CITY OF ANAHEIM
NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION

NOTICE IS HEREBY GIVEN that the City of Anaheim is considering a recommendation that the project herein identified will have no significant environmental impact in compliance with Section 15070 of State of California Environmental Quality Act (CEQA) guidelines. A copy of the **MITIGATED NEGATIVE DECLARATION** and the **INITIAL STUDY** which supports the proposed findings are on file at the City of Anaheim.

Project Title: 1700 South Lewis Street Trumark Townhomes Project

Case Numbers: Development Case No. 2014-00124
General Plan Amendment (GPA2015-00503)
Zoning Code Amendment (ZCA2015-00127)
Amendment to the Platinum Triangle Master Land Use Plan (MIS2016-00636)
Final Site Plan (FSP2015-00001)
Tentative Tract Map (SUBTM17994)
Development Agreement (DAG2016-00004)

Project Applicant: Trumark Homes, Attn: Eric Nelson
450 Newport Center Drive, Suite 300, Newport Beach, CA 92660
(949) 999-9800

Project Location: This project is located at 1654-1698 and 1700 South Lewis Street (APN 082-261-22) and is located approximately 235 feet south of the centerline of Howell Avenue.

Project Description: The Proposed Project involves the demolition of three industrial buildings, totaling 110,600 square feet, and the construction of a 153-unit townhome community on approximately 7.8 acres, at a density of 19.8 dwelling units/acre.

The following land use entitlements are requested to permit the development of the 153-unit attached single-family residential project:

- A General Plan Amendment to amend the land use designation from Low Density Office to Mixed Use (GPA2015-00503).
- Zoning Code Amendment to establish standards for the new Lewis District (ZCA2015-00127).
- An amendment to the Platinum Triangle Master Land Use Plan to establish the new Lewis District (MIS2016-00636).
- A Final Site Plan to permit the 153-unit attached single-family residential project (FSP2015-00001).
- A Tentative Tract Map to create a 31-lot, 153-unit residential subdivision for condominium purposes (SUBTM17994).
- A Development Agreement in conjunction with the Final Site Plan for the 153-unit attached single-family residential project (DAG2016-00004).

Environmental: Mitigation measures have been identified for this project.

Public Review: The Planning Commission will hold a Public Hearing at City Hall Council Chambers, 200 S. Anaheim Boulevard, Anaheim, CA 92805 on Monday, January 9, 2017 at 5:00 p.m. The public review and comment period for the Initial Study/Mitigated Negative Declaration is from Thursday, December 1, 2016 to Tuesday, December 20, 2016.

The Mitigated Negative Declaration and Initial Study will be available for public review on the City of Anaheim's website (www.anaheim.net, go to the Planning Department and click on the link to Current Environmental Documents) and at the following locations:

City of Anaheim
Planning Department
200 South Anaheim Blvd.
Anaheim, CA 92805

Anaheim Public Library
Central Library
500 W. Broadway
Anaheim, CA 92805

Comments: All comments should be addressed to *Scott Koehm, Senior Planner, City of Anaheim Planning Department, 200 South Anaheim Boulevard, Anaheim, CA 92805*. If you have any questions or would like any additional information, please contact Scott Koehm at (714) 765-5395 or skoehm@anaheim.net.

Christine Saunders

Signed

FIRSTCARBONSOLUTIONS™

DRAFT
Initial Study/Mitigated Negative Declaration
1700 South Lewis Street Trumark Townhomes Project
Development Project No. 2014-00124
City of Anaheim, Orange County, California

State Clearinghouse Number 0000000000

Prepared for:
City of Anaheim
Planning and Building Department, Planning Services Division
200 South Anaheim Boulevard
Anaheim, CA 92805
714.765.5395

Contact: Scott Koehm, Senior Planner

Prepared by:
FirstCarbon Solutions
250 Commerce, Suite 250
Irvine, CA 92602
714.508.4100

Contact: Frank Coyle, Project Director
Vanessa Welsh, Project Manager

Report Date: December 1, 2016

THIS PAGE INTENTIONALLY LEFT BLANK

Table of Contents

List of Tables

List of Exhibits

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 1: INTRODUCTION

The City of Anaheim has received application from Trumark Homes (the Applicant) requesting approval of the following actions to allow for the development of the 1700 South Lewis Street Trumark Townhomes Project (Project or Proposed Project):

- General Plan Amendment (GPA2015-00503)
- Zoning Code Amendment (ZCA2015-00127)
- Amendment to the Platinum Triangle Master Land Use Plan (MIS2016-00636)
- Final Site Plan (FSP2015-00001)
- Tentative Tract Map (SUBTM17994)
- Development Agreement (DAG2016-00004)

The Proposed Project is subject to the guidelines and regulations of the California Environmental Quality Act (CEQA). This Initial Study addresses the direct, indirect, and cumulative environmental effects associated with the Proposed Project. The Proposed Project involves the demolition of three industrial buildings constructed in 1973 and 1998, and the construction of a 153-unit townhome development and associated amenities. Section 2, Project Description, provides a detailed description of the project.

1.1 - Statutory Authority and Requirements

In accordance with CEQA (Public Resources Code Sections 21000–21177) and pursuant to Section 15063 of Title 14 of the California Code of Regulations (CCR), the City of Anaheim, as Lead Agency, is required to prepare an Initial Study to determine if the project would have a significant environmental impact. If the Lead Agency finds that there is no evidence that the project (either as proposed or as modified to include the mitigation measures identified in the Initial Study), may cause a significant effect on the environment, the Lead Agency must find that the project would not have a significant effect on the environment, and must prepare a Negative Declaration (or Mitigated Negative Declaration) for that project. Such determination can be made only if "there is no substantial evidence in light of the whole record before the Lead Agency" that such impacts may occur (Section 21080, Public Resources Code).

The Initial Study is an informational document that provides an environmental basis for subsequent discretionary actions upon the Project. The resulting documentation is not a policy document, and its approval and/or certification neither presupposes nor mandates any actions on the part of those agencies from whom permits and other discretionary approvals would be required. The environmental documentation and supporting analysis is subject to a public review period. During this review, public agency comments on the document should be addressed to the City of Anaheim. Following review of any comments received, the City of Anaheim will consider these comments as a part of the Project's environmental review and include responses for consideration by the Planning Commission of the City of Anaheim.

The public review and comment period for the Initial Study/Mitigated Negative Declaration is from Thursday, December 1, 2016 to Tuesday, December 20, 2016. All comments should be addressed to:

Scott Koehm, Senior Planner
City of Anaheim Planning Department
200 South Anaheim Boulevard
Anaheim, CA 92805
skoehm@anaheim.net

1.2 - Purpose

The purpose of an Initial Study is to (1) identify environmental impacts; (2) provide the Lead Agency with information to use as the basis for deciding whether to prepare an Environmental Impact Report (EIR) or Negative Declaration; (3) enable an Applicant or Lead Agency to modify a project, mitigating adverse impacts before an EIR is prepared; (4) facilitate environmental assessment early in the design of a project; (5) provide documentation of the factual basis for the finding in a Negative Declaration that a project would not have a significant environmental effect; (6) eliminate needless EIRs; (7) determine whether a previously prepared EIR could be used for a project; and (8) assist in the preparation of an EIR, if required, by focusing the EIR on the effects determined to be significant, identifying the effects determined not to be significant, and explaining the reasons for determining that potentially significant effects would not be significant.

Section 15063 of the CEQA Guidelines identifies specific disclosure requirements for inclusion in an Initial Study. Pursuant to those requirements, an Initial Study must include (1) a description of the project, including the location of the project; (2) an identification of the environmental setting; (3) an identification of environmental effects by use of a checklist, matrix or other method, provided that entries on a checklist or other form are briefly explained to indicate that there is some evidence to support the entries; (4) a discussion of ways to mitigate significant effects identified, if any; (5) an examination of whether the project is compatible with existing zoning, plans, and other applicable land use controls; and (6) the name of the person or persons who prepared or participated in the preparation of the Initial Study.

SECTION 2: PROJECT DESCRIPTION

2.1 - Project Location

The Project site is located in the Platinum Triangle in the south-central portion of the City of Anaheim (refer to Exhibit 1: Regional Location Map). The Platinum Triangle is located at the confluence of the Interstate 5 (I-5 Freeway) and the State Route 57 (SR-57 Freeway) (refer to Exhibit 2: Local Vicinity Map, Aerial Base). The Project site is bound and surrounded by industrial uses to the north and east; Mason Lane, a small park and high-density apartments to the south; and Lewis Street and industrial uses to the west.

The Platinum Triangle encompasses Angel Stadium of Anaheim, Honda Center, the City National Grove of Anaheim, the Anaheim Regional Transportation Intermodal Center (ARTIC), and surrounding light industrial buildings, several industrial parks, distribution facilities, offices, hotels, restaurants, residential, retail, and mixed-use districts.

2.2 - Environmental Setting

The Project site (Assessor's Parcel Number 082-261-22) consists of one parcel containing approximately 7.8 acres. The site is relatively flat with an on-site elevation of approximately 135 feet above mean sea level.

The Project site currently contains three industrial buildings constructed in 1973 and 1998, two large metal canopies, and parking and storage areas paved with asphalt or concrete. 1700 South Lewis contains a 52,000-square-foot building, located on the western portion of the property. 1654-1698 S. Lewis consists of a 48,600-square-foot building, located at the north-central and northeastern portion of the property and a 10,000-square-foot metal open-sided workshop located on the southwestern portion of the property. The total building square footage on the 7.8-acre site is approximately 110,600 square feet.

The site generally drains west toward Lewis Street. Approximate 80 percent of the property surface flows directly to Lewis Street where it is conveyed via curb and gutter to an existing catch basin located just southeast of the property. The remaining portions of the property surface drain to a storm drain grated inlet structure, which connects to the existing catch basin in Lewis Street.

2.2.1 - Existing Surrounding Land Uses

- North—Industrial uses
- South—785 apartment units and a 0.40 acre park (386 of these units are currently under construction)
- East—Industrial uses, including Ace World Wide Moving and Storage
- West—Lewis Street, with industrial use beyond Lewis Street.

2.2.2 - General Plan and Zoning

General Plan

The Project site is designated by the General Plan for low intensity office land uses ("Office-Low"). As part of the Project entitlements, the Applicant is requesting to amend the General Plan to change the designation of the Project site to Mixed Use, increase the number of residential units permitted in the Platinum Triangle, and subsequently decrease the amount of office square footage permitted.

