It is recommended that archaeological monitoring be conducted during all ground disturbance during the development of the project site. As part of the project, SRI submitted a request for a Sacred Lands File search to the Native American Heritage Commission (NAHC) in December 2023, and the search produced negative results. The NAHC provided a list of 25 contacts that could provide additional information regarding cultural resources within the project area, and SRI reached out to all 26 contacts.

The Agua Caliente Band of Cahuilla Indians (ACBCI) responded requesting the presence of an approved cultural resource monitor during ground-disturbing activities. However, subsequent to the 2023 Cultural Report, the ACBCI submitted a letter to the City of Coachella during their AB 52 process conducted in June 2024 and deferred to the Cabazon Band of Mission Indians and concluded their consultation efforts. Therefore, only an archaeological monitor shall be required during ground disturbance. A monitoring plan shall be developed and implemented to ensure that any unanticipated discoveries made during project-related ground-disturbing activities are properly treated. The monitoring plan shall include provisions for a qualified archaeologist a monitor to be present during ground-disturbing activities. The monitoring plan should also be flexible and allow for the archaeologist, to reduce or terminate monitoring when it is indicated by field conditions that doing so would be appropriate. This is required by **Mitigation Measure CUL-1.** With the implementation of **CUL-1,** less than significant impacts to archeological resources are anticipated.

c) Less Than Significant Impact with Mitigation Incorporated. As discussed above, no archaeological or historical resources were found during the field survey and EIC indicated that no previously recorded cultural resources were documented within the project area. However, based on the cultural sensitivity of the area there is the potential to find human remains during subsurface grading activities. While no human remains were found on the project site during the survey, a cremation site has previously been identified within the records-search area. Project construction entails grading and excavation, which could result in the discovery of previously unrecorded human remains, including Native American burials.

Pursuant to the State of California Health and Safety Code Section 7050.5 and the CEQA Guidelines Section 15064.5 require that in the event of discovery or recognition of any human remains in any location other that a dedicated cemetery, there shall be no further excavation or disturbance of the site, or any nearby area reasonably suspected to overlay adjacent remains, until the County Coroner has examined the remains. If the coroner determines the remains to be Native American or has reason to believe that they are those of Native American, the coroner shall contact by telephone within 24-hours the Native American Heritage Commission. Pursuant to the mentioned California Health and Safety Code, proper actions shall take place in the event of a discovery or recognition of any human remains during project construction activities. This requirement is listed as **Mitigation Measure CUL-2** in order to ensure that it is included in the Mitigation Monitoring and Reporting Program.

With the compliance of the **CUL-2**, less than significant impacts are expected from the project.

Mitigation Measures

CUL-1 Prior to ground disturbance (including clearing, grubbing, etc.) the applicant/developer will retain a qualified archaeological monitor to be present during all ground disturbing activities. If cultural materials are discovered during grading or excavation, the construction contractor shall cease all earthmoving activity within and around the immediate discovery area until a qualified archaeologist can assess the nature and significance of the find. An archaeological monitoring plan will be developed and implemented to ensure that any unanticipated discoveries made during project-related ground-disturbing activities are properly treated. The archaeologist, shall be consulted to reduce or terminate monitoring when it is indicated by field conditions and as appropriate.

CUL-2 In the event that any human remains are discovered, the applicant shall cease all work and contact the Riverside County Coroner's Office and work shall not resume until such time that the site has been cleared. If the human remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a most likely descendant (MLD).

Monitoring:

CUL-A The project applicant shall submit an archaeological monitoring plan to the City, prior to the commencement of any ground disturbance.

Responsible Parties: Project Applicant, Project Archaeologist, Community Development Department, City Engineer

VI. ENERGY **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

(Sources: The City of Coachella 2035 General Plan, 2015; City of Coachella Climate Action Plan, 2014; California Energy Consumption Database, California Energy Commission, 2025; CalEEMod Version: CalEEMod.2022.1.1.29, accessed June 2025; U.S. Energy Information Administration, 2025).

Setting

The project site occupies approximately 11 acres of land east of Harrison Street and approximately 1,300 feet south of Avenue 48, in the City of Coachella. The project in question proposes the development of a 225,230-square-foot storage facility with 3,970 square feet of office/clubhouse space, and a 3,140-square-foot industrial space for lease. Associated improvements include pedestrian walkways and sidewalks, and paved aisles and parking spaces. The project also proposes roof-top solar panels on Building B, and associated generators and battery backup.

Project development is proposed to occur in phases. The first phase will include the two-story office/clubhouse, Building B, and associated power facilities (i.e., solar panels, batteries, and generator equipment), as well as associated street frontage improvements, paved drive aisles, and parking areas. The solar panels proposed on Building B will provide electric power to the buildings developed in the first phase. As funding is obtained, the remaining buildings will be developed. The remaining buildings will also include roof-top solar panels. The project is intended to be 100 percent solar-operated upon buildout.

According to the City of Coachella's Climate Action Plan (CAP), energy is used for heating and cooling, transportation, manufacturing, and producing food. The most common sources of energy include fossil fuels like oil, gasoline, natural gas and coal. The consumption of these energy sources leads to the production of greenhouse gas (GHG) emissions. In 2010, total GHG emissions in Coachella were approximately 382,787 metric tons (MTCO2e), a 22 percent increase over 2005 emissions of 312,628 MTCO2e. This number accounts for direct emissions from the on-site combustion of fuels and the combustion of fuel in vehicles, as well as indirect emissions associated with community electricity consumption, and emissions from solid waste generated, crop management and water consumed by Coachella. The residential sector was the third largest producer of GHG emissions within the City, after transportation and commercial/industrial. The City of Coachella established various methods to reduce energy related GHG emissions produced by the City in their CAP.

Electricity is provided to the City of Coachella by Imperial Irrigation District (IID). IID is the sixth-largest utility in California, has an energy service area of 6,471 square miles, serving more than 145,000 customers and controlling more than 1,100 megawatts (MW) of energy. Electricity is delivered through high voltage transmission and low voltage distribution power lines. Distribution power lines transport anywhere from 4 kV to 69 kV, while transmission lines can transport 69 kV to 765 kV of electricity. Combination

transmissions and distribution power poles lie on the western boundary of the project. The project proposes roof-top solar facilities.

The Southern California Gas Company (SoCalGas or the Gas Company) provides natural gas to the City of Coachella, including the project site. Natural gas is used primarily for space and water heating, as well as cooking. High pressure distribution pipelines operate at pressures above 60 psi and deliver gas in smaller volumes to the lower pressure distribution system.

The project is expected to consume energy in the form of electric generators and petroleum during project construction, and natural gas and petroleum during project operation. The latest version of CalEEMod (Version 2022.1.1.29) was utilized to calculate construction-source and operational-source energy use. The discussion of the findings is provided below.

Discussion of Impacts

a) **Less than Significant Impact.** As previously stated, the project is expected to consume energy via natural gas and petroleum during its construction and operation. This was calculated using the latest version of CalEEMod. Project-related energy consumption is analyzed below.

Electricity

Construction

Temporary electrical power for lighting and electronic equipment, such as computers inside interim construction trailers, would be provided by generators. Electricity consumed for onsite construction trailers, which are used by managerial staff during the hours of construction activities, as well as electrically powered hand tools are expected to use a minimal amount of electricity. However, the electricity used for such activities would be temporary and negligible. Most energy used during construction would be from petroleum consumption (discussed further below).

Operation

The project proposes roof-top solar and associated equipment (batteries and back-up generators) to power the site. However, the project will connect to IID electrical system once adequate capacity becomes available.

Natural Gas

Natural gas is provided to the City of Coachella, and the project site, by the SoCalGas Company. According to the California Energy Commission, SoCal Gas provided 6,565.65 millions of therms in 2022, while Riverside County consumed 431 millions of therms in 2022.

Note: The CalEEMod program uses thousand British thermal units (kBTU) to quantify natural gas use, where 1 therm equals approximately 100 kBTU. For example, the approximately 600,000 therm increase of natural gas consumption between 2005 and 2010 is equivalent to approximately 600,000,000 natural gas consumption below.

Construction

Natural gas is not anticipated to be required during construction of the project. Fuels used for construction would primarily consist of diesel and gasoline, which are discussed under the following petroleum subsection. Any minor amounts of natural gas that may be consumed because of project construction would be temporary and negligible and would not have an adverse effect.

Operation

The consumption of natural gas typically is consumed during building heating and water heating, which will occur during project operation. The project's expected natural gas consumption was calculated using the CalEEMod default values. Based on the CalEEMod calculations, the project is estimated to consume approximately 4,068,644 thousand British thermal units (kBTU) of natural gas annually during operation of the storage (unrefrigerated warehouse), approximately 42,544 kBTU of annual natural gas use for the office/clubhouse (general office building), and 59,931 kBTU of annual natural gas for the industrial space for lease (unrefrigerated warehouse). This is displayed in Table VI-2, Operational Natural Gas Demand, below.

As such, the project would result in a long-term increase in demand for natural gas. However, the project would be designed to comply with Title 24, Part 6 of the California Code of Regulations (CCR). Natural gas consumption would be appropriate and not place a significant burden on SoCal Gas services.

Table VI-2 Operational Natural Gas Demand

	Natural Gas Use
Land Use	kBTU/yr
Unrefrigerated Warehouse – No Rail	4,068,644
General Office Building	42,544
Parking Lot	0
Unrefrigerated Warehouse – No Rail	59,931
Total	4,171,119

Petroleum

Petroleum accounts for approximately 92 percent of California's transportation energy sources. In 2024, California consumed 26.4 billion gallons of petroleum, including 13.6 billion gallons of finished gasoline and 3.5 billion gallons of diesel. Gasoline and other vehicle fuels are commercially provided commodities and would be available to the project via commercial outlets. Technological advances, market trends, consumer behavior and government policies could result in significant changes to fuel consumption by type and total. Various policies, rules and regulations have been enacted to improve vehicle fuel efficiency, promote the development and use of alternative fuels, reduce transportation-source air pollutants and greenhouse gas (GHG) emissions, and reduce vehicle miles traveled (VMT), at Federal and State levels. Technological advances have made use of other energy resources or alternative transportation modes increasingly feasible, as market forces have driven the price of petroleum products steadily upward.

The transportation sector within the City of Coachella produced approximately 130,000 MTCO2e in 2010, being the largest contributor to GHG emissions in the City. Overall, the transportation sector emitted 45 percent of the City's GHG emissions in 2010. Transportation sector emissions were estimated in the City's CAP by applying conversion factors to daily vehicle miles traveled (VMT). It was estimated that 75 percent of the greenhouse gas emissions from the transportation sector were the result of burning gasoline, and the remainder resulted from burning diesel fuel.

Construction

Petroleum would be consumed throughout construction of the project. Fuel consumed by construction equipment would be the primarily energy resource expended over the course of construction, while VMT associated with the transportation of construction materials and construction worker commutes would also result in petroleum consumption. Heavy-duty equipment used for project construction would rely on diesel fuel, as would haul trucks involved in off-hauling materials from excavation. Construction workers are expected to travel to and from the project site in gasoline-powered passenger vehicles. There are no unusual project characteristics or construction processes that would require the use of equipment that would be more energy intensive that is used for comparable activities or use of equipment that would not conform to current emission standards (and related fuel efficiencies).

Heavy-duty construction equipment of various types would be used during each phase of construction. CalEEMod was used to estimate construction equipment usage. In the analysis of the project the mitigated construction figures were used, based on the assumption that the project will implement applicable mitigation measures. Fuel consumption from construction equipment was estimated by converting the total CO2 emissions from each construction phase to gallons using the conversion factors shown in the tables included below.

Table VI-3, Construction Worker Gasoline Demand (below), illustrates the demand of gasoline fuel for construction worker trips to and from the site. Construction worker demand equals a total of 14,694.0 gallons of gasoline fuel during operation of the project.

Table VI-3 Construction Worker Gasoline Demand

Phase	Days	Trips	Miles	VMT	KgCO2e	Kg/CO2/Gallon	Gallons
Site Preparation	10	17.5	12.8	2,240	770	8.89*	83.2
Grading	30	20	12.8	7,680	2,530	8.89	284.6
Building Const.	300	97.2	12.8	373,248	122,500	8.89	13,779.5
Paving	20	15	12.8	3,840	1,240	8.89	139.5
Arch. Coating	45	19.4	12.8	11,174.4	3620	8.89	407.2
						Total	**14,694.0**

*https://www.epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references
https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator

Table VI-4, Construction Vendor Diesel Fuel Demand (below), illustrates the demand of diesel fuel for construction vendor trips to and from the site. These trips are associated with the delivery of construction materials during the construction phase. Construction vendor demand equals a total of 13,506.9 gallons of diesel fuel.

Table VI-4 Construction Vendor Diesel Demand

Phase	Days	Trips	Miles	VMT	KgCO2e	Kg/CO2/Gallon	Gallons
Site Preparation	10	0	0	0	0	10.18	0
Grading	30	0	0	0	0	10.18	0
Building Const.	300	38.1	8.33	95,211.9	137,500	10.18	13,506.9
Paving	20	0	0	0	0	10.18	0
Arch. Coating	45	0	0	0	0	10.18	0
						Total	**13,506.9**

Table VI-5, Construction Hauling Diesel Fuel Demand (below), illustrates the demand of diesel fuel for construction hauling trips from the site. These trips are associated with the hauling of materials during the grading phase. Construction hauling demand equals a total of 4,538.3 gallons of diesel fuel.

Table VI-5 Construction Hauling Diesel Demand

Phase	Days	Trips	Miles	VMT	KgCO2e	Kg/CO2/Gallon	Gallons
Hauling	10	48.6	20	9,720	46,200	10.18	4,538.3
						Total	**4,538.3**

Table VI-6, Construction Equipment Diesel Fuel Demand, displays the demand of diesel fuel for construction vehicles on-site during the various construction phases. Construction equipment diesel demands equals a total of 45,062 gallons of diesel fuel.

Table VI-6, Construction Equipment Diesel Fuel Demand

Phase	Days	Equipment Units	KgCO2e	Kg/CO2/Gallon	Gallons
Site Preparation	10	7	24,100	10.18	2,367.4
Grading	30	8	90,100	10.18	8,850.7
Building Const.	300	9	328,000	10.18	32,220.1
Paving	20	6	13,800	10.18	1,355.6
Arch. Coating	45	1	2,730	10.18	268.2
				Total	**45,062**

Overall, the project is estimated to consume approximately 14,694 gallons of gasoline and 63,107.2 gallons of diesel fuel during the project's construction phases. In total, the project will consume approximately 77,801.2 gallons of petroleum. Petroleum use is necessary to operate construction equipment. The US EPA applied a Tier 4 program in order to reduce the impacts of motor vehicles on air quality and public health. The vehicle emissions standards will reduce both tailpipe and evaporative emissions from passenger cars, light-duty trucks, medium duty passenger vehicles, and some heavy-duty vehicles. The construction equipment will utilize Tier 4 engines or higher, therefore would be newer off-road equipment units.

The energy used during the construction of the project would be limited to the development of the project and would not require long-term petroleum use. Additionally, there are no unusual project characteristics or construction processes that would require the use of equipment that would be more energy intensive than is used for comparable activities or use of equipment that

would not conform to current emissions standards (and related fuel efficiencies). Thus, project construction would not consume petroleum in a wasteful or inefficient manner.

Operation

Lowering transportation emissions requires making vehicles and their fuels cleaner, reducing the length of driving trips, managing the demand for travel, and providing alternatives such as walking, biking, and transit for travel. According to the Coachella CAP, in 2010 the City produced approximately 900,000 vehicle miles traveled each day, producing 180,078 MTCO2e from transportation-related emissions.

According to the figures provided by the CalEEMod calculations, the project would have an estimated annual VMT of 498,717, depicted in Table VI-7 below. Total mobile source CO2e is 185 MT per year, or 185,000 kg per year. CalEEMod assumes 92.5 percent of VMT burns gasoline, while the remaining 7.5 percent burn diesel. Thus, of the 185,000 kg of mobile emissions, 171,125 kg is generated by gasoline combustion and 13,875 kg is generated by diesel combustion. The project would have an annual gasoline demand of 19,249.2 gallons and an annual diesel demand of 1,363 gallons, as displayed in the following Table VI-8.

Table VI-7, Operational Petroleum Demand

Land Use	Annual VMT
Unrefrigerated Warehouse – No Rail	390,989
General Office Building	95,778
Parking Lot	0
Unrefrigerated Warehouse – No Rail	11,950
Total	498,717

Table VI-8 Operational Annual Petroleum

	Annual VMT	KgCO2e	Kg/CO2/Gallon	Annual Gallons
Gasoline	461,313.2	171,125	8.89	19,249.2
Petroleum	37,403.8	13,875	10.18	1,363
			Total	**20,612.2**

Over the lifetime of the project, the fuel efficiency of vehicles in use is expected to increase, as older vehicles are replaced with newer more efficient models. Therefore, it is expected that the amount of petroleum consumed due to the vehicle trips to and from the project site during operation would decrease over time. Additional advancement of technology includes the use of plug-in hybrid and zero emission vehicles in California, which will also decrease the amount of future petroleum consumed in the state. With the foregoing, operation of the project is expected to use decreasing amounts of petroleum over time, due to advances in fuel economy.

Additionally, the proposed project is primarily not located near existing residential communities. Commercial uses are not located in proximity to the project area. The closest commercial development to the project site is located approximately 0.38 miles southwest along Grapefruit Boulevard/Highway 111.

Bus services, provided by SunLine Transit, will also be accessible to the project. The closest bus stop to the project is approximately 1 mile (walking or driving) at Grapefruit Boulevard and Avenue 48. The availability of bus lines and services will reduce the amount of potential VMTs created by the proposed project.

Although the project would result in an increase in petroleum use during construction and operation compared to the existing, vacant conditions, the project would comply with the City's General Plan Update, City Municipal Code, and Climate Action Plan regarding VMT reduction. Additionally, the project would provide a pedestrian access network that internally links the proposed commercial uses to the surrounding uses. Providing a pedestrian access network to link areas within the project site and surrounding areas encourages people to walk instead of drive, therefore reducing the regional VMTs and associated vehicular-source emissions. Given these considerations, petroleum consumption associated with the project operation would not be considered excessive.

Development and operation of the proposed project would increase demand for energy in the project area and in the service areas of SoCalGas Company. However, based on the findings described above, project construction and operation are not anticipated to result in potentially significant impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.

b) **Less Than Significant Impact.** The approximately 11-acre project site proposes the development of a storage facility and industrial lease space. As stated in the previous discussion, project development and operation are not anticipated to use an unnecessary or wasteful amount of energy resources. To ensure the conservation of energy, the state of California and the City of Coachella implements various regulations in order to be more energy efficient and reduce the amount of GHG emissions. Some of the state-wide and local regulations are listed below.

State Regulations

Assembly Bill 32

Assembly Bill 32 (AB 32) was signed in 2006 to establish and reduce the amounts of greenhouse gases being emitted on a state-wide level. Specifically, AB 32 requires a reduction of emissions to 1990 levels by 2020. It plans to do this by establishing an annual reporting program for significant sources. Energy efficiency goals listed in AB 32 includes maximizing energy efficiency building and appliance standards, and pursuing additional efficiency efforts including new technologies, and new policy and implementation mechanisms.

CARB Scoping Plan

A specific requirement of AB 32 was to prepare a Climate Change Scoping Plan for achieving the maximum technologically feasible and cost-effective GHG emission reduction by 2020 (Health and Safety Code section 38561(h)). The California Air Resources Board (CARB) developed an AB 32 Scoping Plan that contains strategies to achieve the 2020 emissions cap. The initial Scoping Plan was approved in 2008, and contains a mix of recommended strategies that combined direct regulations, market-based approaches, voluntary measures, policies, and other emission reduction programs calculated to meet the 2020 statewide GHG emission limit and initiate the transformations needed to achieve the State's long-range climate objectives. Updates to the Scoping Plan occurred in 2014, 2017, and 2022.

Assembly Bill 1493/Pavley Regulations

California Assembly Bill 1493 (AB 1493), enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. In 2005, the CARB submitted a "waiver" request to the Environmental Protection Agency (EPA) from a portion of the federal Clean Air Act in order to allow the State to set more stringent tailpipe emission standards for CO2 and other GHG emissions from passenger vehicles and light duty trucks. On December 19, 2007, the EPA announced that it denied the "waiver" request. On January 21, 2009, CARB submitted a letter to the EPA administrator regarding the State's request to reconsider the waiver denial. The EPA approved the waiver on June 30, 2009.

Executive Order S-3-05

Executive Order (EO) S-3-05, passed in 2005, established reduction targets of an 80 percent of 1990 levels reduction by 2050, and created agencies to achieve these targets. The passage of this regulation requires the use of more energy efficient practices regarding building development and operation in order to reduce the amount of GHGs produced.

State of California Energy Plan

The California Energy Commission (CEC) is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The Plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators and encouragement of urban designs that reduce vehicle miles traveled and accommodate pedestrian and bicycle access.

Title 20: Appliance Efficiency Standards

The California Code of Regulations (CCR), Title 20: Division 2, Chapter 4, Article 4, Sections 1601-1608 (Appliance Efficiency Regulations) regulates the sale of appliances in California. The Appliance Efficiency Regulations include standards for both federally regulated appliances and non-federally regulated appliances. 23 categories of appliances are included in the scope of these regulations. The standards within these regulations apply to appliances that are sold or offered for sale in California, except those sold wholesale in California for final retail sale outside the state and those designed and sold exclusively for use in recreational vehicles or other mobile equipment.

Title 24: Building Energy Efficiency Standards and CALGreen Building Standards Code

In addition to Title 20 (Sections 1601-1608) of the CCR, Title 24, parts 6 and 11, also outlines energy efficient building designs for new development. The CCR's Building Energy Efficiency Standards (Title 24, Part 6), and the CALGreen Building Standards Code (Title 24, Part 11), establish mandatory guidelines and standards requiring more energy efficient new and existing developments. The California Energy Commission adopted the Building Energy Efficient Standards for all new residential and nonresidential construction to reduce greenhouse gases, as a part of the California Building Code, Title 24. The code emphasizes heat pumps for space heating and water heating; and extends the benefits of photovoltaic and battery storage systems and other demand flexible technology. Title 24, Part 11, establishes design and development methods that include environmentally responsible site selection, building design, building siting and

development to protect, restore and enhance the environmental quality of the site and respect the integrity of adjacent properties. The proposed project will be required to comply with the state implemented standards for energy efficient new developments.

California's Renewable Portfolio Standards

The California Renewable Portfolio Standards will reduce GHG emissions by requiring utility companies, such as IID, to switch from non-renewable resources, such as coal-fired power plants, to renewable resources, such as wind turbines and solar power.

Low Carbon Fuel Standard

The Low Carbon Fuel Standard (LCFS), or Executive Order (EO) S-1-07, establishes a low carbon fuel standard for transportation fuels in California. EO S-1-07 was enacted to reduce carbon intensity in transportation fuels as compared to conventional petroleum fuels, such as gasoline and diesel. It requires that the carbon intensity of California's transportation fuels be reduced at least 10 percent by 2020.

Clean Car Standards

The Clean Car Standards, otherwise known as Pavley 1493, sets more stringent vehicle fuel economy standards for cars and light trucks that reduce greenhouse gas emissions. In 2009, the federal government enabled the state of California to enforce stricter tailpipe emissions limits on new passenger vehicles. In 2010, the US EPA and the Department of Transportation's National Highway Safety Administration announced new vehicle greenhouse gas emission standards and corporate average fuel economy standards that reinforce California's standard.

City Regulations

The City of Coachella Climate Action Plan

The City of Coachella developed their Climate Action Plan (CAP) in 2014 in order to achieve community-wide greenhouse gas emissions reductions. The CAP quantifies emissions from the build-out of the City and includes additional policies and implementation actions to help Coachella further reduce emissions. The CAP analyzes policies from the General Plan Update, that reduce energy use, vehicle miles traveled, resource consumption, and greenhouse gas emissions, comparing the emissions to voluntary statewide emissions targets outlined in the California Climate Action Scoping Plan and Executive Order S-03-05. In compliance with the statewide emission targets, the City established a per service population 2020 emissions reduction target of 15 percent below 2010 levels and a 2035 emissions reduction target of 49 percent below 2010 levels.

The CAP organizes the General Plan polices into six strategies to reduce emissions reductions throughout the City: building and infrastructure energy efficiency, renewable energy generation, land use and transportation, vegetation and open space, solid waste, and water use. According to the CAP residential and non-residential buildings produce approximately 39 percent of Coachella's emissions and are a primary target for the CAP. The City plans to achieve this emissions reduction through energy efficiency policies for homes, and businesses including energy performance targets to construct buildings 15 percent more energy efficient than Title 24 standards.

Coachella General Plan Update

The City of Coachella's General Plan Update (GPU) emphasizes the importance to increase energy conservation and efficiency and reduce energy consumption and emissions within its City. The various goals and policies outlined within the Sustainability and Natural Environment Element of the GPU focuses on City development and its impact to climate change, energy and water resources, while presenting the goal to implement green building design into new developments in the City. Reoccurring policies include GHG emissions reductions, water conservation methods, energy efficient building design, and implementation of renewable energy sources. Goal 2 specifically requires an energy efficient community that relies primarily on renewable and non-polluting energy sources. Policies within this goal include building design strategies such as passive solar design, use of alternative energy, construction standards, and energy performance targets in order to create a more energy efficient community.

The importance of efficient land use and transportation patterns is also a goal in the GPU, in order to reduce emissions and VMTs, while improving air quality. The overall goal is to reduce energy consumption in the City to improve air quality, reduce GHG emissions, to increase the quality of life for the City's residents.

Coachella Municipal Code

Similar to the City's CAP and GPU, the City's Municipal Code also encourages the reduction of air pollution created by vehicle emissions. Chapter 12.40, Transportation Demand Management Program, of the Coachella Municipal Code, is intended to protect the public health, welfare and safety by reducing air pollution caused by vehicle trips and VMTs. This chapter is intended to reduce emissions by requiring the development of a trip reduction and travel demand element to the congestion management plan (CMP), and adoption and implementation of trip reduction and travel demand ordinances by local agencies.

The project proposes a storage facility and industrial lease space on approximately 11 acres of vacant and undeveloped land in the City of Coachella. The project will comply with state-implemented building standards such as those outlined in Title 20 and Title 24 of the California Code of Regulations. High efficiency lighting will be implemented during project operation. As stated in the previous discussion, project-related energy consumption and VMTs created by the project are not anticipated to be substantial. Construction activities would require the use of equipment that would be more energy intensive that is used for comparable activities. However, construction equipment will comply with the Tier 4 program engines or higher, therefore there would be newer off-road equipment units. The project also proposes the installation of solar panels and associated facilities (i.e., batteries and back-up generators) to provide electric power to the site. The site intends to be 100 percent solar at buildout. Although the project is designed to operate on solar power due to the current lack of available Imperial Irrigation District (IID) electrical capacity in the area, it will connect to the IID electrical system once adequate capacity becomes available.

The project property is located in an urban environment, surrounded by existing industrial uses to the north and west and agricultural uses to the south. Pedestrian pathways that internally links all uses and connects to all existing planned external streets are proposed in the project design.

The project property will comply with all applicable State and local guidelines and regulations regarding energy efficient building design and standards. Therefore, the proposed project is not

anticipated to conflict or obstruct a state or local plan for renewable energy or energy efficiency. Less than significant impacts are expected.

Mitigation Measures: None Required

VII. GEOLOGY AND SOILS **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☒	☐	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☒	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒

(Sources: The City of Coachella 2035 General Plan, 2015; The City of Coachella 2035 General Plan Update EIR, 2015; Technical Background Report to the Safety Element, 2014; Geotechnical Investigation, Sladden Engineering, 2023; Department of Water Resources Sustainable Groundwater Management Act Web Map Viewer; FEMA Flood Zone Map: Riverside County, 2017; Cultural Resource Assessment of the Proposed 2731 Myers Concrete Project, Coachella, Riverside County, California, Statistical Research Inc., 2023.)

Setting

Coachella defines its city as highly diverse both physically and geologically. The multiple faults that traverse the area and climate helps define the Coachella Valley region as a low and relatively flat desert basin bounded by mountainous terrain. The surrounding mountain ranges specifically include the Little San Bernardino Mountains to the northeast, the Santa Rosa Mountains to the south, and the San Jacinto Mountains to the west. The topographic variety in the Coachella Valley establishes elevations from 1,000 feet in the Mecca Hills to the east, to approximately 160 feet below sea level south of Thermal. Although

the elevation varies widely, the City of Coachella is relatively flat, with a gentle slope from northwest to southeast. The project site is located in the west side of the City on previously disturbed, flat land.

The City of Coachella, including the project site, is located within a northwest-southeast structural depression extending from the Banning Pass to the Gulf of California. This region is designated as the Salton Trough, which was inundated by the Colorado River's water, forming ancient Lake Cahuilla. Since that time, the floor of the Trough has been repeatedly flooded with other "fresh" water lakes, the most recent being the current Salton Sea. The Trough is an internally draining area with no readily available outlet to the Gulf of California portions well below sea level. The sole outlet for these waters is evaporation, leaving behind vast amounts of terrestrial sediment materials.

In 2014 the City of Coachella published a Technical Background Report to the Safety Element Update, which analyzes various hazards that can possibly occur in the City. The various hazards addressed within the Technical Background Report include seismic, geologic, flood, fire, hazardous material and severe weather hazards. The seismic and geologic hazards sections of the Technical Background Report were consulted for this Geology and Soils Section.

Sladden Engineering composed a project-specific Geotechnical Investigation in December 2023. The purpose of the Geotechnical Investigation was to determine specific engineering characteristics of the near surface soil on the site in order to provide recommendations for foundation design and site preparation. The investigation included field exploration, laboratory tests, literature review and engineering analysis.

Based on the results of the project-specific Geotechnical Investigation, Sladden Engineering compiled various recommendations to ensure the safety of the proposed project. These recommendations include:

1. Site Clearing: Prepare grading areas by clearing vegetation, roots, underground utilities, and debris. Ensure spaces designated for fill are devoid of previous fills and irreducible materials. Dispose of or stockpile strippings for future landscaping use. Properly backfill voids created by obstructions following compaction recommendations outlined in the Geotechnical Investigation.

2. Preparation of building areas: In order to provide firm and uniform bearing conditions over-excavation throughout the proposed building areas is recommended. All low-density near-surface native soil should be removed to a depth of at least 4 feet below existing grade or 3 feet below the bottom of the footings, whichever is deeper. Remedial grading should extend laterally, a minimum of five feet beyond the building perimeter. The native soil exposed by over-excavation should be scarified, moisture conditioned to near optimum moisture content and compacted to at least 90 percent relative compaction prior to fill placement. The previously removed soil may then be replaced as compacted engineered soil in accordance with the recommendations in the report. Remedial grading should not be necessary where drilled pier foundation systems are utilized.

3. Compaction: Soil to be used as engineered fill should be free of organic material, debris, and other deleterious substances. All fill material should be placed in thin lifts, not exceeding six inches in a loose condition. If import fill is required, the material should be of a low to non-expansive nature and should meet the criteria provided in the report. The subgrade and all fill should be compacted with acceptable compaction equipment, to at least 90 percent relative compaction. The bottom of the exposed subgrade should be observed by a representative of Sladden Engineering prior to

fill placement. Compaction testing should be performed on all lifts to ensure proper placement of all fill materials. Excavation and compaction recommendations are provided in the Geotechnical Investigation.

4. Shrinkage and Subsidence: Volumetric shrinkage of the material that is excavated and replaced as controlled compacted fill should be anticipated. It is estimated that the shrinkage should be between 15 and 25 percent. Subsidence of the surfaces that are scarified and compacted should be between 1 tenth and 3 tenths of a foot. This will vary depending upon the type of equipment used, the moisture content of the soil at the time of grading and the actual degree of compaction attained.

The 2023 Geotechnical Investigation was consulted for this Geology and Soils Section and discussed further below.

Discussion of Impacts

a.i) **No Impact.** The City of Coachella recognizes the potential of seismic hazards in the region. Coachella's 2035 General Plan Update states that because the San Andreas Fault passes through the northeastern portion of the City, the potential for primary surface fault rupture and strong ground shaking are very high. For this reason, a project's location relative to the Alquist-Priolo Earthquake Fault Zone is evaluated to determine the project's susceptibility to seismically induced rupture. The Alquist-Priolo Earthquake Fault Zone is a northwest-southeast descending zone established in 1971 to reduce losses from surface fault rupture on a statewide basis. The intent of the zone is to ensure public safety by prohibiting the siting of most structures for human occupancy across traces of active faults that constitute potential hazards to structures from surface faulting or fault creep.

According to the City of Coachella's Technical Background, the maximum magnitude recorded from the San Andreas Fault was 7.2, and the Coachella section is the only section of the southern San Andreas Fault that has not produced a major earthquake in historic times. Sladden Engineering's project-specific Geotechnical Investigation states that surface rupture is expected to occur along pre-existing, known active fault traces, however, it could potentially splay or step from the known active faults or rupture along unidentified traces. After consulting the Alquist-Priolo Earthquake Fault Zone Map issued by the State Geologist, it was concluded that the subject property lies approximately 1.30 miles northeast of the closest Alquist-Priolo Earthquake Fault Zone. Additionally, there were no signs of active surface fault rupture or secondary seismic effects on the project property during Sladden Engineering's site assessment.

The City of Coachella's current municipal code reflects the possible impacts of potential seismic hazards in Chapter 15.66, Seismic Hazards Mitigation. New buildings are required to follow these codes in order to be theoretically stronger and more likely to survive an earthquake, with the main purpose to prevent the collapsing of structures. Therefore, risks associated with fault rupture at the project site is considered low since the project site is not located within the Alquist-Priolo Earthquake Fault Zone and will comply with required building codes and recommendations provided in the Geotechnical Investigation. No impacts are anticipated.

a.ii) **Less Than Significant Impact.** The project site is located in a seismically active region where earthquakes originating on local and regional seismic faults can produce severe ground shaking.

Like most of the Coachella Valley, the project site has been subjected to past ground shaking by nearby faults. According to the Geotechnical Investigation, activity from nearby active faults is expected to produce strong seismic shaking during the design life of the proposed project.

In order to reduce hazards associated with ground shaking impacts on people and buildings, the City of Coachella implements the latest seismic safety design standards outlined in both the Coachella General Plan Technical Background Report, and the most recent California Building Code (CBC). The City of Coachella requires new buildings to be constructed in accordance with the most recent edition of the CBC and City Municipal Code. The Coachella Municipal Code provides regulations for collapse-resistant design, which will be enforced during structure design and construction. Remedial grading and construction will work to reduce exposure of people or structures to adverse effects to the greatest extent possible against seismic hazards.

Sladden Engineering has reviewed the 2022 CBC and ASCE7-16 to develop site-specific ground motion parameters for the subject site.

The buildings and structures proposed for the project will be required to follow all applicable building standards outlined in the CBC and the City's Municipal Code, in order to ensure the safety of the residents. All grading and construction plans will be reviewed by the City. Therefore, project-related impacts associated with seismic ground shaking are less than significant.

a.iii) Less Than Significant Impact with Mitigation Incorporated. The General Plan's Technical Background Report addresses the different forms of ground failure that the City of Coachella may be susceptible to after the event of an earthquake, including liquefaction, settlement and slope failure. Liquefaction, according to the Technical Background Report, typically occurs in saturated, loose, fine- to medium-grained sandy to silty soils in the presence of ground accelerations of 0.2g, and groundwater within 50 feet below the ground surface. In an event of an earthquake, the increase of subsurface water pressure may fill the pores and increase subsurface water pressure, causing the soil to lose strength and behave like a liquid, and potentially compromising the ground. According to the General Plan Technical Background Report, Plate 1-3, *Seismic Hazard Zones Map*, the project site is located in an area with high liquefaction susceptibility due to the youthful, unconsolidated sediments, and historically shallow groundwater within 30 feet of the ground surface.

The Coachella Water Authority and Sanitary District operates and maintains the water distribution system for the project property and the City of Coachella. According to the Department of Water Resources, Sustainable Groundwater Management Act, Web Map Viewer, one of the nearest monitored, public well to the project is identified as CWA Well 10. Based on the most recent monitoring information, reported on May 23, 2023, the depth to groundwater at this well site was approximately 30.7 feet. During the boring tests for the 2023 project-specific Geotechnical Investigation, a groundwater depth of approximately 30 feet below the existing ground surface was found onsite. Generally uniform site conditions were encountered during the site inspection as well.

Settlement is a potential consequence of seismic activity and liquefaction, where the excess pore pressure generated by ground shaking and leading to liquefaction is associated with the tendency for loosely compacted, saturated soil to rearrange into a denser configuration during shaking. Dissipation of that excess pore pressure will produce volume decreases (termed consolidation or

compaction) within the soil that may be manifested at the ground surface as settlement. Unconsolidated young alluvial deposits are especially susceptible to this hazard.

Mitigation measures for seismically induced settlement and liquefaction are similar, according to the Technical Background Report. The measures generally fall into one of two categories: (1) ground improvement and (2) foundation design. Recommended methods of ground improvement involve over-excavation and re-compaction of low-density soils, removal of excess ground water, and densification of soils to name a few. When addressing the foundation design, the Technical Background Report recommends the input of deep piles as reinforcement of shallow foundations.

In addition to the Technical Background Report, Sladden Engineering's Geotechnical Investigation lists similar recommendations specific to the project site. These suggestions include stripping of vegetation, root systems and debris, over-excavation and re-compaction, and compaction. The potential for seismic related ground failure at the project site is projected to be less than significant with mitigation efforts associated with liquefaction listed as **Mitigation Measure GEO-1**.

Strong ground shaking can cause existing slopes to become unstable, which may lead to landslides or rockfalls that can overrun structures, harm people or damage property, sever utility lines and block roads. Rockfalls and landslides are more likely to occur in the northeastern portion of the City due to the steep slopes located there. Protection from rockfalls or surficial slides can often be achieved by protective devices such as barriers, retaining structures, catchment areas, or a combination of the above. According to Plate 1-3, *Seismic Hazard Zones*, in the Technical Background Report, the project property is not located in an area that is susceptible to seismically induced rockfalls, rock slides, soil falls, soil slides and soil slumps. This is due to the project's location in a generally developed and urban area, as well as its distance from the nearest sloped areas.

With the implementation of **Mitigation Measure GEO-1**, the project is not expected to be significantly impacted by seismically induced liquefaction, settlement or landslides or rockfalls, and impacts would be less than significant.

a.iv) **No Impact.** The City defines landslides as movements of relatively large landmasses, either as nearly intact bedrock blocks, or as jumbled mixes of bedrock blocks, fragments, debris and soils. The potential for landslides is dependent on various factors including slope height, slope steepness, shear strength and orientation of various weak layers underground. According to the City of Coachella's Technical Background Report to the Safety Element Update, the majority of the City has a 0 to 10 percent grade, including the project site (Plate 2-2, *Slope Distribution Map*). Areas with a 10 percent grade or greater involves the areas along the San Andreas Fault northeast of the project site. In the Technical Background Report, the City recognizes and maps the various landslide and rockfall hazard areas in Coachella (Plate 1-3). These areas are also located where the percent grade is higher than 10 percent.

In addition to Coachella's Technical Background Report, the project-specific Geotechnical Investigation states that the subject site is located on relatively flat ground and is not located immediately adjacent to any slopes. As such, risks associated with slope instability are considered negligible. Therefore, no impacts associated with landslides are anticipated.

b) **Less Than Significant Impact.** The Coachella Technical Background Report states that climate, topography, soil and rock types and vegetation are all influential factors of erosion, runoff and sedimentation in the Coachella Valley. Human activities, such as grading and construction, is also a large contributor to erosion in the region. The soils most susceptible to erosion include the unconsolidated sediments in the canyon bottoms and valley floor, as well as the granular semi-consolidated sediments forming the hills. Windborne, waterborne and human-borne erosion are concerns for the City of Coachella, especially because wind-blown sand causes soil loss, dryness and deterioration of soil structure, nutrient and productivity losses, air pollution, sediment transport and deposition, and health problems.

Windborne erosion is a widespread concern in Riverside County, especially in the Coachella Valley. Approximately 20 percent of land area in the County is vulnerable to "high" and "very high" wind erosion. The Coachella Valley floor, including the subject property, is highly susceptible to wind erosion due to the high winds funneled from the west (Riverside County 2016 General Plan Figure S-8). As previously stated, windborne erosion not only causes physical and structural damage, but also damages to the public health by causing respiratory problems.

The proposed project will require activities such as clearing onsite vegetation as well as construction, and other ground disturbances by heavy machinery that could result in the loss of some topsoil and generate particulate matter. The City of Coachella requires mitigation of this hazard with the implementation of a Fugitive Dust Control Plan (Coachella Municipal Code Chapter 8.20, Fugitive Dust Control). The Fugitive Dust Control Plan is a document that describes fugitive dust sources at a site and the corresponding control measures. Pursuant to SCAQMD Rules 403 and 403.1, the project is required to implement the Fugitive Dust Control Plan and the use of best management practices (BMPs) during operations capable of generating fugitive dust in the Coachella Valley.

In addition to windborne erosion, the City of Coachella determines that a majority of the City, including the project site, is susceptible to water erosion due to the distal fan and lake deposits. The entire project is located within the FEMA Flood Zone X, which are areas determined to have moderate to low flood risk. Flood Zone X corresponds to areas of 500-year flood, areas of 100-year flood with average depths of less than one foot or with drainage areas less than one square mile, and areas protected by levees from 100-year flood. Approximately 300 feet east of the project property is the Coachella Valley Stormwater Channel, which FEMA designates as Flood Zone AE. This flood zone is defined as an area subject to inundation by the 1-percent-annual-chance flood event and likely to create erosion within the zone.

The mitigation of waterborne erosion at the project site during construction activities includes the developer's compliance with the State's most current Construction General Permit (CGP) (Order No. 2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ). Compliance with the CGP involves the development and implementation of a project-specific Stormwater Pollution Prevention Plan (SWPPP) designed to reduce potential adverse impacts to surface water quality during the period of construction. The required plan will identify the locations and types of construction activities requiring BMPs and other necessary compliance measures to prevent soil erosion and stormwater runoff pollution. The plan will also identify the limits of allowable construction-related disturbance to prevent any exceedances or violations. Waterborne erosion and the City's Standard Conditions associated with it are thoroughly discussed in the Hydrology and Water Quality Section of this document.

To reduce the amount of soil erosion created, the project shall implement a Fugitive Dust Control Plan and a Stormwater Pollution Prevention Plan and best management practices, which are required not only by Coachella but also the Riverside County. With the former being stated, less than significant impacts regarding soil erosion at the project site are anticipated.

c) **Less Than Significant Impact with Mitigation Incorporated.** The proposed project site is located on the western side of the City of Coachella, on previously graded/cleared land. The majority of the City has a grade of 0 to 10 percent, meaning that Coachella is relatively flat. The Technical Report in the City of Coachella's General Plan claims lake and distal fan as being a substantial deposit of the City, including the project site (Plate 2-1a, *Geologic Map* & Plate 2-1b, *Explanation for Geologic Map*). This consists of predominantly fine-grained sand, silt and clay. According to the project-specific Geotechnical Investigation, site native soils primarily consist of fine-grained silty sand (SM), sandy silt (ML), and sandy/silty clay (CL). Generally, granular soil was found to be dry to wet, medium dense, and grayish brown in in-situ color. Cohesive layers were found to be dry to wet, stiff to hard, grayish brown in in-situ color, and exhibited slight to medium plasticity characteristics. The various soil components are vital to the stability of the project site specifically regarding landslides, lateral spreading, subsidence, liquefaction or collapse.

As described above, the soils encountered on the site consisted mainly of SM. This soil type paired with the current depth to groundwater levels at the site, makes the project site potentially susceptible to liquefaction during seismic shaking. Since the site is potentially susceptible to liquefaction, it may also be susceptible to settlement and lateral spreading, which also requires a shallow water table or proximity to a water source that could cause inundation of onsite soils. Based on the current depth to groundwater and the generally uniform soil conditions underlying the site, the settlement that would occur due to ground shaking would be relatively minor (less than 1 inch) and is predicted to occur over a horizontal distance of approximately 100 feet.

The site is not susceptible to landslides due to its relatively flat terrain and distance from mountainous slopes, and although tectonic subsidence has been documented in the Coachella Valley, it is not known to occur in the project vicinity.

Settlement or collapsible soils, as the Safety Element of the Coachella GPU states, typically occur in recently deposited sediments that accumulated in arid or semi-arid environments. Collapsible soils do not appear to be widespread in the planning area, but most likely do occur in localized areas, especially in those with distal fan and lake deposits. Sladden Engineering determined that settlement resulting from the anticipated foundation loads should be minimal provided that the recommendations included in their Geotechnical Investigation are considered in foundation design and construction.

Implementation of **Mitigation Measure GEO-1** will ensure that project-related impacts associated with soil instability will be less than significant.

d) **Less Than Significant Impact.** Expansive soils typically contain large amounts of clay that expand when water is absorbed and shrink when they dry. The best defense against this hazard in new developments is to avoid placing expansive soils near the surface or over watering the expansive soils.

Generally, the near-surface soil consists of SM. Based on the results of the laboratory testing, the materials underlying the site are considered to have a "very low" expansion potential. SM was the most prominent soil discovered during bore testing. Sandy silt and sandy clay were also encountered during the bore tests. The laboratory tests indicated that the surface soil within the upper 5 feet consists of SM. Expansion tests conducted by Sladden Engineering indicated an expansion category soil of very low, in accordance with the California Building Code. Therefore, risks of structural damage caused by expansive soils at the project site is anticipated to be less than significant.

e) **No Impact.** The project site is currently vacant with evidence of grading onsite. Prior uses of the site based off aerial imagery include automotive storage on the western side of the subject property in 2002 until at least 2018. The proposed project will connect to the City's existing sewer system. No alternative wastewater disposal systems are proposed. No adverse impacts associated with wastewater disposal systems will occur. No impacts are expected regarding wastewater disposal systems and sewers.

f) **No Impact.** The City values its rich history and paleontological resources; therefore, the preservation of these resources is highly important. The protection of important archaeological and paleontological resources from loss or destruction depends on the implementation of appropriate mitigation during development activities.

The Coachella GPU EIR considers the project site and surrounding area as having an "undetermined sensitivity" for paleontological resources (Figure 4.4-3, *Paleontological Resource Sensitivity*). Undetermined potential is assigned to areas which are underlain by Lake Cahuilla sediments, but which are overlain by recent sediments from the Whitewater Delta and have been disturbed by agriculture.

As stated in the City's GPU EIR, existing regulations protecting paleontological resources are in place and prevent the removal or destruction of any resource without presenting the findings and restricting and preserving the resources, or determination of resources not being worthy of reporting.

For areas like the project site, considered to be an area that cannot be determined to have paleontological resources, the following policies from the Sustainability + Natural Environment Element of the Coachella GPU (CGPU) provide regulatory framework:

- **10.3 Archaeological resource preservation**. Preserve important archaeological and paleontological resources from loss or destruction and require development to include appropriate mitigation to protect the quality and integrity of these resources.
- **10.4 Mitigation and preservation of cultural resources**. Require development to avoid archaeological and paleontological resources, whenever possible. If complete avoidance is not possible, require development to minimize and fully mitigate the impacts to the resources.
- **10.5 Grading.** Require that proposed projects that involve a significant amount of grading shall have an archaeological and paleontological survey conducted before construction. 12.6 Paleontological resources. Require any paleontological artifacts found within the City or Sphere of Influence be reported to the City and temporarily loaned to local museums like the Western Science Center for Archaeology and Paleontology, in Hemet, CA.

The regulations covering the City that protect paleontological resources serve as the foundation for reducing impacts to these resources and proposed projects would be required to comply with the existing regulations in order to obtain development permits. Additionally, projects proposed like the proposed project would be required to comply with CGPU policies and guidelines in order to be granted permits. Failure to follow regulations and CGPU guidelines and policies would result in permits not being granted. It is the combined regulations that will be used in the development permit review stage where decision makers can conduct site-by-site analysis of any negative paleontological impacts from development. Because of this regulatory framework protecting paleontological resources, negative impacts to paleontological resources on the project site are considered less than significant.

Mitigation Measures

GEO-1 The applicant shall comply with all recommendations set forth in the Geotechnical Investigation prepared for the project (Appendix C) during construction.

Monitoring

GEO-A Responsible Parties: Project Applicant, Project Geologist, City Engineer

VIII. GREENHOUSE GAS EMISSIONS Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

(Sources: California Emissions Estimator Model (CalEEMod), Version 2022; California Greenhouse Gas Emissions for 2000 to 2020, Trends of Emissions and Other Indicators, 2022 Edition, California Air Resources Board; California Greenhouse Gas Emissions for 2000 to 2019, Trends of Emissions and Other Indicators, 2021 Edition, California Air Resources Board; Release No. 18-37 & 19-35, California Air Resources Board Press Release, July 2018 and August 2019)

Setting

Summary of Local and Statewide Greenhouse Gas Regulations and Trends:

Greenhouse gases (GHG) are a group of gases that trap solar energy in the Earth's atmosphere, preventing it from becoming too cold and uninhabitable. Common greenhouse gases in the Earth's atmosphere include water vapor, carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), ozone, and chlorofluorocarbons to a lesser extent. Carbon dioxide is the main GHG thought to contribute to climate change. Carbon dioxide reflects solar radiation back to Earth, thereby trapping solar energy and heat within the lower atmosphere. Human activities (such as burning carbon-based fossil fuels) create water vapor and CO2 as byproducts, thereby impacting the levels of GHG in the atmosphere. Carbon dioxide equivalent (CO2e) is a metric used to compare emissions of various greenhouse gases. It is the mass of carbon dioxide that would produce the same estimated radiative forcing as a given mass of another greenhouse gas.

To address the long-term adverse impacts associated with global climate change, California's Global Warming Solutions Act of 2006 (AB 32) requires California Air Resource Board (CARB) to reduce statewide emissions of greenhouse gases to 1990 levels by 2020. In 2016, Governor Jerry Brown signed Senate Bill 32 (SB32) that requires California to reduce GHG emissions to 40 percent below 1990 levels by 2030. With the passage of the California Global Warming Solutions Act of 2006 (Assembly Bill 32) in California, environmental documents for projects pursuant to CEQA are required to analyze greenhouse gases and assess the potential significance and impacts of GHG emissions.

California's annual statewide GHG emission inventory is a relevant tool for tracking California's progress in reducing GHGs and achieving the statewide GHG target. The GHG inventory relies on data collected through various California Global Warming Solutions Act (AB 32) programs. On July 11, 2018, CARB announced in a press release (No. 18-37) that greenhouse gas pollution in California fell below 1990 levels for the first time since emissions peaked in 2004, an achievement roughly equal to taking 12 million cars off the road or saving 6 billion gallons of gasoline a year. Moreover, according to the CARB report on California Greenhouse Gas Emissions for 2000 to 2017 (published in 2019), which tracks the trends of GHG

emissions, California's GHG emissions have followed a declining trend between 2007 and 2017. In 2017, emissions from GHG emitting activities statewide were 424 million metric tons of CO2 equivalent (MMTCO2e), 5 MMTCO2e lower than 2016 levels and 7 MMTCO2e below the 2020 GHG Limit of 431 MMTCO2e. The data also show that for the first time since California started to track GHG emissions, the state power grid used more energy from zero-GHG sources like solar and wind power than from electrical generation powered by fossil fuels. On July 28, 2021, CARB announced via Press Release No. 21-34 that state Greenhouse Gas Inventory shows emissions have continued to drop below 2020 target, which is a return to the 1990 GHG levels. The target was achieved four years ahead of schedule in 2016.

On October 26, 2022, CARB published the California Greenhouse Gas Emissions for 2000 to 2020, Trends of Emissions and Other Indicators. Based on this report, in 2020, emissions from GHG emitting activities statewide were 369.2 million MMTCO2e, 35.3 MMTCO2e lower than 2019 levels and 61.8 MMTCO2e below the 2020 GHG Limit of 431 MMTCO2e. The 2019 to 2020 decrease in emissions was deemed likely due in large part to the impacts of the COVID-19 pandemic. Economic recovery from the pandemic may result in emissions increases over the next few years. As such, the total 2020 reported emissions are likely an anomaly, and any near-term increases in annual emissions should be considered in the context of the pandemic.

South Coast Air Quality Management District:

On December 5, 2008, the SCAQMD Governing Board adopted the staff proposal for an interim GHG significance threshold for projects where the SCAQMD is lead agency. A threshold for projects where SCAQMD is not the lead agency has not been adopted. The City of Coachella also has not adopted a GHG numeric threshold of significance. From the interim GHG guidance, a GHG emission level of 3,000 MTCO2e has traditionally served as measure to distinguish small projects that can be screened out while achieving the emission capture rate of 90 percent for all new or modified projects subject to environmental review. According to the SCAQMD guidance, the 90 percent emission capture rate sets the emission threshold low enough to capture a substantial fraction of future stationary source projects that will be constructed to accommodate future statewide population and economic growth, while setting the emission threshold high enough to exclude small projects that will in aggregate contribute a relatively small fraction of the cumulative statewide GHG emissions. This assertion is based on estimates that these GHG emissions would account for less than one percent of future 2050 statewide GHG emissions target (85 MMTCO2eq per year). In addition, these small projects would be subject to future applicable GHG control regulations that would further reduce their overall future contribution to the statewide GHG inventory.

The City of Coachella Climate Action Plan:

The City of Coachella developed their Climate Action Plan (CAP) in 2014 in order to achieve community-wide greenhouse gas emissions reductions. The CAP quantifies emissions from the build-out of the City and includes additional policies and implementation actions to help Coachella further reduce emissions. The CAP analyzes policies from the General Plan Update, that reduce energy use, vehicle miles traveled, resource consumption, and greenhouse gas emissions, comparing the emissions to voluntary statewide emissions targets outlined in the California Climate Action Scoping Plan and Executive Order S-03-05. In compliance with the statewide emission targets, the City established a per service population 2020 emissions reduction target of 15 percent below 2010 levels and a 2035 emissions reduction target of 49 percent below 2010 levels.

The CAP organizes the General Plan polices into six strategies to reduce emissions reductions throughout the City: building and infrastructure energy efficiency, renewable energy generation, land use and transportation, vegetation and open space, solid waste, and water use. According to the CAP residential and non-residential buildings produce approximately 39 percent of Coachella's emissions and are a primary target for the CAP. The City plans to achieve this emissions reduction through energy efficiency policies for homes, and businesses including energy performance targets to construct buildings 15 percent more energy efficient than Title 24 standards.

As previously discussed, CalEEMod Version 2022 was used to quantify GHG emissions associated with construction and operation of the proposed project. The parameters considered for CalEEMod and air quality analysis involved the site dimensions and traffic information from the Coachella Vault Trip Generation and VMT Screening Assessment.

Discussion of Impacts

a) **Less Than Significant Impact:** The project parameters were factored into CalEEMod to evaluate whether the GHG emissions would exceed the screening levels and therefore conflict with the plans and efforts of reducing the emissions of greenhouse gases. Construction-related GHG emissions were amortized over a 30-year period and added to the project's annual operational GHG emissions. The operational GHG emissions can be attributed to area sources, mobile sources, solid wastes and water supply, treatment and distribution of the proposed operations. As previously discussed, the screening threshold of 3,000 metric tons of carbon dioxide equivalent MTCO2e) per year will serve as the numeric threshold of significance. The GHG emissions estimates resulting from CalEEMod are displayed below in Table VIII-1.

Table VIII-1 Total Project Greenhouse Gas Emissions

Unmitigated Emission Source	Emissions (metric tons per year)
	Total CO2E
Annual Construction Emissions Amortized Over 30 Years	18.21
Mobile, Area, Energy, Water, Waste, Refrigerant Sources	763.29
Total CO2E (All Sources)	781.5
SCAQMD Screening Threshold	3,000
Threshold Exceeded?	NO

Table VIII-1 demonstrates that the project is expected to generate approximately 781.5 MTCO2e per year from construction, mobile, area, energy, water, waste, and refrigerant sources. Therefore, the project would not result in GHG emissions at a scale or level capable of having a significant impact on the environment. Less than significant impacts are anticipated.

b) **Less Than Significant Impact:** The project is expected to result in GHG emissions totaling 781.5 MTCO2e per year, which is below the applicable screening level of 3,000 MTCO2e per year set forth under the SCAQMD regional jurisdiction that generally categorizes small-scale projects. As a result, the project is not expected to conflict with any applicable plan, policy or regulation for the purpose of reducing GHG emissions.

The City of Coachella has prepared and adopted Climate Action Plan (CAP) in conjunction with a General Plan Update as a roadmap for achieving community-wide greenhouse gas emissions reductions. The CAP builds on the 2013 General Plan Update, quantifying emissions from the build-out of the proposed plan and includes additional policies and implementation actions to help Coachella further reduce emissions. It also includes strategies to protect public health and make the community more resilient to climate change. Coachella's CAP is designed to provide clear policy guidance to the City staff and decision-makers on how to reduce greenhouse gas emissions. It identifies a pathway to reduce emissions within a range of voluntary, state-level emissions reduction targets. This path includes strategies for improving connectivity and land use patterns, transportation modes and systems, incorporating energy efficiency standards, increasing the City's renewable energy supply, and reducing waste and consumption. By providing an emissions inventory, emissions targets, and strategies for reducing greenhouse gas emissions, the City of Coachella has established a framework evaluating and mitigating greenhouse gas emissions. Part of these emissions reductions will need to be achieved through better environmental performance of new development.

The CAP organizes General Plan policies into six strategies to reduce emissions throughout the City: building and infrastructure energy efficiency; renewable energy generation; land use and transportation; vegetation and open space; solid waste; and water use. Each strategy is supported by a number of more specific programs, actions, and measures that will be implemented as part of the City's General Plan.

Energy Efficiency: Residential and non-residential buildings produce approximately 39% of Coachella's emissions and are a primary target for the CAP. This strategy for energy performance targets to construct buildings 15% more energy efficient than Title 24, increase passive solar design features, and planting new shade trees.

The proposed development will include a roof-mounted photovoltaic (PV) solar system to supply power to all on-site facilities. The system would operate as a microgrid, supported by two backup energy storage batteries. Such systems will comply with and support the energy efficiency strategy of the City's Climate Action Plan. Electricity generation provided by local electricity providers has varying carbon intensities based on the portfolio of energy sources. Because PV systems generate zero GHG emissions, this measure displaces the emissions that would have been produced had electricity been supplied by the local electricity provider and thus results in a reduction in emissions. Onsite renewable systems can also provide backup power as an alternative to diesel generators in the event of grid power outages.

Energy Generation: This strategy includes General Plan policies that will help homes and businesses in Coachella increase renewable energy production. It includes requirements for solar photovoltaic infrastructure on new homes and businesses and pursuing clean energy through community choice aggregation.

As previously mentioned, the proposed roof-mounted photovoltaic (PV) solar system, intended to power all on-site facilities, would constitute a form of renewable energy, therefore supporting the energy generation strategy of the City's Climate Action Plan.

Land Use and Transportation: Coachella's General Plan provides clear guidance for how Coachella will become a city of walkable neighborhoods tied together by multi-modal transportation

corridors and interspersed with vibrant districts for shopping, working, entertaining, and commerce. The walkable neighborhoods will have a diverse mix of housing types and will be in close proximity to shopping and neighborhood services so that the majority of one's daily needs are a short walk away. This strategy evaluates the land use and transportation policies in the General Plan that aim to reduce vehicle miles travelled and improve mobility. Specific implementation measures involve changing land uses, adopting a new perspective on community design, promoting alternative modes of travel, and revising antiquated parking standards.

The proposed development will not involve a permanent population. Traffic generation will be attributed to storage, office, and warehousing trips by authorized persons. Therefore, the project is not expected to conflict with this strategy.

Solid Waste: Solid waste generation produces only a small percentage of Coachella's emissions (3%), but with population and employment growth, the specific actions outlined in the General Plan to increase waste diversion can result in significant emissions reductions. This strategy includes General Plan policies related to increase residential and commercial recycling and construction recycling. The proposed development is expected to follow the City's most current recycling and other waste diversion programs, as applicable. Therefore, no conflicts with this strategy are anticipated.

Vegetation and Open Space: Not only do trees and open space enhance the appearance of a community, they reduce ambient air temperature, lower energy use, reduce air and water pollution, and absorb greenhouse gases. Coachella's General Plan includes polices for increasing access to parks and open spaces and planting new trees. This compilation of General Plan polices focuses on the carbon sequestration benefits of new vegetation and trees.

The nature of the proposed project within an industrial land use district is not expected to conflict with or burden the vegetation and open space strategies by the City.

Water Use: Water use represents one of the fastest growing emissions sectors in the Coachella CAP with potable water use growing 45% between 2005 and 2010. The General Plan includes policies to address indoor and outdoor water use and future water supply. This strategy analyzes the effectiveness of these measures at reducing greenhouse gas emissions.

The proposed development is expected to implement the required water-efficient landscape irrigation and indoor fixtures to support the water use strategy.

The construction of new storage and associated facilities would comply with the most current building energy efficiency and water efficiency standards. The applicability and implementation of statewide vehicle emission standards would not be impeded or burdened by the proposed scale and land use of the project that has been factored into the governing General Plan. Less than significant impacts are anticipated.

Mitigation Measures: None required

IX. HAZARDS AND HAZARDOUS MATERIALS **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

(Sources: City of Coachella 2035 General Plan Update, 2015; Coachella Municipal Code; Coachella Technical Background Report to the Safety Element Update, 2014; Enforcement and Compliance History Online, EPA; EnviroStor, Department of Toxic Substances Control; GeoTracker, State Water Resources Control Board; Phase I Environmental Site Assessment APNs 768-350-002 and 768-400-001, MSA Consulting, Inc., February 2019.

Setting

The project site is located on 11 acres of vacant land east of Harrison Street and approximately 1,300 feet south of Avenue 48. The vacant site has been disturbed as evident by vehicle tires and cleared vegetation. The project proposes a 225,230-square-foot storage facility with 3,970-square-foot offices/clubhouse, and a 3,140-square-foot industrial space for lease.

The Coachella Fire Services, as part of the Riverside County Fire Department, supports the Riverside County Health Department in maintaining a program requiring that anyone operating a hazardous occupancy or using, storing, or transporting hazardous materials has a permit.

Discussion of Impacts

a-b) **Less Than Significant Impact.** The approximately 11-acre project proposes the development of an storage facility and industrial lease space in the City of Coachella's Industrial District land use designation and Wrecking Yard (M-W) Zone. The proposed storage and warehouse use are permitted within Industrial Districts and M-W zones. The project site is surrounded by existing industrial businesses to the north and west, vacant land to the east, and a date palm grove to the south.

The Code of Federal Regulations (CFR Title 40, Part 261) defines hazardous materials based on ignitability, reactivity, corrosivity, and/or toxic properties. The State of California defines hazardous materials as substances that are toxic, ignitable or flammable, reactive and/or corrosive, which have the capacity of causing harm or a health hazard during normal exposure or an accidental release. As a result, the use and management of hazardous or potentially hazardous substances is regulated under existing state, federal and local laws. Hazardous wastes require special handling and disposal methods to reduce their potential to damage public health and the environment. Manufacturer's specifications also dictate the proper use, handling, and disposal methods for the specific substances.

Project construction would involve the use of heavy equipment that have a potential of fuel and oil spills due to the usage of fuel, oil, lubricants and other potential flammable substances. The contractor will be required to identify a staging area for storing these materials, as well as other practices to prevent any hazardous discharge or release into the environment, in their Storm Water Pollution Prevention Plan (SWPPP). The SWPPP requires a list of pollutant sources and the identification of construction areas where additional control measures are necessary to prevent pollutants from being discharged. Best management practices (BMPs) are necessary for proper material delivery and storage, material use and spill prevention and control. The measures will outline the required physical improvements and procedures to prevent impacts of pollutants and hazardous materials to workers and the environment during construction. For example, all construction materials including paints, solvents, and petroleum products must be stored in controlled areas and according to the manufacturer's specifications. Additionally, perimeter controls (fencing with wind screen), linear sediment barriers (gravel bags, fiber rolls or silt fencing), and access restrictions (gates) would help prevent temporary impact to the public and environment; therefore, less than significant impacts during the construction of the project site are expected.

The proposed storage facility operations will include people driving to the facility and storing their RVs in the contained storage area. The nature of these activities is not expected to involve, as a primary activity, the routine transport, use or disposal of hazardous materials in quantities or in a manner that would pose a threat to the project and its surroundings or create a significant hazard through a foreseeable accident condition involving the release of hazardous materials into the environment. The regular operation of the of the storage facility will involve the handling, application, and storage of cleaning agents, building maintenance products, paints, solvents and

other related substances commonly used with the maintenance of industrial buildings. These products are not expected to be used in amounts harmful to the public.

The project also proposes the development and operation of a 2,640-square-foot industrial space for lease, with 500 square feet of associated offices. The future industrial business leasing the 3,140-square-foot space may store, supply, or distribute industrial materials. Any hazardous materials onsite will be stored in compliance with the manufacturer's instructions. Under Chapter 6.95, Article 2, of the California HSC, operators of stationary sources of hazardous materials (if they are deemed an accident risk) are required to prepare risk management plans (RMPs), detailing strategies to reduce the risk of accidental hazardous material release and submit them to the California Emergency Management Agency. Additionally, industrial facilities that store hazardous materials (e.g., fuel, pesticides) exceeding the threshold quantity would prepare a Hazardous Materials Business Plan (HMBP), as required by Chapter 6.95 of the California HSC and enforced by the Riverside County Department of Environmental Health (DEH). A Hazardous Materials Handler is identified as any facility storing hazardous materials and or wastes in quantities greater than or equal to 55 gallons of a liquid substance; 500 pounds of a solid substance; or 200 cubic feet of compressed gas.

If the industrial business leasing the 3,140-square-foot space stores the hazardous materials in quantities greater than or equal to the amounts listed above, the project must implement a HMBP. The information from the HMBP is made available to first responders in the County for emergency response activities. All handlers are required to disclose their inventory of hazardous materials in the HMBP. The Riverside County DEH, as CUPA for the County, will manage and assure implementation of a project-specific HMBP, should the project tenant require one. Data generated for HMBP compliance is managed through the Statewide California Environmental Reporting System (CERS).

HMBPs must include at least the following:

- A list of the chemical name and common names of every hazardous substance or chemical product handled by the business;
- The category of waste, including the general chemical and mineral composition, of every hazardous waste handled by the business;
- The maximum amount of each hazardous material or mixture containing a hazardous material that is present onsite;
- Sufficient information on how and where the hazardous materials are handled by the business to allow fire, safety, health, and other appropriate personnel to prepare adequate emergency responses to potential releases of the hazardous materials;
- Emergency response plans and procedures in the event of a reportable release or threatened release of a hazardous material; and
- Training for all new employees and annual training, including refresher courses, for all employees on safety procedures in the event of a release or threatened release of a hazardous material.

Under the administration of the County of Riverside DEH, and in compliance with the Hazardous Materials Release Response Plans and Inventory Law, Chapter 6.95 of the HSC, any business handling and/or storing a hazardous material shall obtain a permit from the DEH and electronically submit a business plan in the Statewide Informational Management System.

The industrial space could include the storage or handling of hazardous materials, as defined in Chapter 8.64 of the Riverside County Code and would be required to follow the procedures established in the Municipal Code and Chapter 6.95 of the HSC. The implementation of the HMBP and its compliance with the codes listed above as well as the adherence to federal, State, and regional regulatory standards listed above would ensure impacts related to the storage and the risk of accidental releases of hazardous materials associated with the project are less than significant.

The handling, application and storage of cleaning agents, building maintenance products, paints, solvents and other related substances is expected to occur within the project in order to carry out the necessary operations for industrial uses. However, these materials would not be present in sufficient quantities that pose a significant hazard to public health and safety, or the environment. Less than significant impacts are anticipated.

c) **Less than Significant Impact.** The closest school to the project site is Cesar Chavez Elementary School, located approximately 0.60 miles southwest of the project. The project is located more than a quarter mile from the closest school. Therefore, no hazardous material-related impacts to schools are expected.

d) **Less Than Significant Impact**. As previously discussed, the project site occupies approximately 11 acres of vacant and undeveloped land. The project is located within Coachella's Industrial District and is surrounded by existing industrial businesses to the north and west. As discussed in the project description, the western one-third of the project site was used for storage between 2002 and 2016. Aerial imagery from 2002 indicates storage containers were kept onsite. In 2009, aerial imagery shows both storage containers and automobiles were stored onsite. The western one-third of the site continued to operate as vehicle storage until 2016, when the site was cleared. Since 2016 the site has remained vacant, and vegetation started to regrow on the western one-third. The eastern two-thirds of the site has remained vacant and undeveloped.