Zoning

The Project site is within the Industrial ("I") Zone and the Office District of the Platinum Triangle Mixed Use (PTMU) Overlay Zone. The property owner has the option to develop the property either consistent with the underlying zone or the overlay zone. Development pursuant to the I Zone would allow research and development, fabrication, and manufacturing. Development pursuant to the Office District of the PTMU Overlay Zone would allow low intensity office uses. As part of the Project entitlements, the Applicant is requesting to create a new mixed-use district within the PTMU Overlay Zone, the "Lewis District," which would accommodate construction of a townhome development on the Project site subject to the approval of a Development Agreement and Final Site Plan. The PTMU Overlay Zone provides the zoning and development standards to implement the Platinum Triangle Master Land Use Plan (PTMLUP). The proposed "Lewis District" will also require amendments to the PTMLUP to reflect the new district and the proposed increase in residential units and decrease in office square footage.

2.3 - Project Features

The Proposed Project involves the demolition of the existing industrial uses on the 7.8-acre site located at 1700 South Lewis Street. The Applicant is proposing to construct 153 three-story townhomes at a density of 19.8 dwelling units per acre. Please refer to Exhibit 3: Site Plan for an illustrative site plan. The Proposed Project includes six floor plans, summarized in Table 1: Project Summary. Each unit ranges from 1,569 to 2,095 square feet. Smaller units (Plans 1–3) include ground floor and private balcony outdoor space (please refer to Exhibit 4: Product 1 Typical Elevation through Exhibit 7: Product 2 Typical Layout). The larger units (Plans 4-6) include rooftop decks.

Table 1: Project Summary

Plan	Bed	Bath	Square Feet	Total Units
Plan 1	2	2.5	1,569	40
Plan 2	2	2.5	1,615	22
Plan 3	2	2.5	1,780	33
Plan 4	3	2.5	1,767	23
Plan 5	4	2.5	1,976	17
Plan 6	4	3.5	2,094	18
Total			**268,955**	**153**

2.3.1 - Architectural Features

The Applicant is proposing to construct the townhomes to a maximum height of 34 feet 6 inches for those without roof deck features (Plans 1-3), and 43 feet 6 inches for townhomes with roof deck features (Plans 4-6). The Proposed Project architecture would feature a contemporary design consisting of geometric layouts of wood-panel cementitious lap siding, and stucco. The proposed colors consist of earthen tones of deep brown, white, and gray as well as contemporary orange and green tones. The Applicant proposes to use vinyl and transom windows, French doors, fiberglass entry doors, metal sectional garage doors, metal awnings, and metal railings.

2.3.2 - Open Space and Residential Amenities

The Proposed Project includes several semi-private recreation area(s), including small pocket parks and a larger recreation area with a pool. The layout of the site also allows for individual refuse cans that are located within each unit's garage instead of the large bin collection typically found within residential projects of a similar density. Please refer to Exhibit 8: Landscape Plan for an overview of Project site landscaping.

2.3.3 - Site Access

Vehicular access will be from two driveways along Mason Lane, a collector street that was constructed as part of the apartment developments to the south. The Applicant will be required to construct the traffic signal at Lewis Street and Mason Lane as identified in the Platinum Triangle Roadway Improvements, consistent with the Platinum Triangle Implementation Plan. Internal streets will provide vehicular access within the Project site. There will be no direct vehicular access from Lewis Street. Pedestrian access will be provided via sidewalks to Lewis Street and Mason Lane. Walkways will provide internal connections to parking and recreation/open space.

2.3.4 - Parking

The Proposed Project would include covered (garage) and uncovered (outdoor) parking. There will be 435 parking spaces for the development, including four handicap parking stalls and one van parking stall. Compliance with the minimum number of parking spaces required for residential development in the PTMU Overlay Zone would result in 371 spaces for the Proposed Project, as shown in Table 2: Parking Summary. The Proposed Project would provide 435 parking spaces, which is 64 additional unassigned parking spaces beyond the minimum required.

Table 2: Parking Summary

Unit Type	Bed	Total Units	Required Parking Per Unit	Required Parking	Provided Parking	
					Covered	Uncovered
Plan 1	2	40	2.0/Unit	80	80	—
Plan 2	2	22	2.0/Unit	44	44	—
Plan 3	2	33	2.0/Unit	66	66	—
Plan 4	3	23	2.5/Unit	58	46	—
Plan 5	4	17	3.5/Unit	60	34	—

Table 2 (cont.): Parking Summary

Unit Type	Bed	Total Units	Required Parking Per Unit	Required Parking	Provided Parking	
					Covered	Uncovered
Plan 6	4	18	3.5/Unit	63	36	—
Totals	—	153	—	**371**	**306**	**129**

2.3.5 - Construction Activities and Grading

The Proposed Project includes demolition and removal of the three existing industrial buildings located on the Project site, as well as pavement and other site improvements. Prior to demolition of the existing structures, removal and/or abatement of any potential asbestos containing building materials, lead-based paints, and any hazardous materials associated with the existing building materials would be conducted by a qualified environmental professional. Once demolition and removal is completed, the Project site would be graded and new improvements would be constructed in a single phase. Grading quantities are expected to balance on-site, with no need to import/export soils. Approximate raw earthwork quantities are 5,500 cubic yards of cut and 5,500 cubic yards of fill. Project demolition/construction activities are expected to begin in the first quarter of 2017 and to be completed in 2020. The total construction time for the Project is expected to be 3 years, 4 months.

2.3.6 - Stormwater and Infrastructure Improvements

The Proposed Project would establish a primary and secondary storm drain. The primary storm drain system will convey flood control drainage and the secondary storm drain system will convey and treat water quality flows on-site. The two storm drain systems will consist of storm drain conduits, drainage inlets, water quality treatment facilities, and yard drains. The primary storm drain system would collect drainage from several proposed inlet structures and convey it though storm drain conduit to an existing 78-inch storm drain in Lewis Street via a new storm drain connection. The secondary storm drain will divert water quality flows from several proposed inlets on the site or divert water quality flows from primary storm drain line via a diversion structure, and it will convey the drainage into a secondary water quality storm drain conduit. The secondary storm drain will convey water quality flows to four proposed water quality treatment facilities on the Project site.

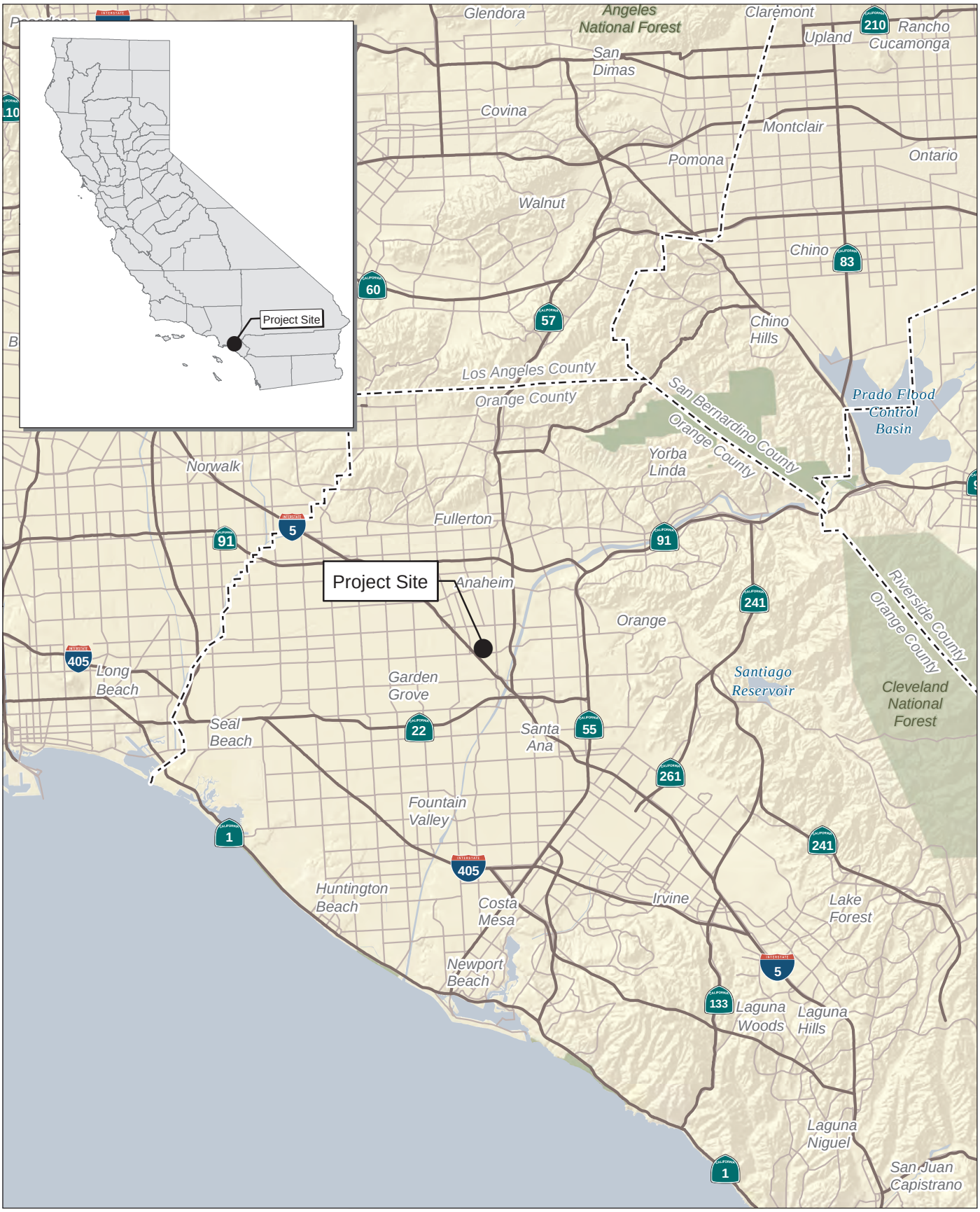
2.4 - Project Approvals

The City of Anaheim, as Lead Agency, has discretionary authority over the Proposed Project. In order to implement this Project, the Applicant would need to obtain the following permits/approvals from the City of Anaheim, including, but not limited to:

- Initial Study/Mitigated Negative Declaration
- General Plan Amendment (GPA2015-00503)
- Zoning Code Amendment (ZCA2015-00127)
- Amendment to the Platinum Triangle Master Land Use Plan (MIS2016-00636)
- Final Site Plan (FSP2015-00001)

- Tentative Tract Map (SUBTM17994)
- Development Agreement (DAG2016-00004)
- Annexation into the existing Community Facilities District (CFD)
- Demolition Permits for on-site structures and other improvements
- Grading and Building Permits to grade and construct the Project
- Approval of a Construction Management Plan

THIS PAGE INTENTIONALLY LEFT BLANK



Source: Census 2000 Data, The CaSIL, FCS GIS 2013.

FirstCarbon SOLUTIONS

5 2.5 0 5 Miles

Exhibit 1
Regional Location Map

THIS PAGE INTENTIONALLY LEFT BLANK

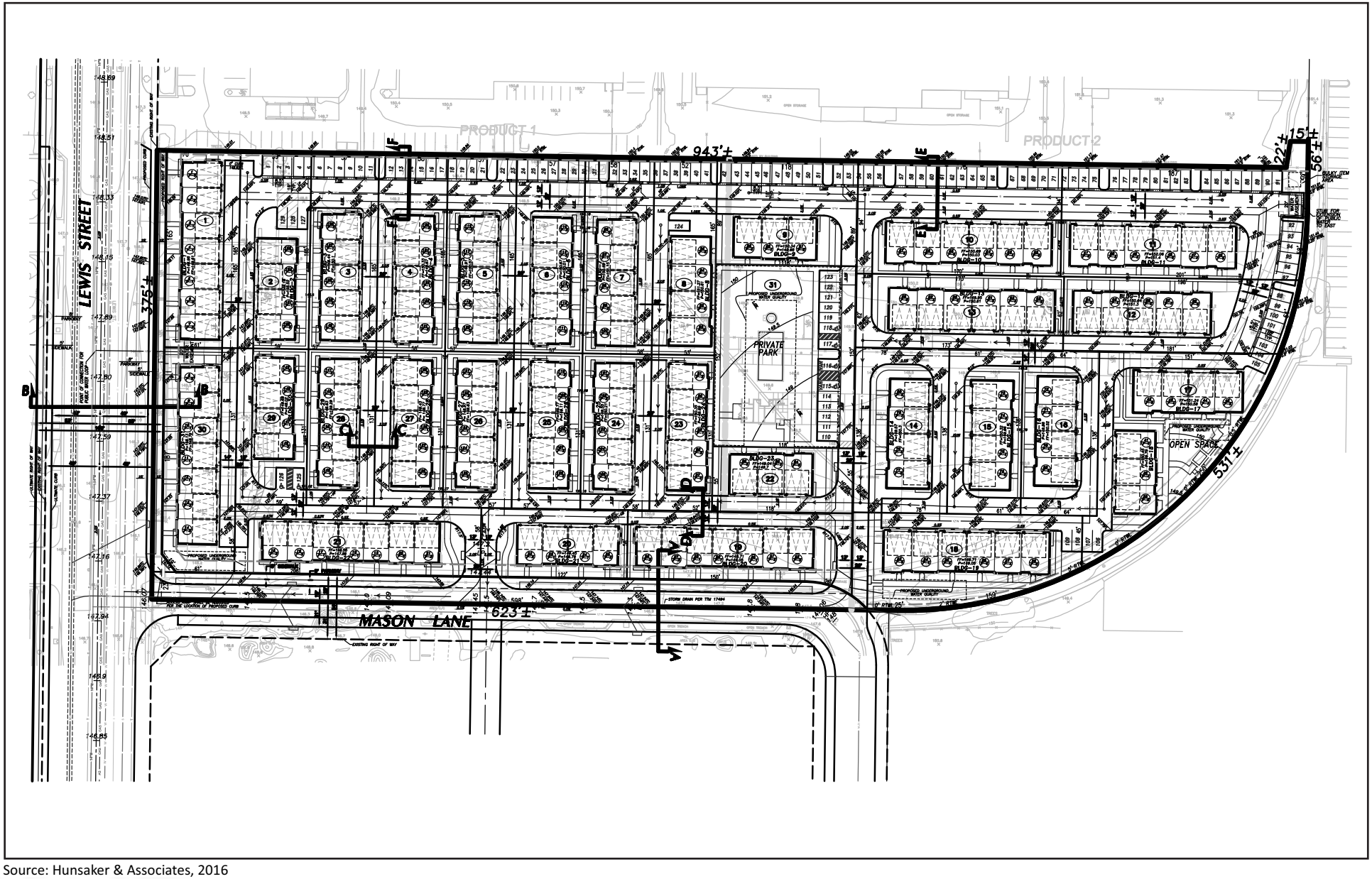
Source: ESRI Imagery, 2014

FirstCarbon SOLUTIONS

1,000 500 0 1,000
Feet

Exhibit 2
Local Vicinity Map
Aerial Base

THIS PAGE INTENTIONALLY LEFT BLANK



Source: Hunsaker & Associates, 2016

FirstCarbon® SOLUTIONS

Exhibit 3
Site Plan

THIS PAGE INTENTIONALLY LEFT BLANK

LEFT ELEVATION

FRONT ELEVATION

MATERIAL LEGEND

1	STUCCO
2	CEMENTITIOUS LAP SIDING
3	FRENCH DOOR
4	VINYL WINDOWS
5	FIBERGLASS ENTRY DOORS
6	DECORATIVE EXTERIOR LIGHTING & ADDRESS SIGN
7	METAL SECTIONAL GARAGE DOOR
8	METAL RAILING
9	METAL AWNING
10	TRANSOM WINDOWS
11	CORNER WINDOW

RIGHT ELEVATION

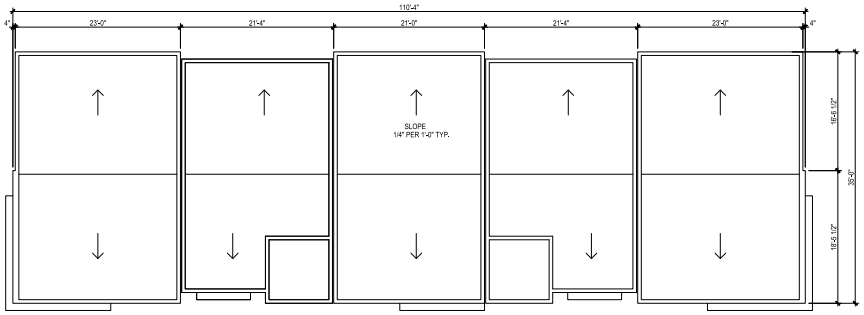
REAR ELEVATION

Source: Hunsaker & Associates, 2016

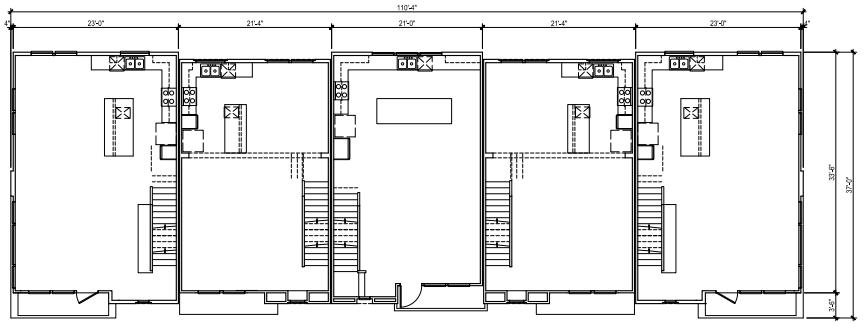
FirstCarbon® SOLUTIONS

Exhibit 4
Product 1 Typical Elevation

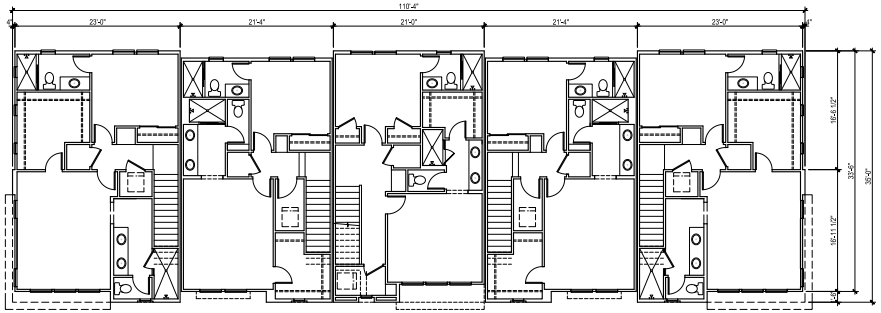
THIS PAGE INTENTIONALLY LEFT BLANK



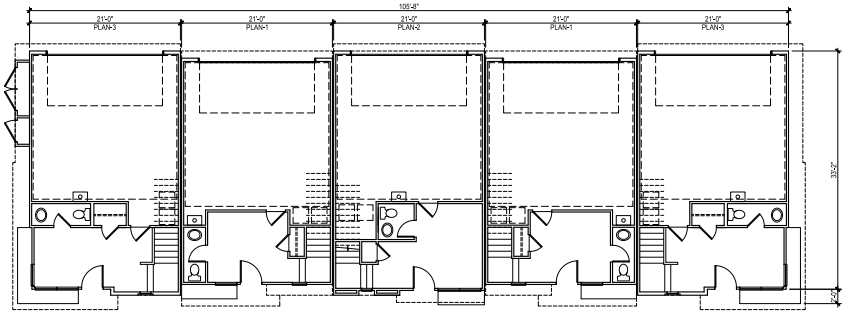
ROOF PLAN



2ND FLOOR



3RD FLOOR



1ST FLOOR

Source: Hunsaker & Associates, 2016

FirstCarbon® SOLUTIONS

Exhibit 5
Product 2 Typical Layout

THIS PAGE INTENTIONALLY LEFT BLANK

LEFT ELEVATION

FRONT ELEVATION

MATERIAL LEGEND	
1	STUCCO
2	CEMENTITIOUS LAP SIDING
3	CEMENTITIOUS PANEL
4	VINYL WINDOWS
5	FIBERGLASS ENTRY DOORS
6	DECORATIVE EXTERIOR LIGHTING & ADDRESS SIGN
7	METAL SECTIONAL GARAGE DOOR
8	METAL RAILING
9	METAL AWNING
10	TRANSOM WINDOWS
11	CORNER WINDOW
12	STUCCO TRIM