Record searches on the project property were performed within multiple database platforms, pursuant to Government Code 65962.5 and its subsections. The resources consulted included GeoTracker, EnviroStor and the EPA Enforcement and Compliance History Online (ECHO).

GeoTracker is a database maintained by the State of California Water Resources Control Board that provides online access to environmental data. It serves as the management system for tracking regulatory data on sites that can potentially impact groundwater, particularly those requiring groundwater cleanup and permitted facilities, such as operating underground storage tanks and land disposal sites.

EnviroStor is a database maintained by the State of California Department of Toxic Substances Control (DTSC). The EnviroStor database identifies sites with known contamination or sites for which there may be reasons to investigate further. It includes the identification of formerly contaminated properties that have been released for reuse; properties where environmental deed restrictions have been recorded to prevent inappropriate land uses; and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Moreover, the ECHO database focuses on inspection, violation, and enforcement data for the Clean Air Act (CAA), Clean Water Act (CWA) and Resource Conservation and Recovery Act (RCRA) and also includes Safe Drinking Water Act (SDWA) and Toxics Release Inventory (TRI) data.

In June 2025, a search was performed on all three database platforms. The three consulted databases did not list any facilities related to the project site. The three databases, however, recorded sites within a half-mile radius of the project property. The results are described below:

GeoTracker is a database maintained by the State of California Water Resources Control Board to provide online access to environmental data. It serves as the management system for tracking regulatory data on sites that can potentially impact groundwater. The database search results revealed three Leaking Underground Storage Tanks (LUST) Cleanup Sites within half a mile of the project site. The facilities are listed as follows:

- Sossa's Market #7, at 48975 Grapefruit Boulevard, approximately 0.36 miles southwest of the project site. This site is listed as a LUST Cleanup Site.
- Quail Oil at 4848 Grapefruit Boulevard, approximately 0.43 miles west of the project site. This site is listed as a LUST Cleanup Site.
- Walter Oversen at 84540 Mitchell, approximately 0.43 miles west of the project site, is listed as a LUST Cleanup Site.

Each facility is listed as Case Closed, therefore, they are not anticipated to impact the project site.

The EnviroStor database did not reveal a cleanup site of facility within a half a mile radius of the project property. The closest facility in the database is US Auto Salvage (US Metals), at 84481 Cabazon Road, approximately 0.60 miles northwest of the project site. This facility is listed as a standard voluntary agreement, undergoing continuous review and soil sampling from the DTSC to ensure soil contamination does not occur.

When consulting the Enforcement and Compliance History Online (ECHO) database, the database search results revealed eleven registered sites within half a mile of the project site. The facilities are listed as follows:

- Desert Truck and Auto Parts, located west of the project site at 48451 Harrison Street, is listed by the Resource Conservation and Recovery Act (RCRA) as an active facility.
- SA Recycling, located approximately 400 feet north of the project at 48100 Harrison Street, is listed by the CWA as a non-major general permit covered facility, and the RCRA as an active large quantity generator (LQG).
- Manufacturing 360, located 550 feet north of the project at 48115 Harrison Street, is listed by the RCRA as an active facility.
- Kismet Organic, located approximately 0.18 miles north of the project at 48050 Harrison Street, is registered by the RCRA as both an active LQG and inactive facility.
- AJAX Auto Wrecking, Inc., located approximately 0.20 miles northwest at 84851 Avenue 48, is registered by the RCRA as an active facility.
- Coachella Manufacturing LLC, located approximately 0.22 miles northwest at 84811 Avenue 48, is registered by the RCRA as an active facility.

- R and S Auto Wrecking, located approximately 0.22 miles northwest at 84811 Avenue 48, is registered by the RCRA as an active small quantity generator (SQG).
- Gartik Corp DBA D9 Manufacturing, Inc., located approximately 0.31 miles northwest at 84805 Avenue 48 Suite 3A-3, is registered by the RCRA as an active facility.
- Mojave Jane LLC, located approximately 0.31 miles northwest at 84805 Avenue 48 Suite 1-B, is registered by the RCRA as an active facility.
- Marcelo's Auto Repair, Inc., located approximately 0.36 miles northwest at 84801 Avenue 48, is registered by the RCRA as an active facility.
- Food 4 Less Fuel Center #517, located approximately 0.42 miles southwest at 49245 Grapefruit Boulevard, is registered by the RCRA as an active LQG.
- Beltran's Truck Repair Company, Inc., located approximately 0.46 miles west at 84540 Ed Mitchell Drive, is registered by the RCRA as an active facility.

Each facility is listed as having no violation within the 3-year reporting period; therefore, they are not anticipated to impact the project site.

Per the records search pursuant of Government Code 65962.5, the project site was not registered as having any Leaking Underground Storage Tank (LUST) Cleanup Sites, Land Disposal Sites, Military Sites, DTSC Hazardous Waste Permits, DTSC Cleanup Sites, or Permitted Underground Storage Tanks onsite. No violations were recorded with the associated site. Less than significant impacts are anticipated.

e) **No Impact.** The Jacqueline Cochran Regional Airport is located approximately 4 miles southeast of the project site. The project is not located within the boundaries of the airport's land use compatibility plan. The project site is also not located in the vicinity of a private airstrip. The project will not result in safety hazards or excessive noise for people living or working in the area.

f) **Less Than Significant Impact.** The City of Coachella's Technical Background Report to the Safety Element Update analyzes various safety hazards within the City. These potential hazards include seismic hazards, geologic hazards, fire hazards, hazardous materials management and severe weather hazards. The preparation, response and recovery of these hazards are outlined within Chapter 7 of the Technical Background Report. According to Chapter 7, the City of Coachella is a participant member of the Riverside County Operational Area Multi-Jurisdictional Hazard Mitigation Plan (HMP) approved by FEMA in 2005 and ongoing updates to the document.

The Coachella Fire Department Station is located approximately 3.2 driving miles southwest of the project site, at 1377 6th Street. The closest police station to the project site is the Indio Police Department at 46800 Jackson Street (approximately 2.9 driving miles northwest). The Police Department typically serves as the lead organization in carrying out evacuations, supported by the Fire Department as appropriate. The Public Works Department typically assists in the identification of the best evacuation routes and in barricading the evacuated areas.

As depicted in Plate 7-2 in the Technical Background Report, Avenue 48 is the closest City designated evacuation route to the project, lying approximately 1,300 feet north of the property.

The proposed project will not significantly alter the existing circulation pattern in the project area or adversely impact evacuation plans, considering that the site is currently surrounded by existing

industrial businesses and the existing paved right-of-way, Harrison Street. The project lies within the City's Industrial District, which accommodates a range of light and heavy commercial and industrial businesses. The properties north and west of the project operate as industrial businesses, while the property to the south includes a date palm grove.

As previously discussed, primary ingress and egress to the storage facility will be located at two points on the west side of the property, on Harrison Street. Proposed parking and circulation plans will be reviewed by the Fire and Police Departments to assure that the project's ingress/egress driveways and roads are adequate for accommodating emergency vehicles. A construction traffic plan will be required to be submitted to the Fire Department for review prior to development in order to assure that the project does not interfere with emergency access during development. Therefore, less than significant impacts are anticipated.

g) **No Impact.** Large areas of Southern California are susceptible to wildfires all year around due to the region's weather, topography and vegetation conditions. The Coachella Valley's hot, dry summer with the dry brush vegetation creates ideal conditions to fuel most wildfires. The California Board of Forestry considers wildland as important source of water, timber, minerals, wildlife, recreation and forage. Wildland fire protection in California is the responsibility of either the State, local government, or federal government. Local responsibility areas include incorporated cities where fire protection is typically provided by City fire departments, fire protection districts, counties and by CAL Fire under contract to local government.

The project site is located in the Industrial District land use in Coachella zoned Wrecking Yard. It is located in an urbanized area of the City with existing industrial and agricultural properties to the north, west, and south. The Riverside County General Plan and the CAL Fire Maps for Western Riverside County indicate that the project and its surroundings are not located within the Very High Fire Hazard Severity Zone for both State or Federal Responsibility Areas and Local Responsibility Areas. With the foregoing, the project would not expose people or structures to significant injury, loss or death due to wildfires. No impacts are anticipated.

Mitigation Measures: None Required.

X. HYDROLOGY AND WATER QUALITY **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would:				
i) result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	☒	☐
iii) create or contribute runoff water which would exceed the capacity of existing or planned storm-water drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv) impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

(Sources: Flood Insurance Rate Map 06065C2260H, Federal Emergency Management Agency, March 6, 2018; 2035 Coachella General Plan, 2015, City of Coachella; Water Quality Control Plan for the Colorado River Basin Region, January 2019; 2020 Coachella Valley Regional Urban Water Management Plan, June 2021)

Setting

Summary of Regulatory Framework Relevant to Hydrology and Water Quality:

Hydrology refers to the occurrence, distribution, and movement of surface water, including water found in rivers and stormwater drainage systems. Stormwater particularly refers to the surface runoff and drainage resulting from rain events. Stormwater runoff and surface drainage patterns are determined by the soil conditions, topography, and associated gradients of the land. Surface water quality refers to selected physical, chemical, or biological characteristics found in stormwater in relation to existing

standards. Groundwater is the water found underground in the voids in soil, sand, and rock. It is stored in and moves slowly through aquifers. Groundwater supplies are naturally replenished, or recharged, by precipitation that seeps into the land's surface and by replenishment efforts made by local water agencies.

The Clean Water Act (CWA) of 1972 was enacted to restore and maintain the chemical, physical, and biological integrity of the nation's waters by regulating the discharge of pollutants to waters of the U.S. from point sources. The National Pollutant Discharge Elimination System (NPDES) was enacted as a program under the CWA to regulate non-point source discharges from urban land runoff and other diffused sources that were also found to contribute to runoff pollution. Under CWA, the Environmental Protection Agency (EPA) delegated the NPDES program responsibility to various state, tribal, and territorial governments, enabling them to perform many of the permitting, administrative, and enforcement aspects of the program. California is a delegated NPDES state and has authority to administer the NPDES program within its limits.

The Porter-Cologne Water Quality Control Act (California Water Code section 13000 et seq.) is the principal law governing water quality regulation for surface waters in California, thus effectuating the delegated provisions of the federal CWA and its NPDES program. It has set forth a comprehensive program to protect water quality and the beneficial uses applicable to surface waters, wetlands, and ground water and to point and nonpoint sources of pollution. The Porter-Cologne Act establishes that, as a matter of policy, all the waters of the State shall be protected; all activities and factors affecting the quality of water shall be regulated to attain the highest water quality within reason; and that the state must be prepared to exercise its full power and jurisdiction to protect the quality of water in the state from degradation. The Porter-Cologne Act established the State Water Resources Control Board (SWRCB) and nine California Regional Water Quality Control Boards (RWQCBs), including Region 7, Colorado River Basin Regional Water Quality Control Board, which has jurisdiction in the City of Coachella and project site.

Under this framework, the Colorado River Basin Water Quality Control Plan (Basin Plan) serves as the guiding document prepared, adopted, and maintained to identify the existing and potential beneficial uses of waters of the State and establish water quality objectives to protect these uses. It is worth noting that as defined in Section 13374 of the California Water Code (CWC), the term "Waste Discharge Requirements" (WDRs) is equivalent of the term "permits" and is therefore attained through a regulatory compliance process. Compliance with WDRs is achieved through the appropriate permit registration process under the applicable National Pollutant Discharge Elimination System (NPDES) programs described in this section.

At the regional level, the project is located within the Whitewater River Watershed, which is an arid desert region encompassing approximately 1,645 square miles. Within this watershed, an area of approximately 367 square miles (22 percent) encompassing most of the existing development in the Coachella Valley region, is regulated under the established Whitewater River Region Municipal Separate Storm Sewer System Permit (MS4 Permit). The Riverside County Flood Control and Water Conservation District (RCFC&WCD), Coachella Valley Water District, and the incorporated Coachella Valley cities, including Coachella have joint permittee responsibility for coordinating the regional MS4 Permit compliance programs and other activities aimed at reducing potential pollutants in urban runoff from land development construction, municipal, commercial, and industrial areas to the maximum extent possible. These public entities are generally in charge of stormwater management within their jurisdiction.

At the City level, Chapter 13.16 (Water Quality Control) of the Coachella Code of Ordinances serves as the local stormwater management standard, aligning with the MS4, NPDES, and CWA programs.

Existing Drainage Conditions:

The project site exhibits a vacant and relatively level terrain with sparse vegetation coverage on visibly uniform soils, made up primarily of three mapped soil types: Gilman fine sandy loam (GcA), Gilman silt loam (GfA), and Indio very fine sandy loam (It). Based on the USGS Web Soil Survey, the underlying site soils correspond to Hydrologic Soil Group B, which is characterized for having moderate runoff potential and moderate infiltration rates. The site elevation has a gentle gradient from west to east, descending three feet from approximately 53 feet below sea level at the west-end to approximately 56 feet below sea level at the east-end. The vacant site is absent of any formal structures or other permanent improvements. The property perimeter is delineated primarily by chain link fencing. The property frontage on the west lacks any public or private storm drainage improvements, such as curb, gutters or lines for street drainage conveyance.

The project site is located west of the Coachella Valley Stormwater Channel (CVSC), which is the primary regional flood control facility serving the City of Coachella and other upstream areas of the Coachella Valley. As a partially lined, engineered extension of the Whitewater River, CVSC accepts agricultural irrigation return water and conveys treated wastewater, urban runoff, and stormwater runoff to the Salton Sea. Near the project site, CVSC occurs within a dedicated channel right-of-way containing an earthen engineered levee system that is operated and maintained by CVWD. Due to the northwest to southeast bearing of the CVSC, the separation between the project site and the channel right-of-way is approximately 115 feet at the northeast corner of the site and 345 feet at the southeast corner. The project site does not include or encroach on any portion of the CVSC, nor does the project propose any new discharge point into this existing facility.

Summary of Regional Groundwater Resource Management:

The project site is located within the domestic water service area of Coachella Water Authority (CWA), which is the primary domestic water purveyor for the City of Coachella, primarily relying on groundwater as the primary supply.

The Coachella Valley Groundwater Basin is the primary groundwater source for the project region's domestic water purveyors, including CWA. Based on the California Department of Water Resources (DWR), the Coachella Valley Groundwater Basin has an approximate storage capacity of 39.2 million acre-feet (AF) of water within the upper 1,000 feet and is divided into four subbasins: Indio, Mission Creek, Desert Hot Springs, and San Gorgonio. The project site is specifically underlain by the Indio Subbasin, which is also known as the Whitewater River Subbasin. DWR has estimated that the Indio Subbasin contains approximately 29.8 million AF of water in the first 1,000 feet below the ground surface, representing approximately 76 percent of the total groundwater in the Coachella Valley Groundwater Basin. Local groundwater management is currently taking place under the framework of the 2020 Coachella Valley Regional Urban Water Management Plan (2020 RUWMP), the preparation of which involved the collaboration of the six urban water suppliers in the Coachella Valley, including CWA. The 2020 RUWMP describes the region's water supplies and anticipated demands through 2045, along with each agency's programs to encourage efficient water use.

Indio Subbasin is served by the operation and maintenance of three replenishment facilities: 1) the Whitewater River Groundwater Replenishment Facility, 2) the Thomas E. Levy Groundwater Replenishment Facility, and 3) the Palm Desert Groundwater Replenishment Facility. Artificial

replenishment, or recharge, is recognized by the water districts as one of the most effective methods available for preserving local groundwater supplies, reversing aquifer overdraft and meeting demand by domestic consumers. According to the CVWD, the primary operator of these facilities, local agencies have percolated over 650 billion gallons of water back into the aquifer. Combined with water conservation and efficiency requirements, individual development projects can contribute to groundwater sustainability by implementing the required stormwater retention and infiltration facilities.

The collaboration among CWA, CVWD, and other local water districts has resulted in an established water conservation, water reuse, and groundwater recharge strategy to ensure water availability and system capacity to meet the growing needs of the City. These planning efforts include: residential and commercial landscape and irrigation upgrade rebates, water audits, water conservation kits, budget-tiered rate structure, water conservation workshops, and a Memorandum of Understanding to help ensure a sufficient and reliable water supply for development projects within the City and in its Sphere of Influence.

Discussion of Impacts

a) **Less Than Significant Impact.** Project implementation will require compliance with the applicable CWA, NPDES, state, and local regulations designed to prevent violations or impacts to surface water quality standards and waste discharge requirements pertinent to surface or ground water quality. This form of compliance must be demonstrated to the City and other regulatory entities prior to site disturbance and grading.

During the period of construction, the project proponent must comply with the State's most current NPDES Construction General Permit (2022 CGP), which requires the preparation of a Notice of Intent (NOI) and a project-specific Storm Water Pollution Prevention Plan (SWPPP), designed to prevent potential adverse impacts to surface water quality, including erosion and siltation, during the period of construction. The NOI and SWPPP are submitted to the State Water Resources Control Board (SWRCB) for approval and permit coverage. The SWPPP is a site-specific compliance plan required to identify a strategy of storm water Best Management Practices (BMPs) in accordance with Section XIV (SWPPP Requirements) of the CGP. Storm water BMPs refer to a schedule of activities, prohibitions, practices, maintenance procedures, and other management practices to avoid, eliminate, or reduce the pollution of the receiving waters, primarily focused on preventing erosion, siltation, illicit discharge, and contamination. The SWPPP will include such measures as erosion control, sediment control, storm drain inlet protection, proper waste management and pollution prevention. The SWPPP must be prepared concurrently with final engineering design and must meet all NPDES plan review elements for acceptance by the City of Coachella. Compliance and plan implementation during construction will be regulated and enforced as part of the local agency site inspection protocols.

In order to obtain a grading permit, the project proponent is required to submit and obtain approval for a Project-Specific Water Quality Management Plan (WQMP) in accordance with the current standards of the *Whitewater River Region Water Quality Management Plan for Urban Runoff*, the *Whitewater River Watershed MS4 Permit*, and the City of Coachella's engineering requirements. The WQMP is a compliance plan required to account for the stormwater facilities and management conditions to be followed by the site operator during the life of the project (post-construction). A Preliminary WQMP has been prepared for this project in order to meet the City's engineering approval requirements. Under this plan and the related Preliminary Hydrology Report, the project site is divided into eight drainage management areas ("A" through "H")

totaling 11.02 acres, combined. Runoff from drainage areas A through F, will be conveyed into designated underground retention facilities consisting of 48-inch-diameter corrugated metal pipe (CMP) wrapped with crushed rock and non-woven geotextile fabric, generally located under the asphalt surface. Drainage areas G and H will be conveyed to respective retention basins located at the east-end of the project property. Each retention facility, underground and surface, has been sized to contain and infiltrate stormwater runoff from the controlling 100-year storm event of the tributary area, therefore complying with the local development requirements for retention. In doing so, the provided capacity adequately retains the smaller stormwater volume for water quality purposes, as defined by the Whitewater Watershed guidance. As a result, project runoff will be completely contained within the project proponent's facilities and will not result in discharge capable of resulting in downstream hydrologic modifications or a contribution of urban runoff pollutants that would affect surface water quality. As a requirement, all elements of the WQMP implementation, including maintenance, must be documented during the life of the project. The project's engineering plans, hydrology report, and WQMP will be subject to City review and approval to validate MS4 compliance.

The project includes two fuel-powered generators to provide operational emergency standby power to on-site facilities. The operation and maintenance of such generators will involve the standard handling of fuel (e.g. diesel), oil, and coolant. Standard original equipment design features and maintenance protocols are established to prevent or contain leaks that would otherwise pose a potential risk of contamination when not properly managed. Such standard features include sealed gasket joins and hose connections, single- or dual-walled fuel tanks with built-in secondary containment, sloped top tank plates to contain accidental spillage, and welded secondary containment basins. Moreover, where necessary, the concrete pads supporting the emergency generators will be protected with bollards to prevent risk of vehicle impact. Therefore, the incorporation of standard design features associated with the emergency generators will prevent these facilities from posing a risk of contamination in a manner that would degrade surface or ground water quality.

In summary, during construction and operation, project implementation will require plan- and permit-based compliance with CWA, NPDES, and local regulations to prevent impacts to water quality standards and the beneficial uses assigned to local receiving waters. Following City engineering review and approval, the stormwater capture and management strategy for on- and off-site runoff will avoid waste discharge violations through the implementation of properly sized retention facilities. Less than significant impacts are expected.

b) **Less Than Significant Impact.** The proposed development is deemed consistent with the City's General Plan land use designation. The established groundwater replenishment facilities described above for the Indio Subbasin are not located near the project. Therefore, from the aspect of land use and location, project implementation is not deemed to be in conflict with any existing or planned groundwater recharge facility or associated infrastructure.

The nature of the proposed storage site is not expected to involve the use of extensive indoor water use or outdoor landscaping water use. Outdoor landscaping will rely on drought tolerant plantings on inert (decomposed granite) groundcover, therefore meeting the local efficiency standards. Office-related restroom facilities will be expected to use low-flow plumbing fixtures in accordance with the most current building codes. As a standard condition for service connections,

the project will be expected to furnish the appropriate payment to CWA based on the meter size, ongoing flow charges, agency fees, and groundwater recharge fees.

The proposed project aligns with the local and regional groundwater recharge strategies by implementing on-site retention, infiltration and low impact development improvements as part of the site design. Project's stormwater management design includes a system of on-site retention facilities designed to collect and infiltrate storm water runoff resulting from the controlling 100-year event, in accordance with the City's engineering standards. Based on the preliminary engineering estimates, the proposed underground retention structures will have a combined capacity of approximately 82,850 cubic feet. As such, the entire volume of stormwater runoff generated on-site up to the 100-year event will be percolated on-site, contributing to groundwater recharge. As a function of the WQMP, operation of the development will include the required non-structural and structural pollution source control measures that work toward the protection of groundwater quality during the life of the project and under the project owner's responsibility. Non-structural source control measures consist of site operations, activities, and/or programs to be finalized in the WQMP and implemented by the project operator to educate site managers, employees, and users to prevent potential pollutants from being produced, coming into contact with the storm drain system. Structural source control measures consist of physical facility design standards to prevent direct contact between potential pollutants and stormwater runoff. The storm drain and retention system will be privately operated and maintained during the life of the project per a required WQMP agreement to be entered between the project proponent and the City. The proposed facilities are therefore not expected to violate or interfere with the groundwater quality. Regarding ground water quality, less than significant impacts are anticipated.

c.i) **Less Than Significant Impact.** The undeveloped project site is absent of any naturally occurring drainage or flood-prone patterns. Therefore, development of the site would not result in any alteration or obstruction of any river, stream, or other naturally occurring drainage pattern, including the nearby CVSC which is designed and maintained as a regional flood control facility.

Based on the USGS Web Soil Survey, the site soil corresponds to Hydrologic Soil Group B, which is characterized for having a moderate infiltration rates and moderate runoff potential. Given the absence of drainage patterns and slopes, the site soils are not deemed to be prone to existing erosion or siltation in a considerable manner.

As a standard practice, erosion and siltation conditions will be prevented during construction and operation through the required compliance plans. The required Stormwater Pollution Prevention Plan (SWPPP) will include best management practices for proper soil stabilization and perimeter controls to prevent erosion and siltation from being generated by site clearing, grading, and construction activities. Upon completion, all construction related soil disturbance will be properly restored to a stabilized condition consisting of permanent project improvements (structures, hardscape, street pavement, and landscaping) with the properly designed storm drainage system and retention system.

During the life of the project, the ongoing maintenance and operation of facilities will ensure that all permanently improved ground surfaces are adequately maintained. As required by the City's engineering standards and practices, all project-related runoff must be adequately handled along engineered conveyances (sheet flow, swales, gutters, or pipes) to the designated retention

facilities. Such storm drain system will be a function of the site plan and final engineering plans subject to City review and approval. Less than significant impacts are anticipated regarding substantial erosion or siltation, on- or off-site.

c.ii) **Less Than Significant Impact.** The project's on-site stormwater retention system has been adequately sized to protect the proposed buildings and facilities from flooding conditions up to the controlling 100-year storm event. According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) (Panel 06065C2260H), entire project property is located within Zone X, which applies to areas of 0.2 % annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas of less than 1 square mile; and areas protected by levees from 1% annual chance flood. Furthermore, this flood zone is categorized as an area of minimal flood hazard.

As a standard requirement, the proposed development includes adequate improvements and site design features to handle the relevant hydrologic conditions in a way that prevents inundation to the proposed structures and facilities. The project will introduce impervious surfaces (buildings, hardscape, asphalt, etc.) to a vacant property, but will also include the required storm drain system (catch basins, lines, outlets, and retention facilities) to intercept, convey and retain the controlling storm event stormwater volume from the site. In adhering to the City's engineering and retention requirements, the proposed development is not expected to substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site. Less than significant impacts are anticipated.

c.iii) **Less Than Significant Impact.** The City of Coachella is a Permittee of the Whitewater River Watershed Municipal Separate Storm Sewer System (MS4) permit area. Within the City limits, MS4 facilities include a system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) designed for collecting and conveying stormwater. Storm drain facilities can be public or private. Examples of public facilities include pipes, gutters, channels, and basins occurring within the public right-of-way and/or maintained by a public agency. Private facilities are distinguished by being maintained separately by a private entity. As discussed previously, the project site is absent of any private or public storm drain infrastructure.

The traditional land development process generally results in the conversion of pervious ground surface (pre-development condition) into a setting with a higher impervious cover, occurring through the introduction of buildings, streets, and hardscape (post-development condition). This conversion generally leads to an increase in post-construction runoff volumes and rates compared to the pre-development condition.

As a standard requirement, the project is required to include retention facilities sized to contain stormwater volume resulting from the controlling 100-year, 24-hour duration storm event. This retention capacity is provided by multiple underground retention structures and basins sized to contain approximately 82,850 cubic feet, which is sufficient to meet the local engineering requirements. The project's engineering plans and retention capacity will be subject to standard City review and approval. Therefore, by complying with the local retention requirements that take into account the existing facilities, the project will prevent a runoff discharge condition capable of contributing to or exceeding the MS4 capacity. Less than significant impacts are anticipated.

c.iv) **Less Than Significant Impact.** As previously discussed, the project site is absent of any mapped natural drainage courses or designated FEMA zones with flood flow concerns. The proposed development is not situated in an area where flood flows could be impeded, redirected, or increased as a result of project implementation. The site's proposed storm drain system will meet the local MS4 and City requirements by including the properly sized retention facilities. Therefore, less than significant impacts are anticipated.

The project site is located outside of any designated special flood hazard area (SFHA), floodway, or drainage flow line as determined by FEMA and USGS maps. The nearby Coachella Valley Stormwater Channel is designed and maintained to contain regional flood flows, but the proposed project will not encroach upon or rely on this facility for discharge. Therefore, the project will not impede or redirect any discernable drainage course, floodplain, or flood prone area. The final grading and hydrology plans, as described above, for the proposed project will be subject to standard City review and approval. In doing so, the project will not impede or redirect flood flows, resulting in less than significant impacts.

d) **No Impact.** Flood Insurance Rate Maps (FIRMs) serve as the basis for identifying potential flood hazards. According to FIRM panel 06065C2260H, effective March 6, 2018, the entire Subject Property is located within Zone X, which applies to areas of 0.2 % annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas of less than 1 square mile; and areas protected by levees from 1% annual chance flood. Furthermore, this flood zone is categorized as an area of minimal flood hazard. The project is not located near any coastal areas and therefore is not prone to tsunami hazards.

The nearby Coachella Valley Stormwater Channel is designed and maintained to contain regional flood flows. The project is not located near a body of standing water and therefore is not prone to seiche hazards. The project's storm drain system is designed to properly capture the site's urban runoff to prevent any risk of uncontrolled pollutant discharge. The project site will not host the outdoor or otherwise exposed storage of pollutants, petroleum products, or other hazardous materials in conditions which would be deemed a risk of release in an inundation condition. Therefore, no impacts are anticipated.

e) **Less Than Significant Impact.** As discussed previously, the project proponent is required to implement a project-specific Water Quality Management Plan (WQMP) to comply with the most current standards of the *Whitewater River Region Water Quality Management Plan for Urban Runoff*, *Whitewater River Watershed MS4 Permit*, and the City of Coachella's Water Quality Control regulations outlined in the Code of Ordinances (Chapter 13.16). The WQMP will incorporate grading, hydrology, and other plans to document the site design, source controls, and treatment controls with a required operation and maintenance program to comply with the hierarchy water quality objectives. Moreover, the project's storm water retention facilities will ensure that urban runoff is recharged into the ground via infiltration. Combined with the required water conservation practices, the project is expected to contribute to the groundwater sustainability efforts implemented for the Coachella Valley region. Less than significant impacts are anticipated.

Mitigation Measures: None required

XI. LAND USE AND PLANNING Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

Sources: City of Coachella 2035 General Plan Update, 2015; Coachella Municipal Code)

Setting

According to the Coachella General Plan Land Use Designations Map, the project site is located within the Industrial district land use designation. According to the Coachella 2023 GPU, Industrial Districts accommodate a range of light and heavy commercial and industrial businesses that provide employment and generate more noise, light, odors, or truck traffic than would be appropriate in the Urban Employment District. Currently, the project site is vacant and undeveloped.

The project site is primarily surrounded by developed, industrial businesses to the north and west, a date palm grove to the south, and vacant land to the east. The table below shows the surrounding land uses and designations.

Table XI-1 Existing Uses and Land Use Designations

Direction	Existing Uses	Land Use Designations
Noth	Industrial businesses	Industrial District
East	Vacant, Coachella Canal	Rural Rancho/Tribal Land
South	Agricultural date palm grove	Industrial District
West	Industrial businesses	Industrial District

Per Coachella's 2023 GPU, industrial uses occupy approximately 892 acres of the City. This makes up approximately 3 percent of the total area within the City, while vacant land occupies approximately 53 percent. Agricultural land uses occupy 33 percent of the City's area, being the second largest land use classification in the City. Transportation, communications and utilities are the third largest land use, covering approximately 6 percent of the City. As distinguished in the Project Description provided earlier in this document, and as graphically portrayed in the site exhibits, the site of the proposed project is currently characterized by previously disturbed, vacant, and undeveloped land.

General Plan Land Use and Zoning Designations

Future development of the project site and all lands within the City of Coachella are subject to land use and other development related goals and policies contained in the recently adopted Coachella 2023 GPU 2035, and the codified regulations, standards and other criteria provided in the Coachella Municipal Code. The current GPU Land Use designation for the project site is Industrial District. Industrial Districts are characterized by larger blocks, lots and buildings that would be incompatible with the scale and character of Coachella's neighborhoods and centers. This District accommodates higher concentrations of heavy

business activity. Nonetheless, the streetscapes of this District are well landscaped and include good quality pedestrian and bicycle routes so employees and visitors may conveniently arrive by bicycle and transit, while safely and comfortably walk to restaurants and service businesses in the course of their workday. Allowed land uses include industrial and research and development uses, with support retail and office uses. The development intensity for Industrial Districts allows a floor area ration (FAR) of 0.1 to 2.0. Residential uses are not permitted within Industrial Districts.

The zone in which the project site lies is Wrecking Yard (M-W), as designated by the City of Coachella. M-W zones are intended to provide for, and to encourage the orderly development of heavy industrial uses and recycling operations deemed to be of regional significance, but of such nature that extra care must be taken in the regulation of said uses to protect the community's health and wellbeing, and where said uses are subject to aesthetic and environmental conditions which require the provision of safeguards to control and suppress some of the heavier manifestations of said uses to prevent adverse effects on the community (Section 17.34.010 Coachella Municipal Code).

For planning purposes, the City of Coachella is divided into 17 unique subareas and every parcel in the City is located in one of these areas. The purpose of the subareas is to define an overall vision and specific policy direction that supplements the General Plan Designations and the citywide goals and policies. The project is located in Subarea 10, North Employment District, which is used primarily for agricultural activities, but also includes some industrial and residential uses. The vision for the North Employment District is to become an employment center with industrial and, to a lesser degree, office jobs and residential uses. The North Employment District allows for a mixture of office and light fabrication in a block structure and building fabric compatible with a mixture of urban commercial and residential uses, becoming a jobs center that hosts a wide variety of employment opportunities.

The project proposes the development of nine storage buildings, associated office/clubhouse, and an industrial lease space. These uses are permitted within Industrial Districts and Wrecking Yard zones.

Discussion of Impacts

a) **No Impact.** The 11-acre project site is characterized by disturbed, vacant land east of Harrison Street and approximately 1,300 feet south of Avenue 48. The project site is surrounded by developed industrial uses to the north and west, a date palm grove to the south, and vacant, undeveloped land to the east. The project site is owned by a single entity and is surrounded by chain link fencing to deter trespassing. The properties to the north, south, west, and east of the project are also owned by entities separate from the project. Therefore, the project site is not anticipated to physically divide an established community. No impacts are anticipated.

b) **Less Than Significant Impact.** As stated in the *Setting*, above, the subject property occurs in an area designated for Industrial Districts, according to the General Plan Map. The Official Zoning Map identifies the project as being located in Wrecking Yard (M-W) zone. M-W zones are intended to provide for and to encourage the orderly development of heavy industrial uses and recycling operations deemed to be of regional significance.

The project proposes a storage facility with associated office, and industrial lease space. The proposed uses are permitted within Industrial Districts and M-W zones. The project will be developed to comply with the development standards established in Section 17.34.030, Property development standards, for M-W zones as established in the Coachella Municipal Code.

Additionally, the project is required to go through Architectural Review (AR) to provide flexibility in the placement and interrelationship of the proposed structures and uses; to provide for the implementation of sound site plan design concepts while maintaining the overall intensity of land use and density of population; to review the site plan of those uses which are not intrinsically objectionable to the predominant use category of the district, but which have inherent characteristics which, if not properly handled, have potentials for becoming detrimental to the health, safety, or general welfare of the public, or to neighboring land uses; to determine whether or not a proposed development will properly comply with the architectural guidelines of the city and the provisions and development standards required by this chapter or as prescribed by the planning director, or other authorized agent; to improve the quality of development and to provide a mechanism whereby the city can insure well-designed development (Section 17.72.010, Coachella Municipal Code).

Overall, the project will comply with the land use policies provided by the City of Coachella to ensure impacts are less than significant.

Mitigation Measures: None required

XII. MINERAL RESOURCES **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

(Sources: Coachella 2035 General Plan, 2015; California Division of Mines and Geology, 1987; Riverside County General Plan, 2015)

Setting

Riverside County emphasizes the importance of mineral resources and their protection. For this reason, the State Mining and Geology Board (SMGB) listed and prioritized the mineral deposits in Riverside County. These Mineral Resource Zones (MRZ) help identify mineral deposits that need to be protected from encroaching urbanization and land uses incompatible with mining. The SMGB categorized the mineral resources into six zones and identifies designation as having either a regional or a statewide economic significance. The purpose of these designations is to identify those areas that are of prime importance in meeting the future needs of the study region and protect these areas from a land use perspective.

As described in Section VII of this document, the sedimentary units in the Coachella area are composed of a mix of water-transported alluvial sand, silt, clay and gravel derived from erosion of the adjacent hills and mountains and very fine-grained ancient lake deposits. Very young, unconsolidated alluvial sediments line the drainage courses. The existing and potential mineral resources in Coachella include sand and gravel, clay, oil, gas, and geothermal.

Discussion of Impacts

a-b) **No Impact.** The project site is designated as Mineral Resource Zone 1 (MRZ-1) by the State Mining and Geology Board. This project, therefore, will not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. Due to the mineral resource designation, the project is not expected to result in the loss of availability of a locally important mineral resource recovery site defined on a local general plan, specific plans or other land use plans. No project-related impacts to mineral resources are anticipated.

Mitigation Measures: None required.

XIII. NOISE Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

(Sources: Coachella 2035 General Plan, 2015)

Setting

Noise is simply defined as "unwanted sound." When interfering with normal activities, causing physical harm or causing adverse effects on health, sound becomes unwanted. Noise is measured on a logarithmic scale of pressure level known as a decibel (dB). An A-weighted decibel (dBA) is an expression of the relative loudness of sounds in air as perceived by the human ear. In the A-weighted system, the decibel values of sounds at low frequencies are reduced compared with unweighted decibels, in which no correction is made for audio frequency. Excessive noise or prolonged exposure to noise can contribute to temporary and permanent impairments, such as hearing loss, fatigue, stress, sleep deprivation, anxiety and annoyance. Although noise has been accepted as a necessary by-product of urban development, it can become an environmental hazard. A variety of components of the urban environment generate noise; these include construction equipment and activities, motor vehicles, air traffic, mechanical equipment, household appliances, and other sources.

The State of California requires each city and county to adopt Noise Elements as a part of their General Plan. In addition to the 12 Land Use Categories included in the Noise Element, there are 4 Community Noise Equivalent Level's (CNEL), in order to interpret the compatibility of the 12 Land Use Categories. Zone A (Green) – Clearly Compatible, Zone B (Yellow) – Normally Compatible, Zone C (Orange) – Normally Incompatible, Zone D (Red) Clearly Incompatible. The four zones of compatibility are dependent on the Land Use Categories (Figure 10-2) (Coachella General Plan).

According to the Coachella General Plan Noise Element, the predominant noise source in the City is motor vehicles. High volume roadways in the City are Highway 111/Grapefruit Boulevard, State Route 86, and Harrison Street, which generate vehicle noise along these roadways. Other major sources of noise in Coachella include the railway that runs through Coachella along the east side of Highway 111 and factories, processing, and distribution facilities. Other, less significant noise sources in Coachella include aircraft overflights, air conditioning units and other mechanical equipment on buildings, landscaping

equipment and human speech. None of these sources significantly contribute to overall noise levels when compared to traffic noise.

The General Plan states, noise levels are generally low in agricultural and rural areas; higher in more urbanized areas. Noise in eastern Coachella Valley is generally related to linear sources, or "noise corridors," such as roadways and railroads, or to aircraft. Within the General Plan Area, principal noise corridors are major roadways such as Highway 111 and Highway 86/86s; Southern Pacific Railroad; Harrison Street segment south of Highway 111, and the Jacqueline Cochran Regional Airport. Other sources of vehicular noise include the local streets in the General Plan Area. Transportation noise is concentrated along these roadways and can vary with the volume of traffic, the vehicular speed, the vehicular mix and the roadway cross-section. The project is not situated in proximity to these roadways.

In Coachella, Interior and Exterior Noise Standards are between 45 (interior) and 65 (exterior) for Residential, as well as between 45 and 65 dB for Commercial, Industrial and Institutional. Various sources are used to calculate noise level in the City. As part of the development of the Noise Element of the General Plan, noise level measurements were collected at 11 different locations throughout the City. The noise measured at Highway 111, between Avenue 48 and Avenue 50, was the closest noise measurement to the proposed project. Noise level measurement at this location was 74.2 Leq dBA.

The project site is located east of Harrison Street and approximately 1,300 feet south of Avenue 48, within the City's Industrial District. Surrounding uses include existing industrial businesses to the north and west, vacant land to the east, and a date palm grove to the south. The existing industrial businesses contribute to noise in the area surrounding the project. Vehicular traffic along Harrison Street also contributes to noise in the area.

Discussion of Impacts

a) **Less Than Significant Impact.** The proposed project is approximately 11 acres, located west of Harrison Street, and approximately 1,300 feet south of Avenue 48. The project proposes to develop a storage facility and industrial lease space. The site is currently vacant with scattered vegetation. Human disturbance onsite is evident from the tire tracks throughout (based on aerial imagery). The project site is fenced to deter any trespassing.

According to the Coachella General Plan, noise sources in Coachella can be divided into two basic categories, transportation sources (primarily traffic) and non-transportation sources. Transportation sources are by far the largest contributor to noise in Coachella. A local government has little direct control of transportation noise at the source. Local governments mitigate transportation noise through land use planning that reduces vehicle trips and physical interventions that reduce the impact of the noise on the community. Noise barriers and setbacks have historically been common methods of protecting noise-sensitive land uses from excessive transportation-related noise in many communities. Recent attempts to emphasize pedestrian-friendly design and mixed us development have led to consideration of alternative strategies for dealing with transportation-related noise sources. These alternative strategies include land use planning to reduce and slow (or calm) vehicle trips, and incorporation of noise-attenuating features (i.e., block walls, landscape screening) into the design of projects.

<u>Construction</u>

Construction of the project site is expected to generate short-term noise increases compared to the existing levels. A temporary incremental increase in noise levels along local roadways is expected to occur during the transport of workers and equipment to and from the site. Noise increases will also be generated by the actual on-site construction activities. Equipment used during the construction phases would generate both steady state and episodic noise that would be heard both on and off the project site.

Noise levels generated during various construction phases are presented in Table XIII-1, Typical Maximum Noise Levels for Construction Phases, below. Equipment estimates used for the analysis for grading and building construction noise levels was provided by the U.S. Department of Transportation and are representative of worst-case conditions, since it is unlikely that all the equipment contained on-site would operate simultaneously.

Table XIII-1 Typical Maximum Noise Levels for Construction Phases

	Appropriate Leq dBA without Noise Attenuation			
Construction Phase	25 Feet	50 Feet	100 Feet	200 Feet
Clearing	90	84	78	72
Excavation	94	88	82	78
Foundation/Conditioning	94	88	82	78
Laying Subbase/Paving	85	79	73	67

Source: U.S. Department of Transportation, Construction Noise Handbook, Chapter 9.0, August 2006.

As previously stated, the project is located in an area with developed uses to the west and north, vacant land to the east, and agricultural uses to the south. The project is located within an area designated for industrial uses. Thus, the project is not located near sensitive receivers such as residential neighborhoods, hospitals, schools, etc. Based on the County directory of dwelling units, the closest residential structure is approximately 1,545 feet northwest of the project. Although the project is not located near sensitive receptors, the project shall follow common industry standards that will help limit noise level increases during construction. For example, all construction equipment, fixed or mobile, should be equipped with properly operating and maintained mufflers and the engines should be equipped with shrouds. Approved haul routes shall be used to minimize exposure of sensitive receptors to potential adverse levels from hauling operations. All construction equipment shall be in proper working order and maintained to reduce backfires. Grading activities would involve the use of standard earth moving equipment, which would be stored on the site during construction to minimize disruption of the surrounding land uses. Above-grade construction activities would involve the use of standard construction equipment, such as hoist, cranes, mixer trucks, concrete pumps, laser screeds and other related equipment.

Construction traffic and equipment is also anticipated to generate noise along access routes to the proposed development. The larger pieces of heavy equipment would be moved onto the development only one time for each construction activity (i.e., site prep, grading, etc.). Daily transportation of construction workers and the hauling of materials both on and off the project site are expected to cause increases in noise levels along Harrison Street to the west.

As a standard requirement, the project is expected to abide by the Municipal Code regulations on construction hours, which limit activities to the less sensitive times of the day. Section 7.04.070 of the Coachella Municipal Code (CMC) specifically exempts noise sources associated with

construction, erection, demolition, alteration, repair, addition to or improvement of any building, structure, road or improvement to realty, provided that such activities take place during daytime hours, as follows:

October 1st through April 30th

Monday – Friday: 6:00 a.m. to 5:30 p.m.
Saturday: 8:00 a.m. to 5:00 p.m.
Sunday: 8:00 a.m. to 5:00 p.m.
Holidays: 8:00 a.m. to 5:00 p.m.

May 1st through September 30th

Monday – Friday: 5:00 a.m. to 7:00 p.m.
Saturday: 8:00 a.m. to 5:00 p.m.
Sunday: 8:00 a.m. to 5:00 p.m.
Holidays: 8:00 a.m. to 5:00 p.m.

To maintain normal noise levels during construction and vehicle movement on/off the project site, the staging area(s) will be required to maintain a safe minimal distance from the nearby residences and abide by the construction hours established by the City to avoid high noise levels. Less than significant impacts are anticipated.

Operation

Primary project-related operational noise sources will include vehicular traffic accessing the site, grounds maintenance equipment, heating, ventilation and air conditioning (HVAC) units. The vehicle mix will be comparable with existing vehicles on surrounding roads. The interior noise standard for industrial (manufacturing, warehousing, wholesale, utilities) is 65 (Table 1 in Noise Technical Appendix for the Coachella General Plan). City of Coachella does not currently have an exterior noise standard that applies to industrial uses; however, Coachella Land Use/Noise Compatibility Matrix (2035 GPU, Figure 10-1) defines noise levels up to 70 CNEL within industrial developments are clearly compatible, and noise levels between 70 and 85 CNEL within are normally compatible.

The project site is currently vacant and undeveloped. The project is zoned Wrecking Yard (M-W). The project proposes the development of a storage facility, with associated office/clubhouse, and an industrial lease space. These uses are permitted within M-W zones and will not likely generate unacceptable noise levels with the operation of the storage facility or warehouse. Typically, storage facilities do not generate unacceptable noise levels. Noise generated by storage facilities include idling cars, RVs, and trucks, people talking, car doors shutting, storage doors opening, etc. These activities do not generate noise levels that are incompatible with industrial zones. Additionally, operation of the industrial lease space will not result in significant noise since most activities will occur within the building. Therefore, the operation of the storage facility and industrial lease space would not result in significant noise impacts.

The transport of workers, equipment, and building materials to and from the construction site will incrementally increase noise levels and vibration along the roadways leading to and from the

site. The increase, although temporary in nature, could be perceived by surrounding uses located along the roadways utilized for this purpose. Even though there could be a relatively high single event noise exposure potential with passing trucks causing annoyance, the effect on ambient noise levels would be substantially less than 3 dBA when truck noise (87 dBA at 50 feet) is added to existing noise levels and averaged over a 24-hour period.

Development of the proposed project is consistent with surrounding land uses and therefore will not result in unacceptably high noise levels requiring mitigation. The City requires that all projects conform to all applicable General Plan goals and policies and will include noise attenuation strategies in its review of the project-specific design. Less than significant impacts are anticipated.

b) **Less Than Significant Impact.** Groundborne vibration also referred to as earthborne vibration, can be described as perceptible rumbling, movement, shaking or rattling of structures and items within a structure. Groundborne vibration can generate a heightened disturbance in residential areas. These vibrations can disturb residential structures and household items while creating difficulty for residential activities such as reading or other tasks. Although groundborne vibration is sometimes perceptible in an outdoor environment, it does not result in the degree of disturbance that is experienced inside a building. Groundborne vibration can be measured in terms of amplitude and frequency or vibration decibels (VdB).

Trains, buses, large trucks and construction activities that include pile driving, blasting, earth moving, and heavy vehicle operation commonly cause these vibrations. Other factors that influence the disturbance of groundborne vibration include distance to source, foundation materials, soil and surface types. Table XIII-2, Groundborne Vibration and Noise from Typical Construction Equipment is provided below.

Table XIII-2 Groundborne Vibration and Noise from Typical Construction Equipment

Equipment	Peak Particle Velocity (in/sec) [A]			Velocity Decibels (VdB) [B]		
	25 feet	50 feet	100 feet	25 feet	50 feet	100 feet
Small bulldozer	0.003	0.001	0.001	58	49	40
Jackhammer	0.035	0.016	0.008	79	70	61
Rock Breaker	0.059	0.028	0.013	83	74	65
Loaded truck	0.076	0.035	0.017	86	77	68
Auger Drill Rig	0.089	0.042	0.019	87	78	69
Large bulldozer	0.089	0.042	0.019	87	78	69
Vibratory Roller	0.210	0.098	0.046	94	85	76
Impact Pile Driver (upper range)	1.518	0.708	0.330	112	103	94
Impact Pile Driver (typical)	0.644	0.300	0.140	104	95	86
Sonic Pile Driver (upper range)	0.734	0.42	0.160	105	96	87
Sonic Pile Driver (typical)	0.170	0.079	0.037	93	84	75

Sources: Caltrans 2013b and FTA 2018

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

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

Note: No pile drivers, bulldozers, rock breakers, or auger drill rigs would be utilized during construction of the project.

As shown in Table XIII-2, specific vibration levels associated with typical construction equipment are highly dependent on the type of equipment used. Vibration levels dissipate rapidly with distance, such that even maximum impact pile driving activities would result in vibration levels below Caltrans' recommended 0.5 PPV threshold for transient vibration-induced damage in historic, older buildings at a distance of 100 feet. All other activities would be below Caltrans' threshold for transient vibration-induced damage in historic, older buildings at a distance of 25 feet. Historic, older buildings are not located adjacent or in the vicinity of the project property. Standard construction equipment (e.g., bulldozers, trucks, jackhammers) generally does not cause vibration that could cause structural or cosmetic damage but may be felt by nearby receptors. However, the use of bulldozers, rock breakers, auger drill rigs, or pile drivers will not occur onsite. Vibratory rollers are typically utilized at construction sites to compact and densify soil, asphalt or other materials. It is likely that a vibratory roller will be used at to compact the soils and asphalt materials used for the project's proposed internal street. However, the use of the vibratory roller will not occur in the same location for prolonged periods of time. The closest sensitive receiver to this operation is approximately 1,545 feet northwest of the project. Therefore, impacts of a vibratory roller to existing sensitive receivers will be less than significant.

The transport of workers, equipment, and building materials to and from the construction site will temporarily increase vibration along the roadways leading to and from the site. The increase, although temporary in nature, could be perceived by surrounding uses located along the roadways utilized for this purpose. Even though there could be a relatively high single event vibration exposure potential with passing trucks causing annoyance, the effect on sensitive receivers will be less than significant because the closest sensitive receiver is located approximately 1,545 feet northwest of the project. Additionally, truck traffic will likely occur along arterials such as Highway 111, Dillon Road, and State Route 86.

Construction of the project will involve the temporary operation of vehicles and equipment that could result in localized, short-term vibration increases during the permitted hours of construction established by the City. All construction equipment staging will be located within the temporary construction limits, while vehicular and equipment access to the construction site would be restricted to only the approved entry points that minimize disturbance to local traffic. Short-term increases in vibration and sound during construction are not expected to result in significant impact.

After construction, the nature of the proposed residential property would not typically involve activities expected to generate excessive vibration or groundborne noise. All activities within the project will be required to adhere to the City's Noise Ordinance. Less than significant impacts are anticipated.

c) **Less Than Significant Impact.** The project is located approximately 4 miles north of the Jacqueline Cochran Regional Airport and is located outside of the 70, 65 and 60 CNEL noise contours associated with this facility. Furthermore, the project is not located within the boundaries of the Jacqueline Cochran Regional Airport Land Use Plan. Less than significant impacts are expected.

Mitigation Measures: None required

XIV. POPULATION AND HOUSING Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

(Source: Coachella 2035 General Plan, 2015; E-5 Population and Housing Estimates prepared by the California Department of Finance; SCAG: Profile of the City of Coachella [2019])

Setting

Based on the 2025 California Department of Finance population and housing estimates, the City of Coachella's current total population is approximately 44,384 with an average household size of 4.19 persons per household (pph). The project proposes the development of a storage facility with associated office/clubhouse, and an industrial lease space.

Discussion of Impacts

a) **Less Than Significant Impact.** The proposed project involves the construction and operation of an industrial property with 225,230 square feet of storage in nine buildings, 3,970 square feet of associated offices, and 3,140 square feet of industrial lease space.

The City of Coachella's General Plan EIR analyzed future growth under Chapter 4.13, Population and Housing. Figure 4.13-2 in the EIR forecasts a population of 135,000 by year 2035. As of 2023, the City of Coachella had a population of 44,384 (California Department of Finance). The current population is approximately 32.8 percent of the projected 2035 population of 135,000. As a result of project build-out, the proposed development could provide employment opportunities for people, therefore, slightly increasing the City's population. However, it is likely that some of the employees working at the facility would be current residents of Coachella, as well as people commuting to the project from surrounding cities. Therefore, it is not likely that the proposed project would result in a substantial unplanned increase in population or employment.

Furthermore, the project site is within an area that is served by existing infrastructure, public services and utilities. As a result, development of the project would not cause potential growth inducing effects by extending utilities into an undeveloped area.

Therefore, approval and development of this project is not expected to result in significant unplanned growth in the City. Less than significant impacts are expected.

b) **No Impact.** The project site is currently vacant and undeveloped. The site does not provide housing, therefore, the proposed project will not displace substantial numbers of existing people

or housing, necessitating the construction of replacement housing elsewhere. No impacts are anticipated.

Mitigation Measures: None required

XV. PUBLIC SERVICES **Would the project result in:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services**:**				
a) Fire protection?	☐	☐	☒	☐
b) Police protection?	☐	☐	☒	☐
c) Schools?	☐	☐	☐	☒
d) Parks?	☐	☐	☐	☒
e) Other public facilities?	☐	☐	☐	☒

Setting

Fire Protection:

The City of Coachella contracts with Riverside County Fire Department (RCFD) for a full range of fire protection services provided 24-hours a day, 7-days a week. The RCFD is staffed with a combination of County and State of California Department of Forestry & Fire Protection employees. They operate nearly 100 fire stations that serve approximately two million residents over 7,004 square miles of Riverside County. The City of Coachella has one Fire station, Battalion 6, Coachella Fire Station No. 79, located at 1377 6th Street and approximately 3 driving miles southeast of the site. According to the Coachella General Plan Environmental Impact Report (EIR), Fire Station No. 79 is staffed by 18 full-time personnel, 10 volunteer firefighters, and 10 explorer cadets. Six firefighters are always on duty. The Station is equipped with two Type 1 fire engines which includes a staff of three persons per engine per day. It is the goal of the RCFD fire service to have the first engine company arrive on the scene within five minutes 90 percent of the time. Response times to emergency calls within the City average approximately four minutes or less 80% of the time.

Police:

Law enforcement services are provided to the City of Coachella through a contractual agreement with Riverside County Sheriff's Department. The Sheriff's department provides 24-hour municipal police services associated with a City police department. The Sheriff's station is located at 86-625 Airport Boulevard in Thermal, approximately 6.5 driving miles southeast of the subject property. Per the City's General Plan EIR, the Coachella Police Department has 35 sworn officers. Nineteen of these positions are dedicated to the patrol division with the remaining deputies dedicated to special assignments such as the Community Action Team, a School Resources Officer, and Gang and Narcotics Enforcement. The Coachella Police Department divides the City into three beats. The Patrol Division of the department covers an area of 30 square miles.

Schools:
The project site falls within the boundary of the Coachella Valley Unified School District (CVUSD). The nearest elementary school is Martin Van Buren Elementary School located at 47733 Van Buren in Indio approximately 1.5 miles from the site. Thomas Jefferson Middle School located at 83-089 Highway 111 is the closest secondary school, approximately 3 miles from the project site. Indio High School is approximately 4.6 miles northwest of the project site.

Parks:
The Coachella Valley Recreation and Park District (CVRPD) provides park and recreational services to the City. Per the City of Coachella website, there are eight public parks located within the City of Coachella. The closest park to the project site is Van Buren at Rancho Las Flores, approximately 1.5 miles west.

Discussion of Impacts

a) **Less Than Significant Impact.** The proposed project would be constructed on a site in an area that is currently provided fire protection and emergency services by Riverside County Fire. Development of the project could result in an increase in emergency and public service calls for fire services; however, based on the project site's proximity to Fire Station 79 and Fire Station 86 (3 miles), the project would not require new or expanded facilities. Moreover, to ensure adequate emergency fire protection services, the City of Coachella maintains a mutual aid agreement with surrounding City and County jurisdictions. There are two other existing stations that are within proximity of the City. These include Fire Station No. 39, located outside of the City limits at the Jacqueline Cochran Airport in Thermal and Fire Station No. 70 located at Avenue 54 and Madison Street in La Quinta. Fire Station 39 is approximately 7.5 miles away from the project site, and Fire Station 70 is approximately 7.7 miles away.

Through the Regional Fire Serve System, the City of Coachella received an immediate response from the outlying stations, including personnel and equipment for any major event or multiple events that may occur within the City. The City also participates in a cost sharing agreement with the Cities of Indio, La Quinta, and Riverside County for the use of the 100' ladder truck located at Fire Station 86 in Indio.

The project will be designed to comply with all applicable fire safety requirements, to include, installation of fire hydrants, and sprinkler system and construction provisions contained in Title 14 (Buildings and Construction), California Building Code, and Riverside County Fire Department Standards. Additionally, the project would be required to comply with the City's Development Impact Fees in place at the time of construction. Payment of these feels helps offset impacts by providing revenue for necessary improvements to ensure acceptable fire facilities, response times, equipment and personnel are maintained. The Project will be required to annex into the City's Communities Facilities District for Fire Services, which is a special tax used to pay for public services. Therefore, less than significant impacts to fire protection services are expected as a result of project implementation.

b) **Less Than Significant Impact.** Project development may increase calls and demand for police and emergency services. However, this demand is not expected to hinder the City's ability to provide police services or create demands that would require the construction of a new police station. The proposed project would be located in an already developed area that is served by the Riverside County Sheriff's Department. The project will be required to comply with the City's

Development Impact Fees in place at the time of construction. These fees on new development allow the City to continue to finance public facilities which goes towards the funding of various public services, including police. It also assists in offsetting impacts by providing enough revenue for necessary emergency service improvements to ensure acceptable police and fire response times, equipment, and personnel are maintained. The project will be required to annex into the City's Communities Facilities District for Police Services, which is a special tax used to pay for public services. Therefore, less than significant impacts to fire protection services are expected as a result of project implementation.

c) **No Impact.** The project would consist of a storage facility and would not include residential property; therefore, there would not be an impact on school services in the City.

d) **No Impact.** The City of Coachella offers a diverse range of park and recreation facilities. The City operates eight parks, one tot lot, two community centers, one boxing club and a swimming pool. As discussed in the Recreation Section (XVI) of this document, the proposed project would not create additional demand for public park facilities or result in the need to modify existing or the construction of new park facilities. Therefore, no impacts are expected.

e) **No Impact.** No increase in demand for government services or other public facilities is expected beyond those discussed in this section. No impact to other public facilities are expected.

Mitigation Measures: None required.

XVI. RECREATION Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☐	☐	☐	☒

(Sources: Coachella 2035 General Plan, 2015)

Setting

Parks and open space contribute to the preservation, continued growth and enhancement of Coachella's parklands, recreational areas and surrounding open spaces. Open spaces are areas intended to remain essentially open with limited or no development. This includes spaces used for passive recreation, resource protection and /or hazard avoidance. Parks include greenways, developed parks and other areas primarily used for recreation. Typically, these areas are characterized by a high degree of open area and a limited number of buildings. Parks frequently include sports fields, playground equipment, and picnic areas, sitting areas, concession businesses, open turf, natural areas, trails and public golf courses. The City provides a variety of recreation facilities and currently has eight parks, one tot lot, two community centers, one boxing club and a swimming pool. The parks are funded by the Coachella Parks and Recreation Foundation.

Discussion of Impacts

a-b) **Less Than Significant Impact**. The proposed project would develop a storage facility. The increased use of the City's existing park facilities associated with the project would not be substantial due to the nature of the project. No impacts are expected.

Mitigation Measures: None required

XVII. TRANSPORTATION Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d) Result in inadequate emergency access?	☐	☐	☐	☒

(Sources: Coachella 2035 General Plan, 2015; Coachella General Plan Update EIR, Circulation Section, 2015; Memorandum, Coachella RV Storage Trip Generation and VMT Screening Assessment, Fehr and Peers, 2023.)

Discussion of Impacts

a-b) Less than Significant Impact.

Setting

The proposed project property is located east of Harrison Street between Avenue 48 and Avenue 50 in the City of Coachella. The site proposes to construct 225,230 square feet of Storage space (Buildings A through Building I), 3,140 square feet of industrial lease space, and 3,970 square feet of office space on 11 gross acres. The project also proposes roof-top solar panels to power operations. The property exists in an industrial district, with towing and auto services on the west, lock smith, recycling, and towing services to the north, vacant land and the Coachella Valley Stormwater Channel to the east, and a date palm grove to the south. The property can be identified as Assessor's Parcel Numbers (APN) 603-290-005 within Section 32, Township 5 South, Range 8 East, San Bernardino Principal Meridian.

Primary access as well as emergency access to the site is provided on Harrison Street. Harrison Street is a north/south roadway designated as a Local Industrial Street, with a 74 feet right-of-way, two lanes of travel, a median lane and parking on both sides of the road. Harrison is currently paved with no curb or gutter adjacent to the project.

Harrison Street connects to Avenue 48 to the north. Grapefruit Boulevard, located approximately 1 driving mile west of the project site, provides regional access.

Level of Service

As required by SB 743, Vehicle Miles Traveled (VMT) replaced the former metric used to analyze traffic impacts which was Level of Service (LOS). With the implementation of SB 743, intersection LOS is not calculated to determine transportation impacts; however, it provides information regarding intersection capacity and general plan consistency for the City. VMT is discussed following this LOS discussion.

LOS is a measure of transportation system performance based upon the ratio of traffic volume relative to the capacity of the roadway or intersection. The volume-to-capacity ratio (V/C) indicates the overall performance of the roadway segment or intersection and corresponds to a rating of A through F identifying its level of capacity utilization and relative level of congestion. LOS A represents free-flow traffic with little or no delay whereas LOS F represents a breakdown of traffic flow and a high incidence of delay. The City of Coachella has established LOS D as the acceptable LOS for its intersections.

Table XVII-1 Level of Service Thresholds

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

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

Vehicle Miles Travelled (VMT)

The current recommended metric in the CEQA guidelines for transportation impacts is VMT per capita per SB 743. The legislative intent of SB 743 is to balance the needs of congestion management with statewide goals for infill development, promotion of public health through active transportation and reduction of greenhouse gas emissions.

VMT is a measure of the amount of travel for all vehicles in a geographic region over a given period of time, typically a one-year period. The analysis of VMT (SB743) attributable to a project in CEQA went into full effect statewide on July 1, 2020. According to the Governor's Office of Planning and Research (OPR) proposed CEQA Guideline implementing SB 743, projects that decrease vehicle miles traveled in a project area compared to existing conditions should be considered to have a less than significant transportation impact. The California Air Pollution Control Officers Association (CAPCOA) publishes a resource for Local Government to assess emission reductions from greenhouse gas mitigation measures. The CAPCOA report recognizes that land use planning provides the best opportunity to influence GHG emissions through a reduction in overall VMT.

According to the National Center for Sustainable Transportation, a number of cities, regions and states across the United States have begun to deemphasize vehicle delay metrics such as LOS. In their place, policymakers are considering alternative transportation impact metrics that more closely approximate the true environmental impacts of driving. VMT is one metric that is increasingly being utilized.

Goals for reducing Greenhouse Gasses (GHG) have been the primary motivation for the shift to VMT measures. Reductions in VMT produce many other potential benefits such as reductions in other air pollutant emissions, water pollution, wildlife mortality and traffic congestion, as well as improvements in safety and health and savings in public and private costs.

TUMF

The Transportation Uniform Mitigation Fee (TUMF) program identifies network backbone and local roadways that are needed to accommodate growth. The regional program was put into place to ensure that developments pay their fair share, and that funding is in place for the construction of facilities needed to maintain an acceptable level of service for the transportation system. The TUMF is a regional mitigation fee program and is imposed and implemented in every jurisdiction in Riverside County.

Ordinance No. 673 was established by the County of Riverside to implement a Coachella Valley TUMF Program. The purpose of Ordinance No. 673 is to authorize the County's participation in the TUMF program, which establishes and sets forth policies, regulations, and authorized uses of fees collected relating to the funding for the construction of improvements and facilities to enlarge the capacity of the Regional System, as necessary to address the direct and cumulative environmental effects generated by new development projects. Under TUMF, developers of residential, industrial, and commercial property pay a development fee to fund transportation projects that will be required as a result of the growth the projects create.

Additionally, the City of Coachella implements a Development Impact Fee (DIF.) The proposed project is located within the City of Coachella and will therefore be subject to the DIF. Eligible facilities for funding the City DIF program are identified on the finance page of the City's website.

Alternative Transportation

The City of Coachella is served by SunLine Transit Agency. Sunline Transit Agency buses are wheelchair accessible and include bicycle racks accommodating two or three bicycles. Sunline Transit Agency provides bus services to the City of Coachella through Lines 1EV, 6, and 8. Route 1 EV is the nearest to the project. This route runs from the City of Coachella to the City of Palm Desert, with a majority of the stops along Highway 111. The nearest bus stop is located approximately 2.9 miles south in driving/biking distance at 5th Street and Vine Avenue. The project is not proposing any elements that will change existing operations. The use of local bus services by project users is not expected to conflict with or substantially increase the demand for this transit service. Project implementation is not anticipated to interfere with the existing service or performance at bus stop facilities. The proposed project would not impact pedestrian or bicycle mobility.

SunDial is a valley wide, origin-to-destination paratransit service designed to meet the requirements of the Americans with Disabilities Act (ADA). The purpose is to provide next day public transportation service for people who are unable to use the regular SunLine service. SunDial service is available within 3/4 of a mile on either side of any local SunLine route (not including Commuter Link 220 & Line 95).

Transit service is reviewed and updated by SunLine periodically to address issues such as budget, ridership, and community demand. Changes in land use can affect these periodic changes, which could lead to enhanced service where appropriate.

Existing Transportation Conditions Summary

Regional access to the project is provided by Highway 111/Grapefruit Boulevard, approximately 1 mile driving distance west of the project. Harrison Street serves as the primary access to the project. According to the Mobility Section of the City's General Plan, Harrison Street is a "country

road." A country road is described as a two-land roadway designed to carry traffic through rural areas of the City. It is designed for higher speeds and a variety of vehicles including cars, large trucks, and agricultural equipment as necessary. Limited bicycle and pedestrian usage are anticipated.

Future Traffic Conditions

The Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition, 2021) trip generation rates were queried to determine trip generation for the proposed project. However, although the proposed uses are similar to ITE Land Uses Codes 150 (Warehousing), due to the unique use, traditional ITE trip generation rates were found to be not representative of the project. As recommended by the ITE, vehicle counts were collected as empirical data at a similar site to represent realistic trip generation behavior unique to the project and location. The nearby LUXTOR RV Storage and Service (located at 49751 Oates Lane, located south of the date palm grove south of the project site) was identified as a similar use that would be most representative of the proposed project.

24-hour traffic counts were collected at the two access driveway locations of the LUXTOR RV Storage and Service on Tuesday, October 10, 2023, during fair weather. The custom trip generation rates were estimated for daily, AM peak hour and PM peak hour and are considered conservative as the sample site provides additional services, such as on-site maintenance, that the Project will not provide. **Table XVII-2** presents the custom trip generation rates, and **Table XVII-3** presents trip generation estimates for the Project. As shown in **Table XVII-3**, the Project is estimated to generate 212 daily trips, including approximately 25 (16 inbound/9 outbound) vehicle trips during the AM peak hour, and approximately 23 (6 inbound/17 outbound) vehicle trips during the PM peak hour.