RIGHT ELEVATION

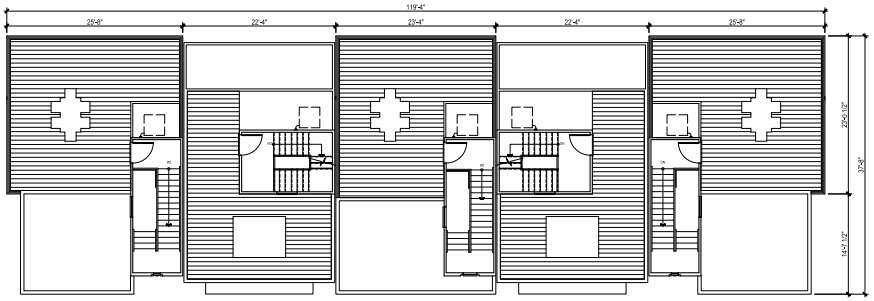
REAR ELEVATION

Source: Hunsaker & Associates, 2016

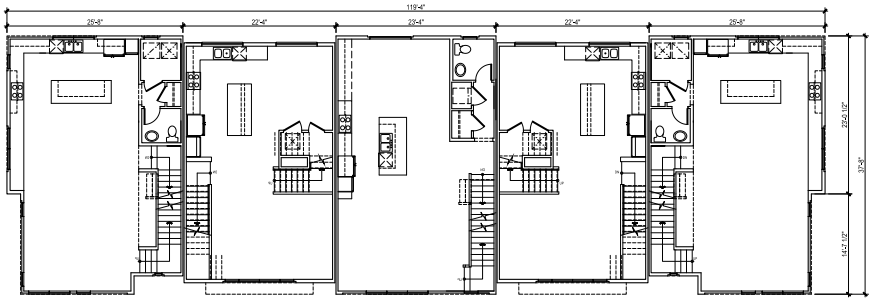
FirstCarbon® SOLUTIONS

Exhibit 6
Product 2 Typical Elevation

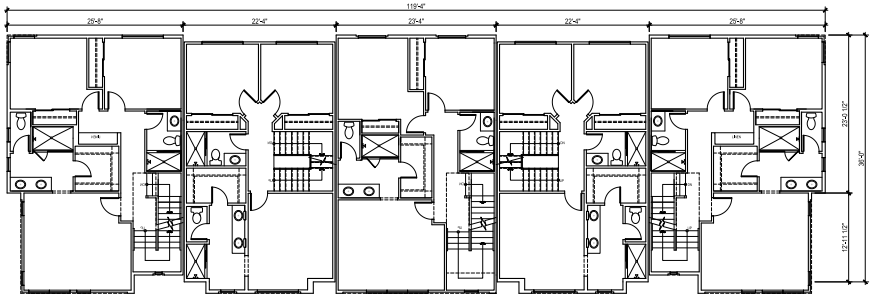
THIS PAGE INTENTIONALLY LEFT BLANK



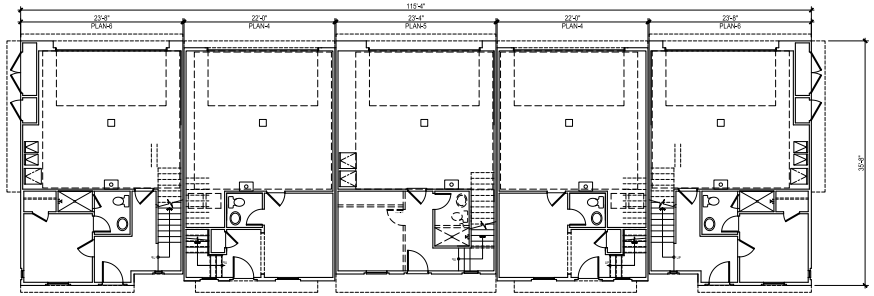
ROOF DECK



2ND FLOOR



3RD FLOOR



1ST FLOOR

Source: Hunsaker & Associates, 2016

FirstCarbon® SOLUTIONS

Exhibit 7
Product 2 Typical Layout

THIS PAGE INTENTIONALLY LEFT BLANK

LEGEND

1. COMMON AREA LANDSCAPING
2. TURF AREA
3. CONCRETE WALKWAY
4. A.C. PAVING
5. PERIMETER WALL
6. BUILDING
7. POOL BUILDING
8. POOL
9. SPA
10. POOL DECK
11. COVERED SEATING AREA
12. POOL WALL / FENCE
13. ACCENT TREES
14. SPECIMEN TREE
15. CANOPY TREE
16. SMALL OPEN SPACE PARK WITH COVERED SEATING
17. TRASH ENCLOSURE
18. VERTICAL ACCENT TREE

PLANT PALETTE

TREES (MINIMUM 24" BOX)

ARBUTUS X 'MARINA'	ARBUTUS STANDARD
CINNAMOMUM CAMPHORA	CAMPHOR
CERCIS SPP.	NCN
ERIOBOTRYA 'COPPERTONE'	COPPERTONE LOQUAT
JUNIPEROUS SPP.	JUNIPER
LAGERSTROEMI INDICA	CRAPE MYRTLE
MELALEUCA QUINQUENERVIA	CAJEPUT TREE
PYRUS 'CHANTICLEER'	NCN
RHAPHIOLEPIS 'MAJESTIC BEAUTY'	INDIAN HAWTHORN
STRELITZIA NICOLAI	GIANT BIRD OF PARADISE
TRISTANIA CONFERTA	BRISBANE BOX
TIPUANA TIPU	TIPU TREE
WASHINGTONIA ROBUSTA	MEXICAN FAN PALM

SHRUBS (MINIMUM 1 GALLON)

AEONIUM X PSEUDO-TABULAEFORMUS	AEONIUM SAUCER PLANT (18"o.c.)
AGAVE ATTENUATA	CENTURY PLANT (3'-0"o.c.)
ANIGOZANTHOS FLAVIDUS	KANGAROO PAW (3'-0"o.c.)
BAMBUSA MULTIPLEX	GOLDEN GODDESS BAMBOO (4'-0"o.c.)
BUXUS M. JAPONICA	JAPANESE BOXWOOD (24" o.c.)
CALLISTEMON V. 'LITTLE JOHN'	DWARF WEEPING BOTTLEBRUSH (3'-0"o.c.)
DIETES BICOLOR	FORTNIGHT LILY (3'-0"o.c.)
DIANELLA TAS. 'VARIEGATA'	VARIEGATED FLAX LILY (2'-0"o.c.)
LIGUSTRUM J. 'TEXANUM'	DWARF JAPANESE PRIVET (3'-0"o.c.)
LIRIOPE MUSCARI	BIG BLUE LILY TURF (24"o.c.)
PHILODENDRON SELLOUM	LACY TREE PHILODENDRON (4'-0"o.c.)
PODOCARPUS MACROPHYLLUS	YEW PINE (5'-0"o.c.)
PRUNUS CAROLINIANA 'COMPACTA'	CAROLINA CHERRY (5'-0"o.c.)
RHAPHIOLEPIS INDICA	INDIAN HAWTHORN (3'-0"o.c.)
XYLOSMA COMPACTA	XYLOSMA (5'-0"o.c.)

GROUNDCOVER (MINIMUM 1 GALLON)

FESTUCA OVINA GLAUCA	BLUE SHEEP FESCUE
LIRIOPE SPICATA	CREEPING LILY TURF
OPHIOPOGON JAPONICUS	MONDO GRASS
SENECIO MANDRALISCAE	BLUE FINGER
TRACHELOSPERMUM JASMINOIDES	STAR JASMINE

VINES ADJACENT TO WALLS AND FENCE (MIN. 1 GALLON)

CALLIANDRA HAEMATOCEPHALA	PINK POWDER PUFF
PANDOREA JASMINOIDES	BOWER VINE
DISTICTIS BUCCINATORIA	BLOOD RED TRUMPET VINE

Source: Hunsaker & Associates, 2016

FirstCarbon® SOLUTIONS

Exhibit 8
Landscape Plan

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 3: ENVIRONMENTAL FACTORS AND DETERMINATION

Environmental Factors Potentially Affected					
The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.					
☐	Aesthetics/Visual	☐	Agriculture & Forestry	☐	Air Quality
☐	Biological Resources	☐	Cultural Resources	☐	Geology/Soils
☐	Greenhouse Gas Emissions	☐	Hazards & Hazardous Materials	☐	Hydrology/Water Quality
☐	Land Use/Planning	☐	Mineral Resources	☐	Noise
☐	Paleontological Resources	☐	Population/Housing	☐	Public Services
☐	Recreation	☐	Transportation/Traffic	☐	Tribal Cultural Resources
☐	Utilities/Services Systems	☐	Mandatory Findings of Significance		

Environmental Determination

On the basis of this initial evaluation:

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

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

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

☐ I find that the Proposed Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measure 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.

Christine Saunders

Signed

Christine Saunders, Associate Planner

Signatory's Name and Title

City of Anaheim

Agency

December 1, 2016

Date

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 4: ENVIRONMENTAL CHECKLIST AND DISCUSSION OF ENVIRONMENTAL EVALUATION

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
4.1 Aesthetics *Would the project :*				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Environmental Evaluation

Would the project:

a) Have a substantial adverse effect on a scenic vista?

No impact. A scenic vista is generally considered a view of an area that has remarkable scenery or a resource that is indigenous to the area. There are no General Plan-identified scenic vistas/views located in the project area. Therefore, project implementation would not have any effect on a designated scenic vista/view.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway?

No impact. The Project site is not located along a designated state scenic highway. Aside from ornamental landscaping located in front of the building and parking areas of the existing industrial buildings, there are no protected tree species on the property (public, landmark, or street trees). No historic buildings or rock outcroppings are located at the Project site. Therefore, project implementation would not damage scenic resources within a state scenic highway.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Less than significant impact. The Project site is located in a predominantly urbanized setting and currently contains existing industrial buildings. The Proposed Project will demolish the existing uses found on the Project site and replace them with 153 townhome units. The existing visual character of the surrounding area is primarily defined by industrial uses to the north, west, and east, and multi-family residential to the south of the Project site. The area does not exhibit distinct architectural character and there is no uniformity of architectural styles. No unique visual resources exist on the Project site or its surroundings.

A project is generally considered to have a significant visual/aesthetic impact if it substantially changes the character of the Project site such that it becomes visually incompatible or visually unexpected when viewed in the context of its surroundings. As discussed, the Project site is located in a primarily industrial area with multifamily residential uses to the south. The Project involves construction of a 153-unit townhome complex with associated amenities and parking spaces, in place of industrial buildings.

Project implementation would introduce a mid-rise scale to the existing industrial and residential neighborhood. The Project is designed to adhere to the Platinum Triangle Mixed Use Overlay Zone (PTMU Overlay Zone). The PTMU Overlay Zone is intended to provide opportunities for well-designed development projects that combine residential with non-residential uses, including office, retail, business services, personal services, public spaces, and other community amenities. Project implementation would enhance the character of the surrounding area through inclusion of high-quality, contemporary architectural design in place of the existing structures on site. Through adherence to the PTMU Overlay Zone, the project would be similar aesthetically to the residential uses south of the project site. Projections are included to provide building articulation, texture and color variation throughout the Project's contemporary design. The color palette consists of white and shades of grey with complementing shades of brown and accents of bright green. The Applicant proposes to use fiberglass, metal railings and awnings, cementitious lap siding, and stucco. Private balconies are also proposed.