Table XVII-2: Custom Trip Generation Rates

Land Use	Quantity	Unit	Traffic Counts							Custom Trip Generation Rates						
			Daily Trips	AM Peak			PM Peak			Daily Rate	AM Peak			PM Peak		
				In	Out	Total	In	Out	Total		Rate	In	Out	Rate	In	Out
Existing RV Storage	101	Storage Units	121	9	8	17	4	11	15	1.20	0.14	53%	47%	0.12	27%	73%

Source: Fehr and Peers, 2023

Table XVII-3: Project Trip Generation

Land Use	ITE Land Code	Quantity	Unit	Traffic Counts							Custom Trip Generation Rates						
				Daily Rate	AM Peak			PM Peak			Daily Trips	AM Peak			PM Peak		
					Rate	In	Out	Rate	In	Out		In	Out	Total	In	Out	Total
RV Storage / Office	N/A	146	Storage Units	1.20	0.14	53%	47%	0.12	27%	73%	175	11	9	20	5	13	18
Warehousing	150	6.84	KSF	1.71	0.17	77%	23%	0.18	28%	72%	12	1	0	1	0	1	1
Office	710	2.34	KSF	10.84	1.52	88%	12%	1.52	17%	83%	25	4	0	4	1	3	4
Net New External Trips											**212**	**16**	**9**	**25**	**6**	**17**	**23**

Source: Trip Generation Manual 11th Edition (Institute of Transportation Engineers, 2021), Fehr and Peers, 2023.
Note: KSF = 1,000 square feet

According to Appendix B of the *Riverside County Transportation Analysis Guidelines for Level of Service and Vehicle Miles Traveled,* Traffic Analysis Exemptions, certain types of development proposals are generally exempt from Traffic Analysis requirements per Board of Supervisor's

action November 5, 1996 (Item no. 3.27). Exemption #10 indicates that an exemption is appropriate for any use which can demonstrate, based on the most recent edition of the Trip Generation Report published by the Institute of Transportation Engineers (ITE) or other approved trip generation data, trip generation of less than 100 trips during the peak hours. As noted above the project is anticipated to generate approximately **25 AM peak hour trips and 23 PM peak hour trips, which are both less than 100 peak hour trips. Therefore, the Project satisfies the LOS traffic analysis** exemption criteria. No further LOS analysis is required for the Project and less than significant impacts are expected.

b) **Less than Significant Impact.**

VMT Methodology

The City of Coachella utilizes the December 2020 County of Riverside Transportation Analysis Guidelines (County's TA Guidelines). The County's TA Guidelines set forth screening criteria under which Projects are not required to submit detailed VMT analysis. This guidance for determination of non-significant VMT impact is primarily intended to avoid unnecessary analysis and findings that would be inconsistent with the intent of SB 743. VMT screening criteria for development projects include the following:

- **Small Local Serving Projects** with low trip generation based on the County Greenhouse Gas Emissions Screening Tables resulting in a 3,000 Metric Tons of Carbon Dioxide Equivalent (MTCO2e) per year screening level threshold. Project trip generation is less than 110 trips per day per the ITE Manual or other acceptable source determined by Riverside County. Specific examples include retail buildings with area less than or equal to 60,000 sf, general office buildings less than or equal to 165,000 sf, and general light industrial buildings less than or equal to 179,000 sf., and warehouse (unrefrigerated) buildings less than or equal to 208,000 sf.

- **Map Based Screening** within an area of development under threshold as shown on screening map as allowed by the Transportation Department.

- **Local Essential Service** includes day care, park, medical/dental office building under 50,000 square feet, police or fire facility, and government offices which are considered local-serving facilities that shorten non-discretionary trips by putting those services closer to residents, resulting in an overall reduction in VMT.

Project Screening

A warehouse (unrefrigerated) is referenced to estimate the emission equivalent maximum daily trips allowed within the 3,000 MTCO2e per year emission threshold. Based on the County's TA Guidelines Appendix G: Unit Based Screening Thresholds for Small Projects, the maximum size for warehouse (unrefrigerated) generating less than 3,000 MTCO2e per year is 208,000 square feet, which will result in 356 total daily trips. Based on the project's VMT Screening Assessment by Fehr and Peers, the project is estimated to generate 212 daily trips, less than the emission equivalent daily trip threshold. Therefore, it can be assumed that the project would generate less than 3,000 MTCO2e per year and would qualify for Small Project screening. The GHG section of this CEQA analysis illustrates this consistency. Small Project screening is consistent with the requirements of

the County's TA Guidelines. As the project is presumed to result in less than significant transportation impacts related to VMT, no further VMT analysis is required for the project.

Conclusions

The project is considered a Small Project facility. Therefore, the project will not conflict or be inconsistent with CEQA Guidelines Section 15064.3 subdivision (b). Less than significant impacts are anticipated.

Cumulative Impacts: None

Mitigation Measures: None

c) **Less than Significant Impact.**

The project site plan has been designed according to City of Coachella standards. It provides an internal circulation system without sharp curves or dangerous intersections that is subject to review and approval by the City Traffic Engineer during standard City review processes. The project entry consists of two proposed access points, both on the western border of the project site along Harrison Street. Emergency Access would be from the project's entry points off Harrison Street.

These driveways will be designed to incorporate proper stacking, sight distance and intersection control (e.g. left turn pockets) features. Automobiles would be the primary vehicle type generated by the project.

The project's pedestrian access points will be located with adequate visibility, and project-generated traffic will be consistent with existing traffic in the area. No roadway improvements are proposed as part of the project.

A Traffic Control Plan may be required as a condition of approval to be implemented throughout all construction activities. This plan will work to reduce potential impacts that may arise due to conflicts with construction traffic. Impacts will be less than significant.

The project is not anticipated to increase hazards due to geometric design features or incompatible uses. Following the review and approval process at the City of Coachella, impacts are less than significant.

d) Less than Significant Impact. Regional access to the project site will be provided via a major arterial, primary arterial and local roads. Primary Project access will be provided via two access points on Harrison Street along the western border of the project site. This entry access would also serve as the emergency access point. Gated entrances will be accessible to emergency vehicles via an emergency lock box system such as Knox Box Rapid Entry System.

The project's pedestrian access points will be located with adequate visibility, and project-generated traffic will be consistent with existing traffic in the area. No offsite roadway improvements are proposed as part of the project.

Prior to construction, both the Fire Department and Police Department will review the project site plan to ensure safety measures are addressed, including emergency access. The project is not anticipated to result in inadequate emergency access. Approval of the project is not anticipated to result in inadequate emergency access. Therefore, impacts are less than significant relative to inadequate emergency access.

XVIII. TRIBAL CULTURAL RESOURCES **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project cause a substantial adverse change in the significance of a Tribal cultural resource, defined in Public Resource Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local Register of historical resources as defined in Public Resource Code Section 5020.1(k), or;	☐	☐	☒	☐
ii) A resource determined by the lead agency in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.	☐	☒	☐	☐

(Sources: Cultural Resources Assessment, Statistical Research).

Setting

As discussed in the Cultural Section of this Initial Study, the Coachella Valley is a historical center of Native American settlement, where U.S. surveyors noted large numbers of Indian villages and *rancherías*, occupied by the Cahuilla people, in the mid-19th century. While having a rich Native American historical background, the Native American population is still present in Coachella. Due to its historical, cultural and archaeological resources, most of the City is designated as "medium sensitivity to historical resource sensitivity" (Coachella 2035 GPU Final EIR, Figure 4.4-2).

The aboriginal group that occupied the northern Coachella Valley during the historical period was the Desert Cahuilla, who, along with the Mountain and Pass Cahuilla, constituted the ethnographic Cahuilla. The Cahuilla spoke a language of the Takic branch of Northern Uto-Aztecan, and the Desert Cahuilla spoke a distinct dialect of Cahuilla. There have been few archaeological studies of the historical-period Cahuilla, but testing at the former Mission Creek Indian Reservation, approximately 11.2 km (7 miles) northwest of the project area, identified occupations stretching from the Late Prehistoric period into the early twentieth century. Similarly, excavations at Tahquitz Canyon, 54 km (33.5 miles) southeast of the project area, found a large village complex dating to between A.D. 1600 and 1870. Villages were located in areas with access to a number of resources, either at springs or where wells could be easily dug. As a result, most villages relied on hand-excavated walk-in wells for water. These wells were dug to a depth of about 6 m (20 feet), to reach the water table. Villages were loose clusters of houses spread over an area up to 1 km (0.6 miles) across. Some of the houses were large, whereas others were smaller, and at least one large

ceremonial structure was present in each village. Once established, villages were considered permanent and were occupied by lineages. Villages were connected to each other by a complex system of trails.

Discussion of Impacts

a i) **No Impact.** As previously discussed in the Cultural Resource section of this document, no previously recorded resources were identified within the project area. SRI submitted a request for a Sacred Lands File Search to the Native American Heritage Commission (NAHC) on October 4, 2023. On November 21, 2023, the NAHC responded and indicated that the results of the Sacred Lands File Search were negative for known cultural resources within the vicinity of the project area. No resources were found to be listed in the catalog of California Historical Landmarks (CHLs). No historical-period structures or other features are depicted in any of the historical maps, records, or aerial photographs. Available aerial imagery shows no historical-period structures within the project area. Therefore, the project site is not expected to cause a substantial adverse change in the significance of a Tribal cultural resource as defined by Public Resource Code §21074 and no impacts are expected.

a ii) **Less than Significant Impact with Mitigation Incorporated.** Assembly Bill 52 (AB 52) requires lead agencies to notify their local tribes about development projects. It also mandates lead agencies consult with Tribes if requested and sets the principles for conducting and concluding the required consultation process. Pursuant to AB 52 consultation requirements, the City of Coachella initiated the AB52 consultation process in June 2024. Only one response was received from the Agua Caliente Band of Cahuilla Indians (ACBCI), who deferred to the Cabazon Band of Mission Indians. No other responses were received, and the Tribal Consultation period was concluded.

Although no Tribal Cultural resources were found during the field survey and the Sacred Lands File search produced negative results, the site remains sensitive to buried archaeological resources due to the isolated prehistoric artifacts and cremation site previously documented in the records search area.

With implementation of **Mitigation Measure CUL-1**, impacts to Tribal cultural resources would be less than significant.

Mitigation Measures: See CUL-1

XIX. UTILITIES AND SERVICE SYSTEMS **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonable foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

Setting

Water

Groundwater is the primary source of domestic water supply in the Coachella Valley; the Coachella Water Authority (CWA) provides over 8,000 municipal water service connections and over 2,128 million gallons (MG) of water to customers in their service area. CWA's existing water system consists of different pressure zones, groundwater wells, storage reservoirs, booster pumping stations, and distribution facilities. Groundwater is pumped from six wells within the City's distribution system. The total capacity of active wells is approximately 11,400 gallons per minute (gpm). CWA has three storage reservoirs within the City, with a total reservoir capacity of approximately 10.5 MG. CWA's distribution system network consists of approximately 120 miles of pipeline, which ranges from 4-inches to 36-inches in diameter.

Wastewater

Wastewater services are provided to the City by the Coachella Sanitary District. The City of Coachella's sewer system consist of approximately 90 miles of sanitary sewers that collect local flows generated from the City's residential, commercial, and industrial areas and discharge to the City's Avenue 54 Wastewater Treatment Plan (WWTP) with a capacity of 4.5 million gallons per day (MGD).

Solid Waste

Solid waste disposal and recycling services for the City Coachella is provided by Burrtec. Residential, Commercial waste and recycling is taken to the Coachella Valley Transfer Station. Waste from the Transfer

Station is then taken to a permitted landfill or recycling facility outside of the Coachella Valley. These include Badlands Disposal site, El Sobrante Sanitary Landfill, and Lamb Canyon Disposal Site.

Other Utilities

The site is under the jurisdiction for electricity from Imperial Irrigation District (IID), natural gas from Southern California Gas Company (So Cal Gas), and Frontier and Charter Communications for telecommunications. All utility services are located on Harrison Street and Avenue 48.

Discussion of Impacts

a) **Less Than Significant Impact.** The project site is in an urban setting with utility connections located in Harrison Street and along the unimproved portion of Avenue 48. Domestic water is provided to the site by the Coachella Water Authority (CWA) and wastewater services are provided to the site by the Coachella Sanitary District. The project would connect to the existing water and sewer mains along Harrison Street and the unimproved portion of Avenue 48. The project does not propose to connect to IID electricity to power the site. The project will include rooftop solar panels, battery storage, and generator backup systems to provide power to the facility. Development will occur in phases, and solar energy systems will be installed for each building as it is constructed. and SoCal Gas for natural gas services, telecommunication connections are provided by Frontier. All connections of these utilities are located adjacent to the project's boundary. The proposed onsite storm drain system includes facilities which have been preliminarily sized to provide enough storage for the 100-year controlling storm event. The extension of all onsite utilities will occur within the project's boundary and no new construction of public water, wastewater, electric power, natural gas, or telecommunications facilities will need to be constructed or relocated. Therefore, less than significant impacts are expected.

b) **Less Than Significant Impact.** Groundwater is the primary source of domestic water supply in the Coachella Valley. CWA's 2020 Regional Urban Water Management Plan (RUWMP) has been developed to assist the agency in reliably meeting current and future water demands in a cost-effective manner. The comprehensive Water Management Plan guides efforts to eliminate overdraft, prevent groundwater level decline, protect water quality, and prevent land subsidence. CWA functions as one principal source of water supply, local groundwater is pumped from the CWA-owned wells. There are currently six wells within the City's distribution system. The total pumping capacity of active wells is approximately 11,400 gallons per minute (gpm) or 16.5 million gallons per day (MGD). There are three storage reservoirs within the City, the 1.5-million-gallon (MG) Dillion Road Reservoir, the 3.6 MG Mecca Reservoir, and the 5.4 MG Well 18 Reservoir. CWA has a total reservoir storage capacity of 10.5 MG.

CWA has a current baseline water demand rate of 200 gallons per capita per day (GPCD). CWA's actual water usage is 141 GPCD and is 40.8% lower than the targeted reduction for 2020. It is anticipated that future users will continue to achieve a lower GPCD average usage across all customer classes due to implementation of plumbing code and updated landscape ordinance requirements. The City's Municipal Code has several ordinances to ensure water supply and efficiency measures are in place. Additionally, the project will be required to comply with the City's Landscape Development Guidelines and would include water efficient landscaping. Compliance with these guidelines and City ordinances will ensure that future development reduces water demand to meet CWA's target demands.

The project site is undeveloped and currently not connected to domestic water services. The proposed project would connect to the existing infrastructure on Harrsion Street through on-site improvements of a 4" water line and will comply with the existing water management program in place. The addition of industrial use will result in an increase in demand for water supplies.

CWA's 2020 RUWMP projected demands are shown in Table 5-7. The demand projections in Table 5-7 were based on the regional growth forecast prepared by the Southern California Association of Governments (SCAG) as part of their regional transportation plan. SCAG gathered input from cities and counties throughout Southern California about expected growth and development for the next 25 years and incorporated the land use designations in each jurisdiction's General Plan. SCAG analysis includes estimates of population, households, and employment in each Traffic Analysis Zone (TAZ) in their study area. Additional analysis of vacancy rates was performed to estimate baseline and projected housing units for the study area, including housing units used by seasonal residents and other part-time uses. Future estimates of employment were used to drive future growth in Commercial, Industrial, and Institutional (CII) demands.

Table XIX-1 DWR 4-2R Projected Demands for Water

Use Type	Projected Water Use (AFY)				
	2025	2030	2035	2040	2045
Single Family	7,072	8,364	9,575	10,840	11,785
Multi-Family	1,005	1,189	1,422	1,799	2,342
Commercial/Industrial/ Institutional	1,181	1,370	1,558	1,674	1,790
Landscape	935	1,096	1,257	1,449	1,641
Other	22	26	31	36	41
Losses	654	774	888	1,021	1,147
Total	10,869	12,819	14,731	16,819	18,746

Source: Table 5-7 CWA 2020 Regional Urban Water Management Plan

The RUWMP estimates a population projection out to 2045, as shown in Table 5-3, the 2020 population is estimated at 45,522. The current population of the City of Coachella is 42,462 persons (2023 Department of Finance Population and Housing Estimates) which is still below the UWMP population estimates. The Project site is vacant and therefore is not currently utilizing domestic water services provided by CWA. The Project proposes a luxury vehicle storage facility and industrial office space which will result in a small increase in water services. The proposed project would not result in an increase in the population and would not have a substantial increase to the City's population estimates projected in the City's General Plan and CWA's RUWMP. The 2020 RUWMP indicates that adequate water supplies will be available to accommodate development and population increase under normal year, single year, and multiple dry year scenarios.

Table XIX-2 DWR 3-1R Current and Project Population

Population Served	2020	2025	2030	2035	2040	2045
CWA	45,522	66,478	78,735	90,991	100,248	115,504

Source: Table 5-3 CWA 2020 Regional Urban Water Management Plan

The infrastructure and design components for the project will be consistent with CWA requirements and water management plan. The project will also be reviewed by CWA and City staff to ensure compliance with all current and applicable requirements. The proposed

development will be expected to implement water conservation measures to reduce impacts to public water supplies. Additionally, water installation and connection fees in place at the time of development will be collected by CWA. Therefore, less than significant impacts to available water supplies are expected.

c) Less Than Significant Impact. The City manages the Coachella Sanitary District that operates a 4.5-MGD secondary treatment wastewater facility. In 2010, the City upgraded the capacity of the Coachella Water Reclamation Facility to 4.5 MGD, and the current average daily discharge is approximately 2.7 MGD. The plant remains a full secondary treatment facility with oxidation ditches for denitrification. This WWTP has a capacity of 4.5 million gallons per day (mgd). The City's collection system includes 90 miles of sanitary sewer and two pumping stations. The City currently does not have recycled water use within its service area. While the City plans to use recycled water in some capacity in the future, additional information related to a potential recycled water system is being developed as part of regional planning efforts.

The proposed project would connect into the existing sewer main along the eastern side of the project and provide waste water services to the site through a series of 8" sewer laterals. The project will undergo review by Coachella Sanitary District and City staff to ensure wastewater capacity and compliance with the current wastewater treatment requirements. Additionally, sewer and water installation and connection fees in place at the time of development will be collected by the City. No new or expanded treatment facilities are expected as a result of project implementation, nor is the project expected to exceed wastewater capacity. Therefore, less than significant impacts to available wastewater are expected.

d, e) Less Than Significant Impact. Solid waste disposal and recycling services for the City of Coachella is provided by Burrtec. Solid waste and recycling collected from the proposed project will be hauled to the Coachella Valley Transfer Station, which has a 1, 100 tons per day capacity. Waste from this transfer station is then sent to a permitted landfill or recycling facility outside of the Coachella Valley. These include Badlands Disposal Site, El Sobrante Sanitary Landfill and Lamb Canyon Disposal Site. Cal-Recycle data indicates the Badlands Disposal site has 7,800,000 cubic yards of remaining capacity, the El Sobrante Landfill has a remaining capacity of 143,977,170 tons of solid waste, and Lamb Canyon Disposal has a remaining solid waste capacity of 19,242,950 cubic yards.

As part of its long-range planning and management activities, the Riverside County Department of Waste Resources (RCDWR) ensures that Riverside County has a minimum of 15 years of capacity, at any time, for future landfill disposal. Pursuant to AB939, the County prepared the 1996 Countywide Integrated Waste Management Plan (CIWMP) in collaboration with its cities to ensure a coordinated effort at solid waste reduction and landfilling. The 15-year projection of disposal capacity is prepared each year as part of the annual reporting requirements for the CIWMP. The most recent 2019 Annual Summary has a 19-years of disposal capacity, and no additional capacity is needed to dispose of countywide waste through 2038. Less than significant impacts are anticipated.

The project will comply with all applicable solid waste statutes and guidelines. All development is required to comply with the mandatory commercial and multi-family recycling requirements of Assembly Bill 341. The project will also comply with the recycling requirements of Cal Green and develop a waste management plan that will include diverting at least 50% of construction and

demolition material fill from landfills. Less than significant impacts are expected relative to applicable solid waste statues and regulations.

Mitigation Measures: None required

XX. WILDFIRE

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

(Sources: The City of Coachella 2035 General Plan, 2015); Cal Fire Fire Hazard Severity Zones Map.

a-d) **No Impact.** The project site occupies approximately 11 acres of vacant and undeveloped land east of Harrison Street and 1,300 feet south of Avenue 48. The project is surrounded by industrial uses to the north and west, a date palm grove to the south, and vacant land to the east.

According to Cal Fire's Fire and Resource Assessment Program the proposed project site is not located within a Very High Fire Hazard Severity Zone. As a result, the project is not expected to impair an adopted emergency response plan or emergency evacuation plan. No impacts are anticipated.

Wildfire risk is related to a number of parameters, including fuel loading (vegetation), fire weather (winds, temperatures, humidity levels and fuel moisture contents) and topography (degree of slope). Steep slopes contribute to fire hazards by intensifying the effects of wind and make fire suppression difficult. Fuels such as grass are highly flammable because they have a high surface area to mass ratio and require less heat to reach the ignition point. The project site is not expected to expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

The project proposes development of water, sewer, and stormwater infrastructure. The proposed improvements would allow for a decrease in fire risk relative to existing conditions. The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. As a result, the project is not expected to require the installation or maintenance of associated infrastructure that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.

The project site will be connecting to an existing network of City streets. Access to the project will occur on the paved right-of-way of Harrison Street. The project will provide curb and gutter improvements along the Harrison Street frontage. The property is located in a developed area. Landslides include rockfalls, deep slope failure, and shallow slope failure. Factors such as the geological conditions, drainage, slope, vegetation, and others affect the potential for landslides. One of the most common causes of landslides is construction activity that is associated with road building. The project site is relatively flat; therefore, the potential for a landslide in the project site is essentially non-existent. As a result, the project is not expected to 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 and no impact is expected to result from the project.

Mitigation Measures: None required

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

NOTE: If there are significant environmental impacts which cannot be mitigated and no feasible project alternatives are available, then complete the mandatory findings of significance and attach to this initial study as an appendix. This is the first step for starting the environmental impact report (EIR) process.

Does the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)	☐	☐	☒	☐
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Discussion of Impacts

a) **Less Than Significant Impact with Mitigation Incorporated.** As concluded in the Biological and Cultural Resources Section of this Initial Study, the proposed project would result in no impacts, less than significant impacts, or less than significant with mitigation to these resources. The project is compatible with the City of Coachella General Plan and its surroundings. The project will not significantly degrade the overall quality of the region's environment, or substantially reduce the habitat of a wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare of endangered plant or animal community. The project site has been previously disturbed over the years and development of the site would not eliminate important examples of major periods of California History or pre-history. Based upon the information provided in the biological and cultural sections within this Initial Study, approval and implementation of the project is not expected to substantially alter or degrade the quality of the environment and mitigation measures included in this document will reduce potential impact to less than significant levels.

b) **Less Than Significant Impact.** The proposed project and its location are found to be adequate and consistent with existing federal, state, and local policies and is consistent with the City of Coachella General Plan and surrounding land use. Approval and implementation of the proposed project will result in less than significant impacts related to cumulatively considerable impacts.

c) **Less Than Significant Impact.** As discussed in the various sections throughout this Initial Study, the proposed project would not include land use that could result in substantial adverse effects on human beings. The project has been designed to comply with established design guidelines and current building standards. The City's detailed review process will ensure that applicable guidelines are being followed. Based upon the findings provided in this document, and mitigation measures and standard conditions incorporated into the project, less than significant impacts are expected.

Mitigation Measures: See Biological Section IV and Cultural Section V.

References

Biological Resources Assessment and Environmental Impact Analysis, BioCon2, Biological Consulting, October 2023

City of 2015 Coachella General Plan, 2035 and General Plan EIR

CWA 2015 Urban Water Management Plan

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Riverside County General Plan, 2015

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City of Coachella Climate Action Plan, June 2014

California Scenic Highway Mapping System

Riverside County Important Farmland 2014 Map

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AQ/GHG CalEEMod Report

Coachella RV Storage Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Coachella RV Storage
Construction Start Date	1/6/2026
Operational Year	2028
Lead Agency	City of Coachella
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.00
Precipitation (days)	7.60
Location	33.69721586681041, -116.1805741765747
County	Riverside-Salton Sea
City	Coachella
Air District	South Coast AQMD
Air Basin	Salton Sea
TAZ	6837
EDFZ	19
Electric Utility	Imperial Irrigation District
Gas Utility	Southern California Gas
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	225	1000sqft	5.17	225,230	—	—	—	RV Storage

General Office Building	3.97	1000sqft	0.09	3,970	—	—	—	Office/Clubhouse
Parking Lot	5.40	Acre	5.40	0.00	27,443	—	—	Parking Lot and Landscaping
Unrefrigerated Warehouse-No Rail	3.14	1000sqft	0.07	3,140	—	—	—	Industrial Lease Space

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-9	Use Dust Suppressants
Construction	C-11	Limit Vehicle Speeds on Unpaved Roads
Construction	C-12	Sweep Paved Roads
Energy	E-10-B	Establish Onsite Renewable Energy Systems: Solar Power
Energy	E-23*	Use Microgrids and Energy Storage
Energy	E-24*	Provide Battery Storage
Water	W-4	Require Low-Flow Water Fixtures
Water	W-5	Design Water-Efficient Landscapes

* Qualitative or supporting measure. Emission reductions not included in the mitigated emissions results.

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.	49.6	49.5	30.9	29.7	0.08	1.19	3.46	4.65	1.10	1.22	2.31	—	10,040	10,040	0.31	0.57	7.38	10,225
Mit.	49.6	49.5	30.9	29.7	0.08	1.19	3.46	4.65	1.10	1.22	2.31	—	10,040	10,040	0.31	0.57	7.38	10,225

% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.81	3.21	31.2	29.5	0.08	1.24	5.27	6.51	1.14	2.66	3.81	—	10,013	10,013	0.30	0.57	0.19	10,190
Mit.	3.81	3.21	31.2	29.5	0.08	1.24	5.27	6.51	1.14	2.66	3.81	—	10,013	10,013	0.30	0.57	0.19	10,190
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.68	6.59	9.40	12.8	0.02	0.34	1.04	1.38	0.31	0.32	0.64	—	3,252	3,252	0.10	0.15	1.57	3,300
Mit.	6.68	6.59	9.40	12.8	0.02	0.34	1.04	1.38	0.31	0.32	0.64	—	3,252	3,252	0.10	0.15	1.57	3,300
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.22	1.20	1.72	2.33	< 0.005	0.06	0.19	0.25	0.06	0.06	0.12	—	538	538	0.02	0.02	0.26	546
Mit.	1.22	1.20	1.72	2.33	< 0.005	0.06	0.19	0.25	0.06	0.06	0.12	—	538	538	0.02	0.02	0.26	546
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.82	3.20	30.9	29.7	0.08	1.19	3.46	4.65	1.10	1.22	2.31	—	10,040	10,040	0.31	0.57	7.38	10,225
2027	49.6	49.5	10.7	19.2	0.03	0.35	1.14	1.49	0.32	0.28	0.60	—	4,311	4,311	0.13	0.18	5.16	4,373

Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.81	3.21	31.2	29.5	0.08	1.24	5.27	6.51	1.14	2.66	3.81	—	10,013	10,013	0.30	0.57	0.19	10,190
2027	1.64	1.39	10.8	16.8	0.03	0.35	1.14	1.49	0.32	0.28	0.60	—	4,171	4,171	0.13	0.18	0.13	4,228
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.34	1.13	9.40	12.8	0.02	0.34	1.04	1.38	0.31	0.32	0.64	—	3,252	3,252	0.10	0.15	1.57	3,300
2027	6.68	6.59	3.61	5.91	0.01	0.12	0.36	0.48	0.11	0.09	0.20	—	1,352	1,352	0.04	0.05	0.69	1,370
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.24	0.21	1.72	2.33	< 0.005	0.06	0.19	0.25	0.06	0.06	0.12	—	538	538	0.02	0.02	0.26	546
2027	1.22	1.20	0.66	1.08	< 0.005	0.02	0.07	0.09	0.02	0.02	0.04	—	224	224	0.01	0.01	0.11	227

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.82	3.20	30.9	29.7	0.08	1.19	3.46	4.65	1.10	1.22	2.31	—	10,040	10,040	0.31	0.57	7.38	10,225
2027	49.6	49.5	10.7	19.2	0.03	0.35	1.14	1.49	0.32	0.28	0.60	—	4,311	4,311	0.13	0.18	5.16	4,373
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.81	3.21	31.2	29.5	0.08	1.24	5.27	6.51	1.14	2.66	3.81	—	10,013	10,013	0.30	0.57	0.19	10,190
2027	1.64	1.39	10.8	16.8	0.03	0.35	1.14	1.49	0.32	0.28	0.60	—	4,171	4,171	0.13	0.18	0.13	4,228
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.34	1.13	9.40	12.8	0.02	0.34	1.04	1.38	0.31	0.32	0.64	—	3,252	3,252	0.10	0.15	1.57	3,300
2027	6.68	6.59	3.61	5.91	0.01	0.12	0.36	0.48	0.11	0.09	0.20	—	1,352	1,352	0.04	0.05	0.69	1,370
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2026	0.24	0.21	1.72	2.33	< 0.005	0.06	0.19	0.25	0.06	0.06	0.12	—	538	538	0.02	0.02	0.26	546
2027	1.22	1.20	0.66	1.08	< 0.005	0.02	0.07	0.09	0.02	0.02	0.04	—	224	224	0.01	0.01	0.11	227

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.	9.62	9.26	5.10	19.2	0.02	0.29	0.97	1.25	0.28	0.25	0.53	220	3,359	3,579	22.5	0.32	2.91	4,239
Mit.	9.62	9.26	5.10	19.2	0.02	0.29	0.97	1.25	0.28	0.25	0.53	210	—	—	—	—	2.91	—
% Reduced	—	—	—	—	—	—	—	—	—	—	—	5%	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.68	7.45	5.06	7.71	0.02	0.27	0.97	1.24	0.27	0.25	0.51	220	3,190	3,410	22.5	0.32	0.08	4,067
Mit.	7.68	7.45	5.06	7.71	0.02	0.27	0.97	1.24	0.27	0.25	0.51	210	—	—	—	—	0.08	—
% Reduced	—	—	—	—	—	—	—	—	—	—	—	5%	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	8.61	8.31	5.08	13.0	0.02	0.28	0.96	1.24	0.28	0.24	0.52	220	3,261	3,481	22.5	0.32	1.26	4,140
Mit.	8.61	8.31	5.08	13.0	0.02	0.28	0.96	1.24	0.28	0.24	0.52	210	—	—	—	—	1.26	—
% Reduced	—	—	—	—	—	—	—	—	—	—	—	5%	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.57	1.52	0.93	2.38	< 0.005	0.05	0.18	0.23	0.05	0.04	0.09	36.5	540	576	3.72	0.05	0.21	685
Mit.	1.57	1.52	0.93	2.38	< 0.005	0.05	0.18	0.23	0.05	0.04	0.09	34.8	—	—	—	—	0.21	—

% Reduced	—	—	—	—	—	—	—	—	—	—	—	5%	—	—	—	—	—	—

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	0.78	0.73	0.53	5.08	0.01	0.01	0.97	0.97	0.01	0.25	0.25	—	1,173	1,173	0.05	0.06	2.90	1,194
Area	7.40	7.26	0.09	10.1	< 0.005	0.02	—	0.02	0.01	—	0.01	—	41.6	41.6	< 0.005	< 0.005	—	41.7
Energy	0.12	0.06	1.12	0.94	0.01	0.09	—	0.09	0.09	—	0.09	—	1,337	1,337	0.12	< 0.005	—	1,340
Water	—	—	—	—	—	—	—	—	—	—	—	103	192	294	10.5	0.25	—	633
Waste	—	—	—	—	—	—	—	—	—	—	—	118	0.00	118	11.8	0.00	—	412
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Stationary	1.32	1.20	3.36	3.07	0.01	0.18	0.00	0.18	0.18	0.00	0.18	0.00	615	615	0.02	< 0.005	0.00	617
Total	9.62	9.26	5.10	19.2	0.02	0.29	0.97	1.25	0.28	0.25	0.53	220	3,359	3,579	22.5	0.32	2.91	4,239
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.64	0.59	0.57	3.70	0.01	0.01	0.97	0.97	0.01	0.25	0.25	—	1,046	1,046	0.05	0.06	0.08	1,064
Area	5.60	5.60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.12	0.06	1.12	0.94	0.01	0.09	—	0.09	0.09	—	0.09	—	1,337	1,337	0.12	< 0.005	—	1,340
Water	—	—	—	—	—	—	—	—	—	—	—	103	192	294	10.5	0.25	—	633
Waste	—	—	—	—	—	—	—	—	—	—	—	118	0.00	118	11.8	0.00	—	412
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Stationary	1.32	1.20	3.36	3.07	0.01	0.18	0.00	0.18	0.18	0.00	0.18	0.00	615	615	0.02	< 0.005	0.00	617
Total	7.68	7.45	5.06	7.71	0.02	0.27	0.97	1.24	0.27	0.25	0.51	220	3,190	3,410	22.5	0.32	0.08	4,067

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.67	0.63	0.55	4.05	0.01	0.01	0.96	0.97	0.01	0.24	0.25	—	1,096	1,096	0.05	0.06	1.25	1,115
Area	6.49	6.42	0.04	4.98	< 0.005	0.01	—	0.01	0.01	—	0.01	—	20.5	20.5	< 0.005	< 0.005	—	20.6
Energy	0.12	0.06	1.12	0.94	0.01	0.09	—	0.09	0.09	—	0.09	—	1,337	1,337	0.12	< 0.005	—	1,340
Water	—	—	—	—	—	—	—	—	—	—	—	103	192	294	10.5	0.25	—	633
Waste	—	—	—	—	—	—	—	—	—	—	—	118	0.00	118	11.8	0.00	—	412
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Stationary	1.32	1.20	3.37	3.07	0.01	0.18	0.00	0.18	0.18	0.00	0.18	0.00	616	616	0.02	< 0.005	0.00	618
Total	8.61	8.31	5.08	13.0	0.02	0.28	0.96	1.24	0.28	0.24	0.52	220	3,261	3,481	22.5	0.32	1.26	4,140
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.12	0.11	0.10	0.74	< 0.005	< 0.005	0.18	0.18	< 0.005	0.04	0.05	—	181	181	0.01	0.01	0.21	185
Area	1.18	1.17	0.01	0.91	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.39	3.39	< 0.005	< 0.005	—	3.40
Energy	0.02	0.01	0.20	0.17	< 0.005	0.02	—	0.02	0.02	—	0.02	—	221	221	0.02	< 0.005	—	222
Water	—	—	—	—	—	—	—	—	—	—	—	17.0	31.8	48.8	1.74	0.04	—	105
Waste	—	—	—	—	—	—	—	—	—	—	—	19.5	0.00	19.5	1.95	0.00	—	68.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Stationary	0.24	0.22	0.61	0.56	< 0.005	0.03	0.00	0.03	0.03	0.00	0.03	0.00	102	102	< 0.005	< 0.005	0.00	102
Total	1.57	1.52	0.93	2.38	< 0.005	0.05	0.18	0.23	0.05	0.04	0.09	36.5	540	576	3.72	0.05	0.21	685

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	0.78	0.73	0.53	5.08	0.01	0.01	0.97	0.97	0.01	0.25	0.25	—	1,173	1,173	0.05	0.06	2.90	1,194
Area	7.40	7.26	0.09	10.1	< 0.005	0.02	—	0.02	0.01	—	0.01	—	41.6	41.6	< 0.005	< 0.005	—	41.7

Energy	0.12	0.06	1.12	0.94	0.01	0.09	—	0.09	0.09	—	0.09	—	1,337	1,337	0.12	< 0.005	—	1,340
Water	—	—	—	—	—	—	—	—	—	—	—	92.5	NaN	NaN	NaN	NaN	—	NaN
Waste	—	—	—	—	—	—	—	—	—	—	—	118	0.00	118	11.8	0.00	—	412
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Stationary	1.32	1.20	3.36	3.07	0.01	0.18	0.00	0.18	0.18	0.00	0.18	0.00	615	615	0.02	< 0.005	0.00	617
Total	9.62	9.26	5.10	19.2	0.02	0.29	0.97	1.25	0.28	0.25	0.53	210	NaN	NaN	NaN	NaN	2.91	NaN
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.64	0.59	0.57	3.70	0.01	0.01	0.97	0.97	0.01	0.25	0.25	—	1,046	1,046	0.05	0.06	0.08	1,064
Area	5.60	5.60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.12	0.06	1.12	0.94	0.01	0.09	—	0.09	0.09	—	0.09	—	1,337	1,337	0.12	< 0.005	—	1,340
Water	—	—	—	—	—	—	—	—	—	—	—	92.5	NaN	NaN	NaN	NaN	—	NaN
Waste	—	—	—	—	—	—	—	—	—	—	—	118	0.00	118	11.8	0.00	—	412
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Stationary	1.32	1.20	3.36	3.07	0.01	0.18	0.00	0.18	0.18	0.00	0.18	0.00	615	615	0.02	< 0.005	0.00	617
Total	7.68	7.45	5.06	7.71	0.02	0.27	0.97	1.24	0.27	0.25	0.51	210	NaN	NaN	NaN	NaN	0.08	NaN
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.67	0.63	0.55	4.05	0.01	0.01	0.96	0.97	0.01	0.24	0.25	—	1,096	1,096	0.05	0.06	1.25	1,115
Area	6.49	6.42	0.04	4.98	< 0.005	0.01	—	0.01	0.01	—	0.01	—	20.5	20.5	< 0.005	< 0.005	—	20.6
Energy	0.12	0.06	1.12	0.94	0.01	0.09	—	0.09	0.09	—	0.09	—	1,337	1,337	0.12	< 0.005	—	1,340
Water	—	—	—	—	—	—	—	—	—	—	—	92.5	NaN	NaN	NaN	NaN	—	NaN
Waste	—	—	—	—	—	—	—	—	—	—	—	118	0.00	118	11.8	0.00	—	412
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Stationary	1.32	1.20	3.37	3.07	0.01	0.18	0.00	0.18	0.18	0.00	0.18	0.00	616	616	0.02	< 0.005	0.00	618
Total	8.61	8.31	5.08	13.0	0.02	0.28	0.96	1.24	0.28	0.24	0.52	210	NaN	NaN	NaN	NaN	1.26	NaN
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	0.12	0.11	0.10	0.74	< 0.005	< 0.005	0.18	0.18	< 0.005	0.04	0.05	—	181	181	0.01	0.01	0.21	185
Area	1.18	1.17	0.01	0.91	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.39	3.39	< 0.005	< 0.005	—	3.40
Energy	0.02	0.01	0.20	0.17	< 0.005	0.02	—	0.02	0.02	—	0.02	—	221	221	0.02	< 0.005	—	222
Water	—	—	—	—	—	—	—	—	—	—	—	15.3	NaN	NaN	NaN	NaN	—	NaN
Waste	—	—	—	—	—	—	—	—	—	—	—	19.5	0.00	19.5	1.95	0.00	—	68.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Stationary	0.24	0.22	0.61	0.56	< 0.005	0.03	0.00	0.03	0.03	0.00	0.03	0.00	102	102	< 0.005	< 0.005	0.00	102
Total	1.57	1.52	0.93	2.38	< 0.005	0.05	0.18	0.23	0.05	0.04	0.09	34.8	NaN	NaN	NaN	NaN	0.21	NaN

3. Construction Emissions Details

3.1. Site Preparation (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.74	3.14	29.2	28.8	0.05	1.24	—	1.24	1.14	—	1.14	—	5,298	5,298	0.21	0.04	—	5,316
Dust From Material Movement	—	—	—	—	—	—	5.11	5.11	—	2.63	2.63	—	—	—	—	—	—	—
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	0.10	0.09	0.80	0.79	< 0.005	0.03	—	0.03	0.03	—	0.03	—	145	145	0.01	< 0.005	—	146
Dust From Material Movement	—	—	—	—	—	—	0.14	0.14	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.15	0.14	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.0	24.0	< 0.005	< 0.005	—	24.1
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.66	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	150	150	< 0.005	0.01	0.01	152
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	—	4.40	4.40	< 0.005	< 0.005	0.01	4.46

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	—	0.73	0.73	< 0.005	< 0.005	< 0.005	0.74
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

3.2. Site Preparation (2026) - 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	3.74	3.14	29.2	28.8	0.05	1.24	—	1.24	1.14	—	1.14	—	5,298	5,298	0.21	0.04	—	5,316
Dust From Material Movement	—	—	—	—	—	—	5.11	5.11	—	2.63	2.63	—	—	—	—	—	—	—
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	0.10	0.09	0.80	0.79	< 0.005	0.03	—	0.03	0.03	—	0.03	—	145	145	0.01	< 0.005	—	146

Dust From Material Movement	—	—	—	—	—	—	0.14	0.14	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.15	0.14	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.0	24.0	< 0.005	< 0.005	—	24.1
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.66	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	150	150	< 0.005	0.01	0.01	152
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	—	4.40	4.40	< 0.005	< 0.005	0.01	4.46
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	—	0.73	0.73	< 0.005	< 0.005	< 0.005	0.74

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. Grading (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.62	3.04	27.2	27.6	0.06	1.12	—	1.12	1.03	—	1.03	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	2.40	2.40	—	0.95	0.95	—	—	—	—	—	—	—
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	3.62	3.04	27.2	27.6	0.06	1.12	—	1.12	1.03	—	1.03	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	2.40	2.40	—	0.95	0.95	—	—	—	—	—	—	—
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-Roa Equipment	0.30	0.25	2.24	2.27	0.01	0.09	—	0.09	0.08	—	0.08	—	542	542	0.02	< 0.005	—	544
Dust From Material Movement	—	—	—	—	—	—	0.20	0.20	—	0.08	0.08	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Roa d Equipm ent	0.05	0.05	0.41	0.41	< 0.005	0.02	—	0.02	0.02	—	0.02	—	89.8	89.8	< 0.005	< 0.005	—	90.1
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	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	0.09	0.09	0.07	1.27	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	202	202	0.01	0.01	0.64	205
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	0.10	0.07	3.61	0.83	0.02	0.06	0.88	0.94	0.06	0.23	0.29	—	3,239	3,239	0.03	0.51	6.74	3,399
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.08	0.75	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	172	172	< 0.005	0.01	0.02	174
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	0.10	0.06	3.86	0.86	0.02	0.06	0.88	0.94	0.06	0.23	0.29	—	3,242	3,242	0.03	0.51	0.17	3,395
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	15.1	15.1	< 0.005	< 0.005	0.02	15.3

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	0.01	0.01	0.31	0.07	< 0.005	0.01	0.07	0.08	0.01	0.02	0.02	—	266	266	< 0.005	0.04	0.24	279
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.50	2.50	< 0.005	< 0.005	< 0.005	2.53
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	< 0.005	< 0.005	0.06	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	44.1	44.1	< 0.005	0.01	0.04	46.2

3.4. Grading (2026) - 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	3.62	3.04	27.2	27.6	0.06	1.12	—	1.12	1.03	—	1.03	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	2.40	2.40	—	0.95	0.95	—	—	—	—	—	—	—
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	3.62	3.04	27.2	27.6	0.06	1.12	—	1.12	1.03	—	1.03	—	6,599	6,599	0.27	0.05	—	6,621

Dust From Material Movement	—	—	—	—	—	—	2.40	2.40	—	0.95	0.95	—	—	—	—	—	—	—
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	0.30	0.25	2.24	2.27	0.01	0.09	—	0.09	0.08	—	0.08	—	542	542	0.02	< 0.005	—	544
Dust From Material Movement	—	—	—	—	—	—	0.20	0.20	—	0.08	0.08	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.05	0.41	0.41	< 0.005	0.02	—	0.02	0.02	—	0.02	—	89.8	89.8	< 0.005	< 0.005	—	90.1
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	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	0.09	0.09	0.07	1.27	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	202	202	0.01	0.01	0.64	205
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	0.10	0.07	3.61	0.83	0.02	0.06	0.88	0.94	0.06	0.23	0.29	—	3,239	3,239	0.03	0.51	6.74	3,399

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.08	0.75	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	172	172	< 0.005	0.01	0.02	174
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	0.10	0.06	3.86	0.86	0.02	0.06	0.88	0.94	0.06	0.23	0.29	—	3,242	3,242	0.03	0.51	0.17	3,395
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	15.1	15.1	< 0.005	< 0.005	0.02	15.3
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	0.01	0.01	0.31	0.07	< 0.005	0.01	0.07	0.08	0.01	0.02	0.02	—	266	266	< 0.005	0.04	0.24	279
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.50	2.50	< 0.005	< 0.005	< 0.005	2.53
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	< 0.005	< 0.005	0.06	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	44.1	44.1	< 0.005	0.01	0.04	46.2

3.5. Building Construction (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
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-Roa Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
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-Roa d Equipm ent	0.68	0.57	5.26	6.93	0.01	0.20	—	0.20	0.19	—	0.19	—	1,281	1,281	0.05	0.01	—	1,285
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-Roa d Equipm ent	0.12	0.10	0.96	1.26	< 0.005	0.04	—	0.04	0.03	—	0.03	—	212	212	0.01	< 0.005	—	213
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	0.45	0.42	0.34	6.18	0.00	0.00	0.88	0.88	0.00	0.21	0.21	—	980	980	0.04	0.04	3.12	995
Vendor	0.06	0.04	1.07	0.49	0.01	0.01	0.27	0.28	0.01	0.07	0.09	—	975	975	0.01	0.13	2.53	1,018
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	0.38	0.34	0.37	3.64	0.00	0.00	0.88	0.88	0.00	0.21	0.21	—	835	835	0.02	0.04	0.08	847
Vendor	0.05	0.04	1.15	0.51	0.01	0.01	0.27	0.28	0.01	0.07	0.09	—	976	976	0.01	0.13	0.07	1,016
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	0.21	0.19	0.18	2.37	0.00	0.00	0.47	0.47	0.00	0.11	0.11	—	477	477	0.01	0.02	0.72	483
Vendor	0.03	0.02	0.60	0.27	< 0.005	0.01	0.14	0.15	0.01	0.04	0.05	—	521	521	0.01	0.07	0.58	543
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	0.04	0.03	0.03	0.43	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	78.9	78.9	< 0.005	< 0.005	0.12	80.0
Vendor	0.01	< 0.005	0.11	0.05	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	86.3	86.3	< 0.005	0.01	0.10	89.9
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

3.6. Building Construction (2026) - 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	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
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	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
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	0.68	0.57	5.26	6.93	0.01	0.20	—	0.20	0.19	—	0.19	—	1,281	1,281	0.05	0.01	—	1,285
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	0.12	0.10	0.96	1.26	< 0.005	0.04	—	0.04	0.03	—	0.03	—	212	212	0.01	< 0.005	—	213
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	0.45	0.42	0.34	6.18	0.00	0.00	0.88	0.88	0.00	0.21	0.21	—	980	980	0.04	0.04	3.12	995
Vendor	0.06	0.04	1.07	0.49	0.01	0.01	0.27	0.28	0.01	0.07	0.09	—	975	975	0.01	0.13	2.53	1,018
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	0.38	0.34	0.37	3.64	0.00	0.00	0.88	0.88	0.00	0.21	0.21	—	835	835	0.02	0.04	0.08	847
Vendor	0.05	0.04	1.15	0.51	0.01	0.01	0.27	0.28	0.01	0.07	0.09	—	976	976	0.01	0.13	0.07	1,016
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	0.21	0.19	0.18	2.37	0.00	0.00	0.47	0.47	0.00	0.11	0.11	—	477	477	0.01	0.02	0.72	483
Vendor	0.03	0.02	0.60	0.27	< 0.005	0.01	0.14	0.15	0.01	0.04	0.05	—	521	521	0.01	0.07	0.58	543
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	0.04	0.03	0.03	0.43	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	78.9	78.9	< 0.005	< 0.005	0.12	80.0
Vendor	0.01	< 0.005	0.11	0.05	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	86.3	86.3	< 0.005	0.01	0.10	89.9

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 (2027) - 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	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
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	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
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	0.36	0.30	2.72	3.75	0.01	0.10	—	0.10	0.09	—	0.09	—	694	694	0.03	0.01	—	697
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 Equipm	0.07	0.05	0.50	0.68	< 0.005	0.02	—	0.02	0.02	—	0.02	—	115	115	< 0.005	< 0.005	—	115
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	0.43	0.39	0.31	5.75	0.00	0.00	0.88	0.88	0.00	0.21	0.21	—	961	961	0.01	0.03	2.82	974
Vendor	0.06	0.04	1.02	0.48	0.01	0.01	0.27	0.28	0.01	0.07	0.09	—	953	953	0.01	0.13	2.34	994
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	0.36	0.32	0.34	3.39	0.00	0.00	0.88	0.88	0.00	0.21	0.21	—	819	819	0.02	0.03	0.07	830
Vendor	0.05	0.04	1.10	0.49	0.01	0.01	0.27	0.28	0.01	0.07	0.09	—	954	954	0.01	0.13	0.06	993
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	0.11	0.10	0.09	1.20	0.00	0.00	0.25	0.25	0.00	0.06	0.06	—	253	253	< 0.005	0.01	0.35	257
Vendor	0.02	0.01	0.31	0.14	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.03	—	276	276	< 0.005	0.04	0.29	288
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	0.02	0.02	0.02	0.22	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	42.0	42.0	< 0.005	< 0.005	0.06	42.5
Vendor	< 0.005	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	45.7	45.7	< 0.005	0.01	0.05	47.6
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. Building Construction (2027) - 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	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
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	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
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	0.36	0.30	2.72	3.75	0.01	0.10	—	0.10	0.09	—	0.09	—	694	694	0.03	0.01	—	697
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	0.07	0.05	0.50	0.68	< 0.005	0.02	—	0.02	0.02	—	0.02	—	115	115	< 0.005	< 0.005	—	115
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	0.43	0.39	0.31	5.75	0.00	0.00	0.88	0.88	0.00	0.21	0.21	—	961	961	0.01	0.03	2.82	974
Vendor	0.06	0.04	1.02	0.48	0.01	0.01	0.27	0.28	0.01	0.07	0.09	—	953	953	0.01	0.13	2.34	994
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	0.36	0.32	0.34	3.39	0.00	0.00	0.88	0.88	0.00	0.21	0.21	—	819	819	0.02	0.03	0.07	830
Vendor	0.05	0.04	1.10	0.49	0.01	0.01	0.27	0.28	0.01	0.07	0.09	—	954	954	0.01	0.13	0.06	993
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	0.11	0.10	0.09	1.20	0.00	0.00	0.25	0.25	0.00	0.06	0.06	—	253	253	< 0.005	0.01	0.35	257
Vendor	0.02	0.01	0.31	0.14	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.03	—	276	276	< 0.005	0.04	0.29	288
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	0.02	0.02	0.02	0.22	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	42.0	42.0	< 0.005	< 0.005	0.06	42.5
Vendor	< 0.005	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	45.7	45.7	< 0.005	0.01	0.05	47.6
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. Paving (2027) - 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 Equipm	0.88	0.74	6.94	9.95	0.01	0.30	—	0.30	0.27	—	0.27	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.71	0.71	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.05	0.04	0.38	0.55	< 0.005	0.02	—	0.02	0.02	—	0.02	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	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	0.01	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	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	0.07	0.06	0.05	0.89	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	148	148	< 0.005	0.01	0.43	150
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	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.40	7.40	< 0.005	< 0.005	0.01	7.50
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	—	1.23	1.23	< 0.005	< 0.005	< 0.005	1.24
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

3.10. Paving (2027) - 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	0.88	0.74	6.94	9.95	0.01	0.30	—	0.30	0.27	—	0.27	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.71	0.71	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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-Roa Equipment	0.05	0.04	0.38	0.55	< 0.005	0.02	—	0.02	0.02	—	0.02	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	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-Roa d Equipm ent	0.01	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	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	0.07	0.06	0.05	0.89	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	148	148	< 0.005	0.01	0.43	150
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	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.40	7.40	< 0.005	< 0.005	0.01	7.50
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	—	1.23	1.23	< 0.005	< 0.005	< 0.005	1.24
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

3.11. Architectural Coating (2027) - 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	0.14	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	49.3	49.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.10	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	16.5	16.5	< 0.005	< 0.005	—	16.5
Architectural Coatings	6.08	6.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.73	2.73	< 0.005	< 0.005	—	2.73
Architectural Coatings	1.11	1.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.06	1.15	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	192	192	< 0.005	0.01	0.56	195
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	0.01	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	21.6	21.6	< 0.005	< 0.005	0.03	21.9
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.57	3.57	< 0.005	< 0.005	< 0.005	3.62
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

3.12. Architectural Coating (2027) - 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	0.14	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	49.3	49.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.10	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	16.5	16.5	< 0.005	< 0.005	—	16.5
Architectural Coatings	6.08	6.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.73	2.73	< 0.005	< 0.005	—	2.73

Architectural Coating	1.11	1.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.06	1.15	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	192	192	< 0.005	0.01	0.56	195
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	0.01	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	21.6	21.6	< 0.005	< 0.005	0.03	21.9
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.57	3.57	< 0.005	< 0.005	< 0.005	3.62
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.63	0.59	0.43	4.10	0.01	0.01	0.78	0.79	0.01	0.20	0.20	—	948	948	0.04	0.05	2.34	965
General Office Building	0.15	0.14	0.10	0.97	< 0.005	< 0.005	0.19	0.19	< 0.005	0.05	0.05	—	225	225	0.01	0.01	0.56	229
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	0.00	0.00	0.00
Total	0.78	0.73	0.53	5.08	0.01	0.01	0.97	0.97	0.01	0.25	0.25	—	1,173	1,173	0.05	0.06	2.90	1,194
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.51	0.48	0.46	2.99	0.01	0.01	0.78	0.79	0.01	0.20	0.20	—	845	845	0.04	0.05	0.06	860
General Office Building	0.12	0.11	0.11	0.71	< 0.005	< 0.005	0.19	0.19	< 0.005	0.05	0.05	—	201	201	0.01	0.01	0.01	204
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	0.00	0.00	0.00
Total	0.64	0.59	0.57	3.70	0.01	0.01	0.97	0.97	0.01	0.25	0.25	—	1,046	1,046	0.05	0.06	0.08	1,064
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.10	0.09	0.08	0.60	< 0.005	< 0.005	0.14	0.14	< 0.005	0.04	0.04	—	147	147	0.01	0.01	0.17	149

General Office Building	0.02	0.02	0.02	0.14	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	34.8	34.8	< 0.005	< 0.005	0.04	35.5
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	0.00	0.00	0.00
Total	0.12	0.11	0.10	0.74	< 0.005	< 0.005	0.18	0.18	< 0.005	0.04	0.05	—	181	181	0.01	0.01	0.21	185

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.63	0.59	0.43	4.10	0.01	0.01	0.78	0.79	0.01	0.20	0.20	—	948	948	0.04	0.05	2.34	965
General Office Building	0.15	0.14	0.10	0.97	< 0.005	< 0.005	0.19	0.19	< 0.005	0.05	0.05	—	225	225	0.01	0.01	0.56	229
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	0.00	0.00	0.00
Total	0.78	0.73	0.53	5.08	0.01	0.01	0.97	0.97	0.01	0.25	0.25	—	1,173	1,173	0.05	0.06	2.90	1,194
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.51	0.48	0.46	2.99	0.01	0.01	0.78	0.79	0.01	0.20	0.20	—	845	845	0.04	0.05	0.06	860
General Office Building	0.12	0.11	0.11	0.71	< 0.005	< 0.005	0.19	0.19	< 0.005	0.05	0.05	—	201	201	0.01	0.01	0.01	204

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	0.00	0.00	0.00
Total	0.64	0.59	0.57	3.70	0.01	0.01	0.97	0.97	0.01	0.25	0.25	—	1,046	1,046	0.05	0.06	0.08	1,064
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.10	0.09	0.08	0.60	< 0.005	< 0.005	0.14	0.14	< 0.005	0.04	0.04	—	147	147	0.01	0.01	0.17	149
General Office Building	0.02	0.02	0.02	0.14	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	34.8	34.8	< 0.005	< 0.005	0.04	35.5
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	0.00	0.00	0.00
Total	0.12	0.11	0.10	0.74	< 0.005	< 0.005	0.18	0.18	< 0.005	0.04	0.05	—	181	181	0.01	0.01	0.21	185

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrig Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.12	0.06	1.11	0.93	0.01	0.08	—	0.08	0.08	—	0.08	—	1,323	1,323	0.12	< 0.005	—	1,327
General Office Building	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.6	13.6	< 0.005	< 0.005	—	13.7
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	0.12	0.06	1.12	0.94	0.01	0.09	—	0.09	0.09	—	0.09	—	1,337	1,337	0.12	< 0.005	—	1,340
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.12	0.06	1.11	0.93	0.01	0.08	—	0.08	0.08	—	0.08	—	1,323	1,323	0.12	< 0.005	—	1,327
General Office Building	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.6	13.6	< 0.005	< 0.005	—	13.7
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	0.12	0.06	1.12	0.94	0.01	0.09	—	0.09	0.09	—	0.09	—	1,337	1,337	0.12	< 0.005	—	1,340
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No	0.02	0.01	0.20	0.17	< 0.005	0.02	—	0.02	0.02	—	0.02	—	219	219	0.02	< 0.005	—	220
General Office Building	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.26	2.26	< 0.005	< 0.005	—	2.26
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	0.02	0.01	0.20	0.17	< 0.005	0.02	—	0.02	0.02	—	0.02	—	221	221	0.02	< 0.005	—	222

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.12	0.06	1.11	0.93	0.01	0.08	—	0.08	0.08	—	0.08	—	1,323	1,323	0.12	< 0.005	—	1,327
General Office Building	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.6	13.6	< 0.005	< 0.005	—	13.7
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	0.12	0.06	1.12	0.94	0.01	0.09	—	0.09	0.09	—	0.09	—	1,337	1,337	0.12	< 0.005	—	1,340
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No Rail	0.12	0.06	1.11	0.93	0.01	0.08	—	0.08	0.08	—	0.08	—	1,323	1,323	0.12	< 0.005	—	1,327
General Office Building	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.6	13.6	< 0.005	< 0.005	—	13.7
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	0.12	0.06	1.12	0.94	0.01	0.09	—	0.09	0.09	—	0.09	—	1,337	1,337	0.12	< 0.005	—	1,340
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.02	0.01	0.20	0.17	< 0.005	0.02	—	0.02	0.02	—	0.02	—	219	219	0.02	< 0.005	—	220
General Office Building	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.26	2.26	< 0.005	< 0.005	—	2.26
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	0.02	0.01	0.20	0.17	< 0.005	0.02	—	0.02	0.02	—	0.02	—	221	221	0.02	< 0.005	—	222

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

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

Consumer Products	4.99	4.99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.61	0.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.80	1.66	0.09	10.1	< 0.005	0.02	—	0.02	0.01	—	0.01	—	41.6	41.6	< 0.005	< 0.005	—	41.7
Total	7.40	7.26	0.09	10.1	< 0.005	0.02	—	0.02	0.01	—	0.01	—	41.6	41.6	< 0.005	< 0.005	—	41.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	4.99	4.99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.61	0.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	5.60	5.60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.91	0.91	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.11	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.16	0.15	0.01	0.91	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.39	3.39	< 0.005	< 0.005	—	3.40

Total	1.18	1.17	0.01	0.91	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.39	3.39	< 0.005	< 0.005	—	3.40

4.3.2. 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	4.99	4.99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.61	0.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.80	1.66	0.09	10.1	< 0.005	0.02	—	0.02	0.01	—	0.01	—	41.6	41.6	< 0.005	< 0.005	—	41.7
Total	7.40	7.26	0.09	10.1	< 0.005	0.02	—	0.02	0.01	—	0.01	—	41.6	41.6	< 0.005	< 0.005	—	41.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	4.99	4.99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.61	0.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	5.60	5.60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consumer Product	0.91	0.91	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.11	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.16	0.15	0.01	0.91	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.39	3.39	< 0.005	< 0.005	—	3.40
Total	1.18	1.17	0.01	0.91	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.39	3.39	< 0.005	< 0.005	—	3.40

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	101	188	289	10.4	0.25	—	624
General Office Building	—	—	—	—	—	—	—	—	—	—	—	1.35	2.51	3.87	0.14	< 0.005	—	8.33
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	1.25	1.25	< 0.005	< 0.005	—	1.26
Total	—	—	—	—	—	—	—	—	—	—	—	103	192	294	10.5	0.25	—	633
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrig Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	101	188	289	10.4	0.25	—	624
General Office Building	—	—	—	—	—	—	—	—	—	—	—	1.35	2.51	3.87	0.14	< 0.005	—	8.33
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	1.25	1.25	< 0.005	< 0.005	—	1.26
Total	—	—	—	—	—	—	—	—	—	—	—	103	192	294	10.5	0.25	—	633
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	16.8	31.2	47.9	1.72	0.04	—	103
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.22	0.42	0.64	0.02	< 0.005	—	1.38
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.21	0.21	< 0.005	< 0.005	—	0.21
Total	—	—	—	—	—	—	—	—	—	—	—	17.0	31.8	48.8	1.74	0.04	—	105

4.4.2. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	91.2	NaN	NaN	NaN	NaN	—	NaN

General Office Building	—	—	—	—	—	—	—	—	—	—	—	1.22	NaN	NaN	NaN	NaN	—	NaN
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	1.08	1.08	< 0.005	< 0.005	—	1.08
Total	—	—	—	—	—	—	—	—	—	—	—	92.5	NaN	NaN	NaN	NaN	—	NaN
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	91.2	NaN	NaN	NaN	NaN	—	NaN
General Office Building	—	—	—	—	—	—	—	—	—	—	—	1.22	NaN	NaN	NaN	NaN	—	NaN
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	1.08	1.08	< 0.005	< 0.005	—	1.08
Total	—	—	—	—	—	—	—	—	—	—	—	92.5	NaN	NaN	NaN	NaN	—	NaN
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	15.1	NaN	NaN	NaN	NaN	—	NaN
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.20	NaN	NaN	NaN	NaN	—	NaN
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.18	0.18	< 0.005	< 0.005	—	0.18
Total	—	—	—	—	—	—	—	—	—	—	—	15.3	NaN	NaN	NaN	NaN	—	NaN

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	116	0.00	116	11.6	0.00	—	405
General Office Building	—	—	—	—	—	—	—	—	—	—	—	1.99	0.00	1.99	0.20	0.00	—	6.96
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	118	0.00	118	11.8	0.00	—	412
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	116	0.00	116	11.6	0.00	—	405
General Office Building	—	—	—	—	—	—	—	—	—	—	—	1.99	0.00	1.99	0.20	0.00	—	6.96
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	118	0.00	118	11.8	0.00	—	412
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No	—	—	—	—	—	—	—	—	—	—	—	19.2	0.00	19.2	1.91	0.00	—	67.0
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.33	0.00	0.33	0.03	0.00	—	1.15
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	19.5	0.00	19.5	1.95	0.00	—	68.2

4.5.2. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	116	0.00	116	11.6	0.00	—	405
General Office Building	—	—	—	—	—	—	—	—	—	—	—	1.99	0.00	1.99	0.20	0.00	—	6.96
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	118	0.00	118	11.8	0.00	—	412
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	116	0.00	116	11.6	0.00	—	405
General Office Building	—	—	—	—	—	—	—	—	—	—	—	1.99	0.00	1.99	0.20	0.00	—	6.96
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	118	0.00	118	11.8	0.00	—	412
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	19.2	0.00	19.2	1.91	0.00	—	67.0
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.33	0.00	0.33	0.03	0.00	—	1.15
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	19.5	0.00	19.5	1.95	0.00	—	68.2

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

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

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	1.32	1.20	3.36	3.07	0.01	0.18	0.00	0.18	0.18	0.00	0.18	0.00	615	615	0.02	< 0.005	0.00	617
Total	1.32	1.20	3.36	3.07	0.01	0.18	0.00	0.18	0.18	0.00	0.18	0.00	615	615	0.02	< 0.005	0.00	617
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	1.32	1.20	3.36	3.07	0.01	0.18	0.00	0.18	0.18	0.00	0.18	0.00	615	615	0.02	< 0.005	0.00	617
Total	1.32	1.20	3.36	3.07	0.01	0.18	0.00	0.18	0.18	0.00	0.18	0.00	615	615	0.02	< 0.005	0.00	617
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Emergency Generat	0.24	0.22	0.61	0.56	< 0.005	0.03	0.00	0.03	0.03	0.00	0.03	0.00	102	102	< 0.005	< 0.005	0.00	102
Total	0.24	0.22	0.61	0.56	< 0.005	0.03	0.00	0.03	0.03	0.00	0.03	0.00	102	102	< 0.005	< 0.005	0.00	102

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	1.32	1.20	3.36	3.07	0.01	0.18	0.00	0.18	0.18	0.00	0.18	0.00	615	615	0.02	< 0.005	0.00	617
Total	1.32	1.20	3.36	3.07	0.01	0.18	0.00	0.18	0.18	0.00	0.18	0.00	615	615	0.02	< 0.005	0.00	617
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	1.32	1.20	3.36	3.07	0.01	0.18	0.00	0.18	0.18	0.00	0.18	0.00	615	615	0.02	< 0.005	0.00	617
Total	1.32	1.20	3.36	3.07	0.01	0.18	0.00	0.18	0.18	0.00	0.18	0.00	615	615	0.02	< 0.005	0.00	617
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.24	0.22	0.61	0.56	< 0.005	0.03	0.00	0.03	0.03	0.00	0.03	0.00	102	102	< 0.005	< 0.005	0.00	102
Total	0.24	0.22	0.61	0.56	< 0.005	0.03	0.00	0.03	0.03	0.00	0.03	0.00	102	102	< 0.005	< 0.005	0.00	102

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	2/4/2026	2/18/2026	5.00	10.0	—
Grading	Grading	2/19/2026	4/2/2026	5.00	30.0	—
Building Construction	Building Construction	4/3/2026	5/28/2027	5.00	300	—
Paving	Paving	5/29/2027	6/26/2027	5.00	20.0	—
Architectural Coating	Architectural Coating	6/27/2027	8/27/2027	5.00	45.0	—

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/Back	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
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	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	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	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
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
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

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	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
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	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37

Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	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	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
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
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
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	12.8	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.33	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	12.8	LDA,LDT1,LDT2
Grading	Vendor	—	8.33	HHDT,MHDT
Grading	Hauling	48.6	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	97.2	12.8	LDA,LDT1,LDT2
Building Construction	Vendor	38.1	8.33	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT

Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	12.8	LDA,LDT1,LDT2
Paving	Vendor	—	8.33	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	19.4	12.8	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.33	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	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	17.5	12.8	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.33	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	12.8	LDA,LDT1,LDT2
Grading	Vendor	—	8.33	HHDT,MHDT
Grading	Hauling	48.6	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	97.2	12.8	LDA,LDT1,LDT2
Building Construction	Vendor	38.1	8.33	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT

Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	12.8	LDA,LDT1,LDT2
Paving	Vendor	—	8.33	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	19.4	12.8	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.33	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

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%

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	348,510	116,170	14,113

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	—	—	15.0	0.00	—

Grading	—	11,663	90.0	0.00	—
Paving	0.00	0.00	0.00	0.00	5.40

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Unrefrigerated Warehouse-No Rail	0.00	0%
General Office Building	0.00	0%
Parking Lot	5.40	100%
Unrefrigerated Warehouse-No Rail	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
2026	0.00	262	0.03	< 0.005
2027	0.00	266	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
Unrefrigerated Warehouse-No Rail	176	176	176	64,123	1,071	1,071	1,071	390,989
General Office Building	43.0	43.0	43.0	15,708	262	262	262	95,778

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unrefrigerated Warehouse-No Rail	5.37	5.37	5.37	1,960	32.7	32.7	32.7	11,950

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	176	176	176	64,123	1,071	1,071	1,071	390,989
General Office Building	43.0	43.0	43.0	15,708	262	262	262	95,778
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unrefrigerated Warehouse-No Rail	5.37	5.37	5.37	1,960	32.7	32.7	32.7	11,950

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	348,510	116,170	14,113

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)
Unrefrigerated Warehouse-No Rail	0.00	275	0.0330	0.0040	4,068,644
General Office Building	0.00	275	0.0330	0.0040	42,544
Parking Lot	0.00	275	0.0330	0.0040	0.00
Unrefrigerated Warehouse-No Rail	0.00	275	0.0330	0.0040	59,931

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)
Unrefrigerated Warehouse-No Rail	0.00	275	0.0330	0.0040	4,068,644
General Office Building	0.00	275	0.0330	0.0040	42,544
Parking Lot	0.00	275	0.0330	0.0040	0.00
Unrefrigerated Warehouse-No Rail	0.00	275	0.0330	0.0040	59,931

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	52,084,438	0.00
General Office Building	705,603	0.00
Parking Lot	0.00	514,985
Unrefrigerated Warehouse-No Rail	726,125	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	46,954,120	NaN
General Office Building	636,101	NaN
Parking Lot	0.00	444,237
Unrefrigerated Warehouse-No Rail	658,595	NaN

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	212	—
General Office Building	3.69	—
Parking Lot	0.00	—
Unrefrigerated Warehouse-No Rail	2.95	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)

Unrefrigerated Warehouse-No Rail	212	—
General Office Building	3.69	—
Parking Lot	0.00	—
Unrefrigerated Warehouse-No Rail	2.95	—

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
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	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

5.15.2. 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
Emergency Generator	Diesel	1.00	0.55	200	670	0.73
Emergency Generator	Diesel	1.00	0.55	200	670	0.73

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	23.4	annual days of extreme heat
Extreme Precipitation	0.25	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.15	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	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	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	1	1	1	2

Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	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 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	88.7
AQ-PM	9.05
AQ-DPM	72.4
Drinking Water	18.6
Lead Risk Housing	37.0
Pesticides	61.2
Toxic Releases	3.43
Traffic	31.6
Effect Indicators	—
CleanUp Sites	73.4
Groundwater	30.9
Haz Waste Facilities/Generators	63.1
Impaired Water Bodies	77.3
Solid Waste	0.00

Sensitive Population	—
Asthma	60.2
Cardio-vascular	79.9
Low Birth Weights	51.8
Socioeconomic Factor Indicators	—
Education	91.3
Housing	87.0
Linguistic	99.4
Poverty	80.5
Unemployment	92.4

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	18.54228153
Employed	44.86077249
Median HI	28.87206467
Education	—
Bachelor's or higher	4.157577313
High school enrollment	27.47337354
Preschool enrollment	4.38855383
Transportation	—
Auto Access	74.57975106
Active commuting	5.941229308
Social	—
2-parent households	38.35493392
Voting	12.79353266

Neighborhood	—
Alcohol availability	45.11741306
Park access	24.95829591
Retail density	18.40112922
Supermarket access	52.62414988
Tree canopy	3.913768767
Housing	—
Homeownership	84.84537405
Housing habitability	23.31579623
Low-inc homeowner severe housing cost burden	9.277556782
Low-inc renter severe housing cost burden	6.351854228
Uncrowded housing	24.18837418
Health Outcomes	—
Insured adults	17.0537662
Arthritis	0.0
Asthma ER Admissions	44.1
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	22.2
Cognitively Disabled	58.3
Physically Disabled	69.8
Heart Attack ER Admissions	40.7
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0

Obesity	0.0
Pedestrian Injuries	82.3
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	31.0
Elderly	93.3
English Speaking	5.5
Foreign-born	85.7
Outdoor Workers	14.1
Climate Change Adaptive Capacity	—
Impervious Surface Cover	47.4
Traffic Density	33.8
Traffic Access	23.0
Other Indices	—
Hardship	85.9
Other Decision Support	—
2016 Voting	17.3

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	78.0

Healthy Places Index Score for Project Location (b)	19.0
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)	EasternCoachellaValley

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 phase has been removed. The site is vacant and relatively cleared. Therefore, no demolition of structures will occur for this project. Exterior walls will be tilt-up concrete. It is assumed that architectural coating application will take five days per building.
Operations: Vehicle Data	Daily trip rates have been adjusted based on the project-specific Coachella RV Storage Trip Generation and VMT Screening Assessment Memorandum, dated 10/31/2023. The total daily trips (175) are divided by the total RV storage building area (225,230 square feet) and adjusted for the per-1,000 SF factor.
Operations: Energy Use	The project will be powered by solar in its entirety. Therefore, the electricity use that would traditionally be served by the public utility purveyor (IID) is nullified for purposes of estimating emissions.
Operations: Water and Waste Water	Outdoor landscaping water consumption is attributed to the landscaped area of approximately 0.61 acres (26,572).

APPENDIX B
Biological Report

BIOCON$_2$

Biological Consulting

Biological Resource Assessment & Environmental Impact Analysis Lawson RV Storage Condo APN# 603-290-005

Prepared for:

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EXECUTIVE SUMMARY

A proposed specific plan for a commercial RV Storage facility on a property owned by the Lawson Concrete; necessitated a biological survey and environmental impact analysis on the 10.82 acre parcel; located east of Harrison Street approximately 980 feet south of Avenue 48. APN # 603-290-005. Riverside County map, Section 32, Township 5 South, Range 8 East, San Bernadino Principal Meridian, Coachella California. A review of the institutional records, United States Fish and Wildlife Service, (USFWS), California Department of Fish and Game, (CDF&G) and the California Natural Diversity Database (CNDDB), indicates a total of 9 sensitive species of plant taxa and 22 vertebrate species (and one mollusk) that have been recorded in the vicinity on previous surveys.

Three species of insects ***(Coachella giant sand-treader cricket Macro baenetes, Euparagia unidentate Algodones euparagia and Macneils Sooty Wing or Hesperopsis gracielae*** *may occur on site but were not previously recorded or detected.*

The Coachella Valley Fringe Toed Lizard or CVFTL has been recorded by the CNDDB. The CVFTL is a federally protected species, and requires loose, wind-blown sand substrate habitat. CVFTL's thermoregulate and escape predation by diving beneath loose sand and burying themselves. The buffer area around the proposed site does not contain sandy hummocks, or windblown aeolian sand. The habitat at one time may have supported this species, but development and habitat fragmentation in the region have impacted the geographic range of this animal and this property fails to meet the habitat requirements for the species.

The polygon proposed for development within the project boundaries is not considered suitable habitat for the Coachella Valley fringe-toed lizard. CVFTL's prefer loose, wind-blown sand substrate habitat. No blue-line stream corridors (streams or dry washes) were found within the project boundaries. Therefore, no streambed alteration permits are required from the federal government. The largest portion of the proposed site supports a mix of invasive weeds, native and non native plants, grasses and trees. The development of these 10+ acres would result in no significant loss of native vegetation;

A review of institutional records (CNDDB) indicates a total of nine sensitive species plant taxa and 22 vertebrate species (and one mollusk) that have been recorded in the vicinity on previous surveys.

The project vicinity is considered to be suitable habitat for Burrowing Owls, which is functionally covered by the CVMSHCP, is resident and also a migratory bird and therefore protected under the International Migratory Bird Treaty Act. (IMTBA) Western burrowing owl presence has been reported previously (CNDDB). The western burrowing owl has been recorded within the vicinity and is listed with the California Department of Fish and Game as "A species of special concern." Burrowing Owls are often attracted to highly disturbed areas such as these and are highly mobile and may take up residence quickly.

Under CEQA & CESA, the CDF&G treats any federally listed or (NCPS) or Native California Plant Society list of 1B plants as if it were listed by the State and requests the Lead Agency require mitigation and compensation for the loss. No T&E Flora were recorded in this survey. Recommendations concerning mitigations to other impacted species are discussed in the Findings and Recommendations section of this report.

Following the implementation of the required and recommended mitigation described in this report, development of the project site is not expected to have significant adverse impacts upon sensitive species or other biological resources beyond the project site.

INTRODUCTION

On October 18th, 2023, the Firm BIOCON2 was retained by the firm of Lawson Concrete Inc. to conduct a General and Focused Biological Survey and impact analysis on 10+ acres of land in Riverside County. The project area is inside a previously graded parcel within the City of Coachella, Riverside County, California. It is specifically located in Section 32, Township 5 South, Range 8 East.

BIOCON2 conducted general and focused surveys on the polygon under consideration from 10/01/23 thru 10/20/23. The surveys were conducted during the morning and early evening hours. The survey weather was partly cloudy to sunny and clear with temperatures ranging from highs of 80-90 degrees. Visibility was 100%. Field observations were aided by 7x35 power binoculars. Unobserved species were identified through sign, scat, tracks, calls, nests, burrows, feathers, bones etc.

This study meets or exceeds environmental assessment standards mandated by the California Environmental Quality act (CEQA), the National Environmental Policy Act (NEPA) and the City of Thermal, Riverside County, CA. The purpose of the biological assessment is as follows:

1- Determine the vascular plant and vertebrate animal species that occur on or immediately adjacent to, the project site.

2- Ascertain the presence or absence of any state or federally special status plant or animal species, (including the four species only functionally covered under the CVMSHCP).

3- Ascertain the existence of other significant biotic elements, corridors, or communities (eg;, dry washes and desert riparian habitat)

4- If necessary, recommend measures to mitigate significant adverse impacts of the proposed project on special status flora and fauna, unique biotic elements and or communities.

Scientific nomenclature of flora and fauna is consistent with the standard reference sources. The limitations of the survey were a function of the season; drought, desiccation and different flowering times of various plant species made certain identifications difficult.

SITE AND PROJECT DESCRIPTIONS:

CLIMATE

The project area lies within the geographical region known as the Colorado desert. (Jaeger, 1957) Typical rainfall of this subdivision of the Sonoran desert averages less than six inches, (National Climactic Center, 2013).
Most precipitation falls during the winter and late spring with occasional summer storms. Winter days are mild averaging 71 degrees Fahrenheit, with night temperatures occasionally dropping to near freezing. The Month of July brings the hottest temperatures averaging 109 degrees F.

Physical Features

The area is typical of the Coachella Valley; Creosote Bush Scrub and stabilized and partially stabilized Desert Sand Fields that span the undisturbed sections just outside the project footprint. The largest portion of the site has been previously graded or cleared for agriculture. Theses anthropogenically disturbed areas now support a typical mixture of invasive weeds and native and non-native plants.

There are no natural occurring springs or permanent aquatic habitats. No blue line stream corridors, streams or dry washes. There are no jurisdictional waterways delineated therefore no need to obtain streambed alteration agreements from the BLM, USFWS or CDFG.

EXISTING IMPACTS

The general area is impacted and surrounded by infrastructure and developments on the East, North and South sides and bound by heavily trafficked paved roads. To the West there is a fenced active agricultural field, specifically a Date Palm grove. There are fences on all sides, some of which have been damaged.
No soil pits were dug and no soil horizons described, however; the sites soils consist mainly of previously graded sandy loamy soil and desert hardpan. There is evidence of illegal dumping. The site is littered with, various automotive and household refuse, building materials, garbage and domestic dog scat.

PROJECT DESCRIPTION

The project is a 10.8 acre proposed development of enclosed commercial parking for recreational vehicles. The area surveyed shows evidence of previous grading, automobile traffic, heavy equipment tracks, construction debris, household garbage, broken and discarded auto parts and windblown trash.

STUDY METHODS

Prior to the initiation of field work a comprehensive review of available literature and institutional records was conducted in order to determine what biological resources were expected in the area and which if any were of special status.
Field Surveys were initiated in October of 2023. Surveys were conducted by walking cardinal direction transects at ten meter intervals. The triangular polygon was walked two times within a two week period. Each successive transect was walked at right angles to the previous cardinal direction to create a criss-cross pattern thereby maximizing search efforts. This survey pattern is both more effective and more stringent than the U.S.F.W.S. requirement for determining the presence or absence of desert tortoise & burrowing owl. This type of intensive survey method exceeds the federal standard and results in no officially listed or federally protected species being overlooked. Animal surveys were conducted simultaneously with plant surveys. Attempts to identify plants listed in previous surveys were accomplished using dichotomous keys, websites and field guides. Animals were identified through direct observation and reading sign. No pitfall traps or small mammal traps were deployed.

Invertebrate identification was established with area expertise, websites, field guides, and consultation with area ecologists. In order to determine if large animal corridors existed within the boundaries of the project, special attention was given to observation and identification of animal tracks. Smoothing the loose windblown sand in a given area produced very easily identifiable tracks. Area road kill and depredation sites were monitored for activity. Surveys were conducted in early fall when plant species inflorescence was reduced and desiccation made identification difficult at best. Most days exceeded 80 degrees Fahrenheit. The region's long-term drought can adversely affect plant germination and distribution and the reproduction. No unidentified plant species were detected. Furthermore, no sensitive animal species were observed matching the historical record regarding biota observed on site.

PLANT SURVEY RESULTS

Vegetation

A search of the California Natural Diversity Database shows there were 9 plant taxa identified on previous surveys in the vicinity. Of these 9, we found no evidence of any of these listed plants on site. The partially developed edges of the site show a limited mixture of native and non native shrubs and trees. There was a distinct absence of floral biodiversity, likely from previous grading efforts.

The only vegetation was along the fence line that now supports native and non-native weeds and grasses typical of disturbed desert scrub habitat.

Sensitive or Special Status Plants

Coachella Valley Milk-Vetch *Astragalus Lentiginosus*

This plant is considered resident by the CNDDB and has been known to occur in this vicinity;

however, none were observed during surveys.

Observed Plant Survey Results

Tamarix

Saltbush

Arrow Weed

No special status vegetation observed.

ANIMAL SURVEY RESULTS

Ornithology

Three avian species were observed.

Raven (*Corvus corax)*
Mourning Dove (*Zenaida macroura*)
Northern Mockingbird (*Mimus polyglottos*)

Mammals

Four mammal species were detected:

Coyote (*Canis latrans*)
Desert Cottontail (*Sylvilagus audobonii*)
Common House Cat (*Felis catus*)
Common Dog Canis lupus familierus

Reptiles

One Reptile Species was observed.

Side Blotch Lizard (*Uta*)

Arthropods

Three insects known to occur within the Coachella Valley have been placed on CDF&G's ***Special Animals*** **list**. They are the Coachella Valley giant sand treader cricket (*Macrobaenetes valgum*), Macneils Sootywing (*Hesperopsis* gracielae) and Algadones euparagia (*Euparagia* unidentate) Although these three insect species were observed during past surveys, none were observed and none have any official status.

* A complete list of all vertebrate animals previously observed in this vicinity or expected on site are listed in Table 2 of the appendix.

Sensitive Wildlife

One of those bird species, the Burrowing Owl (*Athene cunicularia*), is a species of special concern to the state of California and the CDF&G. It is a protected species under the International Bird Treaty Act. The Western Burrowing Owl is often found in open undeveloped land, it is also found in heavily disturbed lots, golf courses, abandoned agricultural fields, roads and airports. No burrows or sign was observed, no white wash, pellets, feathers or prey remains were detected.

However this property:

1- Has a history of Burrowing Owls Observed.

2- Contains prime foraging habitat.

3- Is of sufficient size to warrant pre-construction surveys 30 days prior to breaking ground in order to locate owls and active burrows if any. Should a active burrow be found, a biological monitor may be required during construction to avoid the take of any species protected by the Migratory Bird Act (MBA).

Habitat

The site specific habitat has been previously graded and modified for development purposes. What exists now is largely a flat, gated empty lot enclosed by a locked gated fence. The soil is somewhat moist and excessively drained towards the south, has virtually no grass and herbaceous cover, some mixed native forbes with weeds. The coarse sandy loam soil supports a variety of other non-native and native trees eg., Mesquite (Prosopis *glandulosa*)and Smoke trees (Psorothamnus arborescens var. simplicifolius) and Blue Palo Verde (Cercidium *floridum*), shrubs, grasses and weeds. No undisturbed natural habitat remains.

Wildlife Corridors

Brushing of surfaces with fine grain sands to yield track impressions was performed on each transect. Much of the project offered similar opportunity to determine if wildlife corridors could be established. Tracks of ravens, (*Corvus corax*) coyote (*Canis latrans*), were recorded. However, no discernable pattern or routinely used corridors could be detected. Though the habitat supports Palm Springs Pocket Mouse (*Perognathus longimembris bangsi*), a CVMSHCP covered species, none were detected.

MAPS


Dillon Rd
Old California 86
W2SESE
E2SESE
SWSW
SESW
NWNE
NENE
NWNW
W2NENW
E2NENW
SWNE
SENE
SWNW
W2SENW
E2SENW
31
32
L1
L2
L3
NWSE
NESE
SWSE
SESE
W2NW
SESW
Avenue 50
111
86
Coachella
source: randymajors.org
Google
Map data ©2023 Imagery ©2023 , Airbus, CNES / Airbus, Maxar Technologies, USDA

Figure 1. Regional Map - Section 32, Township 5 South, Range 8 East

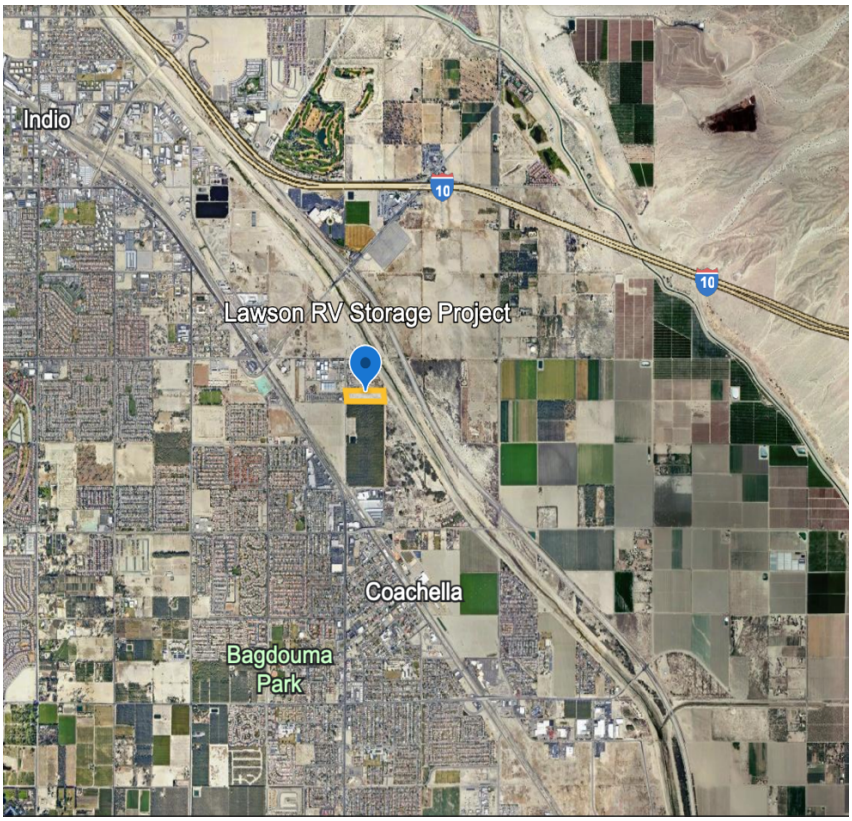


Figure 2 Google Earth Coachella/Indio Map- Lawson Project

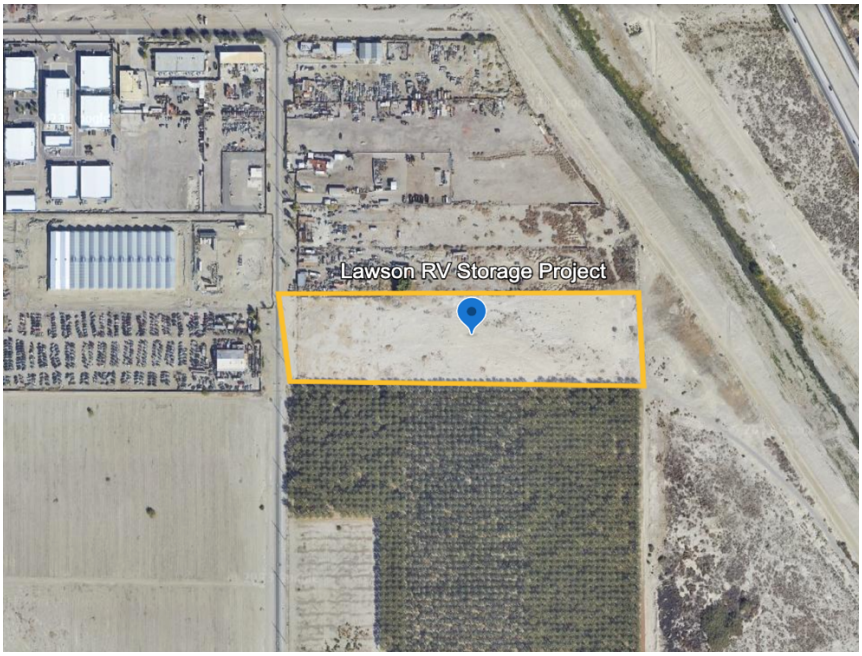


Figure 3 Google Earth - Local Map Lawson Property

SITE IMAGES



Figure 4 East Looking West



Figure 5 North Looking South



Figure 6 West Looking East



Figure 7 South looking North



Figure 8 Predator digs.

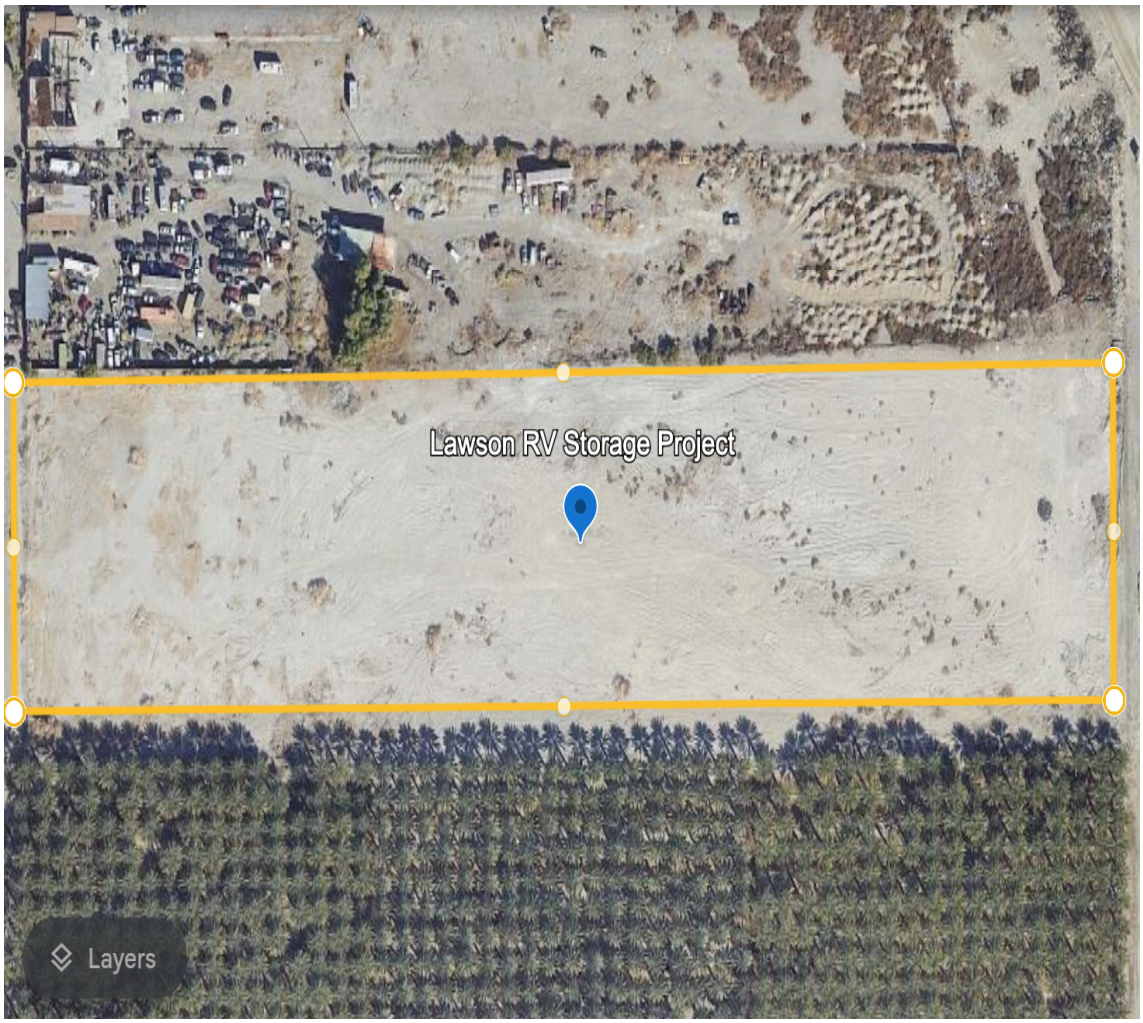


Figure 9 Aerial View

Motion X GPS Survey Tracks

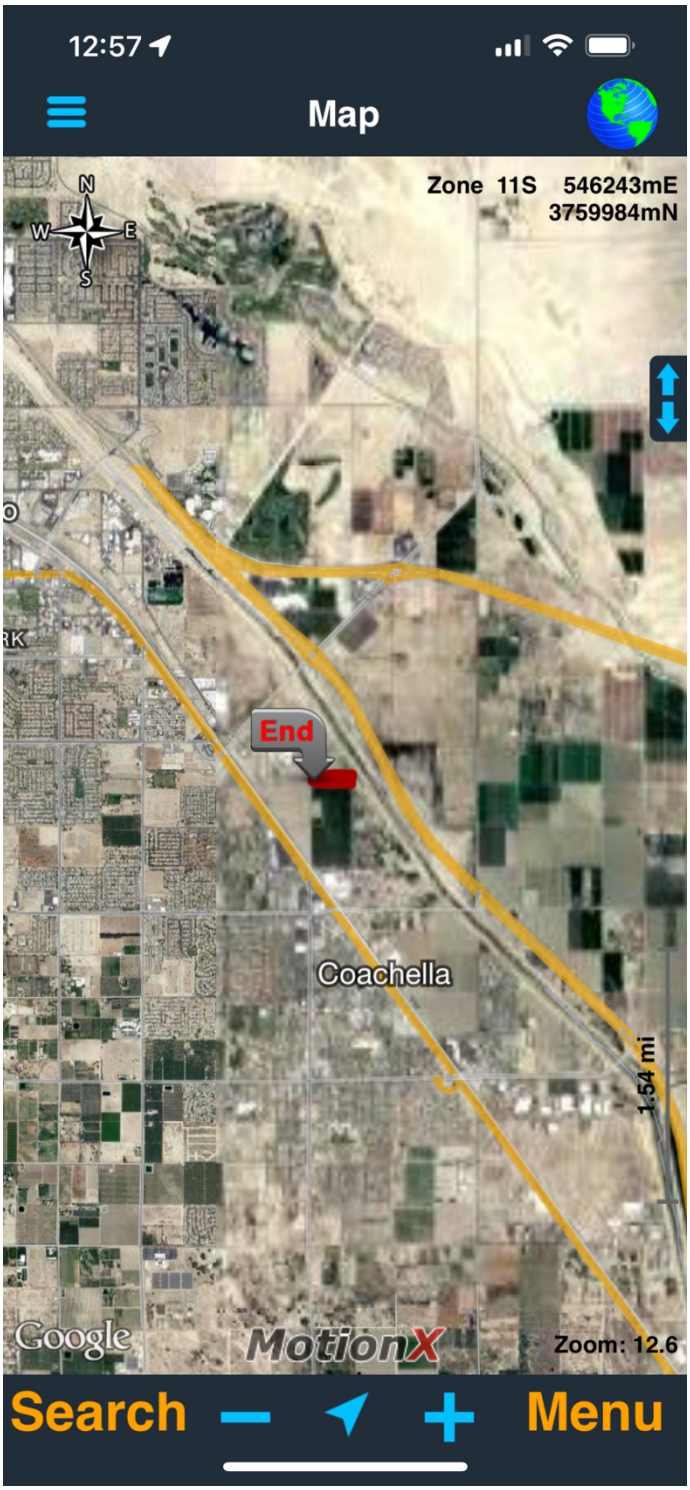


Figure 10 GPS Motion X Survey Location- Lawson Property

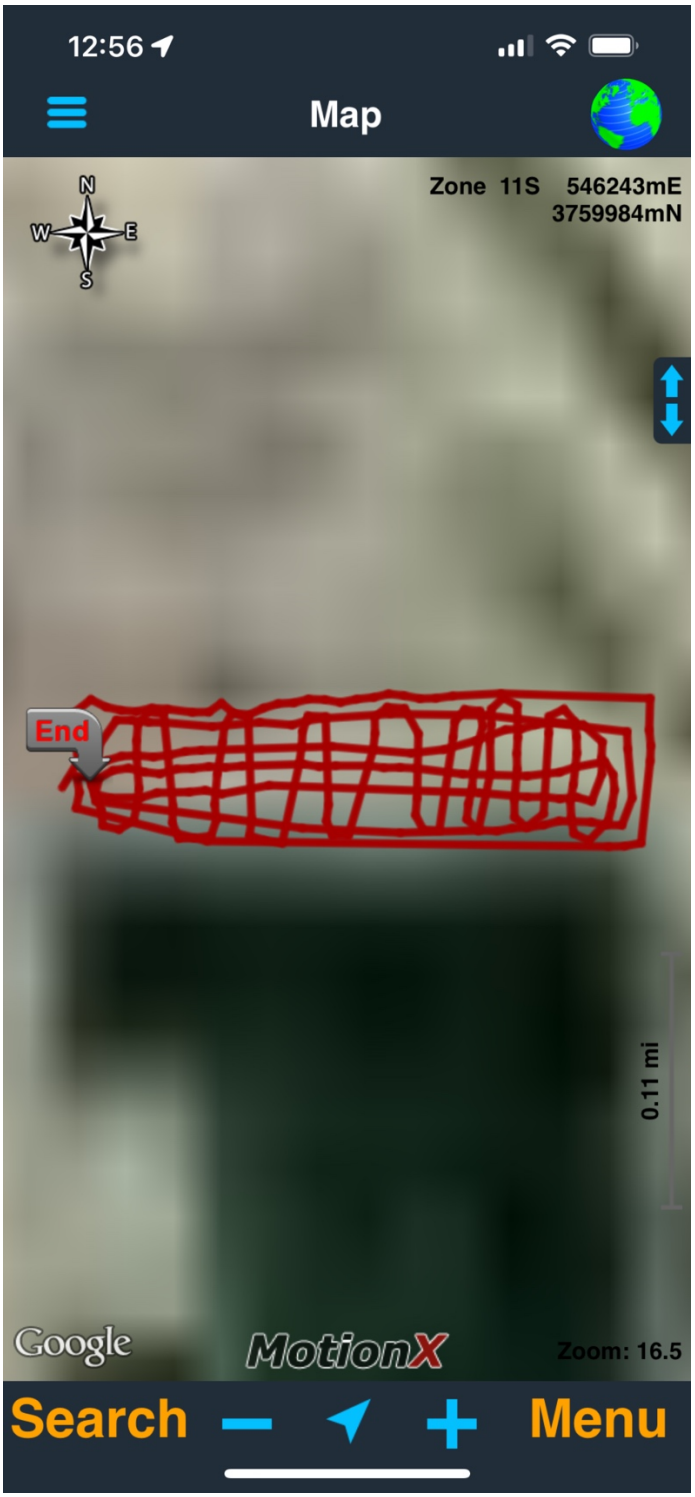


Figure 11 Expanded view of Foot Survey Tracks

FINDINGS and RECOMMENDATIONS

Intensive Flora and Fauna surveys were conducted within the boundaries of the proposed project site. Two Reptiles were observed, Desert Iguana, (*Dipsosaurus dorsalis*) Side Blotch Lizard (*Uta*),
No observation was made of **Coachella Valley Fringe Toed Lizard**, (*Uma Inornata)*(CVFTL) although there is habitat in the region that once supported this creature. A significant effort was made to locate **CVFTL** sign. *Uma Inornata* is officially listed as protected, Threatened and Endangered. No sign of CVFTL's and no first hand observations or evidence of any kind was found on or near the site.

Coachella Valley Fringe Toed Lizards (*Uma Inornata)* CVFTL's have been recorded by the CNDDB in this vicinity in previous surveys and typically warrants caution. CVFTL's are a T&E species and protected. Considering the absence of any sign or individuals, coupled with the lack of specific habitat eg;, windblown aeolian sand hummocks typically associated with CVFTL's. no further action is warranted.

A significant effort was made to locate **Desert Tortoise** sign. *Gopherus agassizi* is officially listed as Federally Protected and Threatened and Endangered. There was no individuals observed, no burrows or sign of desert tortoise, no first hand observations or evidence of any kind was found on or near the site. No observations from previous surveys. No further action is warranted.

Several holes large enough to contain desert tortoise or burrowing owls were observed. However, no active sign indicated presence. There was no DT tracks or scat, there was no feathers, pellets, whitewash or prey remains of BuOwls around those hibernacula. The proximity of the date palm orchard, coupled with these salient facts and what appeared to be rodent scat and canine tracks suggests it is stray dogs digging after lizards or more likely rats. The most notable biological discovery was the lack of biodiversity. Considering it has been graded previously, this was probably the reason for absence of expected biota.

Three bird species were detected flying across the project site during surveys.

Raven (*Corvus corax)*
Mourning Dove (*Zenaida macroura*)
Northern Mockingbird (*Mimus polyglottos*)

Western Burrowing Owl (*Athene cunicularia)* was not observed although a concerted effort was made to locate birds and sign. No active burrow was discovered. The Migratory Bird Act or (MBA) prohibits harm or take of this species. Mitigation of adverse impacts to the species is required. Standard BuOwl Mitigation is provided in the Staff Report on Burrowing Owl Mitigation prepared for the CDF&G (March 7th 2012) and approved by the service (USFWS).

However; these birds are attracted to disturbed sites and they can move in and take up residence at any time.
Therefore:
1. A preconstruction survey should take place not more than 30 days prior to project grading to determine the location of any active burrows on and within 550 yards of an approved project site. If no active burrows are found in the survey area, site disturbance may commence providing a biological monitor is onsite.

2. Should BuOwls be observed in a subsequent pre-construction survey; a biological monitor, with the authority to halt or redirect grading, should be present whenever grading or construction vehicles are present and operating on the project site. The function of the monitor is to protect burrowing owls that arrive on or near the project site after the clearance survey and during the construction period.

3. The breeding season of the western burrowing owl is from February 1 through August 31 of each year. No construction disturbances of any kind should occur within 500 meters (550 yards) of an active burrow during this time period. Thus, on a project site, it is recommended that grading should take place from September 1 through January 30 of each year to avoid restriction or cancellation of grading permits because of the presence of burrowing owls during the breeding season.

4. Resident owls present on or near the project site outside the breeding season can, in some instances, be relocated to other sites by a permitted biologist under the authorization of the U.S. Fish and Wildlife Service.

Indirect Impacts

The Project is surrounded by highly trafficked and paved roadways and residential and agricultural and commercial development. The polygon under consideration is so disturbed by previous grading efforts and development, with no virgin habitat contained there in; that there is little chance of impacting any crucial interaction with surrounding biota. Furthermore, there is sufficient habitat in the area specifically, date palm groves, that any animal foraging on this property will not be negatively impacted by its development. It is concluded that this project moving forward will have no significant direct or indirect impacts to biological resources in the region.

Conclusion
Further Development of this project is not anticipated to have significant adverse impacts upon biological resources in the region provided the mitigation described in this report is implemented.



Figure 12 Tamarix



Figure 13 Atriplex canescens



Figure 14 Pluchea sericea

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CERTIFICATION STATEMENT

I, Anthony G. Ryan,

Hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this biological assessment, and that the facts, statements and information presented are true and correct to the best of my knowledge and belief.

Signature_____ Date_____

APPENDIX I

CNDDB List of Expected Vascular Plants

Dendrology

Mesquite - *Prosopis glandulosa*

Smoke tree (Psorothamnus arborescens var. simplicifolius)

Blue Palo Verde - *Cercidium floridum*

Date Palm *Phoenix - dactylifera*

Desert Fan Palm - *Washingtonia Filifera*

Grasses and Weeds

Dallis grass- *Paspalum dilatatum*

Bluestem - *Andropogon*

Mustard - *Brassica tournefortii*

Flora

Ribbed crypantha *Johnstonella costata*

Coachella Valley Milkvetch-*Astragalus lentiginosus var. coachellae*

Lancaster Milk-vetch-*Astragalus preussii var. laxiflorus*

Gravel Milkvetch- *Astragalus sabulonum*

Southwestern Spiny Rush *Juncus acutus ssp.leopoldii*

Glandular ditaxus-*Ditaxis claryana*

Pink Velvet-Mallow – *Horsfordia alata*

Newberry's Velvet Mallow-*Horsfordia newberryi*

Chaparral Sand Verbena – *Abronia villosa var. aurita*

APPENDIX II

VERTEBRATE ANIMAL LIST

*Expected based on historical observations recorded in the CNDDB

Fauna

Amphibians

Lowland Leopard Frog**-** *Lithobates yavapaiensis*

Aves

Coopers Hawk – *Accipiter cooperii*Northern Harrier – *Circus cyaneus*

Ferruginous Hawk-Buteo regalkis

Summer Tanager-*Piranga rubra*

Yellow Headed Blackbird-*Xanthocephalus xanthocephalus*

Crissal Thrasher-*Toxostoma crissale*

LeContes Thrasher-*Toxostoma lecontei*

Black-Tailed Gnatcatcher – *Polioptila melanura*

Western Burrowing Owl- *Athene cunicularia*

American Peregrine Falcon *Falco peregrinus anatum*

Yuma Ridgways Rail-*Rallus obsoletes yumanensis*

Vermillion Flycatcher-*Pyrocephalus rubinus*

Entomology

Coachella Giant Sand Treader Cricket-*Macrobaenetes valgum*

Algodones euparagia-*Euparagia unidentate*

Molusca

California Floater – *Anodonta Californiensis*

Mammal

Palm Springs Pocket Mouse-*Perognathus longimembris bangsi*

American Badger-*Taxidea taxus*

Palm Springs Round Tailed Ground Squirrel-*Xerospermophilus teraticaudus chlorus*

Reptiles

SanDiego Banded Gecko-*Coleonyxvariegatus abotti*

Flat Tailed Horn Lizard-*Phyrnosoma mcalli*

Coachella Valley Fringe Toed Lizard-*Uma inornate*

Desert Tortoise-*Gopherus agasizzi*

BIOCON2

In the interests of preserving the integrity of regional ecology Biocon2 has provided a comprehensive landscaping list of recommended Coachella Valley native plants.

Coachella Valley Native Plants Recommended for Landscaping

Trees

Washingtonia filifera Desert Fan Palm

Cercidium floridum Blue Palo Verde

Chilopsis linearis Desert Willow

Olneya tesota Ironwood Tree

Shrubs

Prosopis glandulosa var. torreyana Honey Mesquite Shrubs

Acacia greggii Cat's Claw Acacia

Ambrosia dumosa Burro Bush

Atriplex canescens Four Wing Saltbush

Atriplex lentiformis Quail Bush

Atriplex polycarpa Cattle Spinach

Baccharis sergiloides Squaw Water-weed

Bebia juncea Sweet Bush

Cassia (Senna) covesii Desert Senna

Condalia parryi Crucilllo Crossosoma bigelovii Crossosoma Dalea emoryi Dye Weed

Dalea (Psorothamnus) schottii Indigo Bush

Datura meteloides JimsonWeed

Encelia *farinose* Brittle Bush

Ephedra *aspera* Mormon Tea

Eriogonum fasciculatum California Buckwheat

Eriogonum wrightii membranaceum Wright's Buckwheat

Fagonia laevis (No Common Name)

Gutierrezia sarothrae Match weed

Haplopappus acradenius Goldenbush Hibiscus

denudatus Desert Hibiscus

Hoffmannseggia microphylla Rush Pea

Hymenoclea salsola Cheese bush

Hyptis emoryi Desert Lavender

Isomer is arborea Bladder Pod

Juniperus californica California Juniper

Krameria grayi Ratany

Krameria parvifolia Little-leaved Ratany

Larrea tridentate Creosote Bush

Lotus rigidus Desert Rock Pea

Lycium andersonii Box Thorn

Petalonyx linearis Long-leaved Sandpaper Plant

Petalonyx thurberi Sandpaper Plant

Peucephyllum schottii Pygmy Cedar

Prunus fremontii Desert Apricot

Rhus ovata Sugar-bush

Salazaria mexicana Paper-bag Bush

Salvia apiana White Sage

Salvia eremostachya Santa Rosa Sage

Salvia vaseyi Wand Sage

Simmondsia chinensis Jojoba

Sphaeralcia ambigua Globemallow

Sphaeralcia ambigua rosacea Desert Mallow

Trixis californica Apricot Mallow

Trixis Zauschneria californica California Fuchsia

Ground covers

Mirabilis bigelovii Wishbone Bush

(Four O'Clock) Mirabilis tenuiloba

White Four O'Clock (Thin-lobed)

Vines

Vitis girdiana Desert Grape

Accent

Muhlenbergia rigens Deer Grass

Herbaceous Perennials

Adiantum capillus-veneris Maiden-hair Fern (w) Carex alma Sedge (w)

Dalea parryi Parry Dalea

Eleocharis montevidensis Spike Rush (w) Equisetum laevigatum Horsetail (w)

Juncus bufonis Toad Rush (w)

]uncus effuses Juncus (w)

Juncus macrophyllus Juncus (w)

Juncus mexicanus Mexican Rush (w)

Juncus xiphioides Juncus (w)

Notholaena parryi Parry Cloak Fern

Pallaea mucronata Bird-foot Fern

Cacti and Succulents

Agave deserti Desert Agave

Asclepias albicans Desert Milkweed (Buggy-whip) Asclepias subulata Ajamete

Dudleya arizonica Live-forever

Dudleya saxosa Rock Dudleya

Echinocereus engelmannii Calico Hedgehog Cactus

Ferocactus acanthodes Barrel Cactus

Fouquieria splendens Ocotillo

Mamillaria dioica Nipple Cactus

Mamillaria tetrancistra Corkseed Cactus

No/ina parryi Parry Nolina

Opuntia acanthocarpa Stag-horn or Deer-horn Cholla

Opuntia bigelovii Teddy Bear or Jumping Cholla

Opuntia basilaris Beavertail Cactus

Opuntia echinocarpa Silver or Golden Cholla

Opuntia ramosissima Pencil Cholla, Darning Needle Cholla

Yucca schidigera Mojave Yucca, Spanish Dagger

Yucca whipplei Our Lord's Candle

List of Prohibited Invasive Ornamental Plants

Acacia spp. (all species except A. greggii)

Arundo donax Giant Reed or Arundo Grass

Atriplex semibaccata Australian Saltbush

Avena barbata Slender Wild Oat

Avenafatua Wild Oat

Brassica tournefortii African or Saharan Mustard

Bromus madritensis ssp. Rubens Red Brome

Bromus tectorum Cheat Grass or Downy Brome

Cortaderia jubata [syn C. atacamensis] Jubata Grass or Andean Pampas Grass

Cortaderia dioica [syn. C. selloana} Pampas Grass

Descurainia Sophia Tansy Mustard

Eichhornia crassipes Water Hyacinth

Elaegnus angustifolia Russian Olive

Foeniculum vulgare Sweet Fennel

Hirschfeldia incana Mediterranean or Short-pod Mustard

Lepidium latifolium Perennial Pepperweed

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Lolium multiflorum Italian Ryegrass

Nerium oleander Oleander

Nicotiana glauca Tree Tobacco

Oenothera berlandieri Mexican Evening Primrose

Olea europea European Olive Tree

Parkinsonia aculeate Mexican Palo Verde

Pennisetum clandestinum Kikuyu Grass

Pennisetum setaceum Fountain Grass

Phoenix canariensis Canary Island Date Palm

Phoenix dactylifera Date Palm

Ricinus communis Castor bean

Salsola tragus Russian Thistle

Schinus molle Peruvian Pepper Tree or California Pepper Schinus terebinthifolius Brazilian Pepper Tree

Schismus arabicus Mediterranean Grass

Schismus barbatus Saharan Grass, Abu Mashi

Stipa capensis No Common Name

Tamarix spp. (all species) Tamarisk or Salt Cedar Taeniatherum caput-medusae Medusa-head

Tribulus terrestris Punctureviné

Vinca major Periwinkle

Washingtonia robusta Mexican fan palm

Yucca gloriosa Spanish Dagger

NOTES

APPENDIX C
CULTURAL RESOURCES ASSESSMENT

CONFIDENTIAL
AVAILABLE UPON REQUEST TO QUALIFIED PROFESSIONALS

APPENIDX D
GEOTECHNICAL REPORT

GEOTECHNICAL INVESTIGATION
PROPOSED COACHELLA RV STORAGE FACILITY
APN 603-290-005
COACHELLA, CALIFORNIA

-Prepared By-

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December 21, 2023

Project No. 544-23326
23-12-635

Myers Concrete Corporation
c/o Steve Lawson
78206 Varner Road, Suite D152
Palm Desert, California 92211

Subject: Geotechnical Investigation

Project: Proposed Coachella RV Storage Facility
APN 603-290-005
Coachella, California

Sladden Engineering is pleased to present the results of the geotechnical investigation performed for the proposed RV storage facility to be constructed on the currently vacant parcel located just south of Avenue 48, east of Harrison Street in the City of Coachella, California. Our services were completed in accordance with our proposal for geotechnical engineering services dated October 04, 2023 and your authorization to proceed with the work. The purpose of our investigation was to explore the subsurface conditions at the site to provide recommendations for foundation design and the design of the various site improvements. Evaluation of environmental issues and hazardous wastes was not included within the scope of services provided.

The opinions, recommendations and design criteria presented in this report are based on our field exploration program, laboratory testing and engineering analyses. Based on the results of our investigation, it is our professional opinion that the proposed project should be feasible from a geotechnical perspective provided that the recommendations presented in this report are implemented in design and carried out through construction.

We appreciate the opportunity to provide service to you on this project. If you have any questions regarding this report, please contact the undersigned.

Respectfully submitted,
SLADDEN ENGINEERING

Carolin Patino-Aguirre
Staff Geologist

Brett L. Anderson
Principal Engineer

REGISTERED PROFESSIONAL ENGINEER
BRETT L. ANDERSON
No. C45389
CIVIL ENGINEERING
STATE OF CALIFORNIA

SER/cpa

Copies: PDF/Addressee

GEOTECHNICAL INVESTIGATION
PROPOSED COACHELLA RV STORAGE FACILITY
APN 603-290-005
COACHELLA, CALIFORNIA

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INTRODUCTION

This report presents the results of the geotechnical investigation performed by Sladden Engineering (Sladden) for the proposed Coachella RV storage facility to be constructed on the currently vacant parcel (APN 603-290-005) located just south of Avenue 48, east of Harrison Street in the City of Coachella, California. The site is located at approximately 33.69715 degrees north longitude and 116.17923 degrees west longitude. The approximate location of the site is indicated on the Site Location Map (Figure 1).

Our investigation was conducted to evaluate the engineering properties of the subsurface materials, to evaluate the *in-situ* characteristics, and to provide engineering recommendations and design criteria for site preparation, foundation design, and the design of various site improvements. This study also includes a review of published and unpublished geotechnical and geological literature regarding seismicity and other potential geologic hazards at and near the subject site.

PROJECT DESCRIPTION

Based on our understanding, the proposed project will consist of constructing a two-story main office, a concrete office and warehouse, and nine (9) RV storage buildings (McGee, 2020). On-site paved streets, concrete flatwork, landscape areas, and various associated site improvements are also anticipated. For our analyses, we expect that the proposed new storage buildings will consist of relatively lightweight wood-frame, steel-frame, reinforced masonry, or reinforced concrete tilt-up structures supported on conventional shallow spread footings and concrete slabs on grade.

Based on the relatively level nature of the site, Sladden expects that grading will be limited to minor cuts and fills to accomplish the desired elevations and to provide adequate gradients for site drainage. This does not include the removal and re-compaction of the loose surface soil and primary foundation-bearing soil within the proposed building pad areas. Upon completion of precise grading plans, Sladden should be retained to verify that the recommendations presented within in this report are properly incorporated into the design of the proposed project

Structural foundation loads were not available at the time of this report. Based on our experience with relatively lightweight structures, we expect that isolated column loads will be less than 30 kips and continuous wall loads will be less than 3.0 kips per linear foot. If these assumed loads vary significantly from the actual loads, we should be consulted to verify the applicability of the recommendations provided.

SCOPE OF SERVICES

The purpose of our investigation was to determine specific engineering characteristics of the surface and near-surface soil to develop foundation design criteria and recommendations for site preparation. Specifically, our site characterization consisted of the following tasks:

- Site reconnaissance to assess the existing surface conditions on and adjacent to the site.
- Drilling four (4) exploratory boreholes to depths of approximately 5 to 51 feet bgs to characterize the subsurface soil conditions. Representative samples of the soil were classified in the field and retained for laboratory testing and engineering analyses.
- Performing laboratory testing on selected samples to evaluate their engineering characteristics.
- Reviewing geologic literature and discussing geologic hazards.
- Performing site-specific ground motion procedures for the subject property.
- Performing engineering analyses to develop recommendations for foundation design and site preparation.
- The preparation of this report summarizing our work at the site.

SITE CONDITIONS

The subject property is located just south of Avenue 48, east of Harrison Street in the City of Coachella, California. The property is formally identified by the County of Riverside as APN 603-290-005 and occupies a total area of approximately 10.82 acres. At the time of our investigation, the site was undeveloped and covered in scattered low-growth weeds.

Based on our review of the Indio 7.5-Minute Quadrangle Map (USGS, 2018), the site is situated at an approximate elevation of 50 feet below mean sea level (MSL).

No natural ponding of water or surface seeps were observed at or near the sites during our investigation conducted on December 8 & 13, 2023. Site drainage appears to be controlled via sheet flow and surface infiltration. Regional drainage is provided by the Whitewater River which is located approximately 0.16 km east of the property.

GEOLOGIC SETTING

The project site is located within the Colorado Desert Physiographic Province (also referred to as the Salton Trough) which is characterized as a northwest-southeast trending structural depression extending from the Gulf of California to the Banning Pass. The Salton Trough is dominated by several northwest-trending faults, most notably the San Andreas Fault system. The Salton Trough is bounded by the Santa Rosa–San Jacinto Mountains on the southwest, the San Bernardino Mountains on the north, the Little San Bernardino - Chocolate – Orocopia Mountains on the east and extends through the Imperial Valley into the Gulf of California on the south.

A relatively thick sequence (20,000 feet) of sediment has been deposited in the Coachella Valley portion of the Salton Trough from Miocene to present times. These sediments are predominately terrestrial in nature with some lacustrine (lake) and minor marine deposits. The major contributor of these sediments has been the Colorado River. The mountains surrounding the Coachella Valley are composed primarily of Precambrian metamorphic and Mesozoic "granitic" rock.

The Salton Trough is an internally draining area with no readily available outlet to Gulf of California and with portions well below sea level (-253' msl). The region is intermittently blocked from the Gulf of California by the damming effects of the Colorado River delta (current elevation +30'msl). Between about 300AD and 1600 AD (to 1700) the Salton Trough has been inundated by the River's water, forming ancient Lake Cahuilla (max. elevation +58' msl). Since that time the floor of the Trough has been repeatedly flooded with other "fresh" water lakes (1849, 1861, and 1891), the most recent and historically long lived being the current Salton Sea (1905). The sole outlet for these waters is evaporation, leaving behind vast amounts of terrestrial sediment materials and evaporite minerals.

The site has been mapped by Rogers (1965) to be immediately underlain by Quaternary-age alluvium (Qal) and lake deposits (Ql). The regional geologic setting for the site vicinity is presented on the Regional Geologic Map (Figure 2).

SUBSURFACE CONDITIONS

The subsurface conditions at the site were investigated by drilling four (4) exploratory boreholes on the property to depths of approximately 5 to 51 feet bgs. The approximate locations of the boreholes are illustrated in the Exploration Location Plan (Figure 3). The boreholes were advanced using a truck-mounted Mobile B-61 drill-rig equipped with 8-inch outside diameter hollow stem augers. A representative of Sladden was on-site to log the materials encountered and retrieve samples for laboratory testing and engineering analysis.

During our field investigation, a thin mantle of disturbed soil was encountered to depths of one (1) to two (2) feet bgs. Underlying the disturbed soil and extending to the maximum depths explored, native alluvium was encountered. The native soil throughout the site consists primarily of fine-grained silty sand (SM), sandy silt (ML), and sandy/silty clay (CL). Generally, granular soil was found to be dry to wet, medium dense, and grayish brown in in-situ color. Cohesive layers were found to be dry to wet, stiff to hard, grayish brown in in-situ color, and exhibited slight to medium plasticity characteristics.

The final logs represent our interpretation of the contents of the field logs, and the results of the laboratory observations and tests of the field samples. The final logs are included in Appendix A of this report. The stratification lines represent the approximate boundaries between soil types although the transitions may be gradual and variable across the site.

Groundwater was encountered at a depth of 30 feet bgs during our field investigation. Based upon the depth to groundwater in the project vicinity (CDWR, 2023), it is our opinion that groundwater should not be a factor during the construction of the proposed project. The following table provides a summary of the recorded groundwater depths in the project vicinity.

TABLE 1
GROUNDWATER DEPTHS

STATE WELL	LAT/LONG	DISTANCE (KM)	DATE	DEPTH (FT)
05S08E33D001S	33.70002/-116.16467	1.38	10/19/2017	23.1
CWA Well 10	33.700086/-116.16387	1.45	10/01/2012	-8.1
06S08E05R002S	33.67452/-116.16634	2.78	12/23/1963	-3.2
06S07E02D002S	33.684886/-116.23284	5.16	11/06/1985	66

SEISMICITY AND FAULTING

The southwestern United States is a tectonically active and structurally complex region, dominated by northwest-trending dextral faults. The faults of the region are often part of complex fault systems, composed of numerous subparallel faults that splay or step from main fault traces. Strong seismic shaking could be produced by any of these faults during the design life of the proposed project.

We consider the most significant geologic hazard to the project to be the potential for moderate to strong seismic shaking that is likely to occur during the design life of the project. The proposed project is located in the highly seismic Southern California region within the influence of several fault systems. A Holocene-active active fault is defined by the State of California as a fault that has exhibited surface displacement within the Holocene time (about the last 11,700 years). A pre-Holocene fault is defined by the State as a fault whose recency of past movement is older than 11,700 years.

As previously stated, the site has been subjected to strong seismic shaking related to active faults that traverse through the region. Some of the more significant seismic events near the subject site within recent times include: M6.0 North Palm Springs (1986), M6.1 Joshua Tree (1992), M7.3 Landers (1992), M6.2 Big Bear (1992), M7.1 Hector Mine (1999), and M7.1 Ridgecrest (2019).

Table 2 lists the closest known potentially active faults that was generated in part using fault parameters from The Revised 2002 California Probabilistic Seismic Hazard Maps (Cao et al, 2003) and the Fault and Fold Database of the United States (USGS, 2023a). This table does not identify the probability of reactivation or the on-site effects from earthquakes occurring on any faults in the region.

TABLE 2
CLOSEST KNOWN ACTIVE FAULTS

Fault Name	Distance (Km)	Maximum Event
San Andreas - Coachella	2.87	7.5
Indio Hills Fault Zone	5.94	7.11
San Andreas – San Bernardino	12.46	7.5
Smoke Tree Wash Fault	20.48	7.20
Burnt Mountain	32.52	6.4
Eureka Peak	34.21	7.5

SITE-SPECIFIC GROUND MOTION PARAMETERS

Sladden has reviewed the 2022 California Building Code (CBC) and ASCE7-16 to develop site-specific ground motion parameters for the subject site. The project Seismic Design Maps and site-specific ground motion parameters are summarized in the following table and included within Appendix C. The project Structural Engineer should verify that all design parameters provided are applicable for the subject project.

TABLE 3
GROUND MOTION PARAMETERS

Latitude / Longitude	33.69715/-116.17923
Risk Category	II
Site Class	D
Code Reference Documents	ASCE 7-16; Chapter 11 & 21

Description	Type	Map Based	Site-Specific
MCE_R Ground Motion (0.2 second period)	S_S	2.22	---
MCE_R Ground Motion (1.0 second period)	S_1	0.941	---
Site-Modified Spectral Acceleration Value	S_{MS}	2.22	**2.406**
Site-Modified Spectral Acceleration Value	S_{M1}	Null	**2.301**
Numeric Seismic Design Value at 0.2 second SA	S_{DS}	1.48	**1.604**
Numeric Seismic Design Value at 1.0 second SA	S_{D1}	Null	**1.534**
Site Amplification Factor at 0.2 second	F_a	1.0	**1.0**
Site Amplification Factor at 1.0 second	F_v	Null	**2.5**
Site Peak Ground Acceleration	PGA_M	1.052	**0.924**

GEOLOGIC HAZARDS

The subject site is located in an active seismic zone and will likely experience strong seismic shaking during the design life of the proposed project. In general, the intensity of ground shaking will depend on several factors including; the distance to the earthquake focus, the earthquake magnitude, the response characteristics of the underlying materials, and the quality and type of construction. Geologic hazards and their relationship to the site are discussed below.

I. Surface Rupture. Surface rupture is expected to occur along preexisting, known active fault traces. However, surface rupture could potentially splay or step from known active faults or rupture along unidentified traces. Based on our review of Rogers (1965), Jennings (1994), and CDOC (2023) known active faults are not mapped on the site. In addition, no signs of active surface faulting were observed during our review of non-stereo digitized photographs of the site and site vicinity (Google Earth, 2023). Finally, no signs of active surface fault rupture or secondary seismic effects (lateral spreading, lurching etc.) were identified during our field investigation. Therefore, it is our opinion that risks associated with primary surface ground rupture should be considered "low".

II. Ground Shaking. The site has been subjected to past ground shaking by faults that traverse through the region. Strong seismic shaking from nearby active faults is expected to produce strong seismic shaking during the design life of the proposed project. Based on site-specific ground motion parameters developed for the property (Appendix C), the site modified peak ground acceleration (PGAm) is estimated to be 0.924g.

III. Liquefaction. Liquefaction is the process in which loose, saturated granular soil loses strength as a result of cyclic loading. The strength loss is a result of a decrease in granular sand volume and a positive increase in pore pressures. Generally, liquefaction can occur if all of the following conditions apply; liquefaction-susceptible soil, groundwater within a depth of 50 feet or less, and strong seismic shaking.

We have performed seismic settlement calculations utilizing a magnitude of 7.45 (USGS, 2023) and a site-specific peak ground acceleration of 0.924g (PGA_M). The anticipated high groundwater depth was estimated to be approximately 10 feet bgs. Screening of liquefaction susceptible fine-grained soil was completed in accordance with Bray and Sancio (2006). A review of the seismically induced settlement in the top 50 feet of the soil profile revealed total settlements of approximately 2.41 inches and 2.83 inches for BH-1 and BH-4, respectively. Based on the current depth to groundwater and the generally uniform soil conditions underlying the site, differential seismic settlements are expected to be less than 1 inch over a horizontal distance of approximately 100 feet. Our seismic settlement estimates are presented within Appendix D.

IV. Tsunamis and Seiches. Because the site is situated at an inland location and is not immediately adjacent to any impounded bodies of water, risks associated with tsunamis and seiches are considered "negligible".

V. Slope Failure, Landsliding, Rock Falls. Slope instability in the form of landslides and rock falls were not observed at or near the subject site. The site is situated on relatively flat ground and is not located immediately adjacent to any slopes. As such, risks associated with slope instability (landslides, mass wasting, and rock falls) are considered "negligible".

VI. Expansive Soil. Generally, the near-surface soil consists of silty sand (SM). Based on the results of our laboratory testing (EI=7), the materials underlying the site are considered to have a "very low" expansion potential.

VII. Static Settlement. Static settlement resulting from the anticipated foundation loads should be tolerable provided that the recommendations included in this report are considered in foundation design and construction. The ultimate static settlement is expected to be less than 1 inch when using the recommended allowable bearing pressures. As a practical matter, differential static settlement between footings can be assumed as one-half of the total static settlement.

VIII. Subsidence. Land subsidence can occur in valleys where aquifer systems have been subjected to extensive groundwater pumping, such that groundwater pumping exceeds groundwater recharge. Generally, pore water reduction can result in a rearrangement of skeletal grains and could result in elastic (recoverable) or inelastic (unrecoverable) deformation of an aquifer system. Locally, no fissures or other surficial evidence of subsidence were observed at or near the subject site.

IX. Debris Flows. Debris flows are viscous flows consisting of poorly sorted mixtures of sediment and water and are generally initiated on slopes steeper than approximately six horizontal to one vertical (6H:1V) (Boggs, 2001). Based on the flat nature of the site and the composition of the surface soil, we judge that risks associated with debris flows should be considered "negligible".

X. Flooding and Erosion. No signs of flooding or erosion were observed during our field investigation. Risks associated with flooding and erosion should be evaluated and mitigated by the project design Civil Engineer.

CONCLUSIONS

Based on the results of our investigation, it is our professional opinion that the project should be feasible from a geotechnical perspective provided that the recommendations included in this report are incorporated into design and carried out through construction. The main geotechnical concerns are the presence of loose and potentially compressible near-surface native soil throughout the project site and potential seismic settlement.

We recommend that remedial work within the proposed building areas include over-excavation and re-compaction of the primary foundation bearing soil to provide uniform foundation support and to help mitigate potential differential seismic settlements. Specific recommendations for foundation area preparation are presented in the Earthwork and Grading section of this report.

Caving did occur to varying degrees within each of our exploratory bores and the surface soil may be susceptible to caving within deeper excavations. All excavations should be constructed in accordance with the normal CalOSHA excavation criteria. Based on our observations of the materials encountered, we anticipate that the subsoil will conform to that described by CalOSHA as Type C. Soil conditions should be verified in the field by a "Competent person" employed by the Contractor.

The following recommendations present more detailed design criteria that have been developed based on our field and laboratory investigation.

EARTHWORK AND GRADING

All earthwork including excavation, backfill and preparation of the primary foundation and/or slab bearing soil should be performed in accordance with the geotechnical recommendations presented in this report and portions of the local regulatory requirements, as applicable. All earthwork should be performed under the observation and testing of a qualified soil engineer. The following geotechnical engineering recommendations for the proposed project are based on observations from the field investigation program, laboratory testing and geotechnical engineering analyses.

a. Site Clearing: Areas to be graded should be cleared of vegetation, associated root systems, underground utilities and debris. All areas scheduled to receive fill should be cleared of old fills and any irreducible matter. The strippings should be removed off-site, or stockpiled for later use in landscape areas. Voids left by obstructions should be properly backfilled in accordance with the compaction recommendations of this report.

b. Preparation of the Building Areas. To provide firm and uniform foundation bearing conditions, we recommend over-excavation and re-compaction throughout the proposed building areas. All low-density near-surface native soil should be removed to a depth of at least 4 feet below existing grade or 3 feet below the bottom of the footings, whichever is deeper. Remedial grading should extend laterally, a minimum of five feet beyond the building perimeter. The native soil exposed by over-excavation should be scarified, moisture conditioned to near optimum moisture content and compacted to at least 90 percent relative compaction prior to fill placement. The previously removed soil may then be replaced as compacted engineered soil in accordance with the recommendations below. Remedial grading should not be necessary where drilled pier foundation system is utilized.

c. Compaction: Soil to be used as engineered fill should be free of organic material, debris, and other deleterious substances. All fill material should be placed in thin lifts, not exceeding six inches in a loose condition. If import fill is required, the material should be of a low to non-expansive nature and should meet the following criteria:

Plastic Index	Less than 12
Liquid Limit	Less than 35
Percent Soil Passing #200 Sieve	Between 15% and 35%
Maximum Aggregate Size	3 inches

The subgrade and all fill should be compacted with acceptable compaction equipment, to at least 90 percent relative compaction. The bottom of the exposed subgrade should be observed by a representative of Sladden Engineering prior to fill placement. Compaction testing should be performed on all lifts to ensure proper placement of the fill materials. Table 4 provides a summary of the excavation and compaction recommendations.

TABLE 4
SUMMARY OF RECOMMENDATIONS

*Remedial Grading	Over-excavation and re-compaction within the building envelope and extending laterally for 5 feet beyond the building limits and to a minimum of 5 feet below existing grade or 3 feet below the bottom of the footings, whichever is deeper.
Native / Import Engineered Fill	Place in thin lifts not exceeding 6 inches in a loose condition, at near optimum moisture content and compact to a minimum of 90 percent relative compaction.
Asphalt Concrete Sections	Compact the top 12 inches to at least 95 percent compaction at near optimum moisture content.

*Actual depth may vary and should be determined by a representative of Sladden Engineering in the field during construction.

d. Shrinkage and Subsidence: Volumetric shrinkage of the material that is excavated and replaced as controlled compacted fill should be anticipated. We estimate that the shrinkage should be between 15 and 25 percent. Subsidence of the surfaces that are scarified and compacted should be between 1 tenth and 3 tenths of a foot. This will vary depending upon the type of equipment used, the moisture content of the soil at the time of grading and the actual degree of compaction attained.

CONVENTIONAL SHALLOW SPREAD FOOTINGS

Conventional shallow spread footings are expected to provide adequate support for the proposed storage buildings. All footings should be founded upon properly compacted engineered fill soil and should have a minimum embedment depth of 12 inches measured from the lowest adjacent finished grade. Continuous footings and isolated pad footings should have minimum widths of 12 inches and 24 inches, respectively. Continuous footings and isolated pad footings supported upon properly compacted engineered fill soil may be designed using allowable (net) bearing pressures of 1800 and 2000 pounds per square foot (psf), respectively. Allowable increases of 200 psf for each additional 1 foot of width and 250 psf for each additional 6 inches of depth may be used, if desired. The maximum allowable bearing pressure should be 3000 psf. The allowable bearing pressures are intended for combined dead and sustained live loads. The allowable bearing pressures may be increased by one-third when considering transient live loads, including seismic and wind forces.

Based on the recommended allowable bearing pressures, the total static settlement of the shallow footings is anticipated to be less than one-inch provided foundation preparations conform to the recommendations described in this report. Static differential settlement is anticipated to be approximately one-half of the total settlement for similarly loaded footings spaced up to approximately 50 feet apart.

Lateral load resistance for the spread footings will be developed by passive pressure against the sides of the footings below grade and by friction acting at the base of the footings. An allowable passive pressure of 250 psf per foot of depth may be used for design purposes. An allowable coefficient of friction 0.40 may be used for dead and sustained live loads to compute the frictional resistance of the footing placed directly on compacted fill. Under seismic and wind loading conditions, the passive pressure and frictional resistance may be increased by one-third.

All footing excavations should be observed by a representative of the project geotechnical consultant to verify adequate embedment depths prior to placement of forms, steel reinforcement or concrete. The excavations should be trimmed neat, level and square. All loose, disturbed, sloughed or moisture-softened soils and/or any construction debris should be removed prior to concrete placement. All footings should be reinforced in accordance with the project Structural Engineer's recommendations.

SLABS-ON-GRADE

To provide uniform and adequate support, concrete slabs-on-grade must be placed on properly compacted engineered fill soil as outlined in the previous sections of this report. The slab subgrade should remain near optimum moisture content and should not be permitted to dry prior to concrete placement. Slab subgrade should be firm and unyielding. Disturbed soil should be removed and replaced with engineered fill soil compacted to a minimum of 90 percent relative compaction. Slab thickness and reinforcement should be determined by the Structural Engineer. We recommend a minimum slab thickness of 5.0 inches and minimum reinforcement of #4 bars at 18 inches on center in both directions. All slab reinforcement should be supported on concrete chairs to ensure that reinforcement is placed at slab mid-height. Final floor slab design and reinforcement should be determined by the Structural Engineer.

Slabs with moisture sensitive surfaces should be underlain with a moisture vapor retarder consisting of a polyvinyl chloride membrane such as 10-mil visqueen, or equivalent. All laps within the membrane should be sealed and at least 2 inches of clean sand should be placed over the membrane to promote uniform curing of the concrete. To reduce the potential for punctures, the membrane should be placed on a pad surface that has been graded smooth without any sharp protrusions. If a smooth surface can not be achieved by grading, consideration should be given to placing a thin leveling course of sand across the pad surface prior to placement of the membrane.

RETAINING WALLS

Minor retaining walls may be necessary to complete the proposed construction. Cantilever retaining walls may be designed using "active" pressures. Active pressures may be estimated using an equivalent fluid weight of 35 pcf for level native backfill soil acting in a triangular pressure distribution with drained backfill conditions. "At Rest" pressures should be utilized for restrained walls. At rest pressures may be estimated using an equivalent fluid weight of 55 pcf for native backfill soil with level drained backfill conditions.

We recommend that a back drain system be provided behind all retaining walls or that the walls be designed for full hydrostatic pressures. The back drains should consist of a heavy walled, four inch diameter, perforated pipe sloped to drain to outlets by gravity, and of clean, free-draining, three-quarter to one and one-half inch crushed rock or gravel. The crushed rock or gravel should extend to within one foot of the surface. The upper one foot should be backfilled with compacted, fine-grained soil to exclude surface water. A Mirafi 140N (or equivalent) filter cloth should be placed between the on-site native material and the drain rock.

We recommend that the ground surface behind retaining walls be sloped to drain. Under no circumstances should the surface water be diverted into back drains. Where migration of moisture through walls would be detrimental, the walls should be waterproofed.

CORROSION SERIES

The soluble sulfate concentrations of the surface soil were determined to be 7600 parts per million (ppm). The soil is considered to have a "very severe-S2" corrosion potential with respect to concrete. The use of Type V cement and special sulfate resistant concrete mixes may be necessary. The soluble sulfate content of the surface soil should be reevaluated after grading and appropriate concrete mix designs should be established based upon post-grading test results.

The pH level of the surface soil was determined to be 8.2. Based on soluble chloride concentration testing (4330 ppm) the soil is considered to have "very severe" corrosive potential with respect to normal grade steel. The minimum resistivity of the surface soil was found to be 482 that suggests the site soil is considered to have a "very severe" corrosion potential with respect to ferrous metal installations. A corrosion expert should be consulted regarding appropriate corrosion protection measures for corrosion sensitive installations.