Although the Project would alter the visual character of the Project site, the development would enhance the existing site by introducing attractive, high-quality building design, and providing aesthetically appealing views on-site. The visual changes would not degrade the visual character or quality of the site or its surroundings. The City's approval of the Proposed Project's final design plans will ensure that the Project's design complements the existing land uses in the Project area and is consistent with the design standards contained in the Zoning Code. Therefore, impacts associated with existing visual character or quality will be less than significant.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less than significant impact. The Proposed Project's design would not include any architectural elements or materials that would produce substantial glare on-site, such as large or reflective windows. The Project would require the establishment of security, access, and parking lot lighting,

and as such would introduce new sources of light to the Project area. The Proposed Project would create a corresponding increase in lighting within the project vicinity, primarily from indoor lighting sources. The existing Project site contains lampposts for parking lot illumination.

There are two primary sources of light: light emanating from building interiors that pass through windows, and light from exterior sources (e.g., street lighting, parking lot lighting, building illumination, security lighting, and landscape lighting). Depending upon the location of the light source and its proximity to adjacent light-sensitive uses, light introduction can be a nuisance, affecting adjacent areas and diminishing the view of the clear night sky. Light spillage is typically defined as unwanted illumination from light fixtures on adjacent properties.

The Project site is located within an industrial and residential area. Existing lighting conditions in the Project area include light emanating from building interiors, security lights, and the surrounding industrial and residential land uses, as well as nearby street lighting. The Project site itself currently contains an industrial use with associated landscaping and parking. As such, the site currently utilizes lighting consistent with its uses. Light-sensitive residential uses are located south of the Project site. There are no additional sensitive land uses in the Project's immediate vicinity, since Lewis Street already contains substantial street lighting.

Furthermore, the Project would be required to comply with City guidelines regarding lighting, including Section 18.20.160.040 of the Anaheim City Municipal Code, which provides lighting compatibility standards within the Platinum Triangle Mixed Use Overlay Zone.

Thus, all of the Project lighting within parking areas and driveways (i.e. security, safety) would be implemented under supervision of the City's Planning Division, thereby ensuring that any potential light spillover impacts to sensitive uses would be less than significant.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
4.2 Agriculture and Forestry Resources *In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the :*				
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?	☐	☐	☐	☒

Environmental Evaluation

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

and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Would the project:

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

No impact. The California Department of Conservation Farmland Mapping and Monitoring Program (FMMP) identifies the Project site and the immediate Project area as Urban and Built-up Land (CA Dept. of Conservation 2012). The Project site is currently developed with existing buildings utilized for industrial use. Additionally, it is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide importance (Dept. of Conservation 2015). Thus, Project implementation would not result in the conversion of farmland to non-agricultural use.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No impact. The California Department of Conservation's Williamson Act Map identifies the Project site and the Project area as Non-Williamson Act Land. The Project site is zoned for Industrial uses. The Project site and surrounding lands are not zoned for agricultural use or part of a Williamson Act Contract. Therefore, Project implementation would not 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))?

No impact. The Project site is currently zoned for Industrial uses. Therefore, Project implementation would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No impact. The Project site is developed with existing buildings utilized for industrial use. Thus, Project implementation would not result in the loss of forest land or conversion of forest land to non-forest use and no impacts would occur.

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

No impact. The Project site is developed with existing industrial buildings, and the surrounding area is designated for industrial and residential uses. There are no agricultural or forest uses in the vicinity. Therefore, Project implementation would not involve changes in the existing environment that could result in conversion of Farmland to non-agricultural use, or conversion of forest land to non-forest use.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
4.3 Air Quality *Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:*				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☒	☐	☐
c) 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 (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

Environmental Evaluation

The air quality analysis is included as Appendix A, *Air Quality and Greenhouse Gas Analysis Report,* FirstCarbon Solutions, August 23, 2016 and was conducted to determine air quality impacts associated with the development of the Proposed Project based on project-specific modeling using the California Emissions Estimator Model (CalEEMod) version 2013.2.2.

Where available, the significance criteria established by the South Coast Air Quality Management District (SCAQMD) may be relied upon to make the following determinations.

Would the project:

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

Less than significant impact. The Project consists of 153 townhomes, replacing existing industrial buildings. The Project site is located in Orange County, which is located in the South Coast Air Basin (Air Basin). The regional agency responsible for air quality within the Air Basin is the SCAQMD. The area is designated non-attainment for the state 1-hour and 8-hour ozone, 24-hour and annual respirable particulate matter (PM_{10}), and annual fine particulate matter ($PM_{2.5}$) standards. The area

is also designated non-attainment for federal standards for 8-hour ozone, and 24-hour $PM_{2.5}$. The area is designated as maintenance for the federal PM_{10} standard.

The applicable Air Quality Plan (AQP) is the 2012 Air Quality Management Plan for the South Coast Air Basin (AQMP 2012). According to the SCAQMD CEQA Air Quality Handbook, the Project is consistent with the AQMP if the Project addresses two main criteria (and associated questions):

Criterion 1

Questions 1 and 2: Would the project result in an increase in the frequency or severity of existing air quality violations? Would the project cause or contribute to new air quality violations?

Answers 1 and 2: As shown in Impact AQ-b) below, the Project would result in a less than significant carbon monoxide (CO) impact during operation. In addition, Project construction emissions would not exceed SCAQMD's localized significance thresholds (LST) criteria with mitigation incorporated. Therefore, the Project would not increase the frequency or severity of existing air quality violations in the Project's vicinity. The Project would be consistent with the first and second questions of Criterion 1.

Question 3. Would the Project delay timely attainment of air quality standards or the interim emissions reductions specified in the AQMP?

Answer 3. As shown in Impacts AQ-b) and AQ-c) below, the Project would result in less than significant impacts with regard to localized pollutant concentrations and regional pollutant contributions, respectively, with mitigation incorporated. The Project would not delay the timely attainment of air quality standards or 2012 AQMP emissions reductions. The Project is consistent with the third question of Criterion 1.

Criterion 2

Question 1. Would the project be consistent with the population, housing, and employment growth projections utilized in the preparation of the AQMP?

Answer 1: In order to be consistent with the growth assumptions in the AQMP, the Project must be consistent with the City of Anaheim's General Plan (General Plan) and SCAG's Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS).

The Project site is located within the Office District of the Platinum Triangle Master Land Use Plan (PTMLUP). The Project site currently has a General Plan Designation of Office-Low, and is within the Office District of the Platinum Triangle Mixed Use Overlay Zone, which permits office uses. As part of the Project, the General Plan designation and zoning of the site would need to change to allow for residential uses. The Project includes a request to change the General Plan designation of the site to Mixed-Use, which would be implemented through the proposed Lewis District Platinum Triangle Mixed-Use (PTMU) Overlay Zone. Although the Proposed Project is currently inconsistent with the General Plan land use designation and zoning for the Project site, it would be consistent with the adjacent residential land uses

and would be in substantial compliance with the Land Use Element goals and policies. The Project consists of an infill residential development in an area of Southern California that has a shortage of housing. As such, the Project is not anticipated to exceed the AQMP assumptions for the Project site and is found to be consistent with the AQMP for the second criterion. Therefore, the Project is consistent with the first question of Criterion 2.

Question 2. Would the project implement all feasible air quality mitigation measures?

Answer 2: As demonstrated in Impact AQ-b) below, the Project would result in less than significant impacts with all feasible air quality mitigation measures incorporated and would therefore be consistent with the second question of Criterion 2.

Question 3. Would the project be consistent with the land use planning strategies set forth in the AQMP?

Answer 3: The Project is located within a developed portion of the City that is close to transit and a mix of other uses, therefore the Project would not conflict with the City's or SCAG's policies. The Project is consistent with the third question of Criterion 2.

In summary, the Project would not result in a significant localized or regional impact on the region's ability to meet state and federal air quality standards with mitigation incorporated. Additionally, the Project will not result in an inconsistency with the SCAQMD AQMP. Therefore, this impact is less than significant.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less than significant impact with mitigation incorporated. This impact relates to localized criteria pollutant impacts. Particulate matter emissions (PM_{10}) are of concern during construction because of the potential to emit fugitive dust during earth-disturbing activities. In addition, SCAQMD has set LST for project construction emissions. Because SCAQMD's LSTs for construction include a threshold for PM_{10}, fugitive dust emissions impacts are assessed through the LST analysis. CO emissions are of concern during project operation because operational CO hotspots are related to increases in on-road vehicle congestion. Each is discussed separately below.

Localized Significance Thresholds

The SCAQMD Governing Board adopted a methodology for calculating localized air quality impacts through localized significance thresholds (LSTs). LSTs represent the maximum emissions from a project that would not cause or contribute to an exceedance of the most stringent applicable state or federal ambient air quality standard. LSTs were developed in recognition of the fact that criteria pollutants such as NO_x, CO, and PM_{10} and $PM_{2.5}$ in particular, can have local impacts at nearby sensitive receptors as well as regional impacts. To facilitate the localized assessment process, the SCAQMD provides a series of look-up tables that contain LSTs for each Source Receptor Area (SRA) within the basin (SCAQMD 2009). The Project is located within SRA 17, Central Orange County (SCAQMD 2011b).

In addition to the dependence on geographic location within the SCAQMD (e.g., the SRA), the localized thresholds also depend on the distance to the impacted receptor from the source of emissions. The distance to the nearest sensitive receptor is within 25 meters from the boundary of the Project. Specifically, the nearest sensitive uses are existing residential apartments approximately 10 meters south of the Project site.

CalEEMod version 2013.2.2 was used to estimate construction emissions. The emissions analysis incorporates required regulatory compliance, such as SCAQMD Rule 403. Note that because of the way CalEEMod is constructed, compliance with SCAQMD Rule 403 is equivalent to mitigation in the output, although compliance with Rule 403 is mandatory and not considered mitigation under CEQA. Assumptions used for the emissions analysis are contained in Appendix A, *Air Quality and Greenhouse Gas Analysis Report,* FirstCarbon Solutions, August 23, 2016.