UTILITY TRENCH BACKFILL

All utility trench backfill should be compacted to a minimum of 90 percent relative compaction. Trench backfill materials should be placed in lifts no greater than six inches in a loose condition, moisture conditioned (or air-dried) as necessary to achieve near optimum moisture content, and mechanically compacted to a minimum of 90 percent relative compaction. A representative of the project soil engineer should test the backfill to verify adequate compaction.

EXTERIOR CONCRETE FLATWORK

To provide uniform support and minimize settlement related cracking of concrete flatwork, the subgrade soil within concrete flatwork areas should be compacted to a minimum of 90 percent relative compaction. A representative of the project geotechnical consultant should observe and verify the density and moisture content of the soil prior to concrete placement.

DRAINAGE

All final grades should be provided with positive gradients away from foundations to provide rapid removal of surface water runoff to an adequate discharge point. No water should be allowed to be pond on or immediately adjacent to foundation elements. To reduce water infiltration into the subgrade soil, surface water should be directed away from building foundations to an adequate discharge point. Subgrade drainage should be evaluated upon completion of the precise grading plans and in the field during grading.

LIMITATIONS

The findings and recommendations presented in this report are based upon an interpolation of the soil conditions between the exploratory bore locations and extrapolation of these conditions throughout the proposed building areas. Should conditions encountered during grading appear different than those indicated in this report, this office should be notified.

The use of this report by other parties or for other projects is not authorized. The recommendations of this report are contingent upon monitoring of the grading operation by a representative of Sladden Engineering. All recommendations are considered to be tentative pending our review of the grading operation and additional testing, if indicated. If others are employed to perform any soil testing, this office should be notified prior to such testing to coordinate any required site visits by our representative and to assure indemnification of Sladden Engineering.

We recommend that a pre-job conference be held on the site prior to the initiation of site grading. The purpose of this meeting will be to ensure a complete understanding of the recommendations presented in this report as they apply to the actual grading performed.

ADDITIONAL SERVICES

Once completed, final project plans and specifications should be reviewed by use prior to construction to confirm that the full intent of the recommendations presented herein have been applied to design and construction. Following review of plans and specifications, observation should be performed by the Soil Engineer during construction to document that foundation elements are founded on/or extend into the properly compacted soil, and that suitable backfill soil is placed upon competent materials and properly compacted at the recommended moisture content.

Tests and observations should be performed during grading by the Soil Engineer or his representative to verify that the grading is being performed in accordance with the project specifications. Field density testing shall be performed in accordance with acceptable ASTM test methods. The minimum acceptable degree of compaction should be 90 percent for engineered fill soil and 95 percent for Class II aggregate base as obtained by ASTM Test Method D1557. Where testing indicates insufficient density, additional compactive effort shall be applied until retesting indicates satisfactory compaction.

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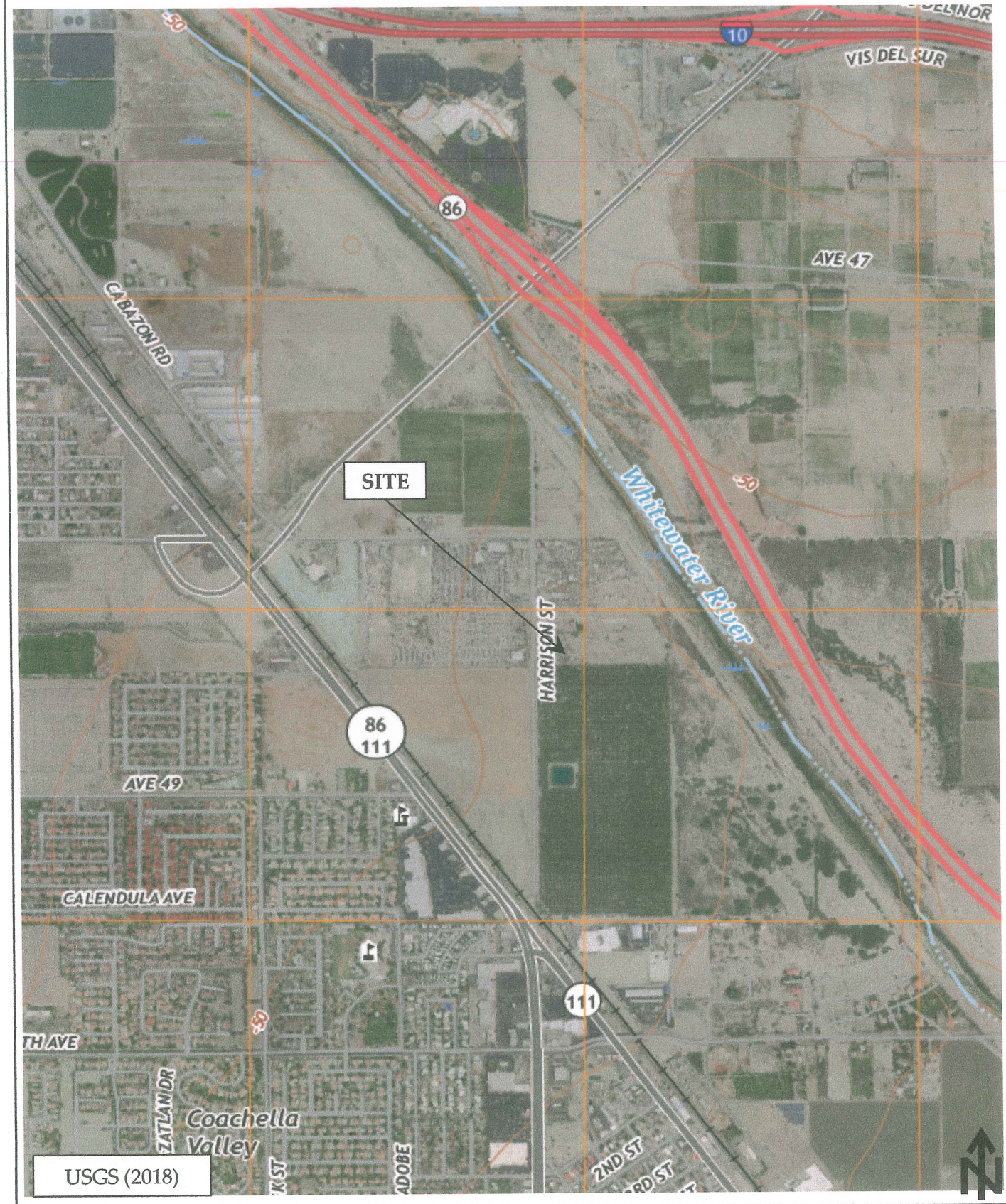
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FIGURES

SITE LOCATION MAP
REGIONAL GEOLOGIC MAP
EXPLORATION LOCATION PHOTOGRAPH

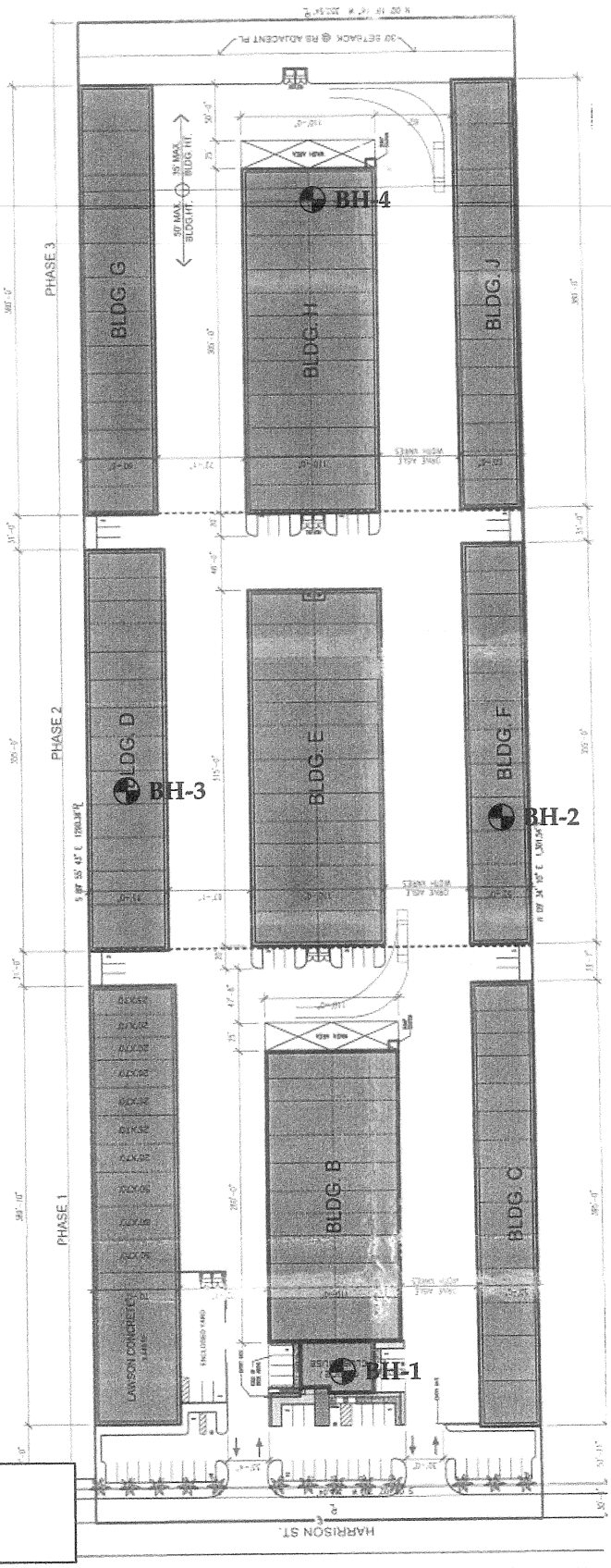


	SITE LOCATION MAP	FIGURE
Sladden Engineering	Project Number: 544-23326 Report Number: 23-12-635 Date: December 21, 2023	1



USGS (2015)

Sladden Engineering	REGIONAL GEOLOGIC MAP	FIGURE 2
	Project Number: 544-23326	
	Report Number: 23-12-635	
	Date: December 21, 2023	



LEGEND

BH-4 Borehole Location

EXPLORATION LOCATION PLAN

FIGURE 3

Project Number:	544-23326
Report Number:	23-12-635
Date:	December 21, 2023

Sladden Engineering

APPENDIX A

FIELD EXPLORATION

APPENDIX A

FIELD EXPLORATION

For our field investigation four (4) exploratory boreholes were excavated on December 8 & 13, 2023 utilizing a truck-mounted hollow stem auger rig (Mobile B-61). Continuous logs of the materials encountered were made by a representative of Sladden Engineering. Materials encountered in the boreholes were classified in accordance with the Unified Soil Classification System.

Representative undisturbed samples were obtained within our borings by driving a thin-walled steel penetration sampler (California split spoon sampler) or a Standard Penetration Test (SPT) sampler with a 140 pound automatic-trip hammer dropping approximately 30 inches (ASTM D1586). The number of blows required to drive the samplers 18 inches was recorded in 6-inch increments and blowcounts are indicated on the boring logs.

The California samplers are 3.0 inches in diameter, carrying brass sample rings having inner diameters of 2.5 inches. The standard penetration samplers are 2.0 inches in diameter with an inner diameter of 1.5 inches. Undisturbed samples were removed from the sampler and placed in moisture sealed containers to preserve the natural soil moisture content. Bulk samples were obtained from the excavation spoils and samples were then transported to our laboratory for further observations and testing.

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BORE LOG

Equipment: Mobile B-61 | Date Drilled: 8/2023 &12/13/

Elevation: | Boring No: BH-1

Sample	Blow Counts	Bulk Sample	Expansion Index	% Minus #200	% Moisture	Density, pcf	Depth (Feet)	Graphic Lithology	Description
	10 10 15	1	7	18.7	2.2	99.9	2		Silty Sand (SM); light grayish brown, dry, medium dense, fine-grained (Ql).
	6 10 10			54.7	4.3	98.9	6		Sandy Silt (ML); light brownish gray, stiff, slight plasticity (Ql).
	7 11 11			14.8	1.8		10		Silty Sand (SM); grayish brown mottling orange, dry, medium dense, fine to medium-grained (Ql).
	11 12 18			84.3	11.3	102.0	16		Sandy Clay (CL); light brownish gray; slightly moist, very stiff, medium plasticity (Ql).
	5 7 7			83.4	22.2		20		Sandy Clay (CL); light brownish gray; slightly moist, stiff, medium plasticity (Ql).
	6 11 13			59.8	16.1	103.6	26		Sandy Silt (ML); grayish brown mottling orange, dry, stiff, slight plasticity (Ql).
	8 13 17			17.1	21.4		30		Silty Sand (SM); grayish brown, very moist, medium dense, fine-grained (Ql). Groundwater Encountered.
	8 16 21			16.7	25.7	101.4	36		Silty Sand (SM); grayish brown, very moist, medium dense, fine-grained (Ql).
	11 15 17			19.2	29.3		40		Silty Sand (SM); grayish brown, very moist, dense, fine-grained (Ql).
	5 6 8			94.9	34.8	87.0	46		Sandy Clay (CL); grayish brown, very moist, stiff, medium plasticity (Ql).
	5 12 20			15.0	25.1		50		Silty Sand (SM); grayish brown, very moist, dense, fine-grained (Ql).

Completion Notes:
Terminated at ~ 51 ft bgs.
No Bedrock Encountered.
Groundwater at ~ 30 ft bgs.

PROPOSED COACHELLA RV STORAGE FACILITY
HARRISON ST, INDIO

Project No: 544-23326 | Page 1

Report No:

Sladden Engineering

BORE LOG

Equipment: Mobile B-61 | Date Drilled: 8/2023 &12/13/

Elevation: | Boring No: BH-2

Sample	Blow Counts	Bulk Sample	Expansion Index	% Minus #200	% Moisture	Density, pcf	Depth (Feet)	Graphic Lithology	Description
							2		
							4		
	3 5 7			49.2	5.2		6		Silty Sand (SM); grayish brown, dry, medium dense, fine-grained (Ql).
							8		
	6 11 17			89.2	14.1	104.7	10		Sandy Silt (ML); grayish brown, dry to slightly moist, very stiff, slight plasticity (Ql).
							12		
							14		
	6 7 9			77.3	8.6		16		Sandy Silt (ML); grayish brown, dry, stiff, slight plasticity (Ql).
							18		
	7 9 10			56.3	13.2	102.5	20		Sandy Silt (ML); grayish brown, dry to slightly moist, stiff, slight plasticity (Ql).
							22		
							24		Terminated at 20 ft bgs. No Bedrock Encountered. No Groundwater or Seepage Encountered.
							26		
							28		
							30		
							32		
							34		
							36		
							38		
							40		
							42		
							44		
							46		
							48		
							50		

Completion Notes:

PROPOSED COACHELLA RV STORAGE FACILITY
HARRISON ST, INDIO

Project No: 544-23326

Report No:

Sladden Engineering

BORE LOG

Equipment:	Mobile B-61	Date Drilled:	8/2023 &12/13/
Elevation:		Boring No:	BH-3

Sample	Blow Counts	Bulk Sample	Expansion Index	% Minus #200	% Moisture	Density, pcf	Depth (Feet)	Graphic Lithology	Description
							2		Silty Sand (SM); grayish brown, dry, fine-grained (Ql).
							4		
■	5 10 12			84.1	6.3	95.0	6		Sandy Silt (ML); grayish brown mottling orange, dry, stiff, slight plasticity (Ql).
							8		
▮	3 5 6			88.6	19.8		10		Sandy Silt (ML); grayish brown mottling orange, dry, stiff, slight plasticity (Ql).
							12		
							14		
■	8 12 17			43.9	6.1	11.6	16		Silty Sand (SM); grayish brown mottling orange, dry, medium dense, fine-grained (Qa).
							18		
▮	6 5 5			67.1	22.2		20		Sandy Silt (ML); grayish brown, dry to slightly moist, stiff, slight plasticity (Ql).
							22		
							24		Terminated at 20 ft bgs. No Bedrock Encountered. No Groundwater or Seepage Encountered.
							26		
							28		
							30		
							32		
							34		
							36		
							38		
							40		
							42		
							44		
							46		
							48		
							50		

Completion Notes:

PROPOSED COACHELLA RV STORAGE FACILITY
HARRISON ST, INDIO

Project No:	544-23326	Page	3
Report No:			

Sladden Engineering

BORE LOG

Equipment:	Mobile B-61	Date Drilled:	8/2023 &12/13/
Elevation:		Boring No:	BH-4

Sample	Blow Counts	Bulk Sample	Expansion Index	% Minus #200	% Moisture	Density, pcf	Depth (Feet)	Graphic Lithology	Description
							2		Silty Sand (SM); grayish brown, dry, fine-grained (Ql).
	3 5 7			89.1	15.6		4 6		Silty Clay (CL); grayish brown, dry, stiff, medium plasticity (Ql).
	8 10 15			68.8	10.2	103.0	8 10 12		Silty Clay (CL); grayish brown, dry, very stiff, medium plasticity (Ql).
	4 7 13			57.0	13.8		14 16		Sandy Silt (ML); grayish brown, dry to slightly moist, very stiff, slightly plasticity ~ blow sand (Qa-Ql).
	7 10 10			42.1	12.6	108.3	18 20 22		Clayey Sand (SM); grayish brown mottling orange, moist, medium dense, fine-grained (Ql).
	3 5 7			13.0	9.9		24 26		Silty Sand (SM); grayish brown mottling orange, moist, medium dense (Ql).
	14 17 23			25.4	28.3	95.5	28 30 32		Silty Sand (SM); grayish brown, very moist, medium dense, fine-grained (Ql), Groundwater Encountered.
	9 12 16			16.7	29.4		34 36 38		Silty Sand (SM); grayish brown, very moist, medium dense, fine-grained (Ql).
	21 27 40			59.5	26.4	100.1	40 42 44		Sandy Silt (ML); grayish brown, very moist, hard, slight plasticity (Ql).
	9 11 18			41.0	31.6		46 48		Silty Sand (SM); grayish brown, very moist, medium dense, fine-grained (Ql).
	14 30 30						50		No Recovery.

Completion Notes:
Terminated at ~ 51 ft bgs.
No Bedrock Encountered.
Groundwater at ~ 30 ft bgs.

PROPOSED COACHELLA RV STORAGE FACILITY
HARRISON ST, INDIO

Project No:	544-23326	Page	4
Report No:			

APPENDIX B

LABORATORY TESTING

APPENDIX B

LABORATORY TESTING

Representative bulk and relatively undisturbed soil samples were obtained in the field and returned to our laboratory for additional observations and testing. Laboratory testing was generally performed in two phases. The first phase consisted of testing in order to determine the compaction of the existing natural soil and the general engineering classifications of the soils underlying the site. This testing was performed in order to estimate the engineering characteristics of the soil and to serve as a basis for selecting samples for the second phase of testing. The second phase consisted of soil mechanics testing. This testing including consolidation, shear strength and expansion testing was performed in order to provide a means of developing specific design recommendations based on the mechanical properties of the soil.

CLASSIFICATION AND COMPACTION TESTING

Unit Weight and Moisture Content Determinations: Each undisturbed sample was weighed and measured in order to determine its unit weight. A small portion of each sample was then subjected to testing in order to determine its moisture content. This was used in order to determine the dry density of the soil in its natural condition. The results of this testing are shown on the Boring Logs.

Maximum Density-Optimum Moisture Determinations: Representative soil types were selected for maximum density determinations. This testing was performed in accordance with the ASTM Standard D1557-91, Test Method A. Graphic representations of the results of this testing are presented in this appendix. The maximum densities are compared to the field densities of the soil in order to determine the existing relative compaction to the soil.

Classification Testing: Soil samples were selected for classification testing. This testing consists of mechanical grain size analyses. This provides information for developing classifications for the soil in accordance with the Unified Soil Classification System which is presented in the preceding appendix. This classification system categorizes the soil into groups having similar engineering characteristics. The results of this testing is very useful in detecting variations in the soil and in selecting samples for further testing.

SOIL MECHANIC'S TESTING

Expansion Testing: One (1) bulk sample was selected for Expansion testing. Expansion testing was performed in accordance with the UBC Standard 18-2. This testing consists of remolding 4-inch diameter by 1-inch thick test specimens to a moisture content and dry density corresponding to approximately 50 percent saturation. The samples are subjected to a surcharge of 144 pounds per square foot and allowed to reach equilibrium. At that point the specimens are inundated with distilled water. The linear expansion is then measured until complete.

Direct Shear Testing: One (1) bulk sample was selected for Direct Shear testing. This test measures the shear strength of the soil under various normal pressures and is used to develop parameters for foundation design and lateral design. Tests were performed using a recompacted test specimen that was saturated prior to tests. Tests were performed using a strain controlled test apparatus with normal pressures ranging from 800 to 2300 pounds per square foot.

Consolidation/Hydro-Collapse Testing: Two (2) relatively undisturbed sample was selected for consolidation testing. For this test, a one-inch thick test specimen was subjected to vertical loads varying from 575 psf to 11520 psf applied progressively. The consolidation at each load increment was recorded prior to placement of each subsequent load.

Corrosion Series Testing: The soluble sulfate concentrations of the surface soil were determined in accordance with California Test Method Number (CA) 417. The pH and Minimum Resistivity were determined in accordance with CA 643. The soluble chloride concentrations were determined in accordance with CA 422.

Job Number: 544-23326
Job Name: Harrison Street
Date: 12/21/2023
Lab ID #: LN6-23500
Today's Date: 12/21/2023

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Maximum Density/Optimum Moisture

ASTM D698/D1557

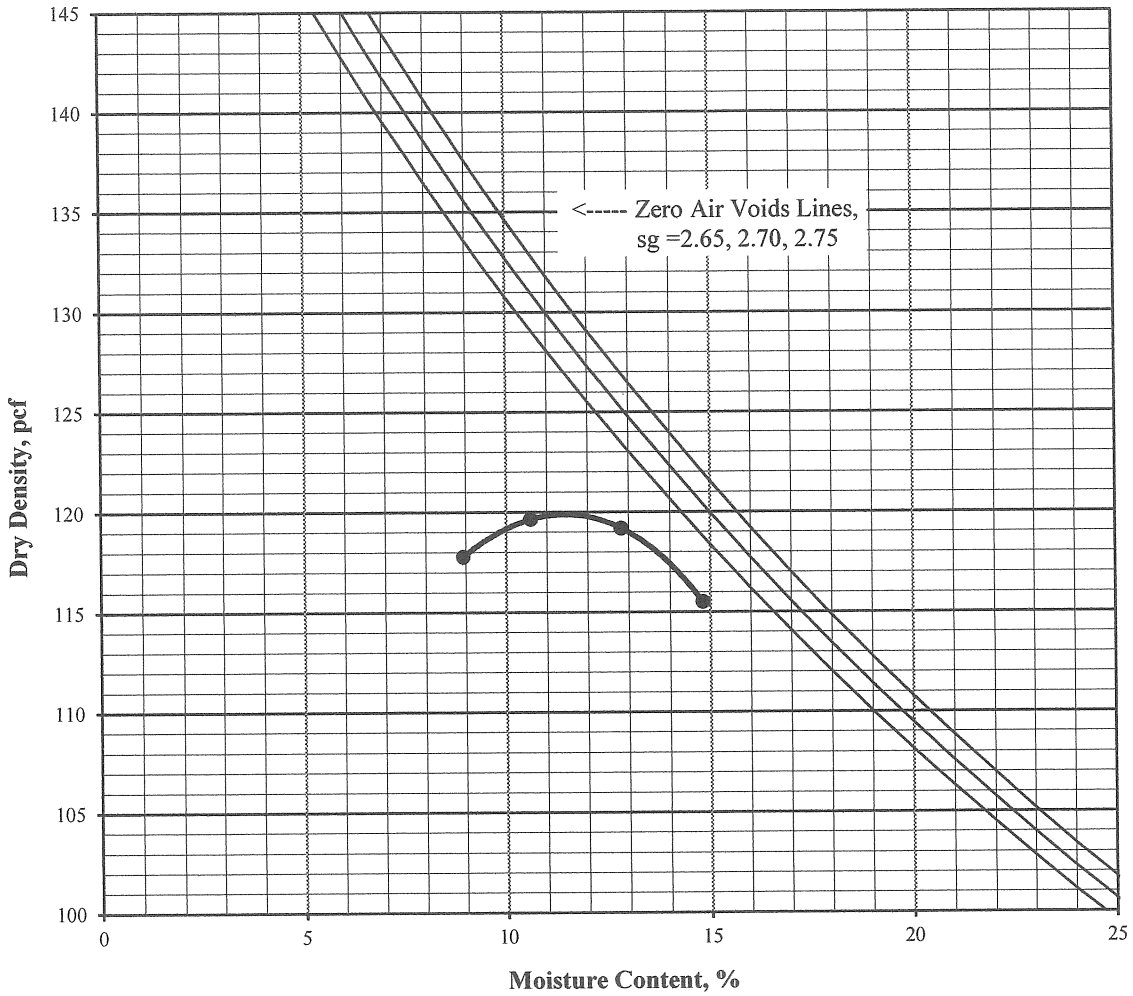
Project Number: 544-23326
Project Name: Harrison Street
Lab ID Number: LN6-23500
Sample Location: BH-1 Bulk 1 @ 0-5'
Description: Olive Brown Silty Sand (SM)

December 21, 2023

ASTM D-1557 A
Rammer Type: Machine

Maximum Density: 120.5 pcf
Optimum Moisture: 11.5%

Sieve Size	% Retained
3/4"	
3/8"	
#4	2.2



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Expansion Index

ASTM D 4829

Job Number: 544-23326
Job Name: Harrison Street
Lab ID Number: LN6-23500
Sample ID: BH-1 Bulk 1 @ 0-5'
Soil Description: Olive Brown Silty Sand (SM)

December 21, 2023

Wt of Soil + Ring:	567.6
Weight of Ring:	188.5
Wt of Wet Soil:	379.1
Percent Moisture:	9.3%
Sample Height, in	0.95
Wet Density, pcf:	121.3
Dry Denstiy, pcf:	111.0

% Saturation:	48.5

Expansion **Rack # 2**

Date/Time	12/18/2023	2:37 PM
Initial Reading	0.0000	
Final Reading	0.0070	

Expansion Index 7

(Final - Initial) x 1000

Sladden Engineering

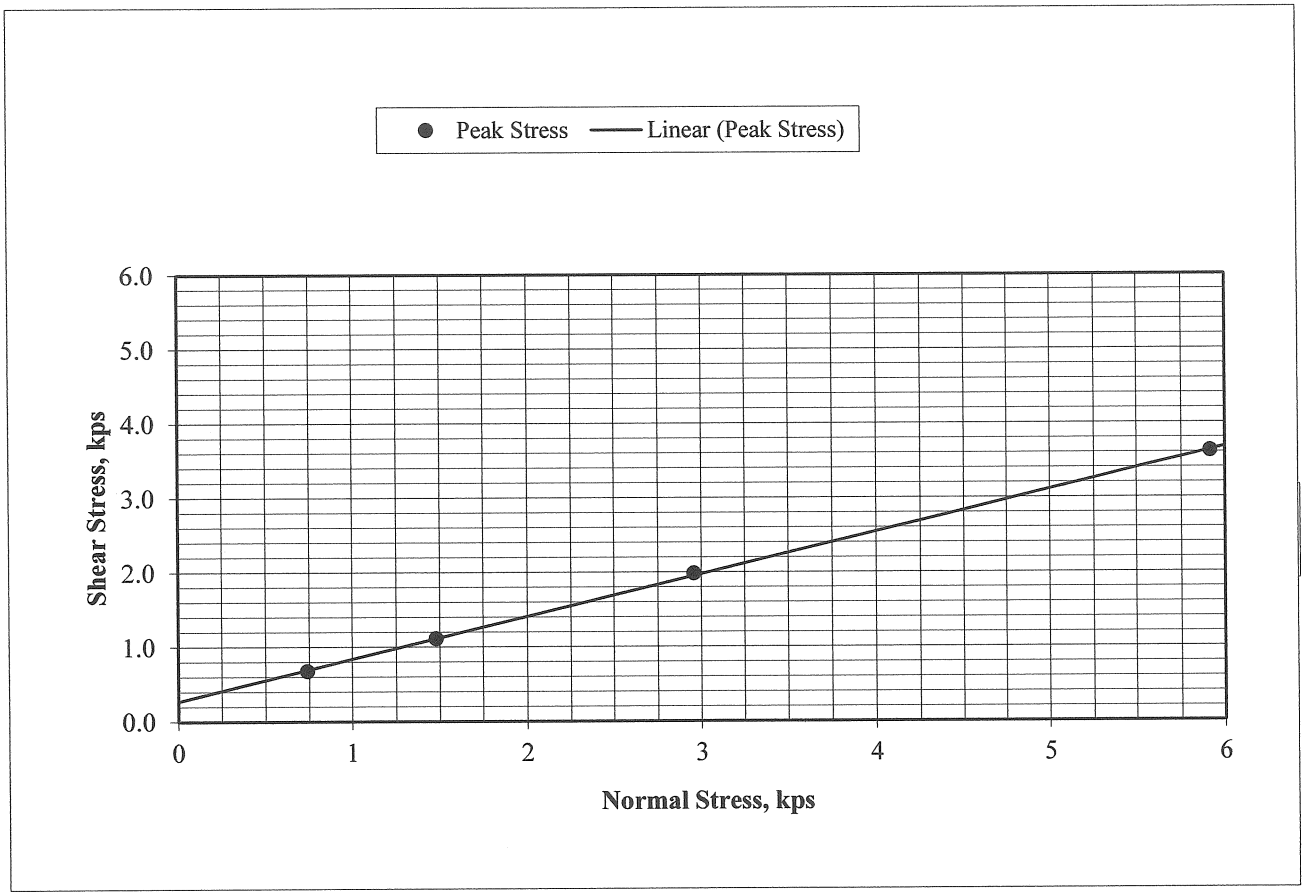
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Direct Shear ASTM D 3080-04
(modified for unconsolidated condition)

Job Number: 544-23326
Job Name Harrison Street
Lab ID No. LN6-23500
Sample ID BH-1 Bulk 1 @ 0-5'
Classification Olive Brown Silty Sand (SM)
Sample Type Remolded @ 90% of Maximum Density

December 21, 2023
Initial Dry Density: 108.3 pcf
Initial Mosture Content: 11.0 %
Peak Friction Angle (Ø): 30°
Cohesion (c): 270 psf

Test Results	1	2	3	4	Average
Moisture Content, %	19.2	19.2	19.2	19.2	19.2
Saturation, %	93.3	93.3	93.3	93.3	93.3
Normal Stress, kps	0.739	1.479	2.958	5.916	
Peak Stress, kps	0.676	1.112	1.984	3.619	



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Gradation

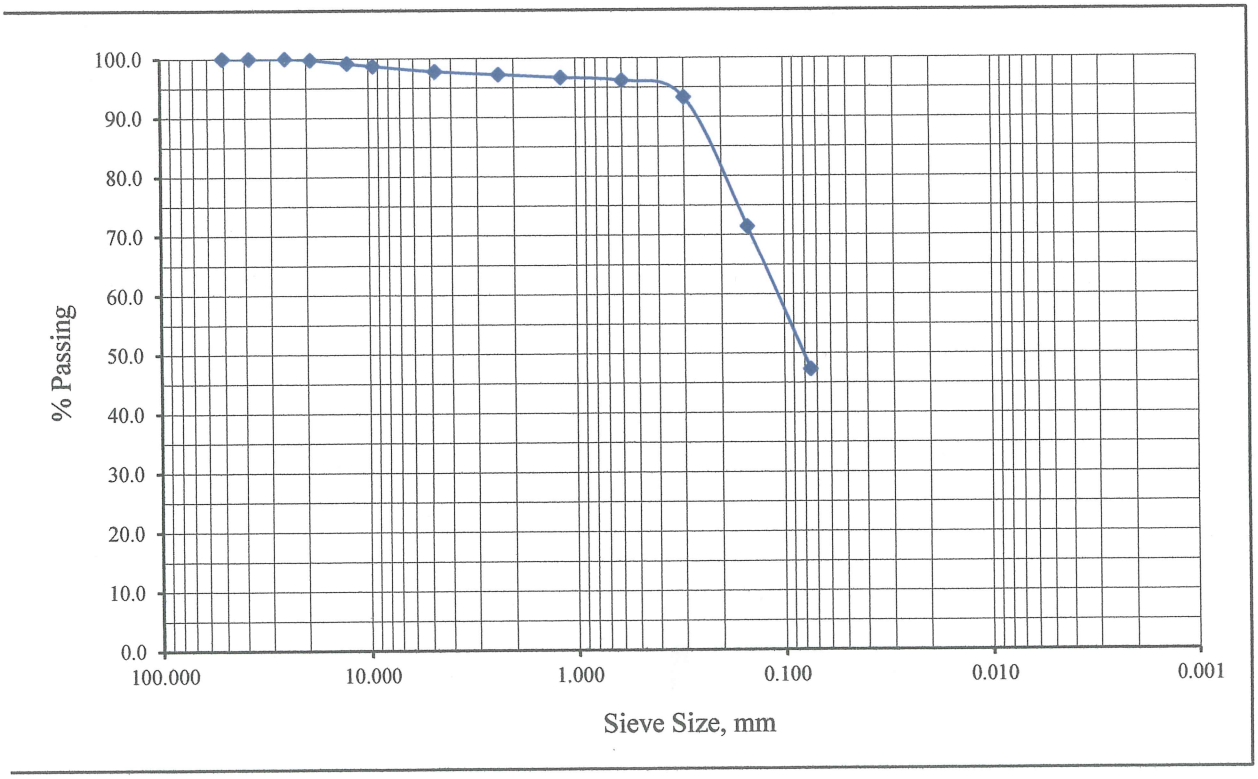
ASTM C117 & C136

Project Number: 544-23326
Project Name: Harrison Street
Lab ID Number: LN6-23500
Sample ID: BH-1 Bulk 1 @ 0-5'

December 21, 2023

Soil Classification: SM

Sieve Size, in	Sieve Size, mm	Percent Passing
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	99.8
1/2"	12.7	99.2
3/8"	9.53	98.7
#4	4.75	97.8
#8	2.36	97.3
#16	1.18	96.7
#30	0.60	96.2
#50	0.30	93.3
#100	0.15	71.4
#200	0.075	47.3



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Gradation

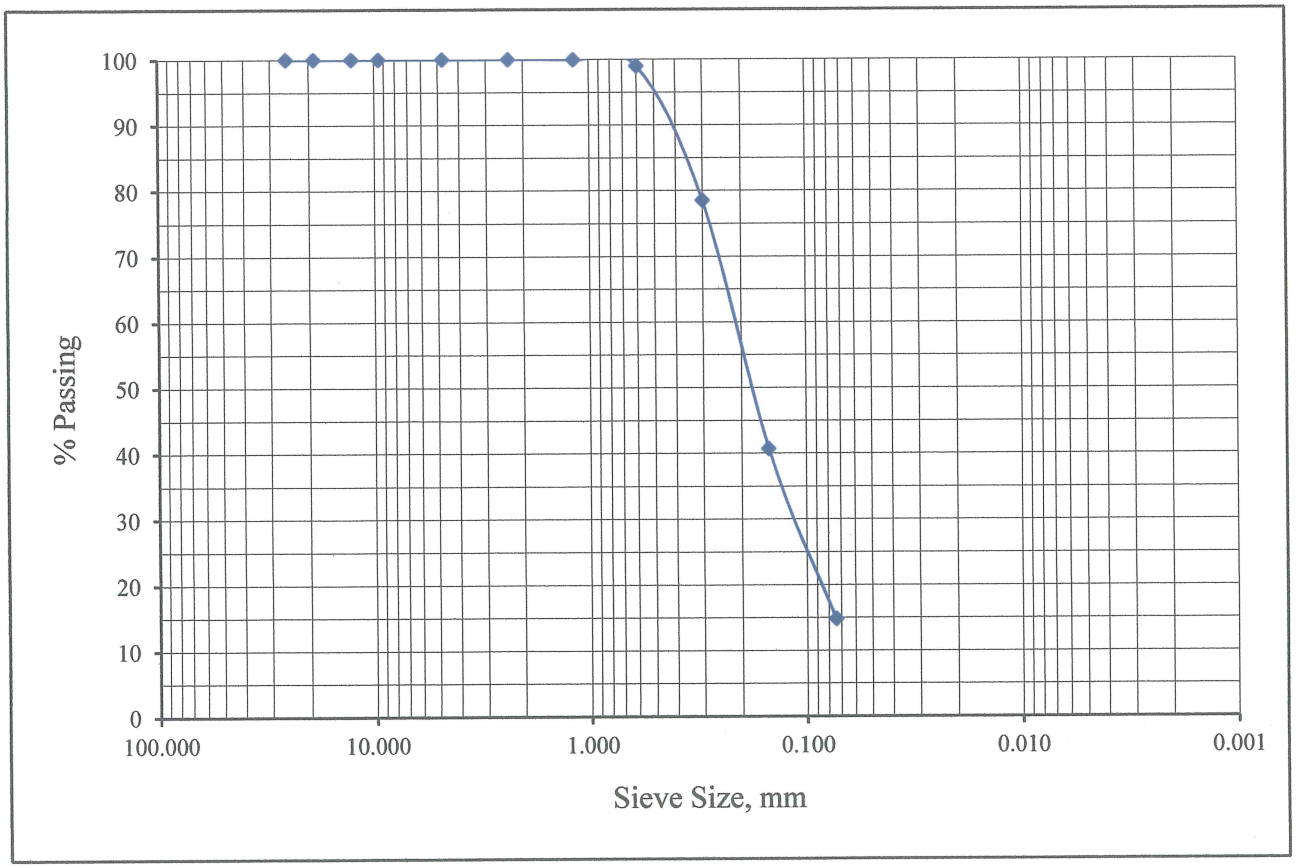
ASTM C117 & C136

Project Number: 544-23326
Project Name: Harrison Street
Lab ID Number: LN6-23500
Sample ID: BH-1 S-3 @ 10'

December 21, 2023

Soil Classification: SM

Sieve Size, in	Sieve Size, mm	Percent Passing
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.53	100.0
#4	4.75	100.0
#8	2.36	100.0
#16	1.18	99.9
#30	0.60	99.0
#50	0.30	78.5
#100	0.15	40.7
#200	0.074	14.8



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Gradation

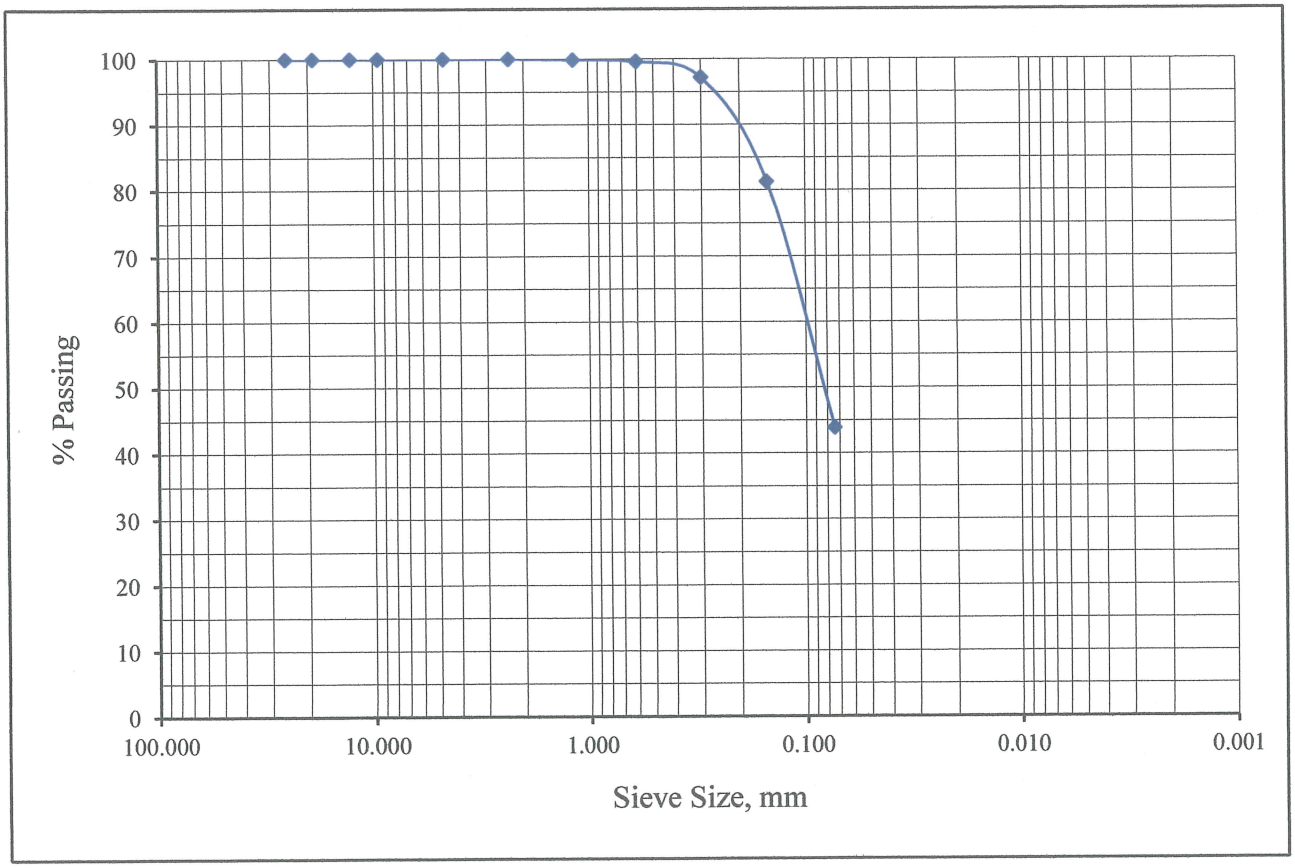
ASTM C117 & C136

Project Number: 544-23326
Project Name: Harrison Street
Lab ID Number: LN6-23500
Sample ID: BH-3 R-3 @ 15'

December 21, 2023

Soil Classification: SM

Sieve Size, in	Sieve Size, mm	Percent Passing
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.53	100.0
#4	4.75	100.0
#8	2.36	100.0
#16	1.18	99.9
#30	0.60	99.6
#50	0.30	97.2
#100	0.15	81.3
#200	0.074	43.9



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Gradation

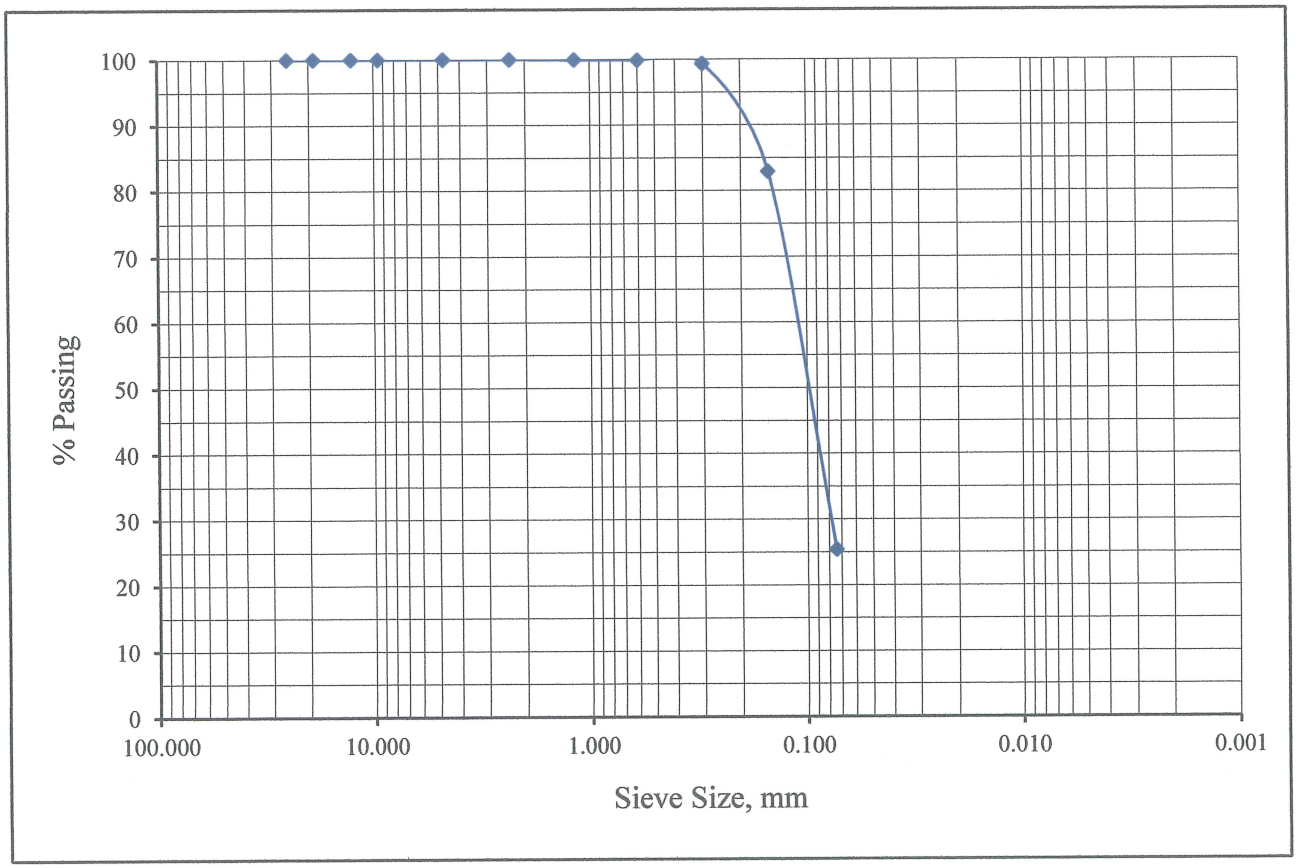
ASTM C117 & C136

Project Number: 544-23326
Project Name: Harrison Street
Lab ID Number: LN6-23500
Sample ID: BH-4 R-6 @ 30'

December 21, 2023

Soil Classification: SM

Sieve Size, in	Sieve Size, mm	Percent Passing
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.53	100.0
#4	4.75	100.0
#8	2.36	100.0
#16	1.18	99.9
#30	0.60	99.9
#50	0.30	99.3
#100	0.15	82.9
#200	0.074	25.4



Job Number: 544-23326
Job Name: Harrison Street
Date: 12/21/2023

Moisture Adjustment		Remolded Shear Weight	
Wt of Soil:	1,000	Max Dry Density:	120.5
Moist As Is:	2.6	Optimum Moisture:	11.5
Moist Wanted:	11.5		
ml of Water to Add:	86.7	Wt Soil per Ring, g:	145.4

UBC

Sladden Engineering

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One Dimensional Consolidation

ASTM D2435 & D5333

Job Number: 544-23326
Job Name: Harrison Street

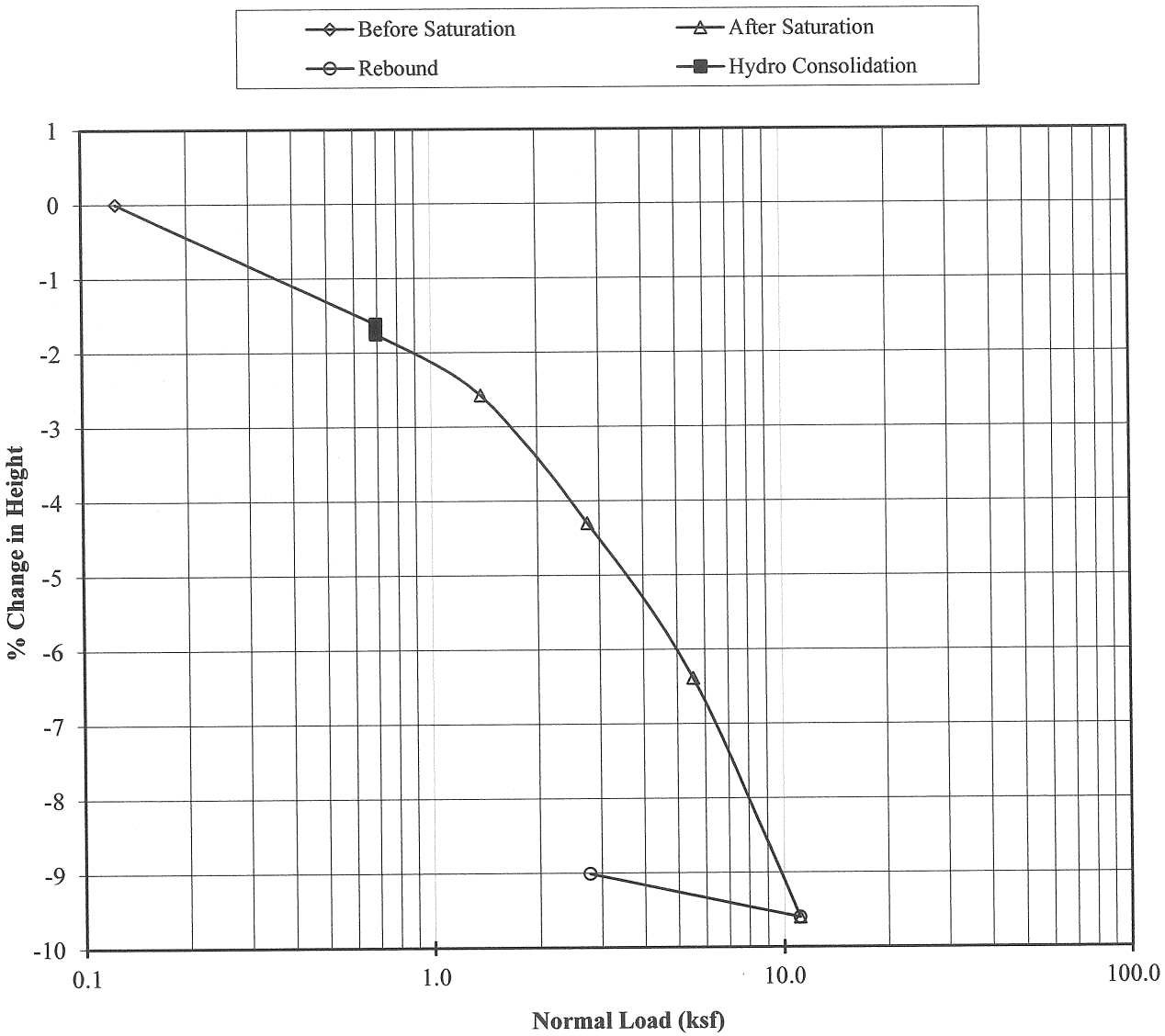
December 21, 2023

Lab ID Number: LN6-23500
Sample ID: BH-4 R-2 @ 10'
Soil Description: Olive Brown Sandy Clay (CL)

Initial Dry Density, pcf:	94.5
Initial Moisture, %:	10.2
Initial Void Ratio:	0.764
Specific Gravity:	2.67

Hydrocollapse: 0.1% @ 0.694 ksf

% Change in Height vs Normal Presssure Diagram



Sladden Engineering

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One Dimensional Consolidation

ASTM D2435 & D5333

Job Number: 544-23326
Job Name: Harrison Street

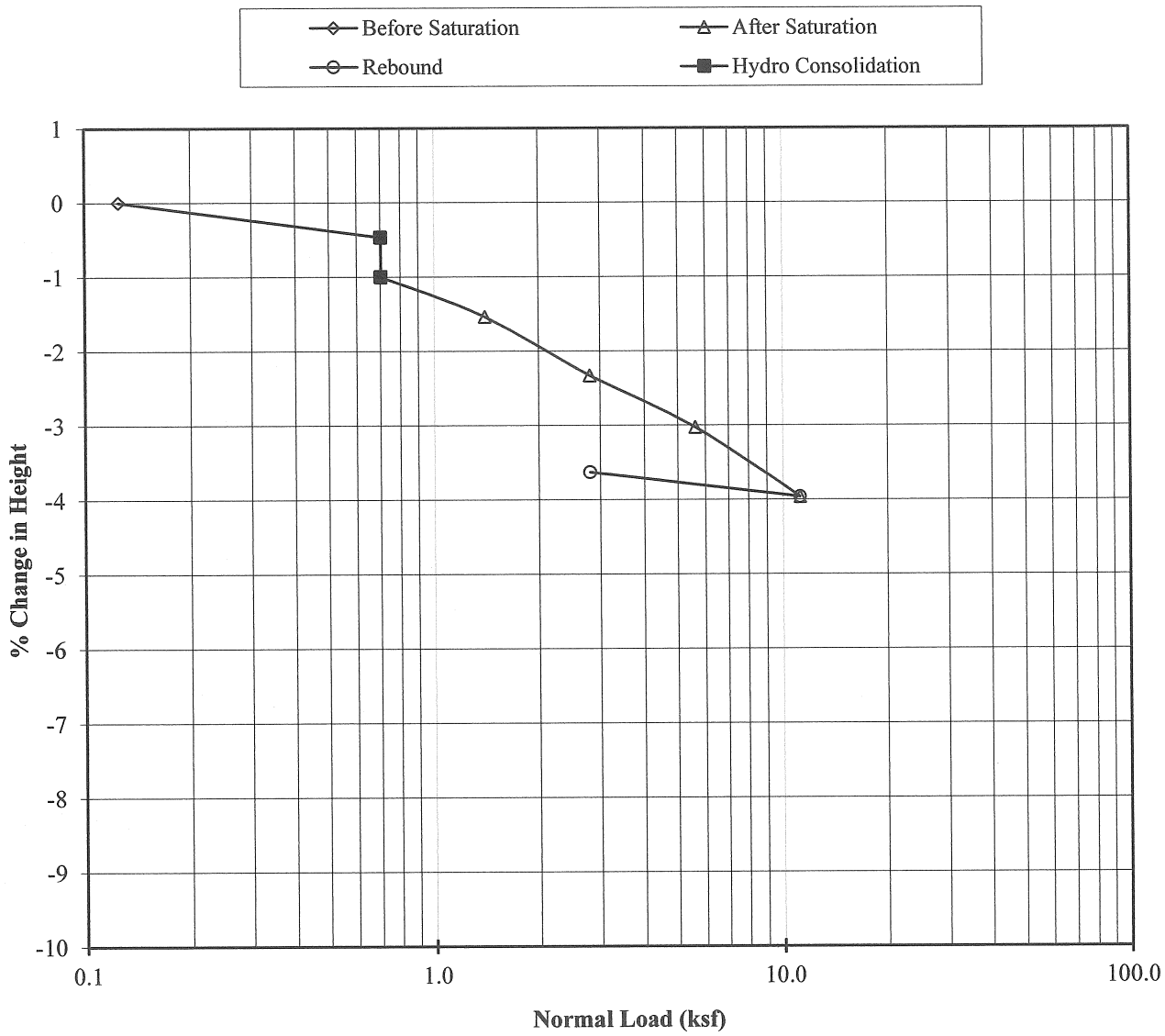
December 21, 2023

Lab ID Number: LN6-23500
Sample ID: BH-1 R-2 @ 5'
Soil Description: Olive Brown Sandy Silt (ML)

Initial Dry Density, pcf:	94.3
Initial Moisture, %:	4.3
Initial Void Ratio:	0.767
Specific Gravity:	2.67

Hydrocollapse: 0.5% @ 0.702 ksf

% Change in Height vs Normal Presssure Diagram



Sladden Engineering

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Plasticity Index

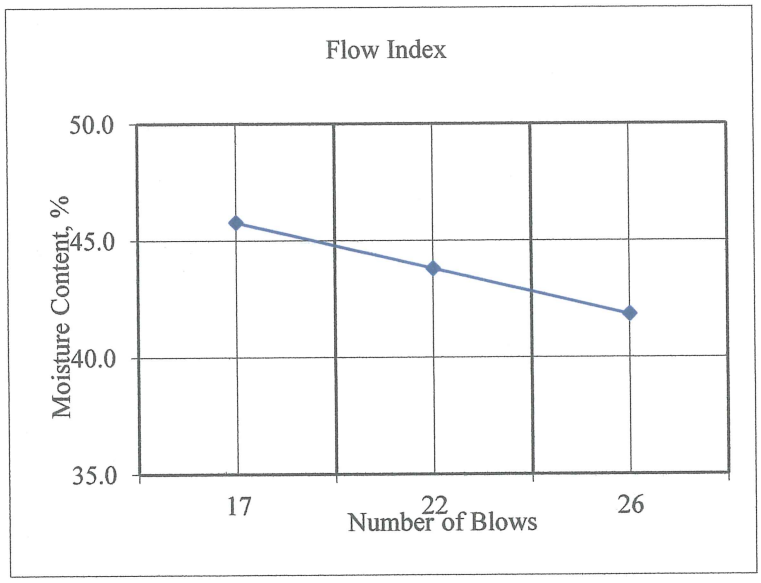
ASTM D4318

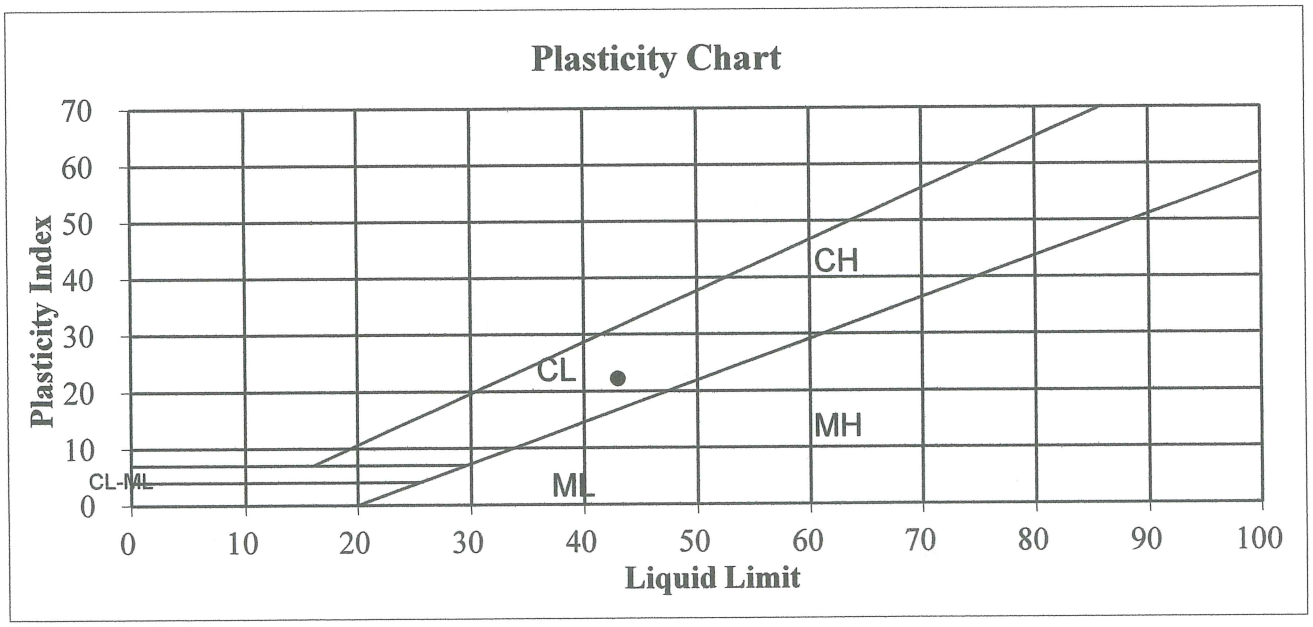
December 21, 2023

Project Number: 544-23326
Project Name: Harrison Street
Lab ID Number: LN6-23500
Sample Location: BH-1 S-5 @ 20
Description: Olive Brown Clay w/Sand (CL)

Test Results

Liquid Limit:	**43**
Plastic Limit:	**21**
Plasticity Index:	**22**





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Plasticity Index

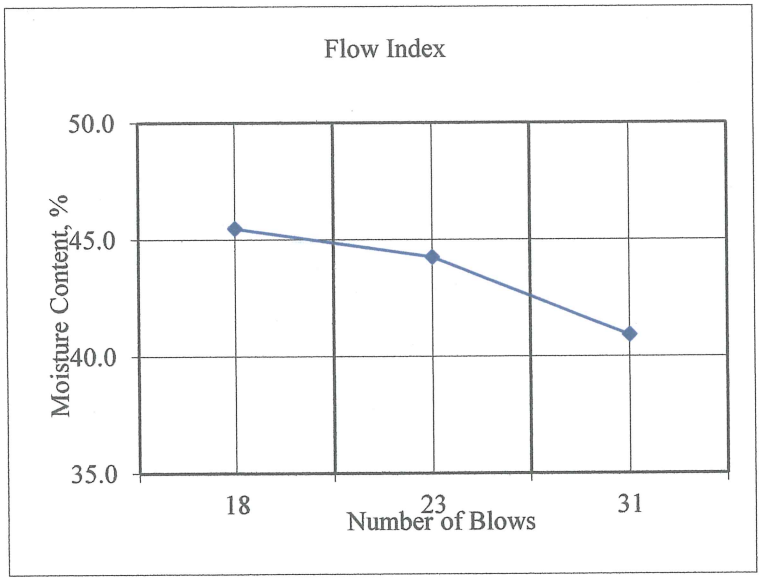
ASTM D4318

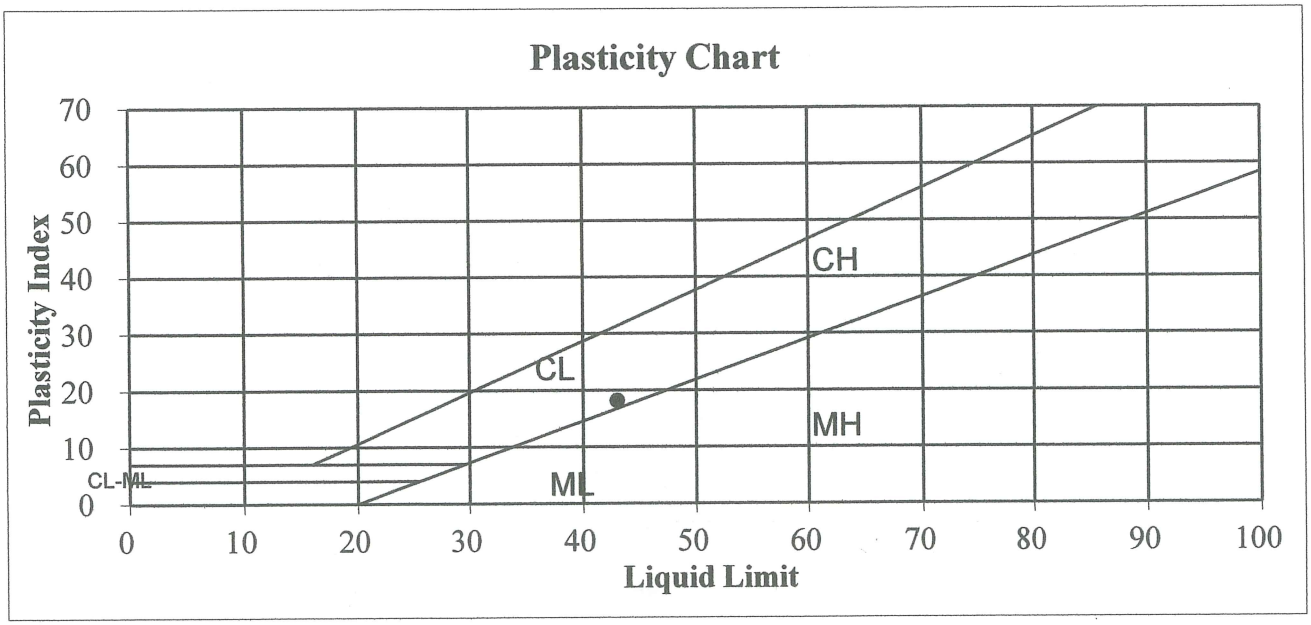
December 21, 2023

Project Number: 544-23326
Project Name: Harrison Street
Lab ID Number: LN6-23500
Sample Location: BH-4 S-1 @ 5'
Description: Dark Brown Clay (CL)

Test Results

Liquid Limit:	**43**
Plastic Limit:	**25**
Plasticity Index:	**18**





Sladden Engineering

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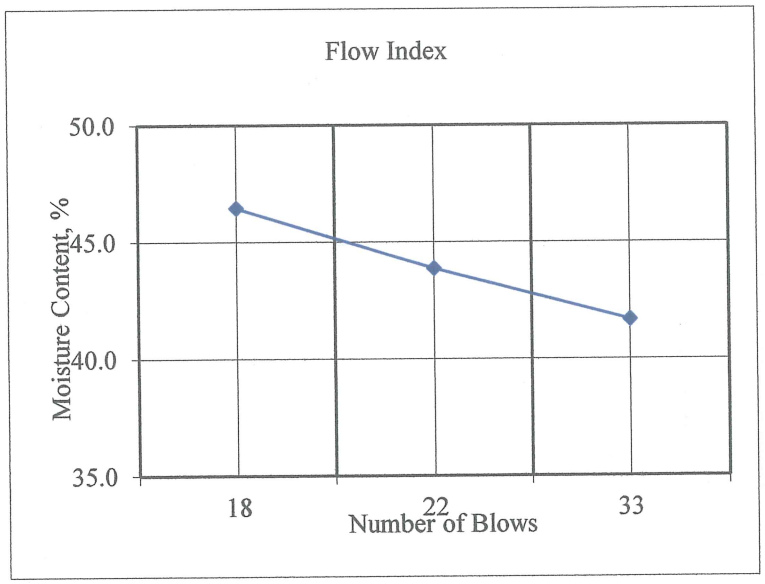
Plasticity Index

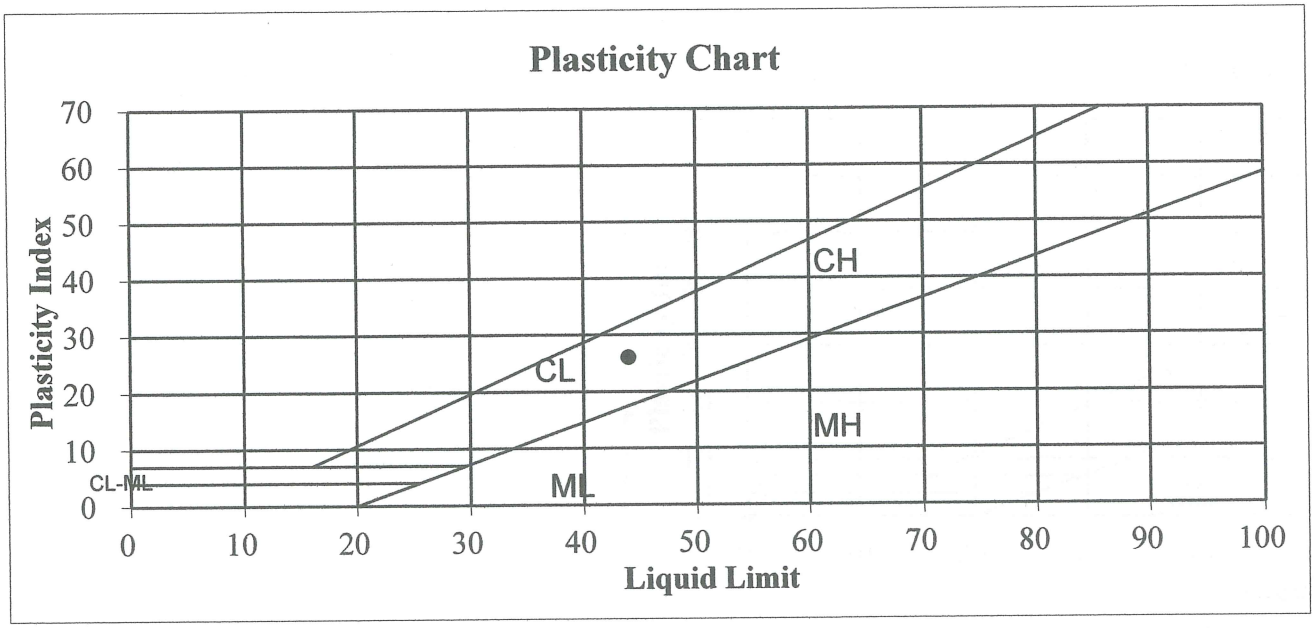
ASTM D4318

December 21, 2023

Project Number: 544-23326
Project Name: Harrison Street
Lab ID Number: LN6-23500
Sample Location: BH-4 R-2 @ 10'
Description: Olive Brown Sandy Clay (CL)

Test Results	
Liquid Limit:	**44**
Plastic Limit:	**18**
Plasticity Index:	**26**





Sladden Engineering

6782 Stanton Ave., Suite C, Buena Park, CA 90621 (714) 523-0952 Fax (714) 523-1369
45090 Golf Center Pkwy, Suite F, Indio, CA 92201 (760) 863-0713 Fax (760) 863-0847
450 Egan Avenue, Beaumont, CA 92223 (951) 845-7743 Fax (951) 845-8863

Date: December 21, 2023

Account No.: 544-23326

Customer: Meyers Concrete Corporation c/o Steve Lawson

Location: APN 603-290-005, Harrison Street, Coachella

Analytical Report

Corrosion Series

	pH per CA 643	Soluble Sulfates per CA 417 ppm	Soluble Chloride per CA 422 ppm	Min. Resistivity per CA 643 ohm-cm
BH-1 @ 0-5'	8.2	7600	4330	82

APPENDIX C

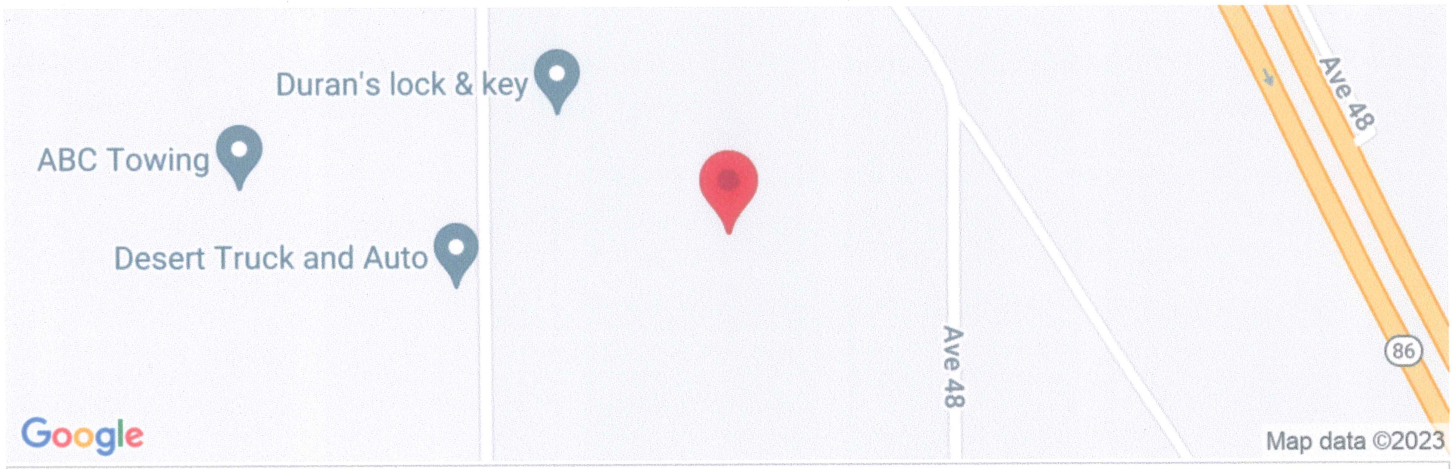
SEISMIC DESIGN PARAMETERS
SEISMIC DESIGN MAPS

USGS web services were down for some period of time and as a result this tool wasn't operational, resulting in *timeout* error.
USGS web services are now operational so this tool should work as expected.

OSHPD

Proposed Coachella RV Storage

Latitude, Longitude: 33.69715, -116.17923



Date	12/19/2023, 11:51:59 AM
Design Code Reference Document	ASCE7-16
Risk Category	II
Site Class	D - Stiff Soil

Type	Value	Description
S_S	2.22	MCE_R ground motion. (for 0.2 second period)
S_1	0.941	MCE_R ground motion. (for 1.0s period)
S_{MS}	2.22	Site-modified spectral acceleration value
S_{M1}	null -See Section 11.4.8	Site-modified spectral acceleration value
S_{DS}	1.48	Numeric seismic design value at 0.2 second SA
S_{D1}	null -See Section 11.4.8	Numeric seismic design value at 1.0 second SA

Type	Value	Description
SDC	null -See Section 11.4.8	Seismic design category
F_a	1	Site amplification factor at 0.2 second
F_v	null -See Section 11.4.8	Site amplification factor at 1.0 second
PGA	0.956	MCE_G peak ground acceleration
F_{PGA}	1.1	Site amplification factor at PGA
PGA_M	1.052	Site modified peak ground acceleration
T_L	8	Long-period transition period in seconds
SsRT	2.612	Probabilistic risk-targeted ground motion. (0.2 second)
SsUH	2.976	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
SsD	2.22	Factored deterministic acceleration value. (0.2 second)
S1RT	1.059	Probabilistic risk-targeted ground motion. (1.0 second)
S1UH	1.22	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
S1D	0.941	Factored deterministic acceleration value. (1.0 second)
PGAd	0.956	Factored deterministic acceleration value. (Peak Ground Acceleration)

Type	Value	Description
PGA_{UH}	1.178	Uniform-hazard (2% probability of exceedance in 50 years) Peak Ground Acceleration
C_{RS}	0.878	Mapped value of the risk coefficient at short periods
C_{R1}	0.868	Mapped value of the risk coefficient at a period of 1 s
C_V	1.5	Vertical coefficient

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SITE-SPECIFIC GROUND MOTION ANALYSIS
(ASCE 7-16)

Project: Proposed RV Storage
Project Number: 544-23326
Client: Myers Concrete Corporation
Site Lat/Long: 33.69715/-116.17923
Controlling Seismic Source: San Andreas Fault

REFERENCE	NOTATION	VALUE
Site Class	C, D, D default, or E	D measured
Site Class D - Table 11.4-1	F_a	1.0
Site Class D - 21.3(ii)	F_v	2.5
$0.2*(S_{D1}/S_{DS})$	T_0	0.212
S_{D1}/S_{DS}	T_S	1.060
Fundamental Period (12.8.2)	T	Period
Seismic Design Maps or Fig 22-14	T_L	8
Equation 11.4-4 - $2/3*S_{M1}$	S_{D1}	1.5683
Equation 11.4-2 - F_V*S_1 [1]	S_{M1}	2.3525

[1] - F_V as determined by Section 21.3

REFERENCE	NOTATION	VALUE
Fv (Table 11.4-2)[Used for General Spectrum]	F_v	1.7
Design Maps	S_s	2.220
Design Maps	S_1	0.941
Equation 11.4-1 - F_A*S_S	S_{MS}	2.220*
Equation 11.4-3 - $2/3*S_{MS}$	S_{DS}	1.48*
Design Maps	PGA	0.956
Table 11.8-1	F_{PGA}	1.1
Equation 11.8-1 - F_{PGA}*PGA	PGA_M	1.052*
Section 21.5.3	80% of PGA_M	0.841
Design Maps	C_{RS}	0.878
Design Maps	C_{R1}	0.868

REFERENCE	NOTATION	VALUE
$0.2*(S_{D1}/S_{DS})$	T_0	0.144*
S_{D1}/S_{DS}	T_S	0.721*
Equation 11.4-4 - $2/3*S_{M1}$	S_{D1}	1.0665*
Equation 11.4-2 - F_V*S_1	S_{M1}	1.5997*

RISK COEFFICIENT

Cr - At Perods <=0.2, Cr=C_{RS}	C_{RS}	0.878
Cr - At Periods >=1.0, Cr=C_{R1}	C_{R1}	0.868

Cr - At Periods between 0.2 and 1.0 use trendline formula to complete

Period	Cr
0.200	0.878
0.300	0.877
0.400	0.876
0.500	0.874
0.600	0.873
0.680	0.872
1.000	0.868

* **Code based design value.** See accompanying data for Site Specific Design values.

Mapped values from https://hazards.atcouncil.org/
https://www.seismicmaps.org/

Sladden Engineering

PROBABILISTIC SPECTRA[1]
2% in 50 year Exceedence

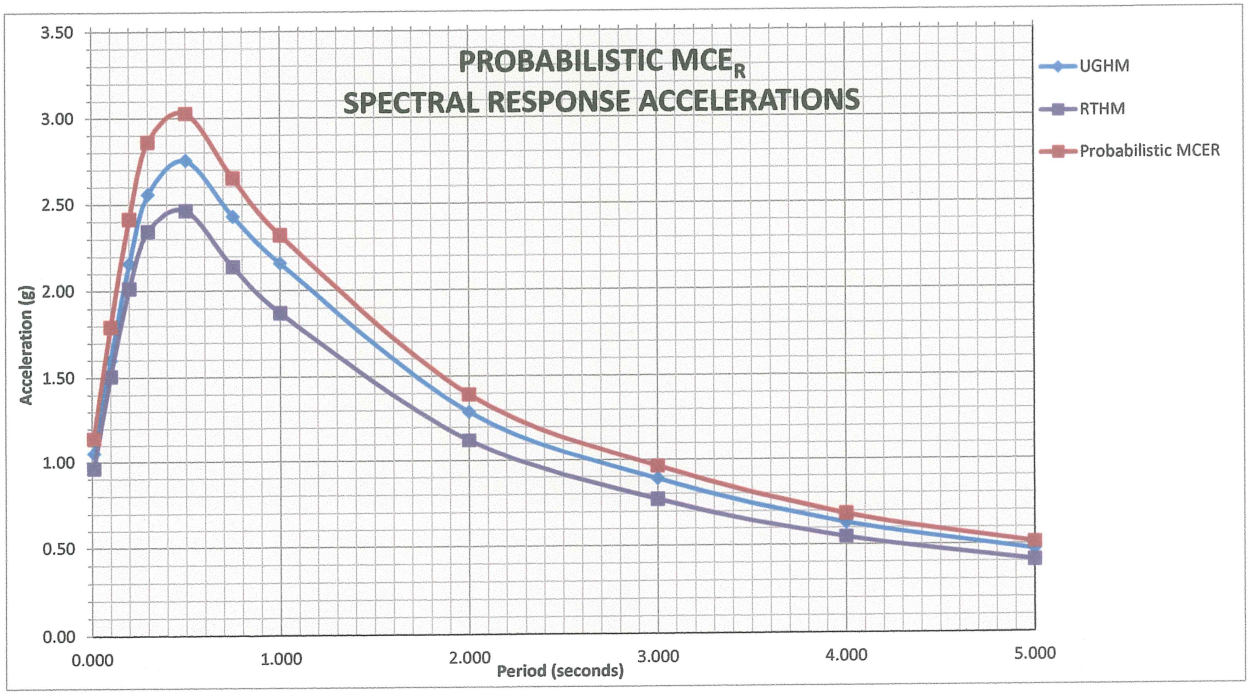
Project No: 544-23326

Period	UGHM	RTGM	Max Directional Scale Factor[2]	Probabilistic MCE
0.010	1.052	0.960	1.19	1.142
0.100	1.598	1.507	1.19	1.793
0.200	2.158	2.012	1.20	2.414
0.300	2.556	2.343	1.22	2.858
0.500	2.752	2.462	1.23	3.028
0.750	2.427	2.138	1.24	2.651
1.000	2.157	1.871	1.24	2.320
2.000	1.289	1.122	1.24	1.391
3.000	0.886	0.769	1.25	0.961
4.000	0.630	0.545	1.25	0.681
5.000	0.468	0.406	1.26	0.512

Probabilistic PGA: 1.052
Is Probabilistic $Sa_{(max)}$<$1.2F_a$? NO

[1] Data Sources:
https://earthquake.usgs.gov/hazards/interactive/
https://earthquake.usgs.gov/designmaps/rtgm/

[2] Shahi-Baker RotD100/RotD50 Factors (2014)



Sladden Engineering

DETERMINISTIC SPECTRUM

Largest Amplitudes of Ground Motions Considering All Sources Calculated using Weighted Mean of Attenuation Equations[1]

Controlling Source: San Andreas Fault

Is Probabilistic $Sa_{(max)}$<1.2Fa? NO

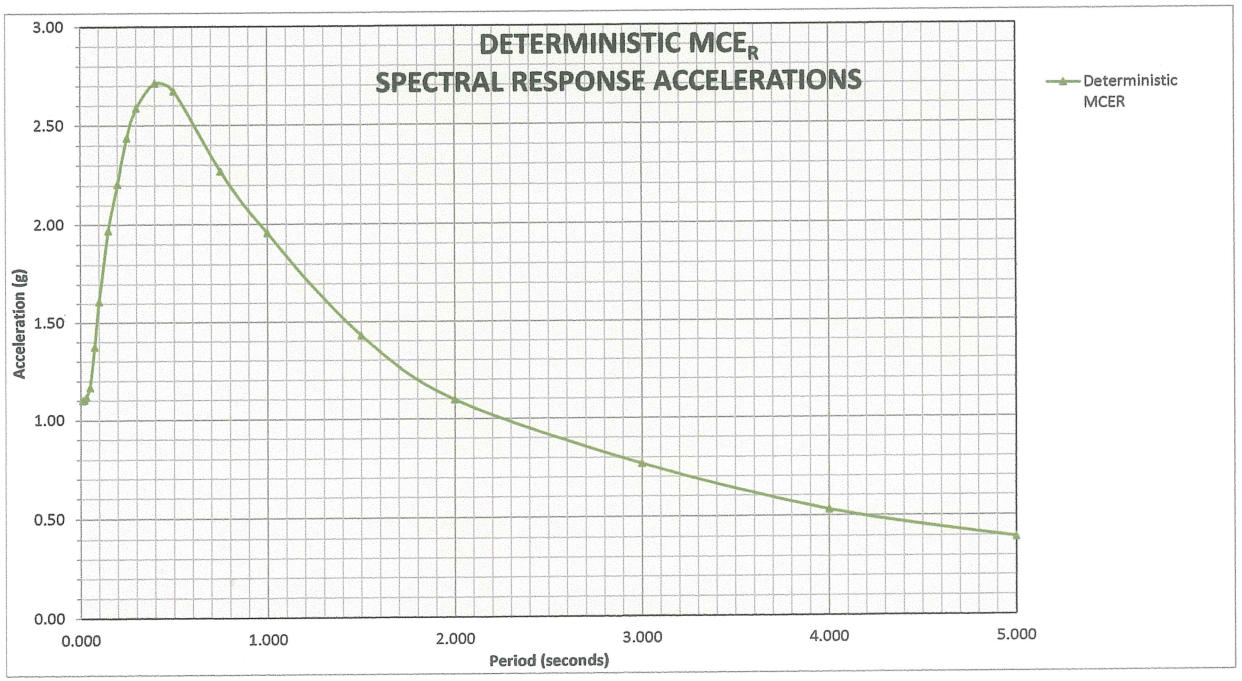
Project No: 544-23326

Period	Deterministic PSa Median + 1.σ for 5% Damping	Max Directional Scale Factor[2]	Deterministic MCE	Section 21.2.2 Scaling Factor Applied
0.010	0.924	1.19	1.100	1.100
0.020	0.927	1.19	1.104	1.104
0.030	0.939	1.19	1.117	1.117
0.050	0.980	1.19	1.166	1.166
0.075	1.154	1.19	1.373	1.373
0.100	1.353	1.19	1.611	1.611
0.150	1.640	1.20	1.968	1.968
0.200	1.839	1.20	2.207	2.207
0.250	2.015	1.21	2.438	2.438
0.300	2.120	1.22	2.586	2.586
0.400	2.206	1.23	2.713	2.713
0.500	2.174	1.23	2.673	2.673
0.750	1.830	1.24	2.269	2.269
1.000	1.576	1.24	1.954	1.954
1.500	1.153	1.24	1.429	1.429
2.000	0.884	1.24	1.096	1.096
3.000	0.614	1.25	0.767	0.767
4.000	0.423	1.25	0.529	0.529
5.000	0.311	1.26	0.392	0.392

Is Determinstic $Sa_{(max)}$<1.5*Fa?	NO
Section 21.2.2 Scaling Factor:	N/A
Deterministic PGA:	0.924
Is Deterministic PGA >=F_{PGA}*0.5?	YES

[1] NGAWest 2 GMPE worksheet and Uniform California Earthquake Rupture Forecast, Version 3 (UCERF3) - Time Dependent Model

[2] Shahi-Baker RotD100/RotD50 Factors (2014)



Sladden Engineering

SITE SPECIFIC SPECTRA

Period	Probabilistic MCE	Deterministic MCE	Site-Specific MCE	Design Response Spectrum (Sa)
0.010	1.142	1.100	1.100	0.733
0.100	1.793	1.611	1.611	1.074
0.200	2.414	2.207	2.207	1.471
0.300	2.858	2.586	2.586	1.724
0.500	3.028	2.673	2.673	1.782
0.750	2.651	2.269	2.269	1.512
1.000	2.320	1.954	1.954	1.303
2.000	1.391	1.096	1.096	0.731
3.000	0.961	0.767	0.767	0.511
4.000	0.681	0.529	0.529	0.353
5.000	0.512	0.392	0.392	0.262

ASCE 7-16: Section 21.4

	Site Specific Calculated Value	Site Specific Design Value
SDS:	1.604	1.604
SD1:	1.534	1.534
SMS:	2.406	2.406
SM1:	2.301	2.301
Site Specific PGAm:	0.924	0.924
Site Class:	D measured	

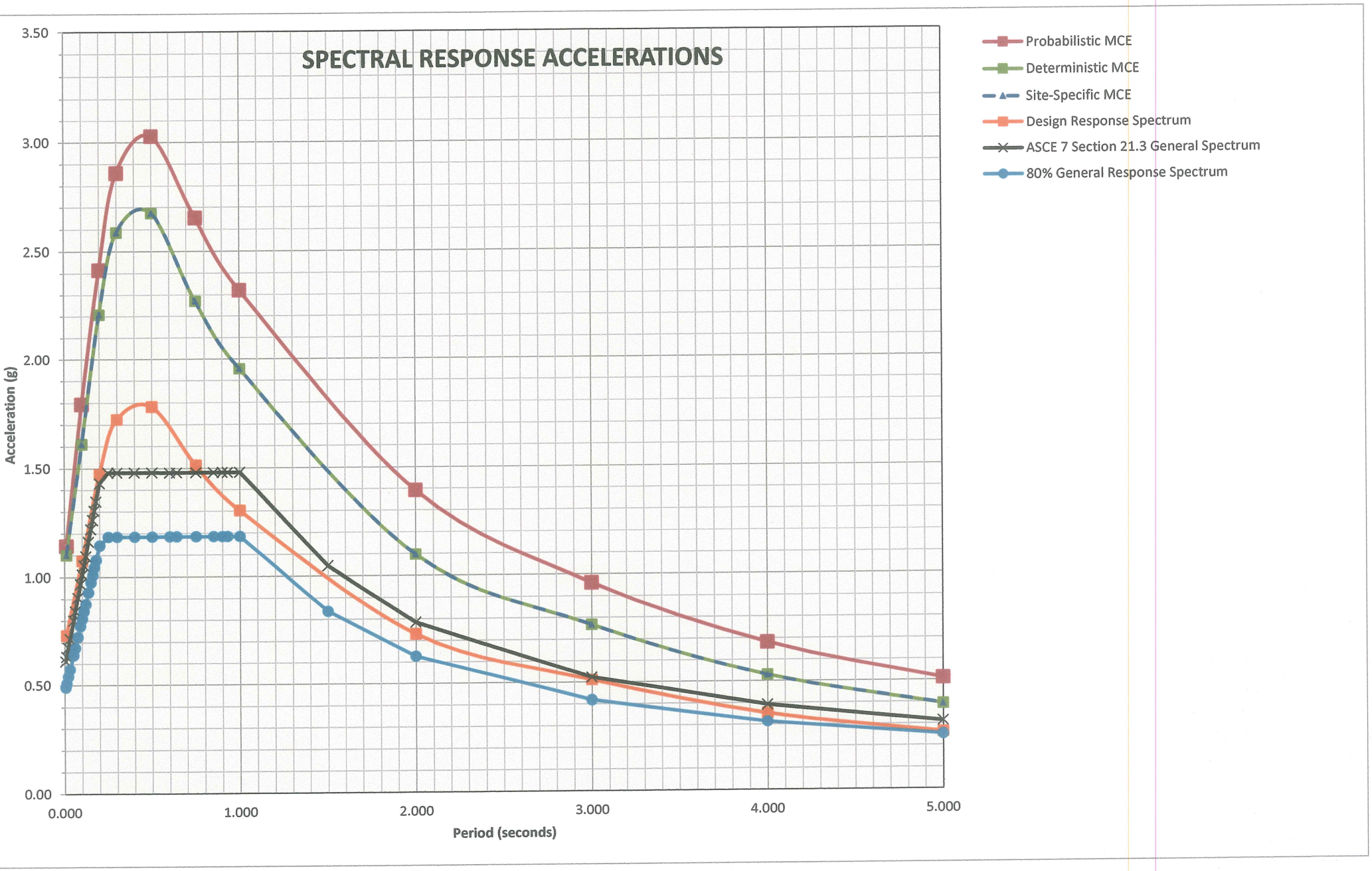
Seismic Design Category - Short* E

Seismic Design Category - 1s* E

* Risk Categories I, II, or III

Period	ASCE 7 SECTION 21.3 General Spectrum	80% General Response Spectrum
0.005	0.613	0.490
0.010	0.634	0.507
0.020	0.676	0.541
0.030	0.718	0.574
0.050	0.801	0.641
0.060	0.843	0.675
0.075	0.906	0.725
0.090	0.969	0.775
0.100	1.011	0.809
0.110	1.053	0.842
0.120	1.095	0.876
0.136	1.162	0.929
0.150	1.220	0.976
0.160	1.262	1.010
0.170	1.304	1.043
0.180	1.346	1.077
0.200	1.430	1.144
0.250	1.480	1.184
0.300	1.480	1.184
0.400	1.480	1.184
0.500	1.480	1.184
0.600	1.480	1.184
0.640	1.480	1.184
0.750	1.480	1.184
0.850	1.480	1.184
0.900	1.480	1.184
0.930	1.480	1.184
1.000	1.480	1.184
1.500	1.046	0.836
2.000	0.784	0.627
3.000	0.523	0.418
4.000	0.392	0.314
5.000	0.314	0.251

Project No: 544-23326


SPECTRAL RESPONSE ACCELERATIONS
Acceleration (g)
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.000
1.000
2.000
3.000
4.000
5.000
Period (seconds)
Probabilistic MCE
Deterministic MCE
Site-Specific MCE
Design Response Spectrum
ASCE 7 Section 21.3 General Spectrum
80% General Response Spectrum

APPENDIX D

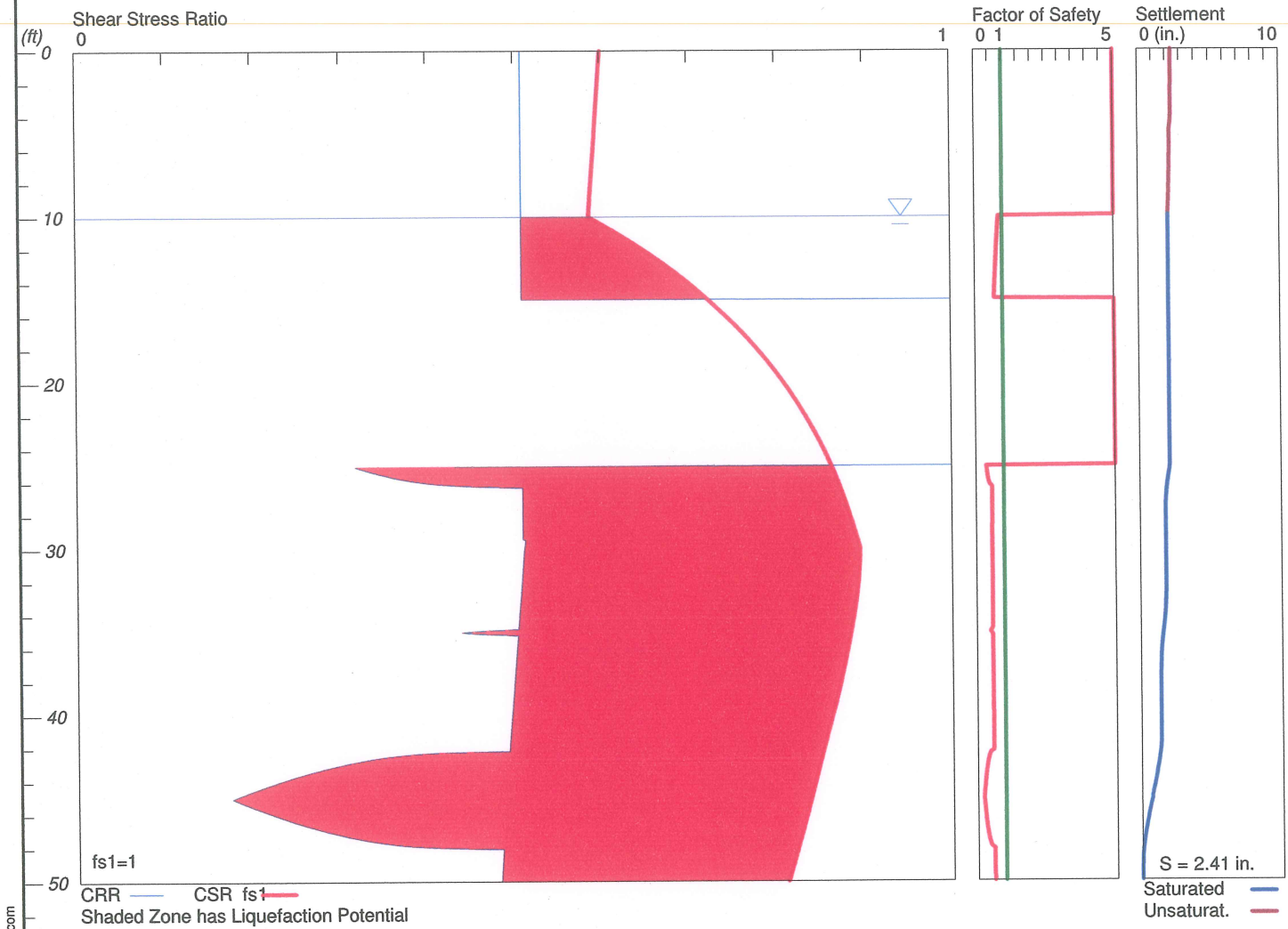
SEISMIC SETTLEMENT ANALYSIS

LIQUEFACTION ANALYSIS

544-23326 BH-1

Hole No.=BH1 Water Depth=10 ft

Magnitude=7.45
Acceleration=0.924g



LiquefyPro CivilTech Software USA www.civiltech.com

Sladden Engineering

Harrison St, Coachella

Plate A-1

****
LIQUEFACTION ANALYSIS SUMMARY

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Input File Name: D:\Liquefy5\544-233326 BH-1.liq
Title: 544-23326 BH-1
Subtitle: Harrison St, Coachella

Surface Elev.=
Hole No.=BH1
Depth of Hole= 50.00 ft
Water Table during Earthquake= 10.00 ft
Water Table during In-Situ Testing= 30.00 ft
Max. Acceleration= 0.92 g
Earthquake Magnitude= 7.45

Input Data:
Surface Elev.=
Hole No.=BH1
Depth of Hole=50.00 ft
Water Table during Earthquake= 10.00 ft
Water Table during In-Situ Testing= 30.00 ft
Max. Acceleration=0.92 g
Earthquake Magnitude=7.45
No-Liquefiable Soils: CL, OL are Non-Liq. Soil

1. SPT or BPT Calculation.
2. Settlement Analysis Method: Ishihara / Yoshimine
3. Fines Correction for Liquefaction: Stark/Olson et al.*
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.25
7. Borehole Diameter, Cb= 1.15
8. Sampling Method, Cs= 1
9. User request factor of safety (apply to CSR) , User= 1
   Plot one CSR curve (fs1=1)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:
Depth SPT gamma Fines

ft		pcf	%
0.00	16.67	102.10	18.70
2.00	16.67	102.10	18.70
5.00	13.34	103.10	54.70
10.00	22.00	103.10	14.80
15.00	20.00	113.60	NoLiq
20.00	14.00	113.60	NoLiq
25.00	16.00	120.20	NoLiq
30.00	30.00	120.20	17.10
35.00	24.67	127.50	16.70
40.00	32.00	127.50	19.20
45.00	9.33	117.50	NoLiq
50.00	32.00	117.50	15.00

Output Results:

Settlement of Saturated Sands=2.15 in.
Settlement of Unsaturated Sands=0.26 in.
Total Settlement of Saturated and Unsaturated Sands=2.41 in.
Differential Settlement=1.204 to 1.589 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	0.51	0.60	5.00	2.15	0.26	2.41
0.05	0.51	0.60	5.00	2.15	0.26	2.41
0.10	0.51	0.60	5.00	2.15	0.26	2.41
0.15	0.51	0.60	5.00	2.15	0.26	2.41
0.20	0.51	0.60	5.00	2.15	0.26	2.41
0.25	0.51	0.60	5.00	2.15	0.26	2.41
0.30	0.51	0.60	5.00	2.15	0.26	2.41
0.35	0.51	0.60	5.00	2.15	0.26	2.41
0.40	0.51	0.60	5.00	2.15	0.26	2.41
0.45	0.51	0.60	5.00	2.15	0.26	2.41
0.50	0.51	0.60	5.00	2.15	0.26	2.41
0.55	0.51	0.60	5.00	2.15	0.26	2.41
0.60	0.51	0.60	5.00	2.15	0.26	2.41
0.65	0.51	0.60	5.00	2.15	0.26	2.41
0.70	0.51	0.60	5.00	2.15	0.26	2.41
0.75	0.51	0.60	5.00	2.15	0.26	2.41
0.80	0.51	0.60	5.00	2.15	0.26	2.41
0.85	0.51	0.60	5.00	2.15	0.26	2.41
0.90	0.51	0.60	5.00	2.15	0.26	2.41
0.95	0.51	0.60	5.00	2.15	0.26	2.41
1.00	0.51	0.60	5.00	2.15	0.26	2.41
1.05	0.51	0.60	5.00	2.15	0.26	2.41
1.10	0.51	0.60	5.00	2.15	0.26	2.41
1.15	0.51	0.60	5.00	2.15	0.26	2.41
1.20	0.51	0.60	5.00	2.15	0.26	2.41

1.25	0.51	0.60	5.00	2.15	0.26	2.41
1.30	0.51	0.60	5.00	2.15	0.26	2.40
1.35	0.51	0.60	5.00	2.15	0.26	2.40
1.40	0.51	0.60	5.00	2.15	0.26	2.40
1.45	0.51	0.60	5.00	2.15	0.26	2.40
1.50	0.51	0.60	5.00	2.15	0.26	2.40
1.55	0.51	0.60	5.00	2.15	0.26	2.40
1.60	0.51	0.60	5.00	2.15	0.26	2.40
1.65	0.51	0.60	5.00	2.15	0.26	2.40
1.70	0.51	0.60	5.00	2.15	0.26	2.40
1.75	0.51	0.60	5.00	2.15	0.26	2.40
1.80	0.51	0.60	5.00	2.15	0.26	2.40
1.85	0.51	0.60	5.00	2.15	0.26	2.40
1.90	0.51	0.60	5.00	2.15	0.26	2.40
1.95	0.51	0.60	5.00	2.15	0.26	2.40
2.00	0.51	0.60	5.00	2.15	0.26	2.40
2.05	0.51	0.60	5.00	2.15	0.25	2.40
2.10	0.51	0.60	5.00	2.15	0.25	2.40
2.15	0.51	0.60	5.00	2.15	0.25	2.40
2.20	0.51	0.60	5.00	2.15	0.25	2.40
2.25	0.51	0.60	5.00	2.15	0.25	2.40
2.30	0.51	0.60	5.00	2.15	0.25	2.40
2.35	0.51	0.60	5.00	2.15	0.25	2.40
2.40	0.51	0.60	5.00	2.15	0.25	2.40
2.45	0.51	0.60	5.00	2.15	0.25	2.40
2.50	0.51	0.60	5.00	2.15	0.25	2.40
2.55	0.51	0.60	5.00	2.15	0.25	2.40
2.60	0.51	0.60	5.00	2.15	0.25	2.40
2.65	0.51	0.60	5.00	2.15	0.25	2.40
2.70	0.51	0.60	5.00	2.15	0.25	2.40
2.75	0.51	0.60	5.00	2.15	0.25	2.40
2.80	0.51	0.60	5.00	2.15	0.25	2.40
2.85	0.51	0.60	5.00	2.15	0.25	2.40
2.90	0.51	0.60	5.00	2.15	0.25	2.40
2.95	0.51	0.60	5.00	2.15	0.25	2.40
3.00	0.51	0.60	5.00	2.15	0.25	2.40
3.05	0.51	0.60	5.00	2.15	0.25	2.40
3.10	0.51	0.60	5.00	2.15	0.25	2.40
3.15	0.51	0.60	5.00	2.15	0.25	2.40
3.20	0.51	0.60	5.00	2.15	0.25	2.40
3.25	0.51	0.60	5.00	2.15	0.25	2.40
3.30	0.51	0.60	5.00	2.15	0.25	2.40
3.35	0.51	0.60	5.00	2.15	0.25	2.40
3.40	0.51	0.60	5.00	2.15	0.25	2.39
3.45	0.51	0.60	5.00	2.15	0.25	2.39
3.50	0.51	0.60	5.00	2.15	0.25	2.39
3.55	0.51	0.60	5.00	2.15	0.25	2.39
3.60	0.51	0.60	5.00	2.15	0.24	2.39
3.65	0.51	0.60	5.00	2.15	0.24	2.39
3.70	0.51	0.60	5.00	2.15	0.24	2.39

3.75	0.51	0.60	5.00	2.15	0.24	2.39
3.80	0.51	0.60	5.00	2.15	0.24	2.39
3.85	0.51	0.60	5.00	2.15	0.24	2.39
3.90	0.51	0.60	5.00	2.15	0.24	2.39
3.95	0.51	0.60	5.00	2.15	0.24	2.38
4.00	0.51	0.59	5.00	2.15	0.23	2.38
4.05	0.51	0.59	5.00	2.15	0.23	2.38
4.10	0.51	0.59	5.00	2.15	0.23	2.38
4.15	0.51	0.59	5.00	2.15	0.23	2.38
4.20	0.51	0.59	5.00	2.15	0.22	2.37
4.25	0.51	0.59	5.00	2.15	0.22	2.37
4.30	0.51	0.59	5.00	2.15	0.22	2.36
4.35	0.51	0.59	5.00	2.15	0.21	2.36
4.40	0.51	0.59	5.00	2.15	0.21	2.35
4.45	0.51	0.59	5.00	2.15	0.20	2.35
4.50	0.51	0.59	5.00	2.15	0.19	2.34
4.55	0.51	0.59	5.00	2.15	0.19	2.34
4.60	0.51	0.59	5.00	2.15	0.18	2.33
4.65	0.51	0.59	5.00	2.15	0.17	2.32
4.70	0.51	0.59	5.00	2.15	0.17	2.32
4.75	0.51	0.59	5.00	2.15	0.16	2.31
4.80	0.51	0.59	5.00	2.15	0.16	2.30
4.85	0.51	0.59	5.00	2.15	0.16	2.30
4.90	0.51	0.59	5.00	2.15	0.15	2.30
4.95	0.51	0.59	5.00	2.15	0.15	2.30
5.00	0.51	0.59	5.00	2.15	0.15	2.30
5.05	0.51	0.59	5.00	2.15	0.15	2.30
5.10	0.51	0.59	5.00	2.15	0.15	2.30
5.15	0.51	0.59	5.00	2.15	0.15	2.30
5.20	0.51	0.59	5.00	2.15	0.15	2.30
5.25	0.51	0.59	5.00	2.15	0.15	2.30
5.30	0.51	0.59	5.00	2.15	0.15	2.30
5.35	0.51	0.59	5.00	2.15	0.15	2.30
5.40	0.51	0.59	5.00	2.15	0.15	2.30
5.45	0.51	0.59	5.00	2.15	0.15	2.30
5.50	0.51	0.59	5.00	2.15	0.15	2.30
5.55	0.51	0.59	5.00	2.15	0.15	2.29
5.60	0.51	0.59	5.00	2.15	0.15	2.29
5.65	0.51	0.59	5.00	2.15	0.15	2.29
5.70	0.51	0.59	5.00	2.15	0.15	2.29
5.75	0.51	0.59	5.00	2.15	0.14	2.29
5.80	0.51	0.59	5.00	2.15	0.14	2.29
5.85	0.51	0.59	5.00	2.15	0.14	2.29
5.90	0.51	0.59	5.00	2.15	0.14	2.29
5.95	0.51	0.59	5.00	2.15	0.14	2.29
6.00	0.51	0.59	5.00	2.15	0.14	2.29
6.05	0.51	0.59	5.00	2.15	0.14	2.29
6.10	0.51	0.59	5.00	2.15	0.14	2.29
6.15	0.51	0.59	5.00	2.15	0.14	2.29
6.20	0.51	0.59	5.00	2.15	0.14	2.29

6.25	0.51	0.59	5.00	2.15	0.14	2.29
6.30	0.51	0.59	5.00	2.15	0.14	2.28
6.35	0.51	0.59	5.00	2.15	0.14	2.28
6.40	0.51	0.59	5.00	2.15	0.14	2.28
6.45	0.51	0.59	5.00	2.15	0.13	2.28
6.50	0.51	0.59	5.00	2.15	0.13	2.28
6.55	0.51	0.59	5.00	2.15	0.13	2.28
6.60	0.51	0.59	5.00	2.15	0.13	2.28
6.65	0.51	0.59	5.00	2.15	0.13	2.28
6.70	0.51	0.59	5.00	2.15	0.13	2.28
6.75	0.51	0.59	5.00	2.15	0.13	2.28
6.80	0.51	0.59	5.00	2.15	0.13	2.28
6.85	0.51	0.59	5.00	2.15	0.13	2.28
6.90	0.51	0.59	5.00	2.15	0.13	2.27
6.95	0.51	0.59	5.00	2.15	0.13	2.27
7.00	0.51	0.59	5.00	2.15	0.13	2.27
7.05	0.51	0.59	5.00	2.15	0.12	2.27
7.10	0.51	0.59	5.00	2.15	0.12	2.27
7.15	0.51	0.59	5.00	2.15	0.12	2.27
7.20	0.51	0.59	5.00	2.15	0.12	2.27
7.25	0.51	0.59	5.00	2.15	0.12	2.27
7.30	0.51	0.59	5.00	2.15	0.12	2.27
7.35	0.51	0.59	5.00	2.15	0.12	2.27
7.40	0.51	0.59	5.00	2.15	0.12	2.27
7.45	0.51	0.59	5.00	2.15	0.12	2.26
7.50	0.51	0.59	5.00	2.15	0.12	2.26
7.55	0.51	0.59	5.00	2.15	0.11	2.26
7.60	0.51	0.59	5.00	2.15	0.11	2.26
7.65	0.51	0.59	5.00	2.15	0.11	2.26
7.70	0.51	0.59	5.00	2.15	0.11	2.26
7.75	0.51	0.59	5.00	2.15	0.11	2.26
7.80	0.51	0.59	5.00	2.15	0.11	2.26
7.85	0.51	0.59	5.00	2.15	0.11	2.25
7.90	0.51	0.59	5.00	2.15	0.11	2.25
7.95	0.51	0.59	5.00	2.15	0.10	2.25
8.00	0.51	0.59	5.00	2.15	0.10	2.25
8.05	0.51	0.59	5.00	2.15	0.10	2.25
8.10	0.51	0.59	5.00	2.15	0.10	2.25
8.15	0.51	0.59	5.00	2.15	0.10	2.24
8.20	0.51	0.59	5.00	2.15	0.09	2.24
8.25	0.51	0.59	5.00	2.15	0.09	2.24
8.30	0.51	0.59	5.00	2.15	0.09	2.24
8.35	0.51	0.59	5.00	2.15	0.09	2.24
8.40	0.51	0.59	5.00	2.15	0.09	2.24
8.45	0.51	0.59	5.00	2.15	0.09	2.23
8.50	0.51	0.59	5.00	2.15	0.09	2.23
8.55	0.51	0.59	5.00	2.15	0.08	2.23
8.60	0.51	0.59	5.00	2.15	0.08	2.23
8.65	0.51	0.59	5.00	2.15	0.08	2.23
8.70	0.51	0.59	5.00	2.15	0.08	2.23

8.75	0.51	0.59	5.00	2.15	0.08	2.23
8.80	0.51	0.59	5.00	2.15	0.08	2.22
8.85	0.51	0.59	5.00	2.15	0.07	2.22
8.90	0.51	0.59	5.00	2.15	0.07	2.22
8.95	0.51	0.59	5.00	2.15	0.07	2.22
9.00	0.51	0.59	5.00	2.15	0.07	2.21
9.05	0.51	0.59	5.00	2.15	0.07	2.21
9.10	0.51	0.59	5.00	2.15	0.06	2.21
9.15	0.51	0.59	5.00	2.15	0.06	2.21
9.20	0.51	0.59	5.00	2.15	0.06	2.21
9.25	0.51	0.59	5.00	2.15	0.05	2.20
9.30	0.51	0.59	5.00	2.15	0.05	2.20
9.35	0.51	0.59	5.00	2.15	0.05	2.20
9.40	0.51	0.59	5.00	2.15	0.05	2.19
9.45	0.51	0.59	5.00	2.15	0.04	2.19
9.50	0.51	0.59	5.00	2.15	0.04	2.19
9.55	0.51	0.59	5.00	2.15	0.04	2.18
9.60	0.51	0.59	5.00	2.15	0.03	2.18
9.65	0.51	0.59	5.00	2.15	0.03	2.18
9.70	0.51	0.59	5.00	2.15	0.02	2.17
9.75	0.51	0.59	5.00	2.15	0.02	2.17
9.80	0.51	0.59	5.00	2.15	0.02	2.16
9.85	0.51	0.59	5.00	2.15	0.01	2.16
9.90	0.51	0.59	5.00	2.15	0.01	2.16
9.95	0.51	0.59	5.00	2.15	0.00	2.15
10.00	0.51	0.59	0.87*	2.15	0.00	2.15
10.05	0.51	0.59	0.86*	2.15	0.00	2.15
10.10	0.51	0.59	0.86*	2.15	0.00	2.15
10.15	0.51	0.59	0.86*	2.15	0.00	2.15
10.20	0.51	0.59	0.86*	2.15	0.00	2.15
10.25	0.51	0.60	0.85*	2.15	0.00	2.15
10.30	0.51	0.60	0.85*	2.15	0.00	2.15
10.35	0.51	0.60	0.85*	2.15	0.00	2.15
10.40	0.51	0.60	0.85*	2.15	0.00	2.15
10.45	0.51	0.60	0.85*	2.15	0.00	2.15
10.50	0.51	0.60	0.84*	2.15	0.00	2.15
10.55	0.51	0.60	0.84*	2.15	0.00	2.15
10.60	0.51	0.61	0.84*	2.15	0.00	2.15
10.65	0.51	0.61	0.84*	2.15	0.00	2.15
10.70	0.51	0.61	0.83*	2.15	0.00	2.15
10.75	0.51	0.61	0.83*	2.15	0.00	2.15
10.80	0.51	0.61	0.83*	2.15	0.00	2.15
10.85	0.51	0.61	0.83*	2.15	0.00	2.15
10.90	0.51	0.62	0.83*	2.15	0.00	2.15
10.95	0.51	0.62	0.82*	2.15	0.00	2.15
11.00	0.51	0.62	0.82*	2.15	0.00	2.15
11.05	0.51	0.62	0.82*	2.15	0.00	2.15
11.10	0.51	0.62	0.82*	2.15	0.00	2.15
11.15	0.51	0.62	0.81*	2.15	0.00	2.15
11.20	0.51	0.63	0.81*	2.15	0.00	2.15

11.25	0.51	0.63	0.81*	2.15	0.00	2.15
11.30	0.51	0.63	0.81*	2.15	0.00	2.15
11.35	0.51	0.63	0.81*	2.15	0.00	2.15
11.40	0.51	0.63	0.80*	2.15	0.00	2.15
11.45	0.51	0.63	0.80*	2.15	0.00	2.15
11.50	0.51	0.63	0.80*	2.15	0.00	2.15
11.55	0.51	0.64	0.80*	2.15	0.00	2.15
11.60	0.51	0.64	0.80*	2.15	0.00	2.15
11.65	0.51	0.64	0.80*	2.15	0.00	2.15
11.70	0.51	0.64	0.79*	2.15	0.00	2.15
11.75	0.51	0.64	0.79*	2.15	0.00	2.15
11.80	0.51	0.64	0.79*	2.15	0.00	2.15
11.85	0.51	0.64	0.79*	2.15	0.00	2.15
11.90	0.51	0.65	0.79*	2.15	0.00	2.15
11.95	0.51	0.65	0.78*	2.15	0.00	2.15
12.00	0.51	0.65	0.78*	2.15	0.00	2.15
12.05	0.51	0.65	0.78*	2.15	0.00	2.15
12.10	0.51	0.65	0.78*	2.15	0.00	2.15
12.15	0.51	0.65	0.78*	2.15	0.00	2.15
12.20	0.51	0.65	0.78*	2.15	0.00	2.15
12.25	0.51	0.66	0.77*	2.15	0.00	2.15
12.30	0.51	0.66	0.77*	2.15	0.00	2.15
12.35	0.51	0.66	0.77*	2.15	0.00	2.15
12.40	0.51	0.66	0.77*	2.15	0.00	2.15
12.45	0.51	0.66	0.77*	2.15	0.00	2.15
12.50	0.51	0.66	0.77*	2.15	0.00	2.15
12.55	0.51	0.66	0.77*	2.15	0.00	2.15
12.60	0.51	0.67	0.76*	2.15	0.00	2.15
12.65	0.51	0.67	0.76*	2.15	0.00	2.15
12.70	0.51	0.67	0.76*	2.15	0.00	2.15
12.75	0.51	0.67	0.76*	2.15	0.00	2.15
12.80	0.51	0.67	0.76*	2.15	0.00	2.15
12.85	0.51	0.67	0.76*	2.15	0.00	2.15
12.90	0.51	0.67	0.75*	2.15	0.00	2.15
12.95	0.51	0.68	0.75*	2.15	0.00	2.15
13.00	0.51	0.68	0.75*	2.15	0.00	2.15
13.05	0.51	0.68	0.75*	2.15	0.00	2.15
13.10	0.51	0.68	0.75*	2.15	0.00	2.15
13.15	0.51	0.68	0.75*	2.15	0.00	2.15
13.20	0.51	0.68	0.75*	2.15	0.00	2.15
13.25	0.51	0.68	0.74*	2.15	0.00	2.15
13.30	0.51	0.68	0.74*	2.15	0.00	2.15
13.35	0.51	0.69	0.74*	2.15	0.00	2.15
13.40	0.51	0.69	0.74*	2.15	0.00	2.15
13.45	0.51	0.69	0.74*	2.15	0.00	2.15
13.50	0.51	0.69	0.74*	2.15	0.00	2.15
13.55	0.51	0.69	0.74*	2.15	0.00	2.15
13.60	0.51	0.69	0.74*	2.15	0.00	2.15
13.65	0.51	0.69	0.73*	2.15	0.00	2.15
13.70	0.51	0.69	0.73*	2.15	0.00	2.15

13.75	0.51	0.70	0.73*	2.15	0.00	2.15
13.80	0.51	0.70	0.73*	2.15	0.00	2.15
13.85	0.51	0.70	0.73*	2.15	0.00	2.15
13.90	0.51	0.70	0.73*	2.15	0.00	2.15
13.95	0.51	0.70	0.73*	2.15	0.00	2.15
14.00	0.51	0.70	0.73*	2.15	0.00	2.15
14.05	0.51	0.70	0.72*	2.15	0.00	2.15
14.10	0.51	0.70	0.72*	2.15	0.00	2.15
14.15	0.51	0.70	0.72*	2.15	0.00	2.15
14.20	0.51	0.71	0.72*	2.15	0.00	2.15
14.25	0.51	0.71	0.72*	2.15	0.00	2.15
14.30	0.51	0.71	0.72*	2.15	0.00	2.15
14.35	0.51	0.71	0.72*	2.15	0.00	2.15
14.40	0.51	0.71	0.72*	2.15	0.00	2.15
14.45	0.51	0.71	0.71*	2.15	0.00	2.15
14.50	0.51	0.71	0.71*	2.15	0.00	2.15
14.55	0.51	0.71	0.71*	2.15	0.00	2.15
14.60	0.51	0.71	0.71*	2.15	0.00	2.15
14.65	0.51	0.72	0.71*	2.15	0.00	2.15
14.70	0.51	0.72	0.71*	2.15	0.00	2.15
14.75	0.51	0.72	0.71*	2.15	0.00	2.15
14.80	0.51	0.72	0.71*	2.15	0.00	2.15
14.85	0.51	0.72	0.71*	2.15	0.00	2.15
14.90	0.51	0.72	0.70*	2.15	0.00	2.15
14.95	0.51	0.72	0.70*	2.15	0.00	2.15
15.00	2.00	0.72	5.00	2.15	0.00	2.15
15.05	2.00	0.72	5.00	2.15	0.00	2.15
15.10	2.00	0.73	5.00	2.15	0.00	2.15
15.15	2.00	0.73	5.00	2.15	0.00	2.15
15.20	2.00	0.73	5.00	2.15	0.00	2.15
15.25	2.00	0.73	5.00	2.15	0.00	2.15
15.30	2.00	0.73	5.00	2.15	0.00	2.15
15.35	2.00	0.73	5.00	2.15	0.00	2.15
15.40	2.00	0.73	5.00	2.15	0.00	2.15
15.45	2.00	0.73	5.00	2.15	0.00	2.15
15.50	2.00	0.73	5.00	2.15	0.00	2.15
15.55	2.00	0.73	5.00	2.15	0.00	2.15
15.60	2.00	0.74	5.00	2.15	0.00	2.15
15.65	2.00	0.74	5.00	2.15	0.00	2.15
15.70	2.00	0.74	5.00	2.15	0.00	2.15
15.75	2.00	0.74	5.00	2.15	0.00	2.15
15.80	2.00	0.74	5.00	2.15	0.00	2.15
15.85	2.00	0.74	5.00	2.15	0.00	2.15
15.90	2.00	0.74	5.00	2.15	0.00	2.15
15.95	2.00	0.74	5.00	2.15	0.00	2.15
16.00	2.00	0.74	5.00	2.15	0.00	2.15
16.05	2.00	0.74	5.00	2.15	0.00	2.15
16.10	2.00	0.75	5.00	2.15	0.00	2.15
16.15	2.00	0.75	5.00	2.15	0.00	2.15
16.20	2.00	0.75	5.00	2.15	0.00	2.15

16.25	2.00	0.75	5.00	2.15	0.00	2.15
16.30	2.00	0.75	5.00	2.15	0.00	2.15
16.35	2.00	0.75	5.00	2.15	0.00	2.15
16.40	2.00	0.75	5.00	2.15	0.00	2.15
16.45	2.00	0.75	5.00	2.15	0.00	2.15
16.50	2.00	0.75	5.00	2.15	0.00	2.15
16.55	2.00	0.75	5.00	2.15	0.00	2.15
16.60	2.00	0.75	5.00	2.15	0.00	2.15
16.65	2.00	0.76	5.00	2.15	0.00	2.15
16.70	2.00	0.76	5.00	2.15	0.00	2.15
16.75	2.00	0.76	5.00	2.15	0.00	2.15
16.80	2.00	0.76	5.00	2.15	0.00	2.15
16.85	2.00	0.76	5.00	2.15	0.00	2.15
16.90	2.00	0.76	5.00	2.15	0.00	2.15
16.95	2.00	0.76	5.00	2.15	0.00	2.15
17.00	2.00	0.76	5.00	2.15	0.00	2.15
17.05	2.00	0.76	5.00	2.15	0.00	2.15
17.10	2.00	0.76	5.00	2.15	0.00	2.15
17.15	2.00	0.76	5.00	2.15	0.00	2.15
17.20	2.00	0.77	5.00	2.15	0.00	2.15
17.25	2.00	0.77	5.00	2.15	0.00	2.15
17.30	2.00	0.77	5.00	2.15	0.00	2.15
17.35	2.00	0.77	5.00	2.15	0.00	2.15
17.40	2.00	0.77	5.00	2.15	0.00	2.15
17.45	2.00	0.77	5.00	2.15	0.00	2.15
17.50	2.00	0.77	5.00	2.15	0.00	2.15
17.55	2.00	0.77	5.00	2.15	0.00	2.15
17.60	2.00	0.77	5.00	2.15	0.00	2.15
17.65	2.00	0.77	5.00	2.15	0.00	2.15
17.70	2.00	0.77	5.00	2.15	0.00	2.15
17.75	2.00	0.77	5.00	2.15	0.00	2.15
17.80	2.00	0.78	5.00	2.15	0.00	2.15
17.85	2.00	0.78	5.00	2.15	0.00	2.15
17.90	2.00	0.78	5.00	2.15	0.00	2.15
17.95	2.00	0.78	5.00	2.15	0.00	2.15
18.00	2.00	0.78	5.00	2.15	0.00	2.15
18.05	2.00	0.78	5.00	2.15	0.00	2.15
18.10	2.00	0.78	5.00	2.15	0.00	2.15
18.15	2.00	0.78	5.00	2.15	0.00	2.15
18.20	2.00	0.78	5.00	2.15	0.00	2.15
18.25	2.00	0.78	5.00	2.15	0.00	2.15
18.30	2.00	0.78	5.00	2.15	0.00	2.15
18.35	2.00	0.78	5.00	2.15	0.00	2.15
18.40	2.00	0.79	5.00	2.15	0.00	2.15
18.45	2.00	0.79	5.00	2.15	0.00	2.15
18.50	2.00	0.79	5.00	2.15	0.00	2.15
18.55	2.00	0.79	5.00	2.15	0.00	2.15
18.60	2.00	0.79	5.00	2.15	0.00	2.15
18.65	2.00	0.79	5.00	2.15	0.00	2.15
18.70	2.00	0.79	5.00	2.15	0.00	2.15

18.75	2.00	0.79	5.00	2.15	0.00	2.15
18.80	2.00	0.79	5.00	2.15	0.00	2.15
18.85	2.00	0.79	5.00	2.15	0.00	2.15
18.90	2.00	0.79	5.00	2.15	0.00	2.15
18.95	2.00	0.79	5.00	2.15	0.00	2.15
19.00	2.00	0.79	5.00	2.15	0.00	2.15
19.05	2.00	0.80	5.00	2.15	0.00	2.15
19.10	2.00	0.80	5.00	2.15	0.00	2.15
19.15	2.00	0.80	5.00	2.15	0.00	2.15
19.20	2.00	0.80	5.00	2.15	0.00	2.15
19.25	2.00	0.80	5.00	2.15	0.00	2.15
19.30	2.00	0.80	5.00	2.15	0.00	2.15
19.35	2.00	0.80	5.00	2.15	0.00	2.15
19.40	2.00	0.80	5.00	2.15	0.00	2.15
19.45	2.00	0.80	5.00	2.15	0.00	2.15
19.50	2.00	0.80	5.00	2.15	0.00	2.15
19.55	2.00	0.80	5.00	2.15	0.00	2.15
19.60	2.00	0.80	5.00	2.15	0.00	2.15
19.65	2.00	0.80	5.00	2.15	0.00	2.15
19.70	2.00	0.80	5.00	2.15	0.00	2.15
19.75	2.00	0.81	5.00	2.15	0.00	2.15
19.80	2.00	0.81	5.00	2.15	0.00	2.15
19.85	2.00	0.81	5.00	2.15	0.00	2.15
19.90	2.00	0.81	5.00	2.15	0.00	2.15
19.95	2.00	0.81	5.00	2.15	0.00	2.15
20.00	2.00	0.81	5.00	2.15	0.00	2.15
20.05	2.00	0.81	5.00	2.15	0.00	2.15
20.10	2.00	0.81	5.00	2.15	0.00	2.15
20.15	2.00	0.81	5.00	2.15	0.00	2.15
20.20	2.00	0.81	5.00	2.15	0.00	2.15
20.25	2.00	0.81	5.00	2.15	0.00	2.15
20.30	2.00	0.81	5.00	2.15	0.00	2.15
20.35	2.00	0.81	5.00	2.15	0.00	2.15
20.40	2.00	0.81	5.00	2.15	0.00	2.15
20.45	2.00	0.81	5.00	2.15	0.00	2.15
20.50	2.00	0.82	5.00	2.15	0.00	2.15
20.55	2.00	0.82	5.00	2.15	0.00	2.15
20.60	2.00	0.82	5.00	2.15	0.00	2.15
20.65	2.00	0.82	5.00	2.15	0.00	2.15
20.70	2.00	0.82	5.00	2.15	0.00	2.15
20.75	2.00	0.82	5.00	2.15	0.00	2.15
20.80	2.00	0.82	5.00	2.15	0.00	2.15
20.85	2.00	0.82	5.00	2.15	0.00	2.15
20.90	2.00	0.82	5.00	2.15	0.00	2.15
20.95	2.00	0.82	5.00	2.15	0.00	2.15
21.00	2.00	0.82	5.00	2.15	0.00	2.15
21.05	2.00	0.82	5.00	2.15	0.00	2.15
21.10	2.00	0.82	5.00	2.15	0.00	2.15
21.15	2.00	0.82	5.00	2.15	0.00	2.15
21.20	2.00	0.82	5.00	2.15	0.00	2.15

21.25	2.00	0.82	5.00	2.15	0.00	2.15
21.30	2.00	0.83	5.00	2.15	0.00	2.15
21.35	2.00	0.83	5.00	2.15	0.00	2.15
21.40	2.00	0.83	5.00	2.15	0.00	2.15
21.45	2.00	0.83	5.00	2.15	0.00	2.15
21.50	2.00	0.83	5.00	2.15	0.00	2.15
21.55	2.00	0.83	5.00	2.15	0.00	2.15
21.60	2.00	0.83	5.00	2.15	0.00	2.15
21.65	2.00	0.83	5.00	2.15	0.00	2.15
21.70	2.00	0.83	5.00	2.15	0.00	2.15
21.75	2.00	0.83	5.00	2.15	0.00	2.15
21.80	2.00	0.83	5.00	2.15	0.00	2.15
21.85	2.00	0.83	5.00	2.15	0.00	2.15
21.90	2.00	0.83	5.00	2.15	0.00	2.15
21.95	2.00	0.83	5.00	2.15	0.00	2.15
22.00	2.00	0.83	5.00	2.15	0.00	2.15
22.05	2.00	0.83	5.00	2.15	0.00	2.15
22.10	2.00	0.83	5.00	2.15	0.00	2.15
22.15	2.00	0.84	5.00	2.15	0.00	2.15
22.20	2.00	0.84	5.00	2.15	0.00	2.15
22.25	2.00	0.84	5.00	2.15	0.00	2.15
22.30	2.00	0.84	5.00	2.15	0.00	2.15
22.35	2.00	0.84	5.00	2.15	0.00	2.15
22.40	2.00	0.84	5.00	2.15	0.00	2.15
22.45	2.00	0.84	5.00	2.15	0.00	2.15
22.50	2.00	0.84	5.00	2.15	0.00	2.15
22.55	2.00	0.84	5.00	2.15	0.00	2.15
22.60	2.00	0.84	5.00	2.15	0.00	2.15
22.65	2.00	0.84	5.00	2.15	0.00	2.15
22.70	2.00	0.84	5.00	2.15	0.00	2.15
22.75	2.00	0.84	5.00	2.15	0.00	2.15
22.80	2.00	0.84	5.00	2.15	0.00	2.15
22.85	2.00	0.84	5.00	2.15	0.00	2.15
22.90	2.00	0.84	5.00	2.15	0.00	2.15
22.95	2.00	0.84	5.00	2.15	0.00	2.15
23.00	2.00	0.84	5.00	2.15	0.00	2.15
23.05	2.00	0.84	5.00	2.15	0.00	2.15
23.10	2.00	0.85	5.00	2.15	0.00	2.15
23.15	2.00	0.85	5.00	2.15	0.00	2.15
23.20	2.00	0.85	5.00	2.15	0.00	2.15
23.25	2.00	0.85	5.00	2.15	0.00	2.15
23.30	2.00	0.85	5.00	2.15	0.00	2.15
23.35	2.00	0.85	5.00	2.15	0.00	2.15
23.40	2.00	0.85	5.00	2.15	0.00	2.15
23.45	2.00	0.85	5.00	2.15	0.00	2.15
23.50	2.00	0.85	5.00	2.15	0.00	2.15
23.55	2.00	0.85	5.00	2.15	0.00	2.15
23.60	2.00	0.85	5.00	2.15	0.00	2.15
23.65	2.00	0.85	5.00	2.15	0.00	2.15
23.70	2.00	0.85	5.00	2.15	0.00	2.15

23.75	2.00	0.85	5.00	2.15	0.00	2.15
23.80	2.00	0.85	5.00	2.15	0.00	2.15
23.85	2.00	0.85	5.00	2.15	0.00	2.15
23.90	2.00	0.85	5.00	2.15	0.00	2.15
23.95	2.00	0.85	5.00	2.15	0.00	2.15
24.00	2.00	0.85	5.00	2.15	0.00	2.15
24.05	2.00	0.85	5.00	2.15	0.00	2.15
24.10	2.00	0.85	5.00	2.15	0.00	2.15
24.15	2.00	0.85	5.00	2.15	0.00	2.15
24.20	2.00	0.86	5.00	2.15	0.00	2.15
24.25	2.00	0.86	5.00	2.15	0.00	2.15
24.30	2.00	0.86	5.00	2.15	0.00	2.15
24.35	2.00	0.86	5.00	2.15	0.00	2.15
24.40	2.00	0.86	5.00	2.15	0.00	2.15
24.45	2.00	0.86	5.00	2.15	0.00	2.15
24.50	2.00	0.86	5.00	2.15	0.00	2.15
24.55	2.00	0.86	5.00	2.15	0.00	2.15
24.60	2.00	0.86	5.00	2.15	0.00	2.15
24.65	2.00	0.86	5.00	2.15	0.00	2.15
24.70	2.00	0.86	5.00	2.15	0.00	2.15
24.75	2.00	0.86	5.00	2.15	0.00	2.15
24.80	2.00	0.86	5.00	2.15	0.00	2.15
24.85	2.00	0.86	5.00	2.15	0.00	2.15
24.90	2.00	0.86	5.00	2.15	0.00	2.15
24.95	2.00	0.86	5.00	2.15	0.00	2.15
25.00	2.00	0.86	5.00	2.15	0.00	2.15
25.05	0.32	0.86	0.37*	2.15	0.00	2.15
25.10	0.32	0.86	0.37*	2.15	0.00	2.15
25.15	0.32	0.86	0.37*	2.14	0.00	2.14
25.20	0.33	0.86	0.38*	2.13	0.00	2.13
25.25	0.33	0.86	0.38*	2.12	0.00	2.12
25.30	0.33	0.86	0.38*	2.11	0.00	2.11
25.35	0.34	0.86	0.39*	2.10	0.00	2.10
25.40	0.34	0.87	0.39*	2.09	0.00	2.09
25.45	0.34	0.87	0.40*	2.08	0.00	2.08
25.50	0.35	0.87	0.40*	2.07	0.00	2.07
25.55	0.35	0.87	0.40*	2.06	0.00	2.06
25.60	0.35	0.87	0.41*	2.05	0.00	2.05
25.65	0.36	0.87	0.41*	2.05	0.00	2.05
25.70	0.36	0.87	0.42*	2.04	0.00	2.04
25.75	0.37	0.87	0.42*	2.03	0.00	2.03
25.80	0.37	0.87	0.43*	2.02	0.00	2.02
25.85	0.38	0.87	0.44*	2.01	0.00	2.01
25.90	0.38	0.87	0.44*	2.00	0.00	2.00
25.95	0.39	0.87	0.45*	1.99	0.00	1.99
26.00	0.40	0.87	0.46*	1.99	0.00	1.99
26.05	0.41	0.87	0.47*	1.98	0.00	1.98
26.10	0.42	0.87	0.48*	1.97	0.00	1.97
26.15	0.43	0.87	0.50*	1.96	0.00	1.96
26.20	0.45	0.87	0.52*	1.95	0.00	1.95

26.25	0.48	0.87	0.55*	1.95	0.00	1.95
26.30	0.51	0.87	0.58*	1.94	0.00	1.94
26.35	0.51	0.87	0.58*	1.93	0.00	1.93
26.40	0.51	0.87	0.58*	1.93	0.00	1.93
26.45	0.51	0.87	0.58*	1.92	0.00	1.92
26.50	0.51	0.87	0.58*	1.91	0.00	1.91
26.55	0.51	0.87	0.58*	1.91	0.00	1.91
26.60	0.51	0.87	0.58*	1.90	0.00	1.90
26.65	0.51	0.87	0.58*	1.90	0.00	1.90
26.70	0.51	0.87	0.58*	1.89	0.00	1.89
26.75	0.51	0.88	0.58*	1.89	0.00	1.89
26.80	0.51	0.88	0.58*	1.88	0.00	1.88
26.85	0.51	0.88	0.58*	1.88	0.00	1.88
26.90	0.51	0.88	0.58*	1.87	0.00	1.87
26.95	0.51	0.88	0.58*	1.87	0.00	1.87
27.00	0.51	0.88	0.58*	1.87	0.00	1.87
27.05	0.51	0.88	0.58*	1.86	0.00	1.86
27.10	0.51	0.88	0.58*	1.86	0.00	1.86
27.15	0.51	0.88	0.58*	1.86	0.00	1.86
27.20	0.51	0.88	0.58*	1.86	0.00	1.86
27.25	0.51	0.88	0.58*	1.85	0.00	1.85
27.30	0.51	0.88	0.58*	1.85	0.00	1.85
27.35	0.51	0.88	0.58*	1.85	0.00	1.85
27.40	0.51	0.88	0.58*	1.85	0.00	1.85
27.45	0.51	0.88	0.58*	1.85	0.00	1.85
27.50	0.51	0.88	0.58*	1.84	0.00	1.84
27.55	0.51	0.88	0.58*	1.84	0.00	1.84
27.60	0.51	0.88	0.58*	1.84	0.00	1.84
27.65	0.51	0.88	0.58*	1.84	0.00	1.84
27.70	0.51	0.88	0.58*	1.84	0.00	1.84
27.75	0.51	0.88	0.58*	1.84	0.00	1.84
27.80	0.51	0.88	0.58*	1.84	0.00	1.84
27.85	0.51	0.88	0.58*	1.84	0.00	1.84
27.90	0.51	0.88	0.58*	1.84	0.00	1.84
27.95	0.51	0.88	0.58*	1.84	0.00	1.84
28.00	0.51	0.88	0.58*	1.84	0.00	1.84
28.05	0.51	0.88	0.58*	1.84	0.00	1.84
28.10	0.51	0.88	0.58*	1.84	0.00	1.84
28.15	0.51	0.88	0.58*	1.84	0.00	1.84
28.20	0.51	0.88	0.57*	1.84	0.00	1.84
28.25	0.51	0.88	0.57*	1.84	0.00	1.84
28.30	0.51	0.89	0.57*	1.84	0.00	1.84
28.35	0.51	0.89	0.57*	1.84	0.00	1.84
28.40	0.51	0.89	0.57*	1.84	0.00	1.84
28.45	0.51	0.89	0.57*	1.84	0.00	1.84
28.50	0.51	0.89	0.57*	1.84	0.00	1.84
28.55	0.51	0.89	0.57*	1.84	0.00	1.84
28.60	0.51	0.89	0.57*	1.84	0.00	1.84
28.65	0.51	0.89	0.57*	1.84	0.00	1.84
28.70	0.51	0.89	0.57*	1.84	0.00	1.84