The SCAQMD has published a "Fact Sheet for Applying CalEEMod to Localized Significance Thresholds" (SCAQMD 2011c). CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily disturbance activity possible for each piece of equipment. In order to compare CalEEMod reported emissions against the LST lookup tables, the CEQA document should contain in its project design features or its mitigation measures the following parameters:

1) The off-road equipment list (including type of equipment, horsepower, and hours of operation) assumed for the day of construction activity with maximum emissions (Appendix A, *Air Quality and Greenhouse Gas Analysis Report*, FirstCarbon Solutions, August 23, 2016).
2) The maximum number of acres disturbed on the peak day.
3) Any emission control devices added onto off-road equipment (Appendix A, *Air Quality and Greenhouse Gas Analysis Report*, FirstCarbon Solutions, August 23, 2016).
4) Specific dust suppression techniques used on the day of construction activity with maximum emissions (Appendix A, *Air Quality and Greenhouse Gas Analysis Report,* FirstCarbon Solutions, August 23, 2016).

During grading activities, fugitive dust can be generated from the movement of dirt on the Project site. CalEEMod estimates dust from dozers moving dirt around, dust from graders or scrapers leveling the land, and loading or unloading dirt into haul trucks. Each of those activities is calculated differently in CalEEMod, based on the number of acres traversed by the grading equipment.

Only some pieces of equipment generate fugitive dust in CalEEMod. The CalEEMod manual identifies various types of equipment and the acreage disturbed in an 8-hour day:

1. Crawler tractors, graders, and rubber tired dozers: 0.5 acres per 8-hour day
2. Scrapers: 1 acre per 8-hour day

Therefore, the following acres are the quantity disturbed per day, per phase, according to the acreage disturbed quantities listed above:

- Demolition = 1 acre/day
- Site Preparation = 2.3 acres/day

- Grading = 1.7 acres/day

Therefore, based on the SCAQMD guidance on applying CalEEMod to LSTs, the LST thresholds for 2 acres were utilized for the construction LST analysis.

The localized assessment methodology limits the emissions in the analysis to those generated from on-site activities. The on-site emissions during construction are compared with the LSTs and summarized in Table 3: Comparison of Construction LSTs and Unmitigated Project Construction Emissions—2017.

Table 3: Comparison of Construction LSTs and Unmitigated Project Construction Emissions—2017

Activity	Maximum On-site Emissions (pounds per day)			
	NO_x	CO	PM_{10}	$PM_{2.5}$
Demolition	42.7	33.9	3.7	2.2
Site Preparation	34.5	26.3	6.5	4.3
Grading	23.9	16.8	3.0	2.1
Building Construction—2017	26.4	18.1	1.8	1.7
Building Construction—2018	23.3	17.5	1.5	1.4
Paving	17.2	14.5	0.9	0.9
Architectural Coatings	1.3	1.2	0.1	0.1
Maximum Daily Emissions	**42.7**	**33.9**	**6.5**	**4.3**
Construction Localized Significance Threshold 2 acres	115	715	6	4
Exceed Threshold?	No	No	Yes	Yes

Notes:
MF = Microfiltration
NO_x = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter
Phases are assumed to not overlap; therefore, the maximum daily emissions are from the highest representative phase.
PM_{10} and $PM_{2.5}$ emissions are from the mitigated output to reflect compliance with SCAQMD Rule 403—Fugitive Dust.
Source of emissions: CalEEMod Output (see Appendix A, *Air Quality and Greenhouse Gas Analysis Report*, FirstCarbon Solutions, August 23, 2016); on-site construction emissions were essentially the same for the summer and winter runs.
Source of thresholds: South Coast Air Quality Management District 2009, for SRA 17, 25 meters, 2-acre site.

As shown above, the LSTs for PM_{10} and $PM_{2.5}$ would be exceeded during the site preparation phase in 2017. Mitigation Measure (MM) AQ-1 would reduce PM_{10} and $PM_{2.5}$ on-site emissions to less than significant. MM AQ-1 requires the Property Owner/Developer to use Tier 3 mitigation for equipment greater than 150 horsepower. Results from the implementation of MM AQ-1 are shown in Table 4: Comparison of Construction LSTs and Mitigated Project Construction Emissions—2017.

Table 4: Comparison of Construction LSTs and Mitigated Project Construction Emissions—2017

Activity	Maximum On-site Emissions (pounds per day)			
	NO_x	CO	PM_{10}	$PM_{2.5}$
Demolition	20.2	25.2	2.5	1.2
Site Preparation	16.5	15.7	5.6	3.5
Grading	12.5	13.6	2.4	1.6
Building Construction—2017	22.0	18.3	1.6	1.5
Building Construction—2018	19.8	18.0	1.3	1.3
Paving	17.2	14.5	0.9	0.9
Architectural Coatings	1.3	1.2	0.1	0.1
Maximum Daily Emissions	**22.0**	**25.2**	**5.6**	**3.5**
Construction Localized Significance Threshold 2 acres	115	715	6	4
Exceed Threshold?	**No**	**No**	**No**	**No**

Notes:
MF = Microfiltration
NO_x = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter
Phases are assumed to not overlap; therefore, the maximum daily emissions are from the highest representative phase.
PM_{10} and $PM_{2.5}$ emissions are from the mitigated output to reflect compliance with SCAQMD Rule 403—Fugitive Dust.
Source of emissions: CalEEMod Output (see Appendix A, *Air Quality and Greenhouse Gas Analysis Report*, FirstCarbon Solutions, August 23, 2016); on-site construction emissions were essentially the same for the summer and winter runs.
Source of thresholds: South Coast Air Quality Management District 2009, for SRA 17, 25 meters, 2-acre site.

The on-site emissions during operation are compared with the LSTs and summarized in Table 5: Operational Localized Significance Analysis below. As shown in Table 5: Operational Localized Significance Analysis, emissions during operation do not exceed the LSTs.

Table 5: Operational Localized Significance Analysis

Source	On-site Emissions (pounds per day)			
	NO_x	CO	PM_{10}	$PM_{2.5}$
Area	0.15	12.73	0.25	0.25
Energy	0.49	0.21	0.04	0.04
Mobile	1.00	7.73	0.06	0.02
Maximum On-site Daily Emissions	**1.64**	**20.66**	**0.35**	**0.31**
Operations Localized Significance Threshold	183	1253	3	2
Exceed Threshold?	**No**	**No**	**No**	**No**

Notes:
NO_x = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter
Source of emissions: CalEEMod Output (see Appendix A, *Air Quality and Greenhouse Gas Analysis Report*, FirstCarbon Solutions, August 23, 2016). The highest daily emissions occurred in the winter run.
Source of thresholds: South Coast Air Quality Management District 2009, for SRA 17, 25 meters, 5-acre site.

The localized analyses use thresholds that represent the maximum project emissions that would not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard (SCAQMD 2008a). If the project results in emissions that do not exceed the LSTs, it follows that those emissions would not cause or contribute to a local exceedance of the appropriate ambient air quality standard. The localized construction analysis demonstrates that the Project would not exceed the LSTs for nitrogen dioxide, CO, PM_{10}, or $PM_{2.5}$ after implementation of MM AQ-1. As shown in Table 5: Operational Localized Significance Analysis, on-site Project emissions would not exceed the operational LSTs for nitrogen dioxide, CO, PM_{10}, or $PM_{2.5}$. Therefore, the Project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation during construction or on-site operations.

Carbon Monoxide Hot Spot Analysis

CO "hot spot" thresholds ensure that emissions of CO associated with traffic impacts from a project in combination with CO emissions from existing and forecasted regional traffic do not exceed state or federal standards for CO at any traffic intersection impacted by the Project. Project concentrations may be considered significant if a CO hot spot intersection analysis determines that Project generated CO concentrations cause a localized violation of the state CO 1-hour standard of 20 ppm, state CO 8-hour standard of 9 ppm, federal CO 1-hour standard of 35 ppm, or federal CO 8-hour standard of 9 ppm. The SCAQMD recommends that a local CO hot spot analysis be conducted if the intersection meets one of the following criteria: (1) the intersection is at LOS D or worse and where the project increases the volume to capacity ratio by 2 percent, or (2) the project decreases LOS at an intersection from C to D.

As previously stated, the Applicant proposes 153 townhomes in place of existing industrial buildings. The Traffic Impact Analysis Report (TIA) prepared by Kunzman Associates, Inc. on November 8, 2016, states that the Project would generate an additional 335 daily trips. Because of the negligible traffic generation associated with the Project, no traffic impacts to intersection level of service were identified in the TIA. Therefore, the Project would not require a CO hotspot analysis since the Project would not worsen the LOS at nearby intersections. Impacts would be less than significant.

Conclusion

In summary, the Project would not generate a localized exceedance of the ambient air quality standards with standard conditions and mitigation incorporated; therefore, the Project would not contribute substantially to an existing or projected localized air quality violation. Impacts would be less than significant.

Standard Conditions

SC-4.3-1 All construction contractors shall comply with South Coast Air Quality Management District (SCAQMD) regulations, including Rule 403, Fugitive Dust. All grading (regardless of acreage) shall apply best available control measures for fugitive dust in accordance with Rule 403. To ensure that the Project is in full compliance with applicable SCAQMD dust regulations and that there is no nuisance impact off the site, the Property Owner/Developer would be required to implement each of the following:

- Moisten soil not more than 15 minutes prior to moving soil or conduct whatever watering is necessary to prevent visible dust emissions from exceeding 100 feet in any direction.
- Apply chemical stabilizers to disturbed surface areas (completed grading areas) within five days of completing grading or apply dust suppressants or vegetation sufficient to maintain a stabilized surface.
- Water excavated soil piles hourly or covered with temporary coverings.
- Water exposed surfaces at least twice a day under calm conditions. Water as often as needed on windy days when winds are less than 25 miles per day or during very dry weather in order to maintain a surface crust and prevent the release of visible emissions from the construction site.
- Wash mud-covered tired and under-carriages of trucks leaving construction sites.
- Provide for street sweeping, as needed, on adjacent roadways to remove dirt dropped by construction vehicles or mud, which would otherwise be carried off by trucks departing project sites.
- Securely cover loads with a tight fitting tarp on any truck leaving the construction sites to dispose of debris.
- Cease grading during period when winds exceed 25 miles per hour.

Mitigation Measures

MM AQ-1 Ongoing during grading and construction, the Property Owner/Developer shall be responsible for requiring contractors to ensure that all off-road construction equipment in excess of 150 horsepower used on-site is equipped with engines meeting the United States Environmental Protection Agency (EPA) Tier III off-road engine emission standards, and note as such on the plans.

c) 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 (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?

Less than significant impact. This impact is related to regional criteria pollutant impacts. The non-attainment regional pollutants of concern are ozone, PM_{10}, and $PM_{2.5}$. Ozone is not emitted directly into the air, but it is a regional pollutant formed by a photochemical reaction in the atmosphere. Ozone precursors, volatile organic compounds (VOC) and oxides of nitrogen (NO_x) react in the atmosphere in the presence of sunlight to form ozone. Therefore, the Air District does not have a recommended ozone threshold, but has regional thresholds of significance for VOC and NO_x.