28.75	0.51	0.89	0.57*	1.84	0.00	1.84
28.80	0.51	0.89	0.57*	1.84	0.00	1.84
28.85	0.51	0.89	0.57*	1.84	0.00	1.84
28.90	0.51	0.89	0.57*	1.84	0.00	1.84
28.95	0.51	0.89	0.57*	1.84	0.00	1.84
29.00	0.51	0.89	0.57*	1.84	0.00	1.84
29.05	0.51	0.89	0.57*	1.84	0.00	1.84
29.10	0.51	0.89	0.57*	1.84	0.00	1.84
29.15	0.51	0.89	0.57*	1.84	0.00	1.84
29.20	0.51	0.89	0.57*	1.84	0.00	1.84
29.25	0.51	0.89	0.57*	1.84	0.00	1.84
29.30	0.51	0.89	0.57*	1.84	0.00	1.84
29.35	0.51	0.89	0.57*	1.84	0.00	1.84
29.40	0.51	0.89	0.57*	1.84	0.00	1.84
29.45	0.51	0.89	0.57*	1.84	0.00	1.84
29.50	0.51	0.89	0.57*	1.84	0.00	1.84
29.55	0.51	0.89	0.57*	1.84	0.00	1.84
29.60	0.51	0.89	0.57*	1.84	0.00	1.84
29.65	0.51	0.89	0.57*	1.84	0.00	1.84
29.70	0.51	0.89	0.57*	1.84	0.00	1.84
29.75	0.51	0.89	0.57*	1.84	0.00	1.84
29.80	0.51	0.89	0.57*	1.84	0.00	1.84
29.85	0.51	0.89	0.57*	1.84	0.00	1.84
29.90	0.51	0.89	0.57*	1.84	0.00	1.84
29.95	0.51	0.89	0.57*	1.84	0.00	1.84
30.00	0.51	0.89	0.57*	1.84	0.00	1.84
30.05	0.51	0.89	0.57*	1.84	0.00	1.84
30.10	0.51	0.89	0.57*	1.84	0.00	1.84
30.15	0.51	0.89	0.57*	1.84	0.00	1.84
30.20	0.51	0.89	0.57*	1.84	0.00	1.84
30.25	0.51	0.89	0.57*	1.84	0.00	1.84
30.30	0.51	0.89	0.57*	1.84	0.00	1.84
30.35	0.51	0.89	0.57*	1.84	0.00	1.84
30.40	0.51	0.89	0.57*	1.84	0.00	1.84
30.45	0.51	0.89	0.57*	1.84	0.00	1.84
30.50	0.51	0.89	0.57*	1.84	0.00	1.84
30.55	0.51	0.89	0.57*	1.84	0.00	1.84
30.60	0.51	0.89	0.57*	1.84	0.00	1.84
30.65	0.51	0.89	0.57*	1.84	0.00	1.84
30.70	0.51	0.89	0.57*	1.84	0.00	1.84
30.75	0.51	0.89	0.57*	1.84	0.00	1.84
30.80	0.51	0.89	0.57*	1.84	0.00	1.84
30.85	0.51	0.89	0.57*	1.84	0.00	1.84
30.90	0.51	0.89	0.57*	1.84	0.00	1.84
30.95	0.51	0.89	0.57*	1.84	0.00	1.84
31.00	0.51	0.89	0.57*	1.84	0.00	1.84
31.05	0.51	0.89	0.57*	1.84	0.00	1.84
31.10	0.51	0.89	0.57*	1.84	0.00	1.84
31.15	0.51	0.89	0.57*	1.84	0.00	1.84
31.20	0.51	0.89	0.57*	1.84	0.00	1.84

31.25	0.51	0.89	0.57*	1.84	0.00	1.84
31.30	0.51	0.89	0.57*	1.84	0.00	1.84
31.35	0.51	0.89	0.57*	1.84	0.00	1.84
31.40	0.51	0.89	0.57*	1.84	0.00	1.84
31.45	0.51	0.89	0.57*	1.84	0.00	1.84
31.50	0.51	0.89	0.57*	1.84	0.00	1.84
31.55	0.51	0.89	0.57*	1.84	0.00	1.84
31.60	0.51	0.89	0.57*	1.84	0.00	1.84
31.65	0.51	0.89	0.57*	1.84	0.00	1.84
31.70	0.51	0.89	0.57*	1.84	0.00	1.84
31.75	0.51	0.89	0.57*	1.84	0.00	1.84
31.80	0.51	0.89	0.57*	1.84	0.00	1.84
31.85	0.51	0.89	0.57*	1.84	0.00	1.84
31.90	0.51	0.89	0.57*	1.84	0.00	1.84
31.95	0.51	0.89	0.57*	1.84	0.00	1.84
32.00	0.51	0.89	0.57*	1.84	0.00	1.84
32.05	0.51	0.89	0.57*	1.84	0.00	1.84
32.10	0.51	0.89	0.57*	1.84	0.00	1.84
32.15	0.51	0.89	0.57*	1.84	0.00	1.84
32.20	0.51	0.89	0.57*	1.84	0.00	1.84
32.25	0.51	0.89	0.57*	1.84	0.00	1.84
32.30	0.51	0.89	0.57*	1.84	0.00	1.84
32.35	0.51	0.89	0.57*	1.84	0.00	1.84
32.40	0.51	0.89	0.57*	1.84	0.00	1.84
32.45	0.51	0.89	0.57*	1.84	0.00	1.84
32.50	0.51	0.89	0.57*	1.84	0.00	1.84
32.55	0.51	0.89	0.57*	1.84	0.00	1.84
32.60	0.51	0.89	0.57*	1.84	0.00	1.84
32.65	0.51	0.89	0.57*	1.84	0.00	1.84
32.70	0.51	0.89	0.57*	1.83	0.00	1.83
32.75	0.51	0.89	0.57*	1.83	0.00	1.83
32.80	0.51	0.89	0.57*	1.83	0.00	1.83
32.85	0.51	0.89	0.57*	1.83	0.00	1.83
32.90	0.51	0.89	0.57*	1.83	0.00	1.83
32.95	0.51	0.89	0.57*	1.83	0.00	1.83
33.00	0.51	0.89	0.57*	1.82	0.00	1.82
33.05	0.51	0.89	0.57*	1.82	0.00	1.82
33.10	0.51	0.89	0.57*	1.82	0.00	1.82
33.15	0.51	0.89	0.57*	1.82	0.00	1.82
33.20	0.51	0.89	0.57*	1.81	0.00	1.81
33.25	0.51	0.89	0.57*	1.81	0.00	1.81
33.30	0.50	0.89	0.57*	1.81	0.00	1.81
33.35	0.50	0.89	0.57*	1.80	0.00	1.80
33.40	0.50	0.89	0.57*	1.80	0.00	1.80
33.45	0.50	0.89	0.57*	1.80	0.00	1.80
33.50	0.50	0.89	0.57*	1.79	0.00	1.79
33.55	0.50	0.89	0.57*	1.79	0.00	1.79
33.60	0.50	0.89	0.57*	1.79	0.00	1.79
33.65	0.50	0.89	0.57*	1.78	0.00	1.78
33.70	0.50	0.89	0.57*	1.78	0.00	1.78

33.75	0.50	0.89	0.57*	1.77	0.00	1.77
33.80	0.50	0.89	0.57*	1.77	0.00	1.77
33.85	0.50	0.89	0.57*	1.77	0.00	1.77
33.90	0.50	0.89	0.57*	1.76	0.00	1.76
33.95	0.50	0.89	0.57*	1.76	0.00	1.76
34.00	0.50	0.89	0.57*	1.75	0.00	1.75
34.05	0.50	0.89	0.57*	1.75	0.00	1.75
34.10	0.50	0.89	0.57*	1.74	0.00	1.74
34.15	0.50	0.89	0.57*	1.74	0.00	1.74
34.20	0.50	0.89	0.57*	1.73	0.00	1.73
34.25	0.50	0.89	0.57*	1.73	0.00	1.73
34.30	0.50	0.89	0.57*	1.72	0.00	1.72
34.35	0.50	0.89	0.57*	1.72	0.00	1.72
34.40	0.50	0.89	0.57*	1.71	0.00	1.71
34.45	0.50	0.89	0.57*	1.70	0.00	1.70
34.50	0.50	0.89	0.57*	1.70	0.00	1.70
34.55	0.50	0.89	0.57*	1.69	0.00	1.69
34.60	0.50	0.89	0.57*	1.69	0.00	1.69
34.65	0.50	0.89	0.57*	1.68	0.00	1.68
34.70	0.50	0.88	0.57*	1.67	0.00	1.67
34.75	0.50	0.88	0.57*	1.67	0.00	1.67
34.80	0.50	0.88	0.57*	1.66	0.00	1.66
34.85	0.49	0.88	0.55*	1.65	0.00	1.65
34.90	0.47	0.88	0.53*	1.65	0.00	1.65
34.95	0.45	0.88	0.51*	1.64	0.00	1.64
35.00	0.44	0.88	0.50*	1.63	0.00	1.63
35.05	0.45	0.88	0.51*	1.62	0.00	1.62
35.10	0.47	0.88	0.53*	1.62	0.00	1.62
35.15	0.49	0.88	0.55*	1.61	0.00	1.61
35.20	0.50	0.88	0.57*	1.60	0.00	1.60
35.25	0.50	0.88	0.57*	1.60	0.00	1.60
35.30	0.50	0.88	0.57*	1.59	0.00	1.59
35.35	0.50	0.88	0.57*	1.58	0.00	1.58
35.40	0.50	0.88	0.57*	1.58	0.00	1.58
35.45	0.50	0.88	0.57*	1.57	0.00	1.57
35.50	0.50	0.88	0.57*	1.56	0.00	1.56
35.55	0.50	0.88	0.57*	1.56	0.00	1.56
35.60	0.50	0.88	0.57*	1.55	0.00	1.55
35.65	0.50	0.88	0.57*	1.55	0.00	1.55
35.70	0.50	0.88	0.57*	1.54	0.00	1.54
35.75	0.50	0.88	0.57*	1.53	0.00	1.53
35.80	0.50	0.88	0.57*	1.53	0.00	1.53
35.85	0.50	0.88	0.57*	1.52	0.00	1.52
35.90	0.50	0.88	0.57*	1.52	0.00	1.52
35.95	0.50	0.88	0.57*	1.51	0.00	1.51
36.00	0.50	0.88	0.57*	1.51	0.00	1.51
36.05	0.50	0.88	0.57*	1.50	0.00	1.50
36.10	0.50	0.88	0.57*	1.50	0.00	1.50
36.15	0.50	0.88	0.57*	1.50	0.00	1.50
36.20	0.50	0.88	0.57*	1.49	0.00	1.49

36.25	0.50	0.88	0.57*	1.49	0.00	1.49
36.30	0.50	0.88	0.57*	1.48	0.00	1.48
36.35	0.50	0.88	0.57*	1.48	0.00	1.48
36.40	0.50	0.88	0.57*	1.47	0.00	1.47
36.45	0.50	0.88	0.57*	1.47	0.00	1.47
36.50	0.50	0.88	0.57*	1.47	0.00	1.47
36.55	0.50	0.88	0.57*	1.46	0.00	1.46
36.60	0.50	0.88	0.57*	1.46	0.00	1.46
36.65	0.50	0.88	0.57*	1.46	0.00	1.46
36.70	0.50	0.88	0.57*	1.45	0.00	1.45
36.75	0.50	0.88	0.57*	1.45	0.00	1.45
36.80	0.50	0.88	0.57*	1.45	0.00	1.45
36.85	0.50	0.88	0.57*	1.44	0.00	1.44
36.90	0.50	0.88	0.57*	1.44	0.00	1.44
36.95	0.50	0.88	0.57*	1.44	0.00	1.44
37.00	0.50	0.88	0.57*	1.44	0.00	1.44
37.05	0.50	0.88	0.57*	1.44	0.00	1.44
37.10	0.50	0.88	0.57*	1.43	0.00	1.43
37.15	0.50	0.88	0.57*	1.43	0.00	1.43
37.20	0.50	0.88	0.57*	1.43	0.00	1.43
37.25	0.50	0.87	0.57*	1.43	0.00	1.43
37.30	0.50	0.87	0.57*	1.43	0.00	1.43
37.35	0.50	0.87	0.57*	1.42	0.00	1.42
37.40	0.50	0.87	0.57*	1.42	0.00	1.42
37.45	0.50	0.87	0.57*	1.42	0.00	1.42
37.50	0.50	0.87	0.57*	1.42	0.00	1.42
37.55	0.50	0.87	0.57*	1.42	0.00	1.42
37.60	0.50	0.87	0.57*	1.42	0.00	1.42
37.65	0.50	0.87	0.57*	1.42	0.00	1.42
37.70	0.50	0.87	0.57*	1.42	0.00	1.42
37.75	0.50	0.87	0.57*	1.42	0.00	1.42
37.80	0.50	0.87	0.57*	1.42	0.00	1.42
37.85	0.50	0.87	0.57*	1.42	0.00	1.42
37.90	0.50	0.87	0.57*	1.42	0.00	1.42
37.95	0.50	0.87	0.57*	1.42	0.00	1.42
38.00	0.50	0.87	0.57*	1.42	0.00	1.42
38.05	0.50	0.87	0.57*	1.42	0.00	1.42
38.10	0.50	0.87	0.57*	1.42	0.00	1.42
38.15	0.50	0.87	0.57*	1.42	0.00	1.42
38.20	0.50	0.87	0.57*	1.42	0.00	1.42
38.25	0.50	0.87	0.57*	1.42	0.00	1.42
38.30	0.50	0.87	0.57*	1.42	0.00	1.42
38.35	0.50	0.87	0.57*	1.42	0.00	1.42
38.40	0.50	0.87	0.57*	1.42	0.00	1.42
38.45	0.50	0.87	0.57*	1.42	0.00	1.42
38.50	0.50	0.87	0.57*	1.42	0.00	1.42
38.55	0.50	0.87	0.57*	1.42	0.00	1.42
38.60	0.50	0.87	0.57*	1.42	0.00	1.42
38.65	0.50	0.87	0.57*	1.42	0.00	1.42
38.70	0.50	0.87	0.57*	1.42	0.00	1.42

38.75	0.50	0.87	0.57*	1.42	0.00	1.42
38.80	0.50	0.87	0.57*	1.42	0.00	1.42
38.85	0.50	0.87	0.57*	1.42	0.00	1.42
38.90	0.50	0.87	0.57*	1.42	0.00	1.42
38.95	0.50	0.87	0.57*	1.42	0.00	1.42
39.00	0.50	0.87	0.57*	1.42	0.00	1.42
39.05	0.50	0.87	0.57*	1.42	0.00	1.42
39.10	0.50	0.87	0.57*	1.42	0.00	1.42
39.15	0.50	0.87	0.57*	1.42	0.00	1.42
39.20	0.50	0.87	0.57*	1.42	0.00	1.42
39.25	0.50	0.87	0.57*	1.42	0.00	1.42
39.30	0.50	0.87	0.57*	1.42	0.00	1.42
39.35	0.50	0.87	0.57*	1.42	0.00	1.42
39.40	0.50	0.86	0.57*	1.42	0.00	1.42
39.45	0.50	0.86	0.57*	1.42	0.00	1.42
39.50	0.50	0.86	0.57*	1.42	0.00	1.42
39.55	0.50	0.86	0.57*	1.42	0.00	1.42
39.60	0.50	0.86	0.57*	1.42	0.00	1.42
39.65	0.50	0.86	0.57*	1.42	0.00	1.42
39.70	0.50	0.86	0.57*	1.42	0.00	1.42
39.75	0.50	0.86	0.57*	1.42	0.00	1.42
39.80	0.49	0.86	0.57*	1.42	0.00	1.42
39.85	0.49	0.86	0.57*	1.42	0.00	1.42
39.90	0.49	0.86	0.57*	1.42	0.00	1.42
39.95	0.49	0.86	0.57*	1.42	0.00	1.42
40.00	0.49	0.86	0.57*	1.42	0.00	1.42
40.05	0.49	0.86	0.57*	1.42	0.00	1.42
40.10	0.49	0.86	0.57*	1.42	0.00	1.42
40.15	0.49	0.86	0.57*	1.42	0.00	1.42
40.20	0.49	0.86	0.57*	1.42	0.00	1.42
40.25	0.49	0.86	0.57*	1.42	0.00	1.42
40.30	0.49	0.86	0.57*	1.42	0.00	1.42
40.35	0.49	0.86	0.57*	1.42	0.00	1.42
40.40	0.49	0.86	0.57*	1.42	0.00	1.42
40.45	0.49	0.86	0.57*	1.42	0.00	1.42
40.50	0.49	0.86	0.57*	1.42	0.00	1.42
40.55	0.49	0.86	0.57*	1.42	0.00	1.42
40.60	0.49	0.86	0.57*	1.42	0.00	1.42
40.65	0.49	0.86	0.57*	1.42	0.00	1.42
40.70	0.49	0.86	0.57*	1.42	0.00	1.42
40.75	0.49	0.86	0.58*	1.42	0.00	1.42
40.80	0.49	0.86	0.58*	1.42	0.00	1.42
40.85	0.49	0.86	0.58*	1.42	0.00	1.42
40.90	0.49	0.86	0.58*	1.42	0.00	1.42
40.95	0.49	0.86	0.58*	1.42	0.00	1.42
41.00	0.49	0.86	0.58*	1.42	0.00	1.42
41.05	0.49	0.86	0.58*	1.42	0.00	1.42
41.10	0.49	0.86	0.58*	1.42	0.00	1.42
41.15	0.49	0.86	0.58*	1.42	0.00	1.42
41.20	0.49	0.86	0.58*	1.42	0.00	1.42

41.25	0.49	0.86	0.58*	1.42	0.00	1.42
41.30	0.49	0.86	0.58*	1.42	0.00	1.42
41.35	0.49	0.86	0.58*	1.42	0.00	1.42
41.40	0.49	0.86	0.58*	1.42	0.00	1.42
41.45	0.49	0.85	0.58*	1.42	0.00	1.42
41.50	0.49	0.85	0.58*	1.42	0.00	1.42
41.55	0.49	0.85	0.58*	1.41	0.00	1.41
41.60	0.49	0.85	0.58*	1.41	0.00	1.41
41.65	0.49	0.85	0.58*	1.41	0.00	1.41
41.70	0.49	0.85	0.58*	1.41	0.00	1.41
41.75	0.49	0.85	0.58*	1.41	0.00	1.41
41.80	0.49	0.85	0.58*	1.40	0.00	1.40
41.85	0.49	0.85	0.58*	1.40	0.00	1.40
41.90	0.49	0.85	0.58*	1.39	0.00	1.39
41.95	0.49	0.85	0.58*	1.39	0.00	1.39
42.00	0.49	0.85	0.58*	1.38	0.00	1.38
42.05	0.49	0.85	0.58*	1.38	0.00	1.38
42.10	0.49	0.85	0.58*	1.37	0.00	1.37
42.15	0.49	0.85	0.58*	1.37	0.00	1.37
42.20	0.44	0.85	0.52*	1.36	0.00	1.36
42.25	0.41	0.85	0.48*	1.35	0.00	1.35
42.30	0.39	0.85	0.46*	1.34	0.00	1.34
42.35	0.38	0.85	0.44*	1.34	0.00	1.34
42.40	0.37	0.85	0.43*	1.33	0.00	1.33
42.45	0.36	0.85	0.42*	1.32	0.00	1.32
42.50	0.35	0.85	0.41*	1.31	0.00	1.31
42.55	0.34	0.85	0.40*	1.30	0.00	1.30
42.60	0.34	0.85	0.40*	1.29	0.00	1.29
42.65	0.33	0.85	0.39*	1.28	0.00	1.28
42.70	0.33	0.85	0.38*	1.28	0.00	1.28
42.75	0.32	0.85	0.38*	1.27	0.00	1.27
42.80	0.31	0.85	0.37*	1.26	0.00	1.26
42.85	0.31	0.85	0.37*	1.25	0.00	1.25
42.90	0.30	0.85	0.36*	1.24	0.00	1.24
42.95	0.30	0.85	0.35*	1.23	0.00	1.23
43.00	0.30	0.85	0.35*	1.22	0.00	1.22
43.05	0.29	0.85	0.34*	1.21	0.00	1.21
43.10	0.29	0.85	0.34*	1.20	0.00	1.20
43.15	0.28	0.85	0.33*	1.19	0.00	1.19
43.20	0.28	0.85	0.33*	1.18	0.00	1.18
43.25	0.28	0.85	0.33*	1.17	0.00	1.17
43.30	0.27	0.85	0.32*	1.16	0.00	1.16
43.35	0.27	0.85	0.32*	1.15	0.00	1.15
43.40	0.26	0.85	0.31*	1.13	0.00	1.13
43.45	0.26	0.84	0.31*	1.12	0.00	1.12
43.50	0.26	0.84	0.31*	1.11	0.00	1.11
43.55	0.25	0.84	0.30*	1.10	0.00	1.10
43.60	0.25	0.84	0.30*	1.09	0.00	1.09
43.65	0.25	0.84	0.29*	1.08	0.00	1.08
43.70	0.24	0.84	0.29*	1.07	0.00	1.07

43.75	0.24	0.84	0.29*	1.06	0.00	1.06
43.80	0.24	0.84	0.28*	1.04	0.00	1.04
43.85	0.24	0.84	0.28*	1.03	0.00	1.03
43.90	0.23	0.84	0.28*	1.02	0.00	1.02
43.95	0.23	0.84	0.27*	1.01	0.00	1.01
44.00	0.23	0.84	0.27*	1.00	0.00	1.00
44.05	0.22	0.84	0.27*	0.98	0.00	0.98
44.10	0.22	0.84	0.26*	0.97	0.00	0.97
44.15	0.22	0.84	0.26*	0.96	0.00	0.96
44.20	0.22	0.84	0.26*	0.94	0.00	0.94
44.25	0.21	0.84	0.25*	0.93	0.00	0.93
44.30	0.21	0.84	0.25*	0.92	0.00	0.92
44.35	0.21	0.84	0.25*	0.91	0.00	0.91
44.40	0.21	0.84	0.24*	0.89	0.00	0.89
44.45	0.20	0.84	0.24*	0.88	0.00	0.88
44.50	0.20	0.84	0.24*	0.87	0.00	0.87
44.55	0.20	0.84	0.24*	0.85	0.00	0.85
44.60	0.20	0.84	0.23*	0.84	0.00	0.84
44.65	0.19	0.84	0.23*	0.82	0.00	0.82
44.70	0.19	0.84	0.23*	0.81	0.00	0.81
44.75	0.19	0.84	0.22*	0.80	0.00	0.80
44.80	0.19	0.84	0.22*	0.78	0.00	0.78
44.85	0.18	0.84	0.22*	0.77	0.00	0.77
44.90	0.18	0.84	0.22*	0.75	0.00	0.75
44.95	0.18	0.84	0.21*	0.74	0.00	0.74
45.00	0.18	0.84	0.21*	0.74	0.00	0.74
45.05	0.18	0.84	0.21*	0.74	0.00	0.74
45.10	0.18	0.84	0.22*	0.74	0.00	0.74
45.15	0.18	0.84	0.22*	0.72	0.00	0.72
45.20	0.18	0.84	0.22*	0.71	0.00	0.71
45.25	0.19	0.84	0.22*	0.69	0.00	0.69
45.30	0.19	0.84	0.23*	0.68	0.00	0.68
45.35	0.19	0.84	0.23*	0.66	0.00	0.66
45.40	0.19	0.84	0.23*	0.65	0.00	0.65
45.45	0.20	0.84	0.24*	0.64	0.00	0.64
45.50	0.20	0.84	0.24*	0.62	0.00	0.62
45.55	0.20	0.83	0.24*	0.61	0.00	0.61
45.60	0.20	0.83	0.24*	0.60	0.00	0.60
45.65	0.21	0.83	0.25*	0.58	0.00	0.58
45.70	0.21	0.83	0.25*	0.57	0.00	0.57
45.75	0.21	0.83	0.25*	0.56	0.00	0.56
45.80	0.21	0.83	0.26*	0.54	0.00	0.54
45.85	0.22	0.83	0.26*	0.53	0.00	0.53
45.90	0.22	0.83	0.26*	0.52	0.00	0.52
45.95	0.22	0.83	0.27*	0.50	0.00	0.50
46.00	0.22	0.83	0.27*	0.49	0.00	0.49
46.05	0.23	0.83	0.27*	0.48	0.00	0.48
46.10	0.23	0.83	0.27*	0.47	0.00	0.47
46.15	0.23	0.83	0.28*	0.45	0.00	0.45
46.20	0.23	0.83	0.28*	0.44	0.00	0.44

46.25	0.24	0.83	0.28*	0.43	0.00	0.43
46.30	0.24	0.83	0.29*	0.42	0.00	0.42
46.35	0.24	0.83	0.29*	0.41	0.00	0.41
46.40	0.25	0.83	0.30*	0.40	0.00	0.40
46.45	0.25	0.83	0.30*	0.38	0.00	0.38
46.50	0.25	0.83	0.30*	0.37	0.00	0.37
46.55	0.25	0.83	0.31*	0.36	0.00	0.36
46.60	0.26	0.83	0.31*	0.35	0.00	0.35
46.65	0.26	0.83	0.31*	0.34	0.00	0.34
46.70	0.26	0.83	0.32*	0.33	0.00	0.33
46.75	0.27	0.83	0.32*	0.32	0.00	0.32
46.80	0.27	0.83	0.33*	0.31	0.00	0.31
46.85	0.27	0.83	0.33*	0.29	0.00	0.29
46.90	0.28	0.83	0.33*	0.28	0.00	0.28
46.95	0.28	0.83	0.34*	0.27	0.00	0.27
47.00	0.28	0.83	0.34*	0.26	0.00	0.26
47.05	0.29	0.83	0.35*	0.25	0.00	0.25
47.10	0.29	0.83	0.35*	0.24	0.00	0.24
47.15	0.30	0.83	0.36*	0.23	0.00	0.23
47.20	0.30	0.83	0.36*	0.22	0.00	0.22
47.25	0.30	0.83	0.37*	0.21	0.00	0.21
47.30	0.31	0.83	0.37*	0.20	0.00	0.20
47.35	0.31	0.83	0.38*	0.19	0.00	0.19
47.40	0.32	0.83	0.38*	0.18	0.00	0.18
47.45	0.32	0.83	0.39*	0.18	0.00	0.18
47.50	0.33	0.82	0.40*	0.17	0.00	0.17
47.55	0.33	0.82	0.40*	0.16	0.00	0.16
47.60	0.34	0.82	0.41*	0.15	0.00	0.15
47.65	0.35	0.82	0.42*	0.14	0.00	0.14
47.70	0.35	0.82	0.43*	0.13	0.00	0.13
47.75	0.36	0.82	0.44*	0.12	0.00	0.12
47.80	0.37	0.82	0.45*	0.11	0.00	0.11
47.85	0.38	0.82	0.46*	0.10	0.00	0.10
47.90	0.39	0.82	0.48*	0.10	0.00	0.10
47.95	0.41	0.82	0.50*	0.09	0.00	0.09
48.00	0.44	0.82	0.54*	0.08	0.00	0.08
48.05	0.48	0.82	0.59*	0.07	0.00	0.07
48.10	0.48	0.82	0.59*	0.07	0.00	0.07
48.15	0.48	0.82	0.59*	0.06	0.00	0.06
48.20	0.48	0.82	0.59*	0.05	0.00	0.05
48.25	0.48	0.82	0.59*	0.05	0.00	0.05
48.30	0.48	0.82	0.59*	0.04	0.00	0.04
48.35	0.48	0.82	0.59*	0.04	0.00	0.04
48.40	0.48	0.82	0.59*	0.04	0.00	0.04
48.45	0.48	0.82	0.59*	0.03	0.00	0.03
48.50	0.48	0.82	0.59*	0.03	0.00	0.03
48.55	0.48	0.82	0.59*	0.02	0.00	0.02
48.60	0.48	0.82	0.59*	0.02	0.00	0.02
48.65	0.48	0.82	0.59*	0.02	0.00	0.02
48.70	0.48	0.82	0.59*	0.02	0.00	0.02

48.75	0.48	0.82	0.59*	0.02	0.00	0.02
48.80	0.48	0.82	0.59*	0.01	0.00	0.01
48.85	0.48	0.82	0.59*	0.01	0.00	0.01
48.90	0.48	0.82	0.59*	0.01	0.00	0.01
48.95	0.48	0.82	0.59*	0.01	0.00	0.01
49.00	0.48	0.82	0.59*	0.01	0.00	0.01
49.05	0.48	0.82	0.59*	0.01	0.00	0.01
49.10	0.48	0.82	0.59*	0.01	0.00	0.01
49.15	0.48	0.82	0.59*	0.01	0.00	0.01
49.20	0.48	0.82	0.59*	0.01	0.00	0.01
49.25	0.48	0.82	0.59*	0.01	0.00	0.01
49.30	0.48	0.81	0.59*	0.01	0.00	0.01
49.35	0.48	0.81	0.59*	0.01	0.00	0.01
49.40	0.48	0.81	0.59*	0.01	0.00	0.01
49.45	0.48	0.81	0.59*	0.01	0.00	0.01
49.50	0.48	0.81	0.59*	0.00	0.00	0.00
49.55	0.48	0.81	0.59*	0.00	0.00	0.00
49.60	0.48	0.81	0.59*	0.00	0.00	0.00
49.65	0.48	0.81	0.59*	0.00	0.00	0.00
49.70	0.48	0.81	0.59*	0.00	0.00	0.00
49.75	0.48	0.81	0.59*	0.00	0.00	0.00
49.80	0.48	0.81	0.59*	0.00	0.00	0.00
49.85	0.48	0.81	0.59*	0.00	0.00	0.00
49.90	0.48	0.81	0.59*	0.00	0.00	0.00
49.95	0.48	0.81	0.59*	0.00	0.00	0.00
50.00	0.48	0.81	0.59*	0.00	0.00	0.00

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* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Unit: qc, fs, Stress or Pressure = atm (1.0581tsf); Unit Weight = pcf; Depth = ft; Settlement = in.

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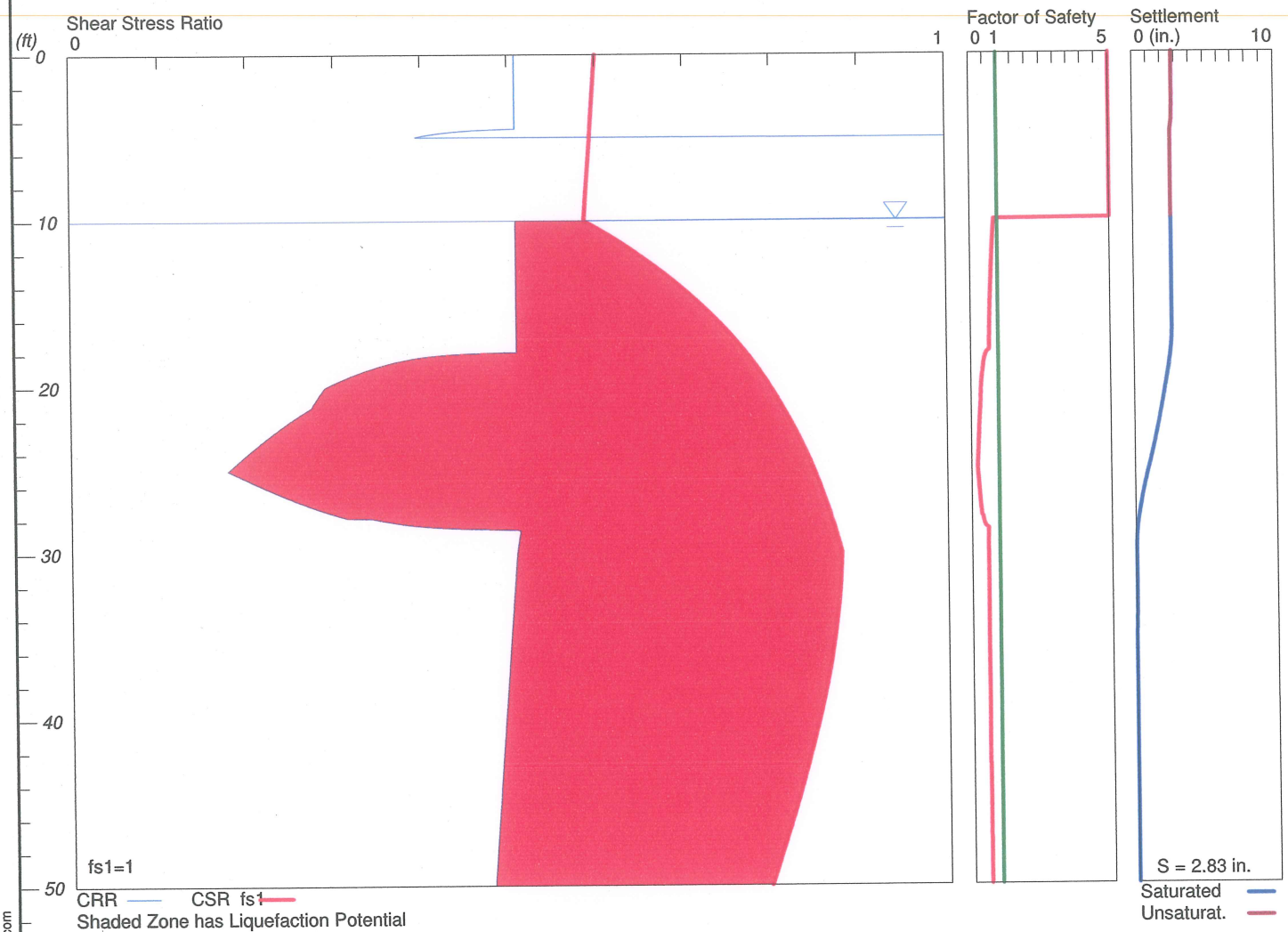
1 atm (atmosphere) = 1 tsf (ton/ft2)
CRRm Cyclic resistance ratio from soils
CSRsf Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S. Factor of Safety against liquefaction, F.S.=CRRm/CSRsf
S_sat Settlement from saturated sands
S_dry Settlement from Unsaturated Sands
S_all Total Settlement from Saturated and Unsaturated Sands
NoLiq No-Liquefy Soils

LIQUEFACTION ANALYSIS

544-23326 BH-4

Hole No.=BH2 Water Depth=10 ft

Magnitude=7.45
Acceleration=0.924g



LiquefyPro CiviTech Software USA www.civiltech.com

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LIQUEFACTION ANALYSIS SUMMARY

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Input File Name: D:\Liquefy5\544-23326 BH-4.liq
Title: 544-23326 BH-4
Subtitle: Harrison St, Coachella

Surface Elev.=
Hole No.=BH2
Depth of Hole= 50.00 ft
Water Table during Earthquake= 10.00 ft
Water Table during In-Situ Testing= 30.00 ft
Max. Acceleration= 0.92 g
Earthquake Magnitude= 7.45

Input Data:
Surface Elev.=
Hole No.=BH2
Depth of Hole=50.00 ft
Water Table during Earthquake= 10.00 ft
Water Table during In-Situ Testing= 30.00 ft
Max. Acceleration=0.92 g
Earthquake Magnitude=7.45
No-Liquefiable Soils: CL, OL are Non-Liq. Soil

1. SPT or BPT Calculation.
2. Settlement Analysis Method: Ishihara / Yoshimine
3. Fines Correction for Liquefaction: Stark/Olson et al.*
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.25
7. Borehole Diameter, Cb= 1.15
8. Sampling Method, Cs= 1
9. User request factor of safety (apply to CSR) , User= 1
   Plot one CSR curve (fs1=1)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth	SPT	gamma	Fines

ft		pcf	%
0.00	16.67	102.10	18.70
5.00	12.00	102.10	NoLiq
10.00	16.67	113.50	NoLiq
15.00	20.00	113.50	57.00
20.00	13.33	122.00	42.10
25.00	12.00	122.00	13.00
30.00	26.67	122.50	25.40
35.00	28.00	122.50	16.70
40.00	44.67	126.60	NoLiq
45.00	29.00	126.60	41.00
50.00	40.00	126.60	41.00

Output Results:

Settlement of Saturated Sands=2.68 in.
Settlement of Unsaturated Sands=0.14 in.
Total Settlement of Saturated and Unsaturated Sands=2.83 in.
Differential Settlement=1.413 to 1.866 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	0.51	0.60	5.00	2.68	0.14	2.83
0.05	0.51	0.60	5.00	2.68	0.14	2.83
0.10	0.51	0.60	5.00	2.68	0.14	2.83
0.15	0.51	0.60	5.00	2.68	0.14	2.83
0.20	0.51	0.60	5.00	2.68	0.14	2.83
0.25	0.51	0.60	5.00	2.68	0.14	2.83
0.30	0.51	0.60	5.00	2.68	0.14	2.83
0.35	0.51	0.60	5.00	2.68	0.14	2.83
0.40	0.51	0.60	5.00	2.68	0.14	2.83
0.45	0.51	0.60	5.00	2.68	0.14	2.83
0.50	0.51	0.60	5.00	2.68	0.14	2.83
0.55	0.51	0.60	5.00	2.68	0.14	2.83
0.60	0.51	0.60	5.00	2.68	0.14	2.83
0.65	0.51	0.60	5.00	2.68	0.14	2.83
0.70	0.51	0.60	5.00	2.68	0.14	2.83
0.75	0.51	0.60	5.00	2.68	0.14	2.83
0.80	0.51	0.60	5.00	2.68	0.14	2.83
0.85	0.51	0.60	5.00	2.68	0.14	2.83
0.90	0.51	0.60	5.00	2.68	0.14	2.83
0.95	0.51	0.60	5.00	2.68	0.14	2.83
1.00	0.51	0.60	5.00	2.68	0.14	2.83
1.05	0.51	0.60	5.00	2.68	0.14	2.83
1.10	0.51	0.60	5.00	2.68	0.14	2.83
1.15	0.51	0.60	5.00	2.68	0.14	2.83
1.20	0.51	0.60	5.00	2.68	0.14	2.83
1.25	0.51	0.60	5.00	2.68	0.14	2.82

1.30	0.51	0.60	5.00	2.68	0.14	2.82
1.35	0.51	0.60	5.00	2.68	0.14	2.82
1.40	0.51	0.60	5.00	2.68	0.14	2.82
1.45	0.51	0.60	5.00	2.68	0.14	2.82
1.50	0.51	0.60	5.00	2.68	0.14	2.82
1.55	0.51	0.60	5.00	2.68	0.14	2.82
1.60	0.51	0.60	5.00	2.68	0.14	2.82
1.65	0.51	0.60	5.00	2.68	0.14	2.82
1.70	0.51	0.60	5.00	2.68	0.14	2.82
1.75	0.51	0.60	5.00	2.68	0.14	2.82
1.80	0.51	0.60	5.00	2.68	0.14	2.82
1.85	0.51	0.60	5.00	2.68	0.14	2.82
1.90	0.51	0.60	5.00	2.68	0.14	2.82
1.95	0.51	0.60	5.00	2.68	0.14	2.82
2.00	0.51	0.60	5.00	2.68	0.14	2.82
2.05	0.51	0.60	5.00	2.68	0.14	2.82
2.10	0.51	0.60	5.00	2.68	0.14	2.82
2.15	0.51	0.60	5.00	2.68	0.14	2.82
2.20	0.51	0.60	5.00	2.68	0.14	2.82
2.25	0.51	0.60	5.00	2.68	0.14	2.82
2.30	0.51	0.60	5.00	2.68	0.14	2.82
2.35	0.51	0.60	5.00	2.68	0.14	2.82
2.40	0.51	0.60	5.00	2.68	0.14	2.82
2.45	0.51	0.60	5.00	2.68	0.14	2.82
2.50	0.51	0.60	5.00	2.68	0.14	2.82
2.55	0.51	0.60	5.00	2.68	0.14	2.82
2.60	0.51	0.60	5.00	2.68	0.14	2.82
2.65	0.51	0.60	5.00	2.68	0.14	2.82
2.70	0.51	0.60	5.00	2.68	0.14	2.82
2.75	0.51	0.60	5.00	2.68	0.14	2.82
2.80	0.51	0.60	5.00	2.68	0.14	2.82
2.85	0.51	0.60	5.00	2.68	0.14	2.82
2.90	0.51	0.60	5.00	2.68	0.14	2.82
2.95	0.51	0.60	5.00	2.68	0.14	2.82
3.00	0.51	0.60	5.00	2.68	0.14	2.82
3.05	0.51	0.60	5.00	2.68	0.14	2.82
3.10	0.51	0.60	5.00	2.68	0.13	2.82
3.15	0.51	0.60	5.00	2.68	0.13	2.82
3.20	0.51	0.60	5.00	2.68	0.13	2.82
3.25	0.51	0.60	5.00	2.68	0.13	2.82
3.30	0.51	0.60	5.00	2.68	0.13	2.81
3.35	0.51	0.60	5.00	2.68	0.13	2.81
3.40	0.51	0.60	5.00	2.68	0.13	2.81
3.45	0.51	0.60	5.00	2.68	0.13	2.81
3.50	0.51	0.60	5.00	2.68	0.13	2.81
3.55	0.51	0.60	5.00	2.68	0.13	2.81
3.60	0.51	0.60	5.00	2.68	0.13	2.81
3.65	0.51	0.60	5.00	2.68	0.13	2.81
3.70	0.51	0.60	5.00	2.68	0.12	2.81
3.75	0.51	0.60	5.00	2.68	0.12	2.80

3.80	0.51	0.60	5.00	2.68	0.12	2.80
3.85	0.51	0.60	5.00	2.68	0.12	2.80
3.90	0.51	0.60	5.00	2.68	0.11	2.80
3.95	0.51	0.60	5.00	2.68	0.11	2.79
4.00	0.51	0.59	5.00	2.68	0.11	2.79
4.05	0.51	0.59	5.00	2.68	0.10	2.79
4.10	0.51	0.59	5.00	2.68	0.10	2.78
4.15	0.51	0.59	5.00	2.68	0.09	2.78
4.20	0.51	0.59	5.00	2.68	0.09	2.77
4.25	0.51	0.59	5.00	2.68	0.08	2.76
4.30	0.51	0.59	5.00	2.68	0.07	2.76
4.35	0.51	0.59	5.00	2.68	0.07	2.75
4.40	0.51	0.59	5.00	2.68	0.06	2.74
4.45	0.51	0.59	5.00	2.68	0.05	2.73
4.50	0.48	0.59	5.00	2.68	0.05	2.73
4.55	0.46	0.59	5.00	2.68	0.04	2.72
4.60	0.44	0.59	5.00	2.68	0.03	2.71
4.65	0.43	0.59	5.00	2.68	0.02	2.71
4.70	0.42	0.59	5.00	2.68	0.02	2.70
4.75	0.42	0.59	5.00	2.68	0.01	2.69
4.80	0.41	0.59	5.00	2.68	0.00	2.68
4.85	0.40	0.59	5.00	2.68	0.00	2.68
4.90	0.40	0.59	5.00	2.68	0.00	2.68
4.95	0.39	0.59	5.00	2.68	0.00	2.68
5.00	2.00	0.59	5.00	2.68	0.00	2.68
5.05	2.00	0.59	5.00	2.68	0.00	2.68
5.10	2.00	0.59	5.00	2.68	0.00	2.68
5.15	2.00	0.59	5.00	2.68	0.00	2.68
5.20	2.00	0.59	5.00	2.68	0.00	2.68
5.25	2.00	0.59	5.00	2.68	0.00	2.68
5.30	2.00	0.59	5.00	2.68	0.00	2.68
5.35	2.00	0.59	5.00	2.68	0.00	2.68
5.40	2.00	0.59	5.00	2.68	0.00	2.68
5.45	2.00	0.59	5.00	2.68	0.00	2.68
5.50	2.00	0.59	5.00	2.68	0.00	2.68
5.55	2.00	0.59	5.00	2.68	0.00	2.68
5.60	2.00	0.59	5.00	2.68	0.00	2.68
5.65	2.00	0.59	5.00	2.68	0.00	2.68
5.70	2.00	0.59	5.00	2.68	0.00	2.68
5.75	2.00	0.59	5.00	2.68	0.00	2.68
5.80	2.00	0.59	5.00	2.68	0.00	2.68
5.85	2.00	0.59	5.00	2.68	0.00	2.68
5.90	2.00	0.59	5.00	2.68	0.00	2.68
5.95	2.00	0.59	5.00	2.68	0.00	2.68
6.00	2.00	0.59	5.00	2.68	0.00	2.68
6.05	2.00	0.59	5.00	2.68	0.00	2.68
6.10	2.00	0.59	5.00	2.68	0.00	2.68
6.15	2.00	0.59	5.00	2.68	0.00	2.68
6.20	2.00	0.59	5.00	2.68	0.00	2.68
6.25	2.00	0.59	5.00	2.68	0.00	2.68

6.30	2.00	0.59	5.00	2.68	0.00	2.68
6.35	2.00	0.59	5.00	2.68	0.00	2.68
6.40	2.00	0.59	5.00	2.68	0.00	2.68
6.45	2.00	0.59	5.00	2.68	0.00	2.68
6.50	2.00	0.59	5.00	2.68	0.00	2.68
6.55	2.00	0.59	5.00	2.68	0.00	2.68
6.60	2.00	0.59	5.00	2.68	0.00	2.68
6.65	2.00	0.59	5.00	2.68	0.00	2.68
6.70	2.00	0.59	5.00	2.68	0.00	2.68
6.75	2.00	0.59	5.00	2.68	0.00	2.68
6.80	2.00	0.59	5.00	2.68	0.00	2.68
6.85	2.00	0.59	5.00	2.68	0.00	2.68
6.90	2.00	0.59	5.00	2.68	0.00	2.68
6.95	2.00	0.59	5.00	2.68	0.00	2.68
7.00	2.00	0.59	5.00	2.68	0.00	2.68
7.05	2.00	0.59	5.00	2.68	0.00	2.68
7.10	2.00	0.59	5.00	2.68	0.00	2.68
7.15	2.00	0.59	5.00	2.68	0.00	2.68
7.20	2.00	0.59	5.00	2.68	0.00	2.68
7.25	2.00	0.59	5.00	2.68	0.00	2.68
7.30	2.00	0.59	5.00	2.68	0.00	2.68
7.35	2.00	0.59	5.00	2.68	0.00	2.68
7.40	2.00	0.59	5.00	2.68	0.00	2.68
7.45	2.00	0.59	5.00	2.68	0.00	2.68
7.50	2.00	0.59	5.00	2.68	0.00	2.68
7.55	2.00	0.59	5.00	2.68	0.00	2.68
7.60	2.00	0.59	5.00	2.68	0.00	2.68
7.65	2.00	0.59	5.00	2.68	0.00	2.68
7.70	2.00	0.59	5.00	2.68	0.00	2.68
7.75	2.00	0.59	5.00	2.68	0.00	2.68
7.80	2.00	0.59	5.00	2.68	0.00	2.68
7.85	2.00	0.59	5.00	2.68	0.00	2.68
7.90	2.00	0.59	5.00	2.68	0.00	2.68
7.95	2.00	0.59	5.00	2.68	0.00	2.68
8.00	2.00	0.59	5.00	2.68	0.00	2.68
8.05	2.00	0.59	5.00	2.68	0.00	2.68
8.10	2.00	0.59	5.00	2.68	0.00	2.68
8.15	2.00	0.59	5.00	2.68	0.00	2.68
8.20	2.00	0.59	5.00	2.68	0.00	2.68
8.25	2.00	0.59	5.00	2.68	0.00	2.68
8.30	2.00	0.59	5.00	2.68	0.00	2.68
8.35	2.00	0.59	5.00	2.68	0.00	2.68
8.40	2.00	0.59	5.00	2.68	0.00	2.68
8.45	2.00	0.59	5.00	2.68	0.00	2.68
8.50	2.00	0.59	5.00	2.68	0.00	2.68
8.55	2.00	0.59	5.00	2.68	0.00	2.68
8.60	2.00	0.59	5.00	2.68	0.00	2.68
8.65	2.00	0.59	5.00	2.68	0.00	2.68
8.70	2.00	0.59	5.00	2.68	0.00	2.68
8.75	2.00	0.59	5.00	2.68	0.00	2.68

8.80	2.00	0.59	5.00	2.68	0.00	2.68
8.85	2.00	0.59	5.00	2.68	0.00	2.68
8.90	2.00	0.59	5.00	2.68	0.00	2.68
8.95	2.00	0.59	5.00	2.68	0.00	2.68
9.00	2.00	0.59	5.00	2.68	0.00	2.68
9.05	2.00	0.59	5.00	2.68	0.00	2.68
9.10	2.00	0.59	5.00	2.68	0.00	2.68
9.15	2.00	0.59	5.00	2.68	0.00	2.68
9.20	2.00	0.59	5.00	2.68	0.00	2.68
9.25	2.00	0.59	5.00	2.68	0.00	2.68
9.30	2.00	0.59	5.00	2.68	0.00	2.68
9.35	2.00	0.59	5.00	2.68	0.00	2.68
9.40	2.00	0.59	5.00	2.68	0.00	2.68
9.45	2.00	0.59	5.00	2.68	0.00	2.68
9.50	2.00	0.59	5.00	2.68	0.00	2.68
9.55	2.00	0.59	5.00	2.68	0.00	2.68
9.60	2.00	0.59	5.00	2.68	0.00	2.68
9.65	2.00	0.59	5.00	2.68	0.00	2.68
9.70	2.00	0.59	5.00	2.68	0.00	2.68
9.75	2.00	0.59	5.00	2.68	0.00	2.68
9.80	2.00	0.59	5.00	2.68	0.00	2.68
9.85	2.00	0.59	5.00	2.68	0.00	2.68
9.90	2.00	0.59	5.00	2.68	0.00	2.68
9.95	2.00	0.59	5.00	2.68	0.00	2.68
10.00	0.51	0.59	0.87*	2.68	0.00	2.68
10.05	0.51	0.59	0.86*	2.68	0.00	2.68
10.10	0.51	0.59	0.86*	2.68	0.00	2.68
10.15	0.51	0.59	0.86*	2.68	0.00	2.68
10.20	0.51	0.59	0.86*	2.68	0.00	2.68
10.25	0.51	0.59	0.85*	2.68	0.00	2.68
10.30	0.51	0.60	0.85*	2.68	0.00	2.68
10.35	0.51	0.60	0.85*	2.68	0.00	2.68
10.40	0.51	0.60	0.85*	2.68	0.00	2.68
10.45	0.51	0.60	0.85*	2.68	0.00	2.68
10.50	0.51	0.60	0.84*	2.68	0.00	2.68
10.55	0.51	0.60	0.84*	2.68	0.00	2.68
10.60	0.51	0.61	0.84*	2.68	0.00	2.68
10.65	0.51	0.61	0.84*	2.68	0.00	2.68
10.70	0.51	0.61	0.83*	2.68	0.00	2.68
10.75	0.51	0.61	0.83*	2.68	0.00	2.68
10.80	0.51	0.61	0.83*	2.68	0.00	2.68
10.85	0.51	0.61	0.83*	2.68	0.00	2.68
10.90	0.51	0.62	0.83*	2.68	0.00	2.68
10.95	0.51	0.62	0.82*	2.68	0.00	2.68
11.00	0.51	0.62	0.82*	2.68	0.00	2.68
11.05	0.51	0.62	0.82*	2.68	0.00	2.68
11.10	0.51	0.62	0.82*	2.68	0.00	2.68
11.15	0.51	0.62	0.82*	2.68	0.00	2.68
11.20	0.51	0.62	0.81*	2.68	0.00	2.68
11.25	0.51	0.63	0.81*	2.68	0.00	2.68

11.30	0.51	0.63	0.81*	2.68	0.00	2.68
11.35	0.51	0.63	0.81*	2.68	0.00	2.68
11.40	0.51	0.63	0.81*	2.68	0.00	2.68
11.45	0.51	0.63	0.80*	2.68	0.00	2.68
11.50	0.51	0.63	0.80*	2.68	0.00	2.68
11.55	0.51	0.63	0.80*	2.68	0.00	2.68
11.60	0.51	0.64	0.80*	2.68	0.00	2.68
11.65	0.51	0.64	0.80*	2.68	0.00	2.68
11.70	0.51	0.64	0.80*	2.68	0.00	2.68
11.75	0.51	0.64	0.79*	2.68	0.00	2.68
11.80	0.51	0.64	0.79*	2.68	0.00	2.68
11.85	0.51	0.64	0.79*	2.68	0.00	2.68
11.90	0.51	0.64	0.79*	2.68	0.00	2.68
11.95	0.51	0.65	0.79*	2.68	0.00	2.68
12.00	0.51	0.65	0.79*	2.68	0.00	2.68
12.05	0.51	0.65	0.78*	2.68	0.00	2.68
12.10	0.51	0.65	0.78*	2.68	0.00	2.68
12.15	0.51	0.65	0.78*	2.68	0.00	2.68
12.20	0.51	0.65	0.78*	2.68	0.00	2.68
12.25	0.51	0.65	0.78*	2.68	0.00	2.68
12.30	0.51	0.66	0.78*	2.68	0.00	2.68
12.35	0.51	0.66	0.77*	2.68	0.00	2.68
12.40	0.51	0.66	0.77*	2.68	0.00	2.68
12.45	0.51	0.66	0.77*	2.68	0.00	2.68
12.50	0.51	0.66	0.77*	2.68	0.00	2.68
12.55	0.51	0.66	0.77*	2.68	0.00	2.68
12.60	0.51	0.66	0.77*	2.68	0.00	2.68
12.65	0.51	0.66	0.77*	2.68	0.00	2.68
12.70	0.51	0.67	0.76*	2.68	0.00	2.68
12.75	0.51	0.67	0.76*	2.68	0.00	2.68
12.80	0.51	0.67	0.76*	2.68	0.00	2.68
12.85	0.51	0.67	0.76*	2.68	0.00	2.68
12.90	0.51	0.67	0.76*	2.68	0.00	2.68
12.95	0.51	0.67	0.76*	2.68	0.00	2.68
13.00	0.51	0.67	0.76*	2.68	0.00	2.68
13.05	0.51	0.67	0.75*	2.68	0.00	2.68
13.10	0.51	0.68	0.75*	2.68	0.00	2.68
13.15	0.51	0.68	0.75*	2.68	0.00	2.68
13.20	0.51	0.68	0.75*	2.68	0.00	2.68
13.25	0.51	0.68	0.75*	2.68	0.00	2.68
13.30	0.51	0.68	0.75*	2.68	0.00	2.68
13.35	0.51	0.68	0.74*	2.68	0.00	2.68
13.40	0.51	0.68	0.74*	2.68	0.00	2.68
13.45	0.51	0.68	0.74*	2.68	0.00	2.68
13.50	0.51	0.69	0.74*	2.68	0.00	2.68
13.55	0.51	0.69	0.74*	2.68	0.00	2.68
13.60	0.51	0.69	0.74*	2.68	0.00	2.68
13.65	0.51	0.69	0.74*	2.68	0.00	2.68
13.70	0.51	0.69	0.74*	2.68	0.00	2.68
13.75	0.51	0.69	0.74*	2.68	0.00	2.68

13.80	0.51	0.69	0.73*	2.68	0.00	2.68
13.85	0.51	0.69	0.73*	2.68	0.00	2.68
13.90	0.51	0.69	0.73*	2.68	0.00	2.68
13.95	0.51	0.70	0.73*	2.68	0.00	2.68
14.00	0.51	0.70	0.73*	2.68	0.00	2.68
14.05	0.51	0.70	0.73*	2.68	0.00	2.68
14.10	0.51	0.70	0.73*	2.68	0.00	2.68
14.15	0.51	0.70	0.73*	2.68	0.00	2.68
14.20	0.51	0.70	0.73*	2.68	0.00	2.68
14.25	0.51	0.70	0.72*	2.68	0.00	2.68
14.30	0.51	0.70	0.72*	2.68	0.00	2.68
14.35	0.51	0.70	0.72*	2.68	0.00	2.68
14.40	0.51	0.71	0.72*	2.68	0.00	2.68
14.45	0.51	0.71	0.72*	2.68	0.00	2.68
14.50	0.51	0.71	0.72*	2.68	0.00	2.68
14.55	0.51	0.71	0.72*	2.68	0.00	2.68
14.60	0.51	0.71	0.72*	2.68	0.00	2.68
14.65	0.51	0.71	0.72*	2.68	0.00	2.68
14.70	0.51	0.71	0.71*	2.68	0.00	2.68
14.75	0.51	0.71	0.71*	2.68	0.00	2.68
14.80	0.51	0.71	0.71*	2.68	0.00	2.68
14.85	0.51	0.72	0.71*	2.68	0.00	2.68
14.90	0.51	0.72	0.71*	2.68	0.00	2.68
14.95	0.51	0.72	0.71*	2.68	0.00	2.68
15.00	0.51	0.72	0.71*	2.68	0.00	2.68
15.05	0.51	0.72	0.71*	2.68	0.00	2.68
15.10	0.51	0.72	0.71*	2.68	0.00	2.68
15.15	0.51	0.72	0.70*	2.68	0.00	2.68
15.20	0.51	0.72	0.70*	2.68	0.00	2.68
15.25	0.51	0.72	0.70*	2.68	0.00	2.68
15.30	0.51	0.72	0.70*	2.68	0.00	2.68
15.35	0.51	0.73	0.70*	2.68	0.00	2.68
15.40	0.51	0.73	0.70*	2.68	0.00	2.68
15.45	0.51	0.73	0.70*	2.68	0.00	2.68
15.50	0.51	0.73	0.70*	2.68	0.00	2.68
15.55	0.51	0.73	0.70*	2.68	0.00	2.68
15.60	0.51	0.73	0.70*	2.68	0.00	2.68
15.65	0.51	0.73	0.70*	2.68	0.00	2.68
15.70	0.51	0.73	0.69*	2.68	0.00	2.68
15.75	0.51	0.73	0.69*	2.68	0.00	2.68
15.80	0.51	0.73	0.69*	2.68	0.00	2.68
15.85	0.51	0.73	0.69*	2.68	0.00	2.68
15.90	0.51	0.74	0.69*	2.68	0.00	2.68
15.95	0.51	0.74	0.69*	2.68	0.00	2.68
16.00	0.51	0.74	0.69*	2.68	0.00	2.68
16.05	0.51	0.74	0.69*	2.68	0.00	2.68
16.10	0.51	0.74	0.69*	2.68	0.00	2.68
16.15	0.51	0.74	0.69*	2.68	0.00	2.68
16.20	0.51	0.74	0.69*	2.68	0.00	2.68
16.25	0.51	0.74	0.68*	2.68	0.00	2.68

16.30	0.51	0.74	0.68*	2.68	0.00	2.68
16.35	0.51	0.74	0.68*	2.68	0.00	2.68
16.40	0.51	0.75	0.68*	2.68	0.00	2.68
16.45	0.51	0.75	0.68*	2.68	0.00	2.68
16.50	0.51	0.75	0.68*	2.68	0.00	2.68
16.55	0.51	0.75	0.68*	2.68	0.00	2.68
16.60	0.51	0.75	0.68*	2.68	0.00	2.68
16.65	0.51	0.75	0.68*	2.68	0.00	2.68
16.70	0.51	0.75	0.68*	2.68	0.00	2.68
16.75	0.51	0.75	0.68*	2.68	0.00	2.68
16.80	0.51	0.75	0.68*	2.68	0.00	2.68
16.85	0.51	0.75	0.67*	2.67	0.00	2.67
16.90	0.51	0.75	0.67*	2.67	0.00	2.67
16.95	0.51	0.76	0.67*	2.67	0.00	2.67
17.00	0.51	0.76	0.67*	2.67	0.00	2.67
17.05	0.51	0.76	0.67*	2.67	0.00	2.67
17.10	0.51	0.76	0.67*	2.66	0.00	2.66
17.15	0.51	0.76	0.67*	2.66	0.00	2.66
17.20	0.51	0.76	0.67*	2.66	0.00	2.66
17.25	0.51	0.76	0.67*	2.65	0.00	2.65
17.30	0.51	0.76	0.67*	2.65	0.00	2.65
17.35	0.51	0.76	0.67*	2.65	0.00	2.65
17.40	0.51	0.76	0.67*	2.64	0.00	2.64
17.45	0.51	0.76	0.67*	2.64	0.00	2.64
17.50	0.51	0.76	0.67*	2.63	0.00	2.63
17.55	0.51	0.77	0.66*	2.63	0.00	2.63
17.60	0.51	0.77	0.66*	2.62	0.00	2.62
17.65	0.51	0.77	0.66*	2.62	0.00	2.62
17.70	0.51	0.77	0.66*	2.61	0.00	2.61
17.75	0.51	0.77	0.66*	2.61	0.00	2.61
17.80	0.51	0.77	0.66*	2.60	0.00	2.60
17.85	0.51	0.77	0.66*	2.60	0.00	2.60
17.90	0.51	0.77	0.61*	2.59	0.00	2.59
17.95	0.47	0.77	0.57*	2.59	0.00	2.59
18.00	0.44	0.77	0.55*	2.58	0.00	2.58
18.05	0.43	0.77	0.54*	2.57	0.00	2.57
18.10	0.42	0.77	0.53*	2.56	0.00	2.56
18.15	0.41	0.77	0.51*	2.56	0.00	2.56
18.20	0.40	0.78	0.51*	2.55	0.00	2.55
18.25	0.39	0.78	0.50*	2.54	0.00	2.54
18.30	0.39	0.78	0.49*	2.53	0.00	2.53
18.35	0.38	0.78	0.48*	2.52	0.00	2.52
18.40	0.38	0.78	0.48*	2.51	0.00	2.51
18.45	0.37	0.78	0.47*	2.51	0.00	2.51
18.50	0.37	0.78	0.47*	2.50	0.00	2.50
18.55	0.36	0.78	0.46*	2.49	0.00	2.49
18.60	0.36	0.78	0.45*	2.48	0.00	2.48
18.65	0.36	0.78	0.45*	2.47	0.00	2.47
18.70	0.35	0.78	0.45*	2.46	0.00	2.46
18.75	0.35	0.78				

18.80	0.35	0.78	0.44*	2.45	0.00	2.45
18.85	0.34	0.78	0.44*	2.44	0.00	2.44
18.90	0.34	0.78	0.43*	2.43	0.00	2.43
18.95	0.34	0.79	0.43*	2.43	0.00	2.43
19.00	0.33	0.79	0.42*	2.42	0.00	2.42
19.05	0.33	0.79	0.42*	2.41	0.00	2.41
19.10	0.33	0.79	0.42*	2.40	0.00	2.40
19.15	0.33	0.79	0.41*	2.39	0.00	2.39
19.20	0.32	0.79	0.41*	2.38	0.00	2.38
19.25	0.32	0.79	0.41*	2.37	0.00	2.37
19.30	0.32	0.79	0.40*	2.36	0.00	2.36
19.35	0.32	0.79	0.40*	2.35	0.00	2.35
19.40	0.31	0.79	0.40*	2.34	0.00	2.34
19.45	0.31	0.79	0.39*	2.33	0.00	2.33
19.50	0.31	0.79	0.39*	2.32	0.00	2.32
19.55	0.31	0.79	0.39*	2.31	0.00	2.31
19.60	0.30	0.79	0.38*	2.30	0.00	2.30
19.65	0.30	0.79	0.38*	2.29	0.00	2.29
19.70	0.30	0.79	0.38*	2.28	0.00	2.28
19.75	0.30	0.80	0.37*	2.27	0.00	2.27
19.80	0.30	0.80	0.37*	2.26	0.00	2.26
19.85	0.29	0.80	0.37*	2.25	0.00	2.25
19.90	0.29	0.80	0.37*	2.24	0.00	2.24
19.95	0.29	0.80	0.36*	2.23	0.00	2.23
20.00	0.29	0.80	0.36*	2.22	0.00	2.22
20.05	0.29	0.80	0.36*	2.21	0.00	2.21
20.10	0.29	0.80	0.36*	2.20	0.00	2.20
20.15	0.29	0.80	0.36*	2.19	0.00	2.19
20.20	0.29	0.80	0.36*	2.18	0.00	2.18
20.25	0.28	0.80	0.35*	2.16	0.00	2.16
20.30	0.28	0.80	0.35*	2.15	0.00	2.15
20.35	0.28	0.80	0.35*	2.14	0.00	2.14
20.40	0.28	0.80	0.35*	2.13	0.00	2.13
20.45	0.28	0.80	0.35*	2.12	0.00	2.12
20.50	0.28	0.80	0.35*	2.11	0.00	2.11
20.55	0.28	0.81	0.35*	2.10	0.00	2.10
20.60	0.28	0.81	0.35*	2.09	0.00	2.09
20.65	0.28	0.81	0.35*	2.08	0.00	2.08
20.70	0.28	0.81	0.35*	2.07	0.00	2.07
20.75	0.28	0.81	0.34*	2.06	0.00	2.06
20.80	0.28	0.81	0.34*	2.05	0.00	2.05
20.85	0.28	0.81	0.34*	2.04	0.00	2.04
20.90	0.28	0.81	0.34*	2.02	0.00	2.02
20.95	0.28	0.81	0.34*	2.01	0.00	2.01
21.00	0.27	0.81	0.34*	2.00	0.00	2.00
21.05	0.27	0.81	0.34*	1.99	0.00	1.99
21.10	0.27	0.81	0.34*	1.98	0.00	1.98
21.15	0.27	0.81	0.34*	1.97	0.00	1.97
21.20	0.27	0.81	0.34*	1.96	0.00	1.96
21.25	0.27	0.81	0.33*	1.95	0.00	1.95

21.30	0.27	0.81	0.33*	1.94	0.00	1.94
21.35	0.27	0.81	0.33*	1.93	0.00	1.93
21.40	0.27	0.81	0.33*	1.91	0.00	1.91
21.45	0.26	0.82	0.33*	1.90	0.00	1.90
21.50	0.26	0.82	0.32*	1.89	0.00	1.89
21.55	0.26	0.82	0.32*	1.88	0.00	1.88
21.60	0.26	0.82	0.32*	1.87	0.00	1.87
21.65	0.26	0.82	0.32*	1.86	0.00	1.86
21.70	0.26	0.82	0.31*	1.85	0.00	1.85
21.75	0.26	0.82	0.31*	1.83	0.00	1.83
21.80	0.25	0.82	0.31*	1.82	0.00	1.82
21.85	0.25	0.82	0.31*	1.81	0.00	1.81
21.90	0.25	0.82	0.31*	1.80	0.00	1.80
21.95	0.25	0.82	0.31*	1.79	0.00	1.79
22.00	0.25	0.82	0.30*	1.78	0.00	1.78
22.05	0.25	0.82	0.30*	1.76	0.00	1.76
22.10	0.25	0.82	0.30*	1.75	0.00	1.75
22.15	0.24	0.82	0.30*	1.74	0.00	1.74
22.20	0.24	0.82	0.30*	1.73	0.00	1.73
22.25	0.24	0.82	0.29*	1.72	0.00	1.72
22.30	0.24	0.82	0.29*	1.70	0.00	1.70
22.35	0.24	0.82	0.29*	1.69	0.00	1.69
22.40	0.24	0.82	0.29*	1.68	0.00	1.68
22.45	0.24	0.83	0.29*	1.67	0.00	1.67
22.50	0.24	0.83	0.28*	1.66	0.00	1.66
22.55	0.23	0.83	0.28*	1.64	0.00	1.64
22.60	0.23	0.83	0.28*	1.63	0.00	1.63
22.65	0.23	0.83	0.28*	1.62	0.00	1.62
22.70	0.23	0.83	0.28*	1.61	0.00	1.61
22.75	0.23	0.83	0.28*	1.59	0.00	1.59
22.80	0.23	0.83	0.27*	1.58	0.00	1.58
22.85	0.23	0.83	0.27*	1.57	0.00	1.57
22.90	0.23	0.83	0.27*	1.55	0.00	1.55
22.95	0.22	0.83	0.27*	1.54	0.00	1.54
23.00	0.22	0.83	0.27*	1.53	0.00	1.53
23.05	0.22	0.83	0.27*	1.52	0.00	1.52
23.10	0.22	0.83	0.26*	1.50	0.00	1.50
23.15	0.22	0.83	0.26*	1.49	0.00	1.49
23.20	0.22	0.83	0.26*	1.48	0.00	1.48
23.25	0.22	0.83	0.26*	1.46	0.00	1.46
23.30	0.22	0.83	0.26*	1.45	0.00	1.45
23.35	0.21	0.83	0.26*	1.44	0.00	1.44
23.40	0.21	0.83	0.26*	1.42	0.00	1.42
23.45	0.21	0.83	0.25*	1.41	0.00	1.41
23.50	0.21	0.83	0.25*	1.40	0.00	1.40
23.55	0.21	0.84	0.25*	1.38	0.00	1.38
23.60	0.21	0.84	0.25*	1.37	0.00	1.37
23.65	0.21	0.84	0.25*	1.36	0.00	1.36
23.70	0.21	0.84	0.25*	1.34	0.00	1.34
23.75	0.20	0.84	0.24*	1.33	0.00	1.33

23.80	0.20	0.84	0.24*	1.32	0.00	1.32
23.85	0.20	0.84	0.24*	1.30	0.00	1.30
23.90	0.20	0.84	0.24*	1.29	0.00	1.29
23.95	0.20	0.84	0.24*	1.27	0.00	1.27
24.00	0.20	0.84	0.24*	1.26	0.00	1.26
24.05	0.20	0.84	0.24*	1.24	0.00	1.24
24.10	0.20	0.84	0.23*	1.23	0.00	1.23
24.15	0.20	0.84	0.23*	1.22	0.00	1.22
24.20	0.19	0.84	0.23*	1.20	0.00	1.20
24.25	0.19	0.84	0.23*	1.19	0.00	1.19
24.30	0.19	0.84	0.23*	1.17	0.00	1.17
24.35	0.19	0.84	0.23*	1.16	0.00	1.16
24.40	0.19	0.84	0.23*	1.14	0.00	1.14
24.45	0.19	0.84	0.22*	1.13	0.00	1.13
24.50	0.19	0.84	0.22*	1.11	0.00	1.11
24.55	0.19	0.84	0.22*	1.10	0.00	1.10
24.60	0.19	0.84	0.22*	1.08	0.00	1.08
24.65	0.18	0.84	0.22*	1.07	0.00	1.07
24.70	0.18	0.84	0.22*	1.05	0.00	1.05
24.75	0.18	0.85	0.22*	1.04	0.00	1.04
24.80	0.18	0.85	0.21*	1.02	0.00	1.02
24.85	0.18	0.85	0.21*	1.01	0.00	1.01
24.90	0.18	0.85	0.21*	0.99	0.00	0.99
24.95	0.18	0.85	0.21*	0.98	0.00	0.98
25.00	0.18	0.85	0.21*	0.96	0.00	0.96
25.05	0.18	0.85	0.21*	0.95	0.00	0.95
25.10	0.18	0.85	0.21*	0.93	0.00	0.93
25.15	0.18	0.85	0.22*	0.92	0.00	0.92
25.20	0.19	0.85	0.22*	0.90	0.00	0.90
25.25	0.19	0.85	0.22*	0.89	0.00	0.89
25.30	0.19	0.85	0.22*	0.87	0.00	0.87
25.35	0.19	0.85	0.23*	0.86	0.00	0.86
25.40	0.19	0.85	0.23*	0.84	0.00	0.84
25.45	0.20	0.85	0.23*	0.83	0.00	0.83
25.50	0.20	0.85	0.23*	0.81	0.00	0.81
25.55	0.20	0.85	0.23*	0.80	0.00	0.80
25.60	0.20	0.85	0.24*	0.78	0.00	0.78
25.65	0.20	0.85	0.24*	0.77	0.00	0.77
25.70	0.21	0.85	0.24*	0.76	0.00	0.76
25.75	0.21	0.85	0.24*	0.74	0.00	0.74
25.80	0.21	0.85	0.25*	0.73	0.00	0.73
25.85	0.21	0.85	0.25*	0.71	0.00	0.71
25.90	0.21	0.85	0.25*	0.70	0.00	0.70
25.95	0.22	0.85	0.25*	0.69	0.00	0.69
26.00	0.22	0.85	0.25*	0.67	0.00	0.67
26.05	0.22	0.86	0.26*	0.66	0.00	0.66
26.10	0.22	0.86	0.26*	0.65	0.00	0.65
26.15	0.22	0.86	0.26*	0.64	0.00	0.64
26.20	0.23	0.86	0.26*	0.62	0.00	0.62
26.25	0.23	0.86	0.27*	0.61	0.00	0.61

26.30	0.23	0.86	0.27*	0.60	0.00	0.60
26.35	0.23	0.86	0.27*	0.58	0.00	0.58
26.40	0.24	0.86	0.27*	0.57	0.00	0.57
26.45	0.24	0.86	0.28*	0.56	0.00	0.56
26.50	0.24	0.86	0.28*	0.55	0.00	0.55
26.55	0.24	0.86	0.28*	0.54	0.00	0.54
26.60	0.24	0.86	0.28*	0.52	0.00	0.52
26.65	0.25	0.86	0.29*	0.51	0.00	0.51
26.70	0.25	0.86	0.29*	0.50	0.00	0.50
26.75	0.25	0.86	0.29*	0.49	0.00	0.49
26.80	0.25	0.86	0.29*	0.48	0.00	0.48
26.85	0.26	0.86	0.30*	0.46	0.00	0.46
26.90	0.26	0.86	0.30*	0.45	0.00	0.45
26.95	0.26	0.86	0.30*	0.44	0.00	0.44
27.00	0.26	0.86	0.31*	0.43	0.00	0.43
27.05	0.27	0.86	0.31*	0.42	0.00	0.42
27.10	0.27	0.86	0.31*	0.41	0.00	0.41
27.15	0.27	0.86	0.31*	0.40	0.00	0.40
27.20	0.27	0.86	0.32*	0.38	0.00	0.38
27.25	0.28	0.86	0.32*	0.37	0.00	0.37
27.30	0.28	0.86	0.32*	0.36	0.00	0.36
27.35	0.28	0.86	0.33*	0.35	0.00	0.35
27.40	0.28	0.86	0.33*	0.34	0.00	0.34
27.45	0.29	0.86	0.33*	0.33	0.00	0.33
27.50	0.29	0.86	0.34*	0.32	0.00	0.32
27.55	0.29	0.86	0.34*	0.31	0.00	0.31
27.60	0.30	0.87	0.34*	0.30	0.00	0.30
27.65	0.30	0.87	0.35*	0.29	0.00	0.29
27.70	0.30	0.87	0.35*	0.28	0.00	0.28
27.75	0.31	0.87	0.35*	0.27	0.00	0.27
27.80	0.31	0.87	0.36*	0.26	0.00	0.26
27.85	0.31	0.87	0.36*	0.25	0.00	0.25
27.90	0.34	0.87	0.39*	0.24	0.00	0.24
27.95	0.35	0.87	0.40*	0.23	0.00	0.23
28.00	0.35	0.87	0.40*	0.22	0.00	0.22
28.05	0.36	0.87	0.41*	0.21	0.00	0.21
28.10	0.36	0.87	0.42*	0.20	0.00	0.20
28.15	0.37	0.87	0.42*	0.19	0.00	0.19
28.20	0.37	0.87	0.43*	0.18	0.00	0.18
28.25	0.38	0.87	0.44*	0.18	0.00	0.18
28.30	0.39	0.87	0.45*	0.17	0.00	0.17
28.35	0.40	0.87	0.46*	0.16	0.00	0.16
28.40	0.41	0.87	0.47*	0.15	0.00	0.15
28.45	0.42	0.87	0.48*	0.14	0.00	0.14
28.50	0.44	0.87	0.51*	0.13	0.00	0.13
28.55	0.48	0.87	0.55*	0.13	0.00	0.13
28.60	0.51	0.87	0.58*	0.12	0.00	0.12
28.65	0.51	0.87	0.59*	0.11	0.00	0.11
28.70	0.51	0.87	0.59*	0.11	0.00	0.11
28.75	0.51	0.87	0.59*	0.10	0.00	0.10

28.80	0.51	0.87	0.59*	0.10	0.00	0.10
28.85	0.51	0.87	0.59*	0.09	0.00	0.09
28.90	0.51	0.87	0.59*	0.09	0.00	0.09
28.95	0.51	0.87	0.58*	0.08	0.00	0.08
29.00	0.51	0.87	0.58*	0.08	0.00	0.08
29.05	0.51	0.87	0.58*	0.07	0.00	0.07
29.10	0.51	0.87	0.58*	0.07	0.00	0.07
29.15	0.51	0.87	0.58*	0.06	0.00	0.06
29.20	0.51	0.87	0.58*	0.06	0.00	0.06
29.25	0.51	0.87	0.58*	0.06	0.00	0.06
29.30	0.51	0.87	0.58*	0.05	0.00	0.05
29.35	0.51	0.88	0.58*	0.05	0.00	0.05
29.40	0.51	0.88	0.58*	0.05	0.00	0.05
29.45	0.51	0.88	0.58*	0.05	0.00	0.05
29.50	0.51	0.88	0.58*	0.05	0.00	0.05
29.55	0.51	0.88	0.58*	0.05	0.00	0.05
29.60	0.51	0.88	0.58*	0.04	0.00	0.04
29.65	0.51	0.88	0.58*	0.04	0.00	0.04
29.70	0.51	0.88	0.58*	0.04	0.00	0.04
29.75	0.51	0.88	0.58*	0.04	0.00	0.04
29.80	0.51	0.88	0.58*	0.04	0.00	0.04
29.85	0.51	0.88	0.58*	0.04	0.00	0.04
29.90	0.51	0.88	0.58*	0.04	0.00	0.04
29.95	0.51	0.88	0.58*	0.04	0.00	0.04
30.00	0.51	0.88	0.58*	0.04	0.00	0.04
30.05	0.51	0.88	0.58*	0.04	0.00	0.04
30.10	0.51	0.88	0.58*	0.04	0.00	0.04
30.15	0.51	0.88	0.58*	0.04	0.00	0.04
30.20	0.51	0.88	0.58*	0.04	0.00	0.04
30.25	0.51	0.88	0.58*	0.04	0.00	0.04
30.30	0.51	0.88	0.58*	0.04	0.00	0.04
30.35	0.51	0.88	0.58*	0.04	0.00	0.04
30.40	0.51	0.88	0.58*	0.04	0.00	0.04
30.45	0.51	0.88	0.58*	0.04	0.00	0.04
30.50	0.51	0.88	0.58*	0.04	0.00	0.04
30.55	0.51	0.88	0.58*	0.04	0.00	0.04
30.60	0.51	0.88	0.58*	0.04	0.00	0.04
30.65	0.51	0.88	0.58*	0.04	0.00	0.04
30.70	0.51	0.88	0.58*	0.04	0.00	0.04
30.75	0.51	0.88	0.58*	0.04	0.00	0.04
30.80	0.51	0.88	0.58*	0.04	0.00	0.04
30.85	0.51	0.88	0.58*	0.04	0.00	0.04
30.90	0.51	0.88	0.58*	0.04	0.00	0.04
30.95	0.51	0.88	0.58*	0.04	0.00	0.04
31.00	0.51	0.88	0.58*	0.04	0.00	0.04
31.05	0.51	0.88	0.58*	0.04	0.00	0.04
31.10	0.51	0.88	0.58*	0.04	0.00	0.04
31.15	0.51	0.88	0.58*	0.04	0.00	0.04
31.20	0.51	0.88	0.58*	0.04	0.00	0.04
31.25	0.51	0.88	0.58*	0.04	0.00	0.04

31.30	0.51	0.88	0.58*	0.04	0.00	0.04
31.35	0.51	0.88	0.58*	0.04	0.00	0.04
31.40	0.51	0.88	0.58*	0.04	0.00	0.04
31.45	0.51	0.88	0.58*	0.04	0.00	0.04
31.50	0.51	0.88	0.58*	0.04	0.00	0.04
31.55	0.51	0.88	0.58*	0.04	0.00	0.04
31.60	0.50	0.88	0.58*	0.04	0.00	0.04
31.65	0.50	0.88	0.58*	0.04	0.00	0.04
31.70	0.50	0.88	0.58*	0.04	0.00	0.04
31.75	0.50	0.88	0.58*	0.04	0.00	0.04
31.80	0.50	0.88	0.58*	0.04	0.00	0.04
31.85	0.50	0.88	0.58*	0.04	0.00	0.04
31.90	0.50	0.88	0.58*	0.04	0.00	0.04
31.95	0.50	0.88	0.58*	0.04	0.00	0.04
32.00	0.50	0.88	0.58*	0.04	0.00	0.04
32.05	0.50	0.88	0.58*	0.04	0.00	0.04
32.10	0.50	0.88	0.58*	0.04	0.00	0.04
32.15	0.50	0.88	0.58*	0.04	0.00	0.04
32.20	0.50	0.88	0.58*	0.04	0.00	0.04
32.25	0.50	0.88	0.58*	0.04	0.00	0.04
32.30	0.50	0.88	0.58*	0.04	0.00	0.04
32.35	0.50	0.88	0.58*	0.04	0.00	0.04
32.40	0.50	0.88	0.58*	0.04	0.00	0.04
32.45	0.50	0.88	0.58*	0.04	0.00	0.04
32.50	0.50	0.88	0.58*	0.04	0.00	0.04
32.55	0.50	0.88	0.58*	0.04	0.00	0.04
32.60	0.50	0.88	0.58*	0.04	0.00	0.04
32.65	0.50	0.88	0.58*	0.04	0.00	0.04
32.70	0.50	0.88	0.58*	0.04	0.00	0.04
32.75	0.50	0.88	0.58*	0.04	0.00	0.04
32.80	0.50	0.88	0.58*	0.04	0.00	0.04
32.85	0.50	0.87	0.58*	0.04	0.00	0.04
32.90	0.50	0.87	0.58*	0.04	0.00	0.04
32.95	0.50	0.87	0.57*	0.04	0.00	0.04
33.00	0.50	0.87	0.57*	0.04	0.00	0.04
33.05	0.50	0.87	0.57*	0.04	0.00	0.04
33.10	0.50	0.87	0.57*	0.04	0.00	0.04
33.15	0.50	0.87	0.57*	0.04	0.00	0.04
33.20	0.50	0.87	0.57*	0.04	0.00	0.04
33.25	0.50	0.87	0.57*	0.04	0.00	0.04
33.30	0.50	0.87	0.57*	0.04	0.00	0.04
33.35	0.50	0.87	0.57*	0.04	0.00	0.04
33.40	0.50	0.87	0.57*	0.04	0.00	0.04
33.45	0.50	0.87	0.57*	0.04	0.00	0.04
33.50	0.50	0.87	0.57*	0.04	0.00	0.04
33.55	0.50	0.87	0.57*	0.04	0.00	0.04
33.60	0.50	0.87	0.57*	0.04	0.00	0.04
33.65	0.50	0.87	0.57*	0.04	0.00	0.04
33.70	0.50	0.87	0.57*	0.03	0.00	0.03
33.75	0.50	0.87	0.57*	0.03	0.00	0.03

33.80	0.50	0.87	0.57*	0.03	0.00	0.03
33.85	0.50	0.87	0.57*	0.03	0.00	0.03
33.90	0.50	0.87	0.57*	0.03	0.00	0.03
33.95	0.50	0.87	0.57*	0.03	0.00	0.03
34.00	0.50	0.87	0.57*	0.03	0.00	0.03
34.05	0.50	0.87	0.57*	0.03	0.00	0.03
34.10	0.50	0.87	0.57*	0.03	0.00	0.03
34.15	0.50	0.87	0.57*	0.03	0.00	0.03
34.20	0.50	0.87	0.57*	0.03	0.00	0.03
34.25	0.50	0.87	0.57*	0.02	0.00	0.02
34.30	0.50	0.87	0.57*	0.02	0.00	0.02
34.35	0.50	0.87	0.57*	0.02	0.00	0.02
34.40	0.50	0.87	0.57*	0.02	0.00	0.02
34.45	0.50	0.87	0.57*	0.02	0.00	0.02
34.50	0.50	0.87	0.57*	0.02	0.00	0.02
34.55	0.50	0.87	0.57*	0.02	0.00	0.02
34.60	0.50	0.87	0.57*	0.02	0.00	0.02
34.65	0.50	0.87	0.57*	0.01	0.00	0.01
34.70	0.50	0.87	0.57*	0.01	0.00	0.01
34.75	0.50	0.87	0.57*	0.01	0.00	0.01
34.80	0.50	0.87	0.57*	0.01	0.00	0.01
34.85	0.50	0.87	0.57*	0.01	0.00	0.01
34.90	0.50	0.87	0.57*	0.01	0.00	0.01
34.95	0.50	0.87	0.57*	0.00	0.00	0.00
35.00	0.50	0.87	0.57*	0.00	0.00	0.00
35.05	0.50	0.87	0.57*	0.00	0.00	0.00
35.10	0.50	0.87	0.57*	0.00	0.00	0.00
35.15	0.50	0.87	0.57*	0.00	0.00	0.00
35.20	0.50	0.87	0.57*	0.00	0.00	0.00
35.25	0.50	0.87	0.57*	0.00	0.00	0.00
35.30	0.50	0.87	0.57*	0.00	0.00	0.00
35.35	0.50	0.87	0.57*	0.00	0.00	0.00
35.40	0.50	0.87	0.57*	0.00	0.00	0.00
35.45	0.50	0.87	0.57*	0.00	0.00	0.00
35.50	0.50	0.87	0.57*	0.00	0.00	0.00
35.55	0.50	0.87	0.57*	0.00	0.00	0.00
35.60	0.50	0.87	0.57*	0.00	0.00	0.00
35.65	0.50	0.87	0.57*	0.00	0.00	0.00
35.70	0.50	0.87	0.57*	0.00	0.00	0.00
35.75	0.50	0.87	0.57*	0.00	0.00	0.00
35.80	0.50	0.87	0.57*	0.00	0.00	0.00
35.85	0.50	0.87	0.57*	0.00	0.00	0.00
35.90	0.50	0.87	0.57*	0.00	0.00	0.00
35.95	0.50	0.87	0.57*	0.00	0.00	0.00
36.00	0.50	0.87	0.57*	0.00	0.00	0.00
36.05	0.50	0.87	0.57*	0.00	0.00	0.00
36.10	0.50	0.87	0.57*	0.00	0.00	0.00
36.15	0.50	0.87	0.58*	0.00	0.00	0.00
36.20	0.50	0.87	0.58*	0.00	0.00	0.00
36.25	0.50	0.87	0.58*	0.00	0.00	0.00

36.30	0.50	0.87	0.58*	0.00	0.00	0.00
36.35	0.50	0.87	0.58*	0.00	0.00	0.00
36.40	0.50	0.87	0.58*	0.00	0.00	0.00
36.45	0.50	0.87	0.58*	0.00	0.00	0.00
36.50	0.50	0.87	0.58*	0.00	0.00	0.00
36.55	0.50	0.87	0.58*	0.00	0.00	0.00
36.60	0.50	0.87	0.58*	0.00	0.00	0.00
36.65	0.50	0.87	0.58*	0.00	0.00	0.00
36.70	0.50	0.86	0.58*	0.00	0.00	0.00
36.75	0.50	0.86	0.58*	0.00	0.00	0.00
36.80	0.50	0.86	0.58*	0.00	0.00	0.00
36.85	0.50	0.86	0.58*	0.00	0.00	0.00
36.90	0.50	0.86	0.58*	0.00	0.00	0.00
36.95	0.50	0.86	0.58*	0.00	0.00	0.00
37.00	0.50	0.86	0.58*	0.00	0.00	0.00
37.05	0.50	0.86	0.58*	0.00	0.00	0.00
37.10	0.50	0.86	0.58*	0.00	0.00	0.00
37.15	0.50	0.86	0.58*	0.00	0.00	0.00
37.20	0.50	0.86	0.58*	0.00	0.00	0.00
37.25	0.50	0.86	0.58*	0.00	0.00	0.00
37.30	0.50	0.86	0.58*	0.00	0.00	0.00
37.35	0.50	0.86	0.58*	0.00	0.00	0.00
37.40	0.50	0.86	0.58*	0.00	0.00	0.00
37.45	0.50	0.86	0.58*	0.00	0.00	0.00
37.50	0.50	0.86	0.58*	0.00	0.00	0.00
37.55	0.50	0.86	0.58*	0.00	0.00	0.00
37.60	0.50	0.86	0.58*	0.00	0.00	0.00
37.65	0.50	0.86	0.58*	0.00	0.00	0.00
37.70	0.50	0.86	0.58*	0.00	0.00	0.00
37.75	0.50	0.86	0.58*	0.00	0.00	0.00
37.80	0.50	0.86	0.58*	0.00	0.00	0.00
37.85	0.50	0.86	0.58*	0.00	0.00	0.00
37.90	0.50	0.86	0.58*	0.00	0.00	0.00
37.95	0.50	0.86	0.58*	0.00	0.00	0.00
38.00	0.50	0.86	0.58*	0.00	0.00	0.00
38.05	0.50	0.86	0.58*	0.00	0.00	0.00
38.10	0.50	0.86	0.58*	0.00	0.00	0.00
38.15	0.50	0.86	0.58*	0.00	0.00	0.00
38.20	0.50	0.86	0.58*	0.00	0.00	0.00
38.25	0.50	0.86	0.58*	0.00	0.00	0.00
38.30	0.50	0.86	0.58*	0.00	0.00	0.00
38.35	0.50	0.86	0.58*	0.00	0.00	0.00
38.40	0.50	0.86	0.58*	0.00	0.00	0.00
38.45	0.50	0.86	0.58*	0.00	0.00	0.00
38.50	0.49	0.86	0.58*	0.00	0.00	0.00
38.55	0.49	0.86	0.58*	0.00	0.00	0.00
38.60	0.49	0.86	0.58*	0.00	0.00	0.00
38.65	0.49	0.86	0.58*	0.00	0.00	0.00
38.70	0.49	0.86	0.58*	0.00	0.00	0.00
38.75	0.49	0.86	0.58*	0.00	0.00	0.00

38.80	0.49	0.86	0.58*	0.00	0.00	0.00
38.85	0.49	0.86	0.58*	0.00	0.00	0.00
38.90	0.49	0.86	0.58*	0.00	0.00	0.00
38.95	0.49	0.86	0.58*	0.00	0.00	0.00
39.00	0.49	0.86	0.58*	0.00	0.00	0.00
39.05	0.49	0.86	0.58*	0.00	0.00	0.00
39.10	0.49	0.86	0.58*	0.00	0.00	0.00
39.15	0.49	0.86	0.58*	0.00	0.00	0.00
39.20	0.49	0.86	0.58*	0.00	0.00	0.00
39.25	0.49	0.85	0.58*	0.00	0.00	0.00
39.30	0.49	0.85	0.58*	0.00	0.00	0.00
39.35	0.49	0.85	0.58*	0.00	0.00	0.00
39.40	0.49	0.85	0.58*	0.00	0.00	0.00
39.45	0.49	0.85	0.58*	0.00	0.00	0.00
39.50	0.49	0.85	0.58*	0.00	0.00	0.00
39.55	0.49	0.85	0.58*	0.00	0.00	0.00
39.60	0.49	0.85	0.58*	0.00	0.00	0.00
39.65	0.49	0.85	0.58*	0.00	0.00	0.00
39.70	0.49	0.85	0.58*	0.00	0.00	0.00
39.75	0.49	0.85	0.58*	0.00	0.00	0.00
39.80	0.49	0.85	0.58*	0.00	0.00	0.00
39.85	0.49	0.85	0.58*	0.00	0.00	0.00
39.90	0.49	0.85	0.58*	0.00	0.00	0.00
39.95	0.49	0.85	0.58*	0.00	0.00	0.00
40.00	0.49	0.85	0.58*	0.00	0.00	0.00
40.05	0.49	0.85	0.58*	0.00	0.00	0.00
40.10	0.49	0.85	0.58*	0.00	0.00	0.00
40.15	0.49	0.85	0.58*	0.00	0.00	0.00
40.20	0.49	0.85	0.58*	0.00	0.00	0.00
40.25	0.49	0.85	0.58*	0.00	0.00	0.00
40.30	0.49	0.85	0.58*	0.00	0.00	0.00
40.35	0.49	0.85	0.58*	0.00	0.00	0.00
40.40	0.49	0.85	0.58*	0.00	0.00	0.00
40.45	0.49	0.85	0.58*	0.00	0.00	0.00
40.50	0.49	0.85	0.58*	0.00	0.00	0.00
40.55	0.49	0.85	0.58*	0.00	0.00	0.00
40.60	0.49	0.85	0.58*	0.00	0.00	0.00
40.65	0.49	0.85	0.58*	0.00	0.00	0.00
40.70	0.49	0.85	0.58*	0.00	0.00	0.00
40.75	0.49	0.85	0.58*	0.00	0.00	0.00
40.80	0.49	0.85	0.58*	0.00	0.00	0.00
40.85	0.49	0.85	0.58*	0.00	0.00	0.00
40.90	0.49	0.85	0.58*	0.00	0.00	0.00
40.95	0.49	0.85	0.58*	0.00	0.00	0.00
41.00	0.49	0.85	0.58*	0.00	0.00	0.00
41.05	0.49	0.85	0.58*	0.00	0.00	0.00
41.10	0.49	0.85	0.58*	0.00	0.00	0.00
41.15	0.49	0.85	0.58*	0.00	0.00	0.00
41.20	0.49	0.85	0.58*	0.00	0.00	0.00
41.25	0.49	0.85	0.58*	0.00	0.00	0.00

41.30	0.49	0.85	0.58*	0.00	0.00	0.00
41.35	0.49	0.85	0.58*	0.00	0.00	0.00
41.40	0.49	0.84	0.58*	0.00	0.00	0.00
41.45	0.49	0.84	0.58*	0.00	0.00	0.00
41.50	0.49	0.84	0.58*	0.00	0.00	0.00
41.55	0.49	0.84	0.58*	0.00	0.00	0.00
41.60	0.49	0.84	0.58*	0.00	0.00	0.00
41.65	0.49	0.84	0.58*	0.00	0.00	0.00
41.70	0.49	0.84	0.58*	0.00	0.00	0.00
41.75	0.49	0.84	0.58*	0.00	0.00	0.00
41.80	0.49	0.84	0.58*	0.00	0.00	0.00
41.85	0.49	0.84	0.58*	0.00	0.00	0.00
41.90	0.49	0.84	0.58*	0.00	0.00	0.00
41.95	0.49	0.84	0.58*	0.00	0.00	0.00
42.00	0.49	0.84	0.58*	0.00	0.00	0.00
42.05	0.49	0.84	0.58*	0.00	0.00	0.00
42.10	0.49	0.84	0.58*	0.00	0.00	0.00
42.15	0.49	0.84	0.58*	0.00	0.00	0.00
42.20	0.49	0.84	0.58*	0.00	0.00	0.00
42.25	0.49	0.84	0.58*	0.00	0.00	0.00
42.30	0.49	0.84	0.58*	0.00	0.00	0.00
42.35	0.49	0.84	0.58*	0.00	0.00	0.00
42.40	0.49	0.84	0.58*	0.00	0.00	0.00
42.45	0.49	0.84	0.58*	0.00	0.00	0.00
42.50	0.49	0.84	0.58*	0.00	0.00	0.00
42.55	0.49	0.84	0.58*	0.00	0.00	0.00
42.60	0.49	0.84	0.58*	0.00	0.00	0.00
42.65	0.49	0.84	0.58*	0.00	0.00	0.00
42.70	0.49	0.84	0.58*	0.00	0.00	0.00
42.75	0.49	0.84	0.58*	0.00	0.00	0.00
42.80	0.49	0.84	0.58*	0.00	0.00	0.00
42.85	0.49	0.84	0.58*	0.00	0.00	0.00
42.90	0.49	0.84	0.58*	0.00	0.00	0.00
42.95	0.49	0.84	0.58*	0.00	0.00	0.00
43.00	0.49	0.84	0.58*	0.00	0.00	0.00
43.05	0.49	0.84	0.58*	0.00	0.00	0.00
43.10	0.49	0.84	0.58*	0.00	0.00	0.00
43.15	0.49	0.84	0.58*	0.00	0.00	0.00
43.20	0.49	0.84	0.58*	0.00	0.00	0.00
43.25	0.49	0.84	0.58*	0.00	0.00	0.00
43.30	0.49	0.84	0.58*	0.00	0.00	0.00
43.35	0.49	0.83	0.58*	0.00	0.00	0.00
43.40	0.49	0.83	0.58*	0.00	0.00	0.00
43.45	0.49	0.83	0.58*	0.00	0.00	0.00
43.50	0.49	0.83	0.58*	0.00	0.00	0.00
43.55	0.49	0.83	0.58*	0.00	0.00	0.00
43.60	0.49	0.83	0.58*	0.00	0.00	0.00
43.65	0.49	0.83	0.59*	0.00	0.00	0.00
43.70	0.49	0.83	0.59*	0.00	0.00	0.00
43.75	0.49	0.83	0.59*	0.00	0.00	0.00

43.80	0.49	0.83	0.59*	0.00	0.00	0.00
43.85	0.49	0.83	0.59*	0.00	0.00	0.00
43.90	0.49	0.83	0.59*	0.00	0.00	0.00
43.95	0.49	0.83	0.59*	0.00	0.00	0.00
44.00	0.49	0.83	0.59*	0.00	0.00	0.00
44.05	0.49	0.83	0.59*	0.00	0.00	0.00
44.10	0.49	0.83	0.59*	0.00	0.00	0.00
44.15	0.49	0.83	0.59*	0.00	0.00	0.00
44.20	0.49	0.83	0.59*	0.00	0.00	0.00
44.25	0.49	0.83	0.59*	0.00	0.00	0.00
44.30	0.49	0.83	0.59*	0.00	0.00	0.00
44.35	0.49	0.83	0.59*	0.00	0.00	0.00
44.40	0.49	0.83	0.59*	0.00	0.00	0.00
44.45	0.49	0.83	0.59*	0.00	0.00	0.00
44.50	0.49	0.83	0.59*	0.00	0.00	0.00
44.55	0.49	0.83	0.59*	0.00	0.00	0.00
44.60	0.49	0.83	0.59*	0.00	0.00	0.00
44.65	0.49	0.83	0.59*	0.00	0.00	0.00
44.70	0.49	0.83	0.59*	0.00	0.00	0.00
44.75	0.49	0.83	0.59*	0.00	0.00	0.00
44.80	0.49	0.83	0.59*	0.00	0.00	0.00
44.85	0.49	0.83	0.59*	0.00	0.00	0.00
44.90	0.49	0.83	0.59*	0.00	0.00	0.00
44.95	0.49	0.83	0.59*	0.00	0.00	0.00
45.00	0.49	0.83	0.59*	0.00	0.00	0.00
45.05	0.49	0.83	0.59*	0.00	0.00	0.00
45.10	0.49	0.83	0.59*	0.00	0.00	0.00
45.15	0.49	0.82	0.59*	0.00	0.00	0.00
45.20	0.49	0.82	0.59*	0.00	0.00	0.00
45.25	0.49	0.82	0.59*	0.00	0.00	0.00
45.30	0.49	0.82	0.59*	0.00	0.00	0.00
45.35	0.49	0.82	0.59*	0.00	0.00	0.00
45.40	0.48	0.82	0.59*	0.00	0.00	0.00
45.45	0.48	0.82	0.59*	0.00	0.00	0.00
45.50	0.48	0.82	0.59*	0.00	0.00	0.00
45.55	0.48	0.82	0.59*	0.00	0.00	0.00
45.60	0.48	0.82	0.59*	0.00	0.00	0.00
45.65	0.48	0.82	0.59*	0.00	0.00	0.00
45.70	0.48	0.82	0.59*	0.00	0.00	0.00
45.75	0.48	0.82	0.59*	0.00	0.00	0.00
45.80	0.48	0.82	0.59*	0.00	0.00	0.00
45.85	0.48	0.82	0.59*	0.00	0.00	0.00
45.90	0.48	0.82	0.59*	0.00	0.00	0.00
45.95	0.48	0.82	0.59*	0.00	0.00	0.00
46.00	0.48	0.82	0.59*	0.00	0.00	0.00
46.05	0.48	0.82	0.59*	0.00	0.00	0.00
46.10	0.48	0.82	0.59*	0.00	0.00	0.00
46.15	0.48	0.82	0.59*	0.00	0.00	0.00
46.20	0.48	0.82	0.59*	0.00	0.00	0.00
46.25	0.48	0.82	0.59*	0.00	0.00	0.00

46.30	0.48	0.82	0.59*	0.00	0.00	0.00
46.35	0.48	0.82	0.59*	0.00	0.00	0.00
46.40	0.48	0.82	0.59*	0.00	0.00	0.00
46.45	0.48	0.82	0.59*	0.00	0.00	0.00
46.50	0.48	0.82	0.59*	0.00	0.00	0.00
46.55	0.48	0.82	0.59*	0.00	0.00	0.00
46.60	0.48	0.82	0.59*	0.00	0.00	0.00
46.65	0.48	0.82	0.59*	0.00	0.00	0.00
46.70	0.48	0.82	0.59*	0.00	0.00	0.00
46.75	0.48	0.82	0.59*	0.00	0.00	0.00
46.80	0.48	0.82	0.59*	0.00	0.00	0.00
46.85	0.48	0.82	0.59*	0.00	0.00	0.00
46.90	0.48	0.81	0.59*	0.00	0.00	0.00
46.95	0.48	0.81	0.59*	0.00	0.00	0.00
47.00	0.48	0.81	0.59*	0.00	0.00	0.00
47.05	0.48	0.81	0.59*	0.00	0.00	0.00
47.10	0.48	0.81	0.59*	0.00	0.00	0.00
47.15	0.48	0.81	0.59*	0.00	0.00	0.00
47.20	0.48	0.81	0.59*	0.00	0.00	0.00
47.25	0.48	0.81	0.59*	0.00	0.00	0.00
47.30	0.48	0.81	0.59*	0.00	0.00	0.00
47.35	0.48	0.81	0.59*	0.00	0.00	0.00
47.40	0.48	0.81	0.59*	0.00	0.00	0.00
47.45	0.48	0.81	0.59*	0.00	0.00	0.00
47.50	0.48	0.81	0.59*	0.00	0.00	0.00
47.55	0.48	0.81	0.59*	0.00	0.00	0.00
47.60	0.48	0.81	0.59*	0.00	0.00	0.00
47.65	0.48	0.81	0.59*	0.00	0.00	0.00
47.70	0.48	0.81	0.59*	0.00	0.00	0.00
47.75	0.48	0.81	0.59*	0.00	0.00	0.00
47.80	0.48	0.81	0.59*	0.00	0.00	0.00
47.85	0.48	0.81	0.60*	0.00	0.00	0.00
47.90	0.48	0.81	0.60*	0.00	0.00	0.00
47.95	0.48	0.81	0.60*	0.00	0.00	0.00
48.00	0.48	0.81	0.60*	0.00	0.00	0.00
48.05	0.48	0.81	0.60*	0.00	0.00	0.00
48.10	0.48	0.81	0.60*	0.00	0.00	0.00
48.15	0.48	0.81	0.60*	0.00	0.00	0.00
48.20	0.48	0.81	0.60*	0.00	0.00	0.00
48.25	0.48	0.81	0.60*	0.00	0.00	0.00
48.30	0.48	0.81	0.60*	0.00	0.00	0.00
48.35	0.48	0.81	0.60*	0.00	0.00	0.00
48.40	0.48	0.81	0.60*	0.00	0.00	0.00
48.45	0.48	0.81	0.60*	0.00	0.00	0.00
48.50	0.48	0.81	0.60*	0.00	0.00	0.00
48.55	0.48	0.80	0.60*	0.00	0.00	0.00
48.60	0.48	0.80	0.60*	0.00	0.00	0.00
48.65	0.48	0.80	0.60*	0.00	0.00	0.00
48.70	0.48	0.80	0.60*	0.00	0.00	0.00
48.75	0.48	0.80	0.60*	0.00	0.00	0.00

48.80	0.48	0.80	0.60*	0.00	0.00	0.00
48.85	0.48	0.80	0.60*	0.00	0.00	0.00
48.90	0.48	0.80	0.60*	0.00	0.00	0.00
48.95	0.48	0.80	0.60*	0.00	0.00	0.00
49.00	0.48	0.80	0.60*	0.00	0.00	0.00
49.05	0.48	0.80	0.60*	0.00	0.00	0.00
49.10	0.48	0.80	0.60*	0.00	0.00	0.00
49.15	0.48	0.80	0.60*	0.00	0.00	0.00
49.20	0.48	0.80	0.60*	0.00	0.00	0.00
49.25	0.48	0.80	0.60*	0.00	0.00	0.00
49.30	0.48	0.80	0.60*	0.00	0.00	0.00
49.35	0.48	0.80	0.60*	0.00	0.00	0.00
49.40	0.48	0.80	0.60*	0.00	0.00	0.00
49.45	0.48	0.80	0.60*	0.00	0.00	0.00
49.50	0.48	0.80	0.60*	0.00	0.00	0.00
49.55	0.48	0.80	0.60*	0.00	0.00	0.00
49.60	0.48	0.80	0.60*	0.00	0.00	0.00
49.65	0.48	0.80	0.60*	0.00	0.00	0.00
49.70	0.48	0.80	0.60*	0.00	0.00	0.00
49.75	0.48	0.80	0.60*	0.00	0.00	0.00
49.80	0.48	0.80	0.60*	0.00	0.00	0.00
49.85	0.48	0.80	0.60*	0.00	0.00	0.00
49.90	0.48	0.80	0.60*	0.00	0.00	0.00
49.95	0.48	0.80	0.60*	0.00	0.00	0.00
50.00	0.48	0.80	0.60*	0.00	0.00	0.00

---

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Unit: qc, fs, Stress or Pressure = atm (1.0581tsf); Unit Weight = pcf; Depth = ft; Settlement = in.

---

1 atm (atmosphere) = 1 tsf (ton/ft2)
CRRm Cyclic resistance ratio from soils
CSRsf Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S. Factor of Safety against liquefaction, F.S.=CRRm/CSRsf
S_sat Settlement from saturated sands
S_dry Settlement from Unsaturated Sands
S_all Total Settlement from Saturated and Unsaturated Sands
NoLiq No-Liquefy Soils

APPENIDIX E
TRIP GENERATION AND VMT SCREENING ASSESSMENT

FEHR PEERS

Memorandum

Date: October 31, 2023

To: W Don Lawson, Lawson Concrete, Inc.

From: Paul Herrmann, P.E.
Ethan Sun, Ph.D

Subject: Coachella RV Storage Trip Generation and VMT Screening Assessment

OC23-1008

Fehr & Peers has completed a transportation study in support of the proposed RV Storage project (Project) along Harrison Street in the City of Coachella, California. This memorandum presents a trip generation, Level of Service (LOS) traffic analysis exemption assessment and Vehicle Miles Traveled (VMT) screening assessment. This study is consistent with requirements of Senate Bill 743 (SB 743), the Office of Planning and Research's (OPR's) *Technical Advisory on Evaluating Transportation Impacts in CEQA* (2018), and the *County of Riverside Transportation Analysis Guidelines (2020)* (County's TA Guidelines). This study concludes that the Project's trip generation is low enough to screen from both LOS and VMT analysis under the presumption that it will result in a less-than-significant impact.

The remainder of this memorandum is separated into Project Description, Trip Generation, LOS Traffic Analysis Exemption Assessment, VMT Screening Assessment, and Conclusion.

Project Description

The Project proposes an RV Storage facility on vacant land east of Harrison Street between Avenue 48 and Avenue 50 in the City of Coachella, California. The Project proposes the follow land uses:

- 146 units of RV Storage space (219,950 square feet building)
- 6,840 square feet of warehousing[1]

[1] Separate warehouse storage not included in the RV storage space, intended to support on-site operations and maintenance.

- 2,340 square feet of office space[2]

The site plan is included as **Attachment A**. Site access is provided from two driveways on Harrison Street.

Trip Generation

Fehr & Peers referenced the *Trip Generation Manual, 11th Edition (Institute of Transportation Engineers [ITE], 2021)* to obtain the trip generation rates for calculating the approximate number of net new trips that the Project is likely to generate. However, although the proposed uses are similar to ITE Land Use Codes 150 (Warehousing), due to the unique use, traditional ITE trip generation rates were found to be not representative of the Project. As recommended by ITE, vehicle counts were collected as empirical data at a similar site to represent realistic trip generation behavior unique to the Project and location. The nearby LUXTOR RV Storage and Service (49751 Oates Ln, Coachella, CA 92236) was identified as a similar use to collect counts at that would be most representative of the proposed Project. The traffic counts and unit size for LUXTOR RV Storage and Service are included as **Attachment B**.

24-hour traffic counts were collected at the two access driveway locations of the LUXTOR RV Storage and Service on Tuesday, October 10, 2023, during fair weather. The custom trip generation rates were estimated for daily, AM peak hour and PM peak hour and are considered conservative as the sample site provides additional services, such as on-site maintenance, that the Project will not provide. **Table 1** presents the custom trip generation rates, and **Table 2** presents trip generation estimates for the Project. As shown in **Table 2**, the Project is estimated to generate 212 daily trips, including approximately 25 (16 inbound/9 outbound) vehicle trips during the AM peak hour, and approximately 23 (6 inbound/17 outbound) vehicle trips during the PM peak hour.

LOS Traffic Analysis Exemption Assessment

Exemption Criteria

The County's TA Guidelines requires a LOS review for land use projects to maintain consistency with policies contained in the *Riverside County General Plan (December 2015)*. To determine what level of LOS analysis is required, the project should be evaluated to determine if it meets any of the exemption criteria outlined in the County's TA Guidelines. These criteria are:

- All residential parcel maps.
- Single family residential tracts of less than 100 lots.
- Apartments and other multiple family projects of less than 150 units.

[2] Proposed office use to serve as admin and supportive use for Lawson Concrete.

- Plot plan and use cases for projects of one acre or less.
- Preschools, elementary schools, and middle schools.
- Churches, lodges, community centers, neighborhood parks and community parks.
- Mini storage yards.
- Congregate care facilities that contain significant special services, such as medical facilities, dining facilities, recreation facilities and support retail facilities.
- Level 1 projects (100-200 peak hour trips) in areas where a comprehensive traffic analysis has been performed and road improvement infrastructure funding mechanisms are in place. The Transportation Department may, however, require a traffic analysis for projects that are anticipated to exhibit potential adverse deficiencies in the circulation system.
- Any use which can demonstrate, based on the most recent edition of the Trip Generation Report published by the Institute of Transportation Engineers (ITE) or other approved trip generation data, trip generation of less than 100 vehicle trips during the peak hours.

Projects which are not eligible for any of the exemption criteria are required to complete an LOS analysis.

Project LOS Traffic Study Assessment

As shown in **Table 2**, the Project satisfies the LOS analysis exemption criteria of generating less than 100 vehicle trips during the peak hours. Therefore, no further LOS analysis is required for the Project.

VMT Screening Assessment

Screening Criteria

The County's TA Guidelines specifies that land use projects require an evaluation of impacts related to VMT. To determine what level of VMT analysis is required, the project should be evaluated to determine if it meets any of the screening criteria outlined in the County's TA Guidelines. These criteria are:

- **Small Projects**
    - Single Family Housing projects less than or equal to 110 Dwelling Units; or
    - Multi Family (low rise) Housing projects less than or equal to 147 Dwelling Units; or
    - Multi Family (mid-rise) Housing projects less than or equal to 194 Dwelling Units; or
    - General Office Building with area less than or equal to 165,000 SF; or
    - Retail buildings with area less than or equal to 60,000 SF; or

  - Warehouse (unrefrigerated) buildings with area less than or equal to 208,000 SF; or
  - General Light Industrial buildings with area less than or equal to 179,000 SF; or
  - **Project GHG emissions less than 3,000 Metric Tons of Carbon Dioxide Equivalent (MTCO2e) as determined by a methodology acceptable to the Transportation Department;** or
  - Unless specified above, project trip generation is less than 110 trips per day per the ITE Manual or other acceptable source determined by Riverside County.
- **Near High Quality Transit**
  - Within a ½ mile of an existing major transit stop; and
  - Maintains a service interval frequency of 15 minutes or less during the morning and afternoon peak commute periods.
- **Local-Serving Retail**
  - No single store on-site exceeds 50,000 SF; and
  - Project is local-serving as determined by the Transportation Department
- **Affordable Housing**
  - A high percentage of affordable housing is provided as determined by the Riverside County Planning and Transportation Departments.
- **Local Essential Service**
  - Project is local-serving as determined by the Transportation Department; and
  - Local-serving and Day care center; or
  - Police or Fire facility; or
  - Medical/Dental office building under 50,000 square feet; or
  - Government offices (in-person services such as post office, library, and utilities); or
  - Local or Community Parks.
- **Map-Based Screening**
  - Area of development is under threshold as shown on screening map as allowed by the Transportation Department.

Projects which are not eligible for any of the screening criteria are required to complete a VMT analysis and forecasting through the Riverside County Transportation Model (RIVCOM) to determine if they have a significant VMT impact.

Project VMT Screening

While the RV storage is most similar to the warehouse land use type, the proposed Project would not operate like a typical warehouse and therefore does not fit within the available land use types under the Small Project screening criteria. Therefore, the Unit-Based GHG Emission screening criteria was used to evaluate the project's potential VMT impact significance. According to the *Riverside County Greenhouse Gas Emissions Screening Tables document (July 17, 2018)*, projects

that generate less than 3,000 Metric Tons of Carbon Dioxide Equivalent (MTCO2e) per year are presumed to result in a less-than-significant transportation impact related to VMT. California Emissions Estimator Model (CalEEMod version 2016.3.2) was used to determine the maximum number of dwelling units or square footage that would remain within the 3,000 MTCO2e per year screening threshold.

The Warehouse (Unrefrigerated) was referenced to estimate the emission equivalent maximum daily trips allowed within the 3,000 MTCO2e per year emission threshold. Based on the County's TA Guidelines *Appendix G: Unit-Based Screening Thresholds for Small Projects*, the maximum size for Warehouse (Unrefrigerated) generating less than 3,000 MTCO2e per year is 208,000 square feet, which will result in approximately 356 total daily trips (**Table 3**). As shown in **Table 2**, the Project's daily trip generation (212 trips) is less than the emission equivalent daily trip threshold (356 trips). Therefore, the Project is assumed to generate less than 3,000 MTCO2e per year and would qualify for Small Project screening, consistent with the requirements of the County's TA Guidelines. As the Project is presumed to result in a less-than-significant transportation impact related to VMT, no further VMT analysis is required for the Project.

Conclusion

This technical memorandum documents the process of LOS traffic study exemption and VMT screening assessment for the proposed RV Storage project (Project) in the City of Coachella, California. The following summarizes the results of the study:

- The LOS and VMT screening methodology for the Project is consistent with the methodology in the County's TA Guidelines.
- The Project generates 25 AM peak hour trips and 23 PM peak hour trips, which are both less than 100 peak hour trips. Therefore, the Project satisfies the LOS traffic analysis exemption criteria. No further LOS analysis is required for the Project.
- The Unit-Based GHG Emission screening criteria of 3,000 MTCO2e per year was used in the VMT screening assessment. The Project trip generation (212 daily trips) is below the emission equivalent threshold for VMT screening (356 daily trips). Therefore, the Project satisfies Unit-Based VMT Screening criteria and is presumed to have a less-than-significant transportation impact. No further VMT analysis is required for the Project.

If you have any questions or comments, please do not hesitate to contact Ethan Sun directly at (949) 308-6310.

Table 1: Custom Trip Generation Rates

Land Use	Quantity	Unit	Traffic Counts							Custom Trip Generation Rates						
			Daily Trips	AM Peak			PM Peak			Daily Rate	AM Peak			PM Peak		
				In	Out	Total	In	Out	Total		Rate	% In	% Out	Rate	% In	% Out
Existing RV Storage	101	Storage Units	121	9	8	17	4	11	15	1.20	0.14	53%	47%	0.12	27%	73%

Notes:

1. *Source: Fehr and Peers, 2023*

Table 2: Project Trip Generation

Land Use	ITE Land Code	Quantity	Unit	Trip Generation Rates							Estimated Trip Generation						
				Daily Rate	AM Peak			PM Peak			Daily Trips	AM Peak			PM Peak		
					Rate	% In	% Out	Rate	% In	% Out		In	Out	Total	In	Out	Total
RV Storage/ Office	N/A	146	Storage Units	1.20	0.14	53%	47%	0.12	27%	73%	175	11	9	20	5	13	18
Warehousing	150	6.84	KSF	1.71	0.17	77%	23%	0.18	28%	72%	12	1	0	1	0	1	1
Office	710	2.34	KSF	10.84	1.52	88%	12%	1.52	17%	83%	25	4	0	4	1	3	4
								Net New External Trips			**212**	**16**	**9**	**25**	**6**	**17**	**23**

Notes:

1. KSF = 1,000 square feet

2. Source: Trip Generation Manual 11th Edition (Institute of Transportation Engineers, 2021)

Table 3: Screening Criteria Threshold

Land Use	ITE Land Code	Quantity	Unit	Trip Generation Rates							Estimated Trip Generation						
				Daily Rate	AM Peak			PM Peak			Daily Trips	AM Peak			PM Peak		
					Rate	% In	% Out	Rate	% In	% Out		In	Out	Total	In	Out	Total
Warehousing	150	208	KSF	1.71	0.17	77%	23%	0.18	28%	72%	356	27	8	35	10	27	37

Notes:

1. KSF = 1,000 square feet

2. Source: Trip Generation Manual 11th Edition (Institute of Transportation Engineers, 2021)

Attachment A: Site Plan

RV STORAGE UNIT TABULATION

UNIT TYPE	QUANTITY	TOTAL AREA
40'X70'	2	5,600
30'X70'	3	6,300
25'X70'	6	10,500
20'X70'	4	5,600
	15	28,000

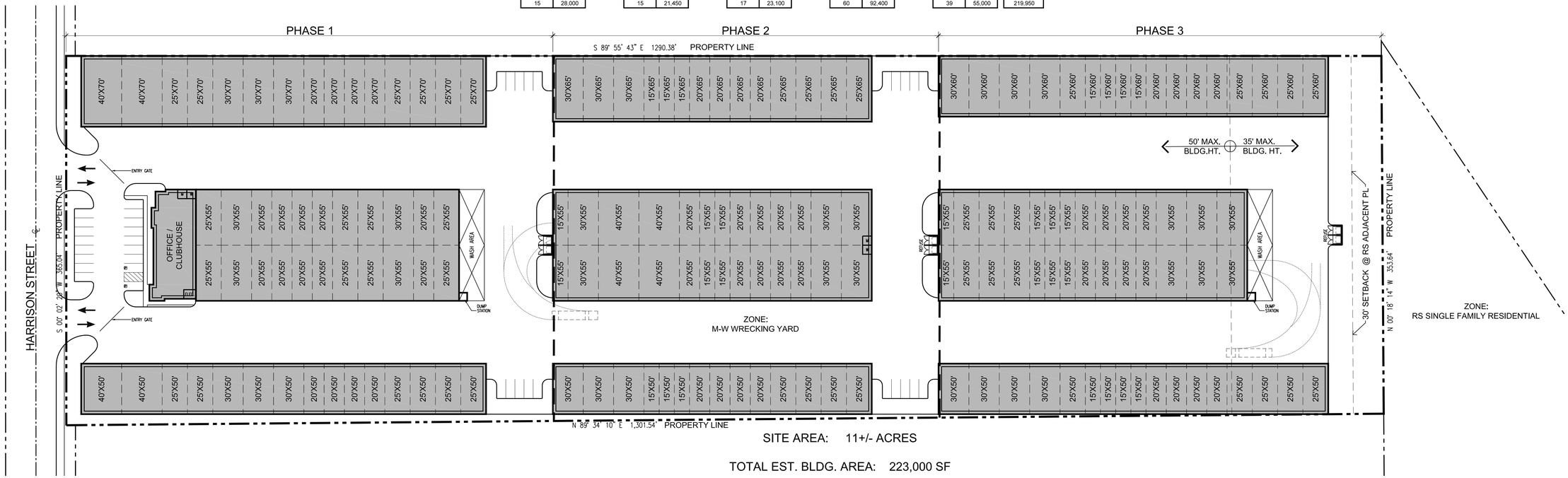
UNIT TYPE	QUANTITY	TOTAL AREA
30'X65'	3	5,850
25'X65'	4	6,500
20'X65'	4	5,200
15'X65'	4	3,900
	15	21,450

UNIT TYPE	QUANTITY	TOTAL AREA
30'X60'	4	7,200
25'X60'	5	7,500
20'X60'	4	4,800
15'X60'	4	3,600
	17	23,100

UNIT TYPE	QUANTITY	TOTAL AREA
40'X55'	2	4,400
30'X55'	16	26,400
25'X55'	14	19,250
20'X55'	28	30,800
15'X55'	14	11,550
	60	92,400

UNIT TYPE	QUANTITY	TOTAL AREA
40'X50'	2	4,000
30'X50'	10	15,000
25'X50'	15	18,750
20'X50'	12	12,000
15'X50'	7	5,250
	39	55,000

TOTAL AREA (S.F.)
219,950



SITE AREA: 11+/- ACRES

TOTAL EST. BLDG. AREA: 223,000 SF

SITE PLAN

SCALE: 1" = 50'-0"

0 50 100 200 FT.

NORTH

McGee Sharon Architects, Inc.

3479 Kurtz St
San Diego CA 92110

74-020 Alessandro Dr Ste F
Palm Desert CA 92260

Tel: 619.299.9111
mcgeesharon.com

HARRISON STREET RV STORAGE

HARRISON STREET
INDIO CA 92201

OWNERSHIP OF DOCUMENTS

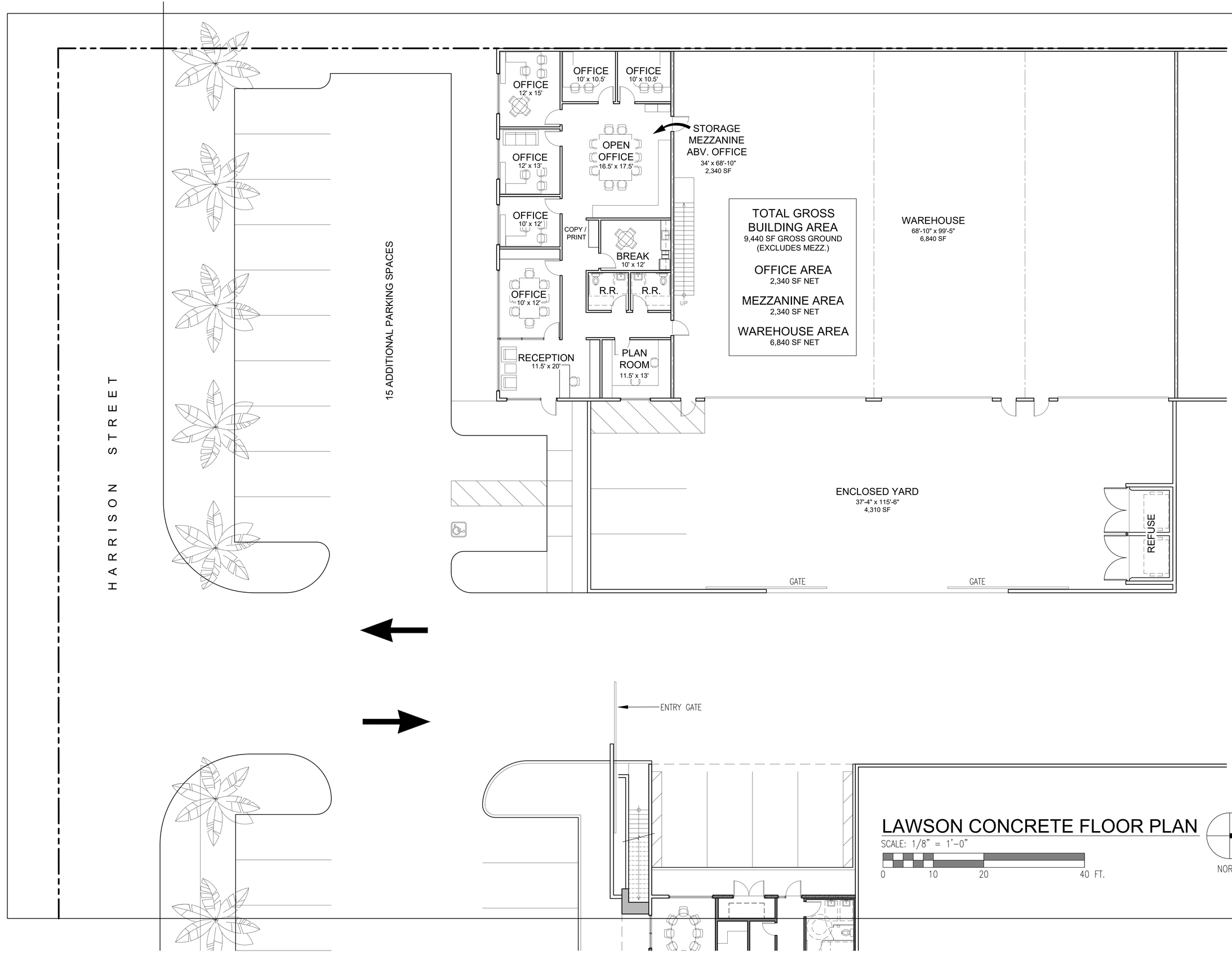
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Drawing Date	Nov. 02, 2021
Scale	AS NOTED
Job #	1330
Revisions	

Sheet Number
AS-1.0

SITE PLAN



LAWSON CONCRETE FLOOR PLAN

SCALE: 1/8" = 1'-0"

0 10 20 40 FT.

NORTH

McGee·Sharon·Architects, Inc.
3479 Kurtz St
San Diego CA 92110
74-020 Alessandro Dr Ste F
Palm Desert CA 92260
Tel: 619.299.9111
mcgeesharon.com

COACHELLA RV STORAGE

HARRISON ST.
COACHELLA, CA 92236

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DRAWINGS AND SPECIFICATIONS AS INSTRUMENTS OF SERVICE ARE AND SHALL REMAIN THE PROPERTY OF THE ARCHITECT WHETHER THE PROJECT FOR WHICH THEY ARE PREPARED IS EXECUTED OR NOT. THEY ARE NOT TO BE USED ON OTHER PROJECTS OR EXTENSIONS TO THIS PROJECT EXCEPT BY AGREEMENT IN WRITING AND WITH APPROPRIATE COMPENSATION TO McGEE SHARON ARCHITECTS
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Drawing Date	OCT., 07 2022
Scale	AS NOTED
Job #	1330
Revisions	

Sheet Number
A-1.5

FLOOR PLAN

Attachment B: Traffic Counts and Size of Luxtor Site

Tuesday, October 10, 2023 | CITY: Coachella | PROJECT: SC4237

ADT1 DWY1 west of Oates Ln.

Suhsduhg#e|#DlpWG#OOF##who1#:47#586#:;;

AM Period	IN		OUT			PM Period	IN		OUT		
0:00	0		0			12:00	2		0		
0:15	0		0			12:15	0		0		
0:30	0		0			12:30	1		0		
0:45	0	0	0	0		12:45	1	4	1	1	5
1:00	0		0			13:00	2		1		
1:15	0		0			13:15	4		0		
1:30	0		0			13:30	1		1		
1:45	0	0	0	0		13:45	1	8	2	4	12
2:00	0		0			14:00	2		1		
2:15	0		0			14:15	2		1		
2:30	0		0			14:30	1		4		
2:45	0	0	0	0		14:45	1	6	2	8	14
3:00	0		0			15:00	1		2		
3:15	0		0			15:15	0		0		
3:30	0		0			15:30	1		2		
3:45	0	0	0	0		15:45	2	4	0	4	8
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4:15	0		0			16:15	0		0		
4:30	0		0			16:30	0		0		
4:45	0	0	0	0		16:45	0	0	0	2	2
5:00	1		0			17:00	0		1		
5:15	1		0			17:15	0		2		
5:30	0		0			17:30	0		0		
5:45	0	2	0	0	2	17:45	0	0	0	3	3
6:00	0		0			18:00	0		0		
6:15	0		1			18:15	0		0		
6:30	1		0			18:30	0		0		
6:45	4	5	0	1	6	18:45	0	0	0	0	
7:00	0		0			19:00	0		0		
7:15	0		0			19:15	0		0		
7:30	0		0			19:30	0		0		
7:45	3	3	0	0	3	19:45	0	0	0	0	
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8:15	2		0			20:15	0		0		
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10:15	4		0			22:15	0		0		
10:30	0		1			22:30	0		0		
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11:00	2		0			23:00	0		0		
11:15	2		0			23:15	0		0		
11:30	1		3			23:30	0		0		
11:45	1	6	2	5	11	23:45	0	0	0	0	
Total Vol.	33		13		**46**		22		22		**44**

Daily Totals

IN	OUT	Combined
55	35	**90**

	AM			PM		
Split %	71.7%	28.3%	**51.1%**	50.0%	50.0%	**48.9%**
Peak Hour	7:30	11:00	**8:00**	12:30	14:15	**13:45**
Volume	9	5	**13**	8	9	**14**
P.H.F.	0.56	0.42	**0.65**	0.75	0.56	**0.70**

cs@aimtd.com Tell. 714 253 7888

Tuesday, October 10, 2023 CITY: Coachella PROJECT: SC4237

ADT2 DWY2 west of Oates Ln.

Suhsduhg#e|#DlpWG#OOF##who1#:47#586#:;;

AM Period	IN		OUT			PM Period	IN		OUT		
0:00	0		0			12:00	0		0		
0:15	0		0			12:15	1		0		
0:30	0		0			12:30	0		1		
0:45	0	0	0	0		12:45	0	1	3	4	5
1:00	0		0			13:00	0		0		
1:15	0		0			13:15	0		0		
1:30	0		0			13:30	0		0		
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2:15	0		0			14:15	0		0		
2:30	0		0			14:30	0		0		
2:45	0	0	0	0		14:45	0	0	0	0	
3:00	0		0			15:00	0		2		
3:15	0		0			15:15	0		0		
3:30	0		0			15:30	0		3		
3:45	0	0	0	0		15:45	0	0	2	7	7
4:00	0		0			16:00	0		0		
4:15	0		0			16:15	0		0		
4:30	0		0			16:30	0		0		
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6:30	0		0			18:30	0		0		
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7:15	3		0			19:15	0		0		
7:30	0		0			19:30	0		0		
7:45	0	3	0	0	3	19:45	0	0	0	0	
8:00	0		1			20:00	0		0		
8:15	0		0			20:15	0		0		
8:30	0		1			20:30	0		0		
8:45	0	0	2	4	4	20:45	0	0	0	0	
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11:00	0		0			23:00	0		0		
11:15	0		2			23:15	0		0		
11:30	0		1			23:30	0		0		
11:45	0	0	1	4	4	23:45	0	0	0	0	
Total Vol.	6		10		**16**		1		14		**15**

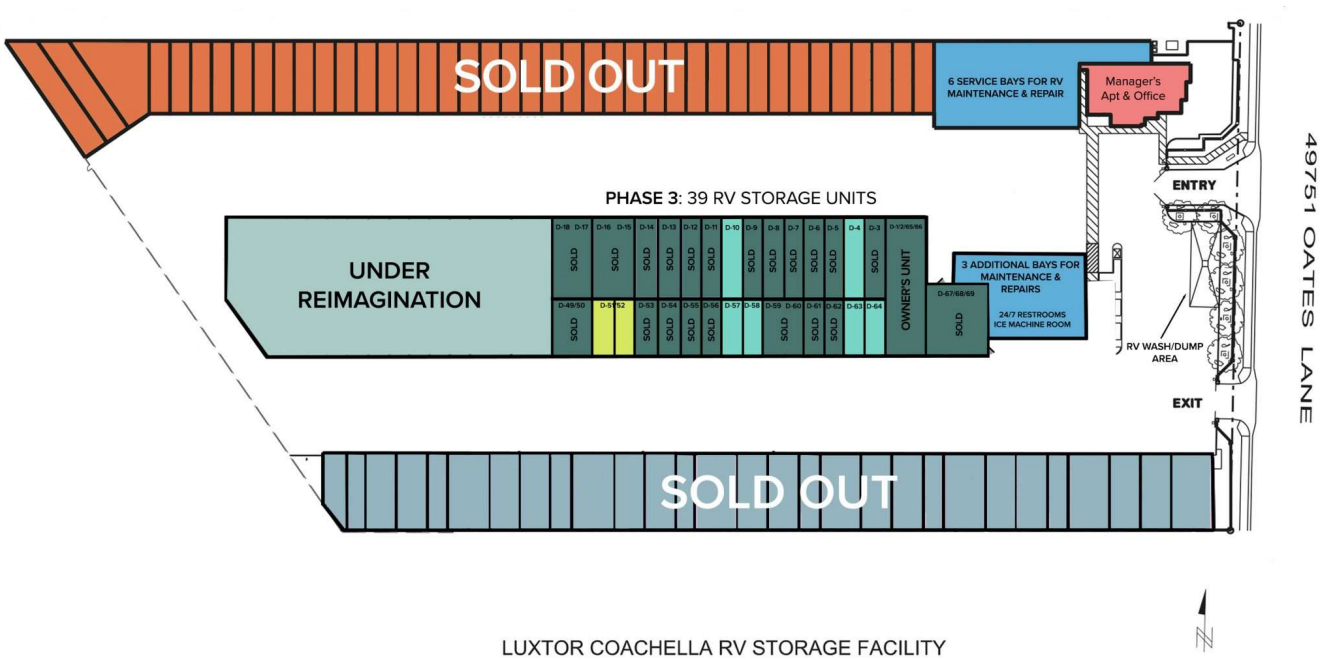
Daily Totals

IN	OUT	Combined
7	24	**31**

	AM			PM		
Split %	37.5%	62.5%	**51.6%**	6.7%	93.3%	**48.4%**
Peak Hour	6:30	8:00	**6:30**	12:00	15:00	**15:00**
Volume	4	4	**4**	1	7	**7**
P.H.F.	0.33	0.50	**0.33**	0.25	0.58	**0.58**

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CONSTRUCTION PHASING PLAN

APPENDIX F
Mitigation Monitoring and Reporting Plan

Coachella Vault IS MND
Mitigation Monitoring and Reporting Program

Potential Impacts	Mitigation Measure	Responsible for Monitoring	Timing	Impact after Mitigation
IV. Biological Resources	**BIO-1** Per the 2012, California Department of Fish and Wildlife (CDFW) *Staff Report on Burrowing Owl Mitigation* (CDFW Staff Report), a burrowing owl clearance survey shall be performed by a certified avian biologist 30 days prior to any site disturbance (grubbing, grading, and construction). The pre-construction survey is required to use the accepted protocol of the CDFW Staff Report. The survey shall contain the project site and a 550-yard radius of the site. If no active burrows are found in the survey area, site disturbance may commence providing a biological monitor is onsite. Another pre-construction survey shall be conducted 24 hours before ground disturbance. If owls are observed during this survey, a biological monitor, with the authority to halt or redirect grading, should be present whenever grading or construction vehicles are present and operating at the project site. The function of the monitor is to protect burrowing owls that arrive on or near the project site after the clearance survey during the construction period. If owls are found to be present during the breeding season (February 1 through August 31), no construction disturbances of any kind should occur within 550 yards of an active burrow, as demarcated by the certified avian biologist, during this time period. No construction activity shall occur until the certified avian biologist has determined that the nest site is inactive. Thus, on a project site, it is recommended that grading should take place from September 1st though January 30th to avoid restriction or cancellation of grading permits because of the presence of burrowing owls during the breeding season.	Project Applicant Project Biologist / Certified Avian Biologist Community Development Department City Engineer	The project applicant shall submit complete preconstruction survey and provide the survey to the City, prior to the commencement of ground disturbing activities.	Less than Significant

Potential Impacts	Mitigation Measure	Responsible for Monitoring	Timing	Impact after Mitigation
	If resident owls are present on or near the project site outside of breeding season, in some cases, the owl(s) can be relocated to other sites by a permitted biologist under the authorization of the U.S. Fish and Wildlife Service.			
V. Cultural Resources XVIII. Tribal Cultural Resources	**CUL-1** Prior to ground disturbance (including clearing, grubbing, etc.) the applicant/developer will retain a qualified archaeological monitor to be present during all ground disturbing activities. If cultural materials are discovered during grading or excavation, the construction contractor shall cease all earthmoving activity within and around the immediate discovery area until a qualified archaeologist can assess the nature and significance of the find. An archaeological monitoring plan will be developed and implemented to ensure that any unanticipated discoveries made during project-related ground-disturbing activities are properly treated. The archaeologist shall be consulted to reduce or terminate monitoring when it is indicated by field conditions and as appropriate. **CUL-2** In the event that any human remains are discovered, the applicant shall cease all work and contact the Riverside County Coroner's Office and work shall not resume until such time that the site has been cleared. If the human remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a most likely descendant (MLD).	Project Applicant Project Archaeologist Community Development Department City Engineer	The project applicant shall submit an archaeological monitoring plan to the City, prior to the commencement of any ground disturbance.	Less than Significant
VII. Geology and Soils	**GEO-1** The applicant shall comply with all recommendations set forth in the Geotechnical Investigation prepared for the project (Appendix C) during construction.	Project Applicant Project Geologist City Engineer	During ground disturbing activities	Less than Significant