Emissions from projects in the Air Basin can potentially contribute to the existing emission burden and possibly affect the attainment and maintenance of ambient air quality standards. Therefore, the SCAQMD has established regional significance thresholds applicable to project construction and operational emissions. Projects within the Air Basin with regional emissions in excess of any of the applicable regional thresholds are considered to have a significant regional air quality impact. Project-generated construction and operational emissions were estimated using CalEEMod version

2013.2.2. Emissions model output is included as an appendix to Appendix A, *Air Quality and Greenhouse Gas Analysis Report*, FirstCarbon Solutions, August 23, 2016.

Construction Emissions

The construction activities associated with the Project include demolition, site preparation, grading, building construction, paving, and architectural coating. The Project would be constructed over approximately 3 years, 4 months, beginning as early as January 2017. The CalEEMod phase lengths for site preparation, grading, and architectural coating were extended to reflect expected durations. However, construction phase defaults were used for all other construction phases for the purposes of a conservative analysis. Specifically, the building phase default in CalEEMod is more conservative (more intense daily activity) than what would occur under the Project's proposed schedule.

The Project would be required to adhere to standard SCAQMD regulations, such as implementing SCAQMD Rule 403 (see Standard Conditions in Impact 4.3 b), which would reduce fugitive dust emissions. Table 6: Unmitigated Construction Air Pollutant Emissions by Activity summarizes unmitigated construction-generated emissions with standard conditions incorporated.

Table 7 summarizes construction-generated emissions with standard conditions and MM AQ-1 incorporated. As discussed in Criterion b), MM AQ-1 is required to reduce localized PM emissions; however, as shown in Table 6: Unmitigated Construction Air Pollutant Emissions by Activity, the Project's regional PM emissions would be substantially less than SCAQMD's regional thresholds. Therefore, MM AQ-1 is not necessary to reduce regional air quality impacts to a less-than-significant level, but its associated reductions were included because it is required to mitigate Criterion b) to a less-than-significant level. For the assumptions used in generating the emissions, please refer to Appendix A, *Air Quality and Greenhouse Gas Analysis Report,* FirstCarbon Solutions, August 23, 2016.

The information shown in Table 6: Unmitigated Construction Air Pollutant Emissions by Activity indicates that construction emissions would not exceed the SCAQMD regional emission thresholds. Therefore, the short-term construction emissions are considered to have a less than significant regional impact.

Table 6: Unmitigated Construction Air Pollutant Emissions by Activity

Activity	Emissions (pounds per day)[1]					
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Demolition	4.4	47.6	38.6	0.1	4.2	2.4
Site Preparation	3.3	34.5	26.9	<0.01	6.7	4.3
Grading	2.3	23.9	17.5	<0.01	3.2	2.2
Building Construction—2017	3.6	28.2	25.2	<0.01	3.1	2.1
Building Construction—2018	3.1	24.9	24.0	<0.01	2.9	1.8
Paving	1.7	17.2	15.1	<0.01	1.1	0.9
Architectural Coatings	70.4	1.4	2.2	<0.01	0.3	0.2
Maximum Daily Emissions	**70.4**	**47.6**	**38.6**	**0.1**	**6.7**	**4.3**

Table 6 (cont.): Unmitigated Construction Air Pollutant Emissions by Activity

Activity	Emissions (pounds per day)[1]					
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Significance Threshold	75	100	550	150	150	55
Significant Impact?	No	No	No	No	No	No

Notes:
NO_x = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter
[1] The highest daily emissions occurred in the winter run.
Each of the above activities does not occur at the same time; therefore, the maximum daily emissions represent the maximum emissions that would occur in one day.
Source of emissions: CalEEMod Output (see Appendix A, *Air Quality and Greenhouse Gas Analysis Report*, FirstCarbon Solutions, August 23, 2016).
Source of thresholds: South Coast Air Quality Management District 2011a.

Table 7: Mitigated Construction Air Pollutant Emissions by Activity

Activity	Emissions (pounds per day)[1]					
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Demolition	1.8	25.0	29.9	0.1	3.1	1.4
Site Preparation	1.3	16.5	16.3	0.0	5.8	3.5
Grading	1.0	12.5	14.2	0.0	2.6	1.6
Building Construction—2017	3.2	23.8	25.4	0.0	2.9	1.9
Building Construction—2018	2.8	21.4	24.5	0.0	2.7	1.6
Paving	1.7	17.2	15.1	0.0	1.1	0.9
Architectural Coatings	70.4	1.4	2.2	0.0	0.3	0.2
Maximum Daily Emissions	**70.4**	**25.0**	**29.9**	**0.1**	**5.8**	**3.5**
Significance Threshold	75	100	550	150	150	55
Significant Impact?	No	No	No	No	No	No

Notes:
NO_x = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter
[1] The highest daily emissions occurred in the winter run.
Each of the above activities does not occur at the same time; therefore, the maximum daily emissions represent the maximum emissions that would occur in one day.
Source of emissions: CalEEMod Output (see Appendix A, *Air Quality and Greenhouse Gas Analysis Report*, FirstCarbon Solutions, August 23, 2016).
Source of thresholds: South Coast Air Quality Management District 2011a.

Operational Regional Emissions

Existing Use

The existing site currently contains three buildings constructed in 1973 and 1998, which are currently used for industrial uses. CalEEMod was used to estimate the operational emissions that would occur with continuance of the existing land uses. Emissions modeling utilized the trip generation rates provided in the TIA. Emissions from existing land uses are provided in Table 8: Operational Emissions.

Proposed Use

CalEEMod version 2013.2.2 was used to estimate operational emissions that would occur with the proposed land uses. Emissions would be from motor sources and area sources (natural gas, hearth, landscape, consumer products, and architectural coating). Motor sources are emissions from motor vehicles, including tailpipe and evaporative emissions. Area sources would be generated by an increased demand for electrical energy and natural gas with development of the Proposed Project.

The Property Owner/Developer would be required to adhere to SCAQMD regulations, such as implementing SCAQMD Rule 445 (see Standard Conditions below), which prohibits permanently installed wood burning devices into any new development. Standard Condition 4.3-3 requires compliance with Title 24 of the California Code of Regulations.

The emissions analysis utilized the trip generation rates from the Project's TIA, which is an average of 5.81 daily trips per dwelling unit.

Operational emissions were estimated for the summer and winter seasons. Winter season emissions were greater than summer emissions. Therefore, operational emissions as derived from CalEEMod are shown in Table 8: Operational Emissions for the winter season. Outputs for both seasons are found in Appendix A, *Air Quality and Greenhouse Gas Analysis Report,* FirstCarbon Solutions, August 23, 2016.

The information shown in Table 8: Operational Emissions indicates that the SCAQMD regional emission thresholds would not be exceeded for operational emissions. Therefore, the long-term operational emissions would have a less than significant impact.

Table 8: Operational Emissions

Source	Winter Emissions (pounds per day)					
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Project Emissions						
Area Sources	6.56	0.15	12.73	<0.01	0.25	0.25
Energy Sources	0.06	0.49	0.21	<0.01	0.04	0.04
Mobile Sources	2.53	5.40	24.96	0.07	5.12	1.42
Project Emissions	*9.15*	*6.04*	*37.90*	*0.07*	*5.42*	*1.71*
Existing Emissions						
Existing Emissions	*3.85*	*4.65*	*19.16*	*0.06*	*4.17*	*1.18*
Project Impact						
Net Increase In Emissions	**5.30**	**1.39**	**18.74**	**0.01**	**1.25**	**0.53**
Significance Threshold	**55**	**55**	**550**	**150**	**150**	**55**
Significant Impact?	No	No	No	No	No	No

Table 8 (cont.): Operational Emissions

Source	Winter Emissions (pounds per day)					
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Notes: VOC = volatile organic compounds NO_x = nitrogen oxides CO = carbon monoxide SO_x = sulfur oxides PM_{10} and $PM_{2.5}$ = particulate matter Source of emissions: CalEEMod Output (see Appendix A, *Air Quality and Greenhouse Gas Analysis Report*, FirstCarbon Solutions, August 23, 2016). Source of thresholds: South Coast Air Quality Management District 2011a.						

Standard Conditions

SC-4.3-2 Permanently installed wood burning devices into any new development shall be prohibited. A wood burning device means any fireplace, wood burning heater, or pellet-fueled wood heater, or any similarly enclosed, permanently installed, indoor or outdoor device burning any solid fuel for aesthetic or space-heating purposes, which has a heat input of less than one million British thermal units per hour.

SC-4.3-3 The Property Owner/Developer shall comply with Title 24 of the California Code of Regulations established by the energy conservation standards. The Project Applicant shall incorporate the following in building plans:

- Double paned glass or window treatment for energy conservation shall be used in all exterior windows;
- Buildings shall be oriented north/south where feasible.

SC 4.3-4 The Property Owner/Developer shall contact the Air Quality Management District (AQMD) at (800) 288-7664 for potential additional conditions of development or for additional permits required by the AQMD.

Mitigation Measures

MM AQ-1 Ongoing during grading and construction, the Property Owner/Developer shall be responsible for requiring contractors to ensure that all off-road construction equipment in excess of 150 horsepower used on-site is equipped with engines meeting the United States Environmental Protection Agency (EPA) Tier III off-road engine emission standards, and note as such on the plans.

Conclusion

The SCAQMD does not recommend quantified analysis of cumulative construction or operational emissions, nor does it provide separate methodologies or thresholds of significance to be used to assess cumulative construction or operational impacts. However, if an individual development Project generates operational emissions that exceed the SCAQMD recommended daily thresholds, Project-specific impacts would also cause a cumulative considerable increase in emissions for those pollutants for which the Air Basin is in non-attainment.

As indicated in Table 6: Unmitigated Construction Air Pollutant Emissions by Activity, Table 7: Mitigated Construction Air Pollutant Emissions by Activity, and Table 8: Operational Emissions above, the Project would not exceed SCAQMD thresholds during construction or operation. As discussed above, construction emissions would not exceed SCAQMD regional thresholds of significance even without implementation of MM AQ-1; however, because it is required in order to mitigate Criterion b) to a less-than-significant level, its associated reductions are also presented in Table 7: Mitigated Construction Air Pollutant Emissions by Activity for informational purposes. Therefore, the Project's impacts would be considered less than significant.

d) Expose sensitive receptors to substantial pollutant concentrations?

Less than significant impact with mitigation incorporated. This discussion addresses whether the Project would expose sensitive receptors to naturally occurring asbestos, asbestos from building demolition, construction-generated localized criteria pollutant impacts, construction-generated diesel particulate matter (DPM), construction or operational related toxic air contaminants (TACs), or operational CO hotspots.

Sensitive Receptors

Those who are sensitive to air pollution include children, the elderly, and persons with preexisting respiratory or cardiovascular illness. For purposes of CEQA, the SCAQMD considers a sensitive receptor to be a location where a sensitive individual could remain for 24 hours, such as residences, hospitals, or convalescent facilities (SCAQMD 2008a). Industrial facilities are not included in the definition because employees do not typically remain on-site for 24 hours. However, when assessing the impact of pollutants with 1-hour or 8-hour standards (such as nitrogen dioxide and CO), industrial facilities would be considered sensitive receptors for those purposes.

The closest sensitive receptors are residential apartments directly adjacent south to the Project. The existing residential development is located within 25 meters of the Project boundary.

Naturally Occurring Asbestos

Asbestos is a fibrous mineral which is both naturally occurring in ultramafic rock (a rock type commonly found in California), and used as a processed component of building materials. Because asbestos has been proven to cause a number of disabling and fatal diseases, such as asbestosis and lung cancer, it is strictly regulated either based on its natural widespread occurrence, or in its use as a building material. In addition, the ARB approved an Air Toxic Control Measure for construction, grading, quarrying and surface mining operations to minimize emissions of naturally occurring asbestos. The regulation requires application of best management practices to control fugitive dust in areas known to have naturally occurring asbestos and requires notification to the local air district prior to commencement of ground-disturbing activities.

The California Department of Conservation, Division of Mines and Geology (DMG) has a published guide for generally identifying areas that are likely to contain naturally occurring asbestos (NOA) (DMG 2011). The DMG map indicates NOA are not known to occur within the Project area. Therefore, disturbance of NOA during Project construction is not a concern for the Project. The

Project would result in no impact from exposure of sensitive receptors to naturally occurring asbestos.

Asbestos Containing Materials

In the initial Asbestos National Emission Standards for Hazardous Air Pollutants rule promulgated in 1973, a distinction was made between building materials that would readily release asbestos fibers when damaged or disturbed (friable) and those materials that were unlikely to result in significant fiber release (non-friable). The United States Environmental Protection Agency (EPA) has since determined that, severely damaged, otherwise non-friable materials can release significant amounts of asbestos fibers. Asbestos has been banned from many building materials under the Toxic Substances Control Act, the Clean Air Act, and the Consumer Product Safety Act. However, most uses of asbestos for building material are not banned. Therefore, the potential source of asbestos exposure for the Project is the demolition activity of the existing structures.

SCAQMD's Rule 1403 specifies work practice requirements to limit asbestos emissions from building demolition and renovation activities, includes the removal and associated disturbance of ACM. The requirements for demolition and renovation activities include asbestos surveying, notification, ACM removal procedures and time schedules, ACM handling and clean-up procedures, and storage, disposal, and land filling requirements for asbestos-containing waste materials. The rule further states that the District shall be notified of the intent to conduct any demolition or renovation activity (SCAQMD 2012).

Compliance with SCAQMD, federal, and state regulations reduces the potential of asbestos-containing material exposure to a less than significant impact.

Construction: Localized Construction Impacts

As shown in Impact AQ-b) above, the Project would not exceed the localized significance thresholds for construction-generated criteria pollutants with implementation of MM AQ-1. Therefore, the Project would not expose receptors to substantial criteria pollutant concentrations from construction activities. Impacts would be less than significant.

Construction: Diesel Particulate Matter

The Project would generate diesel exhaust, a source of DPM, during Project construction. Diesel particulates are typically 2.5 microns ($PM_{2.5}$). On-site emissions of both DPM occur during construction from the operation of heavy-duty construction equipment and from vendor trucks that operate on project sites.

Project activities that would generate DPM emissions are short-term in nature. Moreover, the current methodological protocols required by SCAQMD and ARB when studying the health risk posed by DPM assume the following: (1) 24-hour constant exposure; (2) 350 days a year; (3) for a continuous period lasting 70 years. Therefore, considering the dispersion of the emissions and the short time frame, exposure to DPM is anticipated to be less than significant.

Construction: Toxic Air Pollutants—On-site Workers

There are a variety of state and national programs that protect workers from safety hazards, including high air pollutant concentrations (California OSHA and CDC 2012).

On-site workers are not required to be addressed through this health risk assessment process. A document published by the California Air Pollution Control Officers Association (CAPCOA 2009), Health Risk Assessments for Proposed Land Use Projects, indicates that on-site receptors are included in risk assessments if they are persons not employed by the Project. Persons not employed by the Project would not remain on-site for any significant period. Therefore, a health risk assessment for on-site workers is not required or recommended. Impacts would be less than significant.

Operation: Toxic Air Pollutants

The ARB Air Quality and Land Use Handbook contains recommendations that will "help keep California's children and other vulnerable populations out of harm's way with respect to nearby sources of air pollution" (ARB 2005), including recommendations for distances between sensitive receptors and certain land uses. These recommendations are assessed for the following emissions sources identified using Google Earth.

- Heavily traveled roads. ARB recommends avoiding new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day. Epidemiological studies indicate that the distance from the roadway and truck traffic densities were key factors in the correlation of health effects, particularly in children. The Project site is located 1,300 feet from I-5, which is the closest freeway in the vicinity. The Project site is not located within 500 feet of roads with at least 100,000 vehicles per day. Therefore, the Project would not expose on-site sensitive receptors to significant health risk from heavily traveled roads.
- Distribution centers. ARB also recommends avoiding siting new sensitive land uses within 1,000 feet of a distribution center. The closest existing or proposed distribution center, the Bedrosian Tile and Stone Distribution at 1515 East Winston Road, is located approximately 3,200 feet north of the Project site. Therefore, the Project would not expose on-site sensitive receptors to significant health risk from distribution centers.
- Fueling stations. ARB recommends avoiding new sensitive land uses within 300 feet of a large fueling station (a facility with a throughput of 3.6 million gallons per year or greater). A 50-foot separation is recommended for typical gas dispensing facilities. The nearest fueling station is an Arco station located approximately 0.3 mile (1,584 feet) from the Project site, at 1801 S State College Boulevard. Therefore, the Project would not expose on-site sensitive receptors to significant health risk from fueling stations.
- Dry cleaning operations. ARB recommends avoiding siting new sensitive land uses within 300 feet of any dry cleaning operation that uses perchloroethylene. For operations with two or more machines, ARB recommends a buffer of 500 feet. For operations with three or more machines, ARB recommends consultation with the local air district. The nearest dry cleaning operation from the Project site is Action Cleaners located 0.8 mile (4,224 feet) north of the

Project site at 1201 E Ball Road and has one dry cleaning machine. Therefore, the Project would not expose on-site sensitive receptors to significant health risk from dry cleaning operations.

Operation: CO Hotspot

As shown in Impact AQ-b) above, the Project would not create a localized CO hotspot. Therefore, the Project would not expose receptors to substantial CO concentrations from operational activities.

Conclusion

The Project would not expose receptors to substantial quantities or significant concentrations of asbestos from demolition or soils disturbance, construction-generated localized criteria pollutant concentrations, construction-generated DPM, operational toxic air contaminants, or CO hotspots. Therefore, the Project would result in a less than significant impact.

e) Create objectionable odors affecting a substantial number of people?

Less than significant impact. Potential sources of odors during construction activities include the application of materials such as asphalt pavement, paints and solvents, and from diesel equipment emissions. Any objectionable odors that may be produced during the construction process would be temporary and likely would not be noticeable for extended periods of time beyond the Project site's boundaries. Because of the transitory nature of construction odors, a less than significant odor impact would occur and no mitigation would be required.

The Project would consist of residential development and the operation of the Project would not introduce any new sources of odors to the Project vicinity. Therefore, a less than significant odor impact would occur from operation of the Project and no mitigation would be required.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
4.4 Biological Resources *Would the project:*				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and 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, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
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 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?	☐	☐	☐	☒

Environmental Evaluation

Would the project:

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

Less than significant impact with mitigation incorporated. The Proposed Project site contains urban/developed habitat that is not likely to support any species identified as a candidate, sensitive, or special status species. The Proposed Project may provide some urban nesting habitat for migratory bird species protected by the California Fish and Game Code and/or the federal Migratory Bird Treaty Act.

Appendix B, *Biological Resources Assessment,* FirstCarbon Solutions, April 22, 2016, includes the results of a reconnaissance-level field survey of the entire Project site and the surrounding 500-foot buffer survey area.

Survey Results

The literature review revealed no special-status wildlife species are recorded as occurring within 1 mile of the survey area, and one special-status plant species is recorded as occurring within 1 mile of the survey area; please refer to Exhibit 9: CNDDB Recorded Occurrences of Special-Status Species (1 Mile). Salt spring checkerbloom (*Sidalcea neomexicana*) is listed as CNPS 2B.2. All plants with CNPS Rank 2B meet the definitions of Section 1901, Chapter 10 (Native Plant Protection Act) or Sections 2062 and 2067 (California Endangered Species Act) of the Fish and Game Code, and are eligible for state listing. Salt spring checkerbloom prefers playas, chaparral, coastal scrub, lower montane coniferous forest, Mojave Desert scrub, alkali springs, and marsh habitats. No suitable habitat with a potential to support this species is present within the survey area; therefore, no impacts to this species are expected.

The survey area provides habitat for wildlife species that commonly occur in urban/developed communities, please refer to Exhibit 10: Vegetation Communities Map. Soils present within the Project site are developed and compacted, and are not considered indicator soils for any special status plant species. Please refer to Exhibit 11: Soils Map. Species activity and diversity during the survey was low. Avian species observed or otherwise detected on-site include species common in urban/developed habitat, such as mourning dove (*Zenaida macroura*), house finch (*Haemorhous mexicanus*), and house sparrow (*Passer domesticus*). Two mourning doves were observed perching on a nest within the Project site under a building overhang. No reptile, mammal, or amphibian species were observed. Plant species observed included non-native ruderal species, such as summer mustard (*Hirschfeldia incana*), dandelion (*Taraxacum officinale*), telegraph weed (*Heterotheca grandiflora*), and ornamental landscape trees and shrubs.

Therefore, the survey identified that areas within the Project site—including ornamental trees, shrubs, and vines—may provide suitable nesting habitat for protected avian species. A pre-construction nesting survey is required to be conducted by a qualified biologist if construction activities are to occur within the avian nesting season (February 15–August 31).

Mitigation measures are required to reduce potential impacts to migratory birds. With the implementation of proposed mitigation, impacts to candidate, sensitive, or special status species would be less than significant.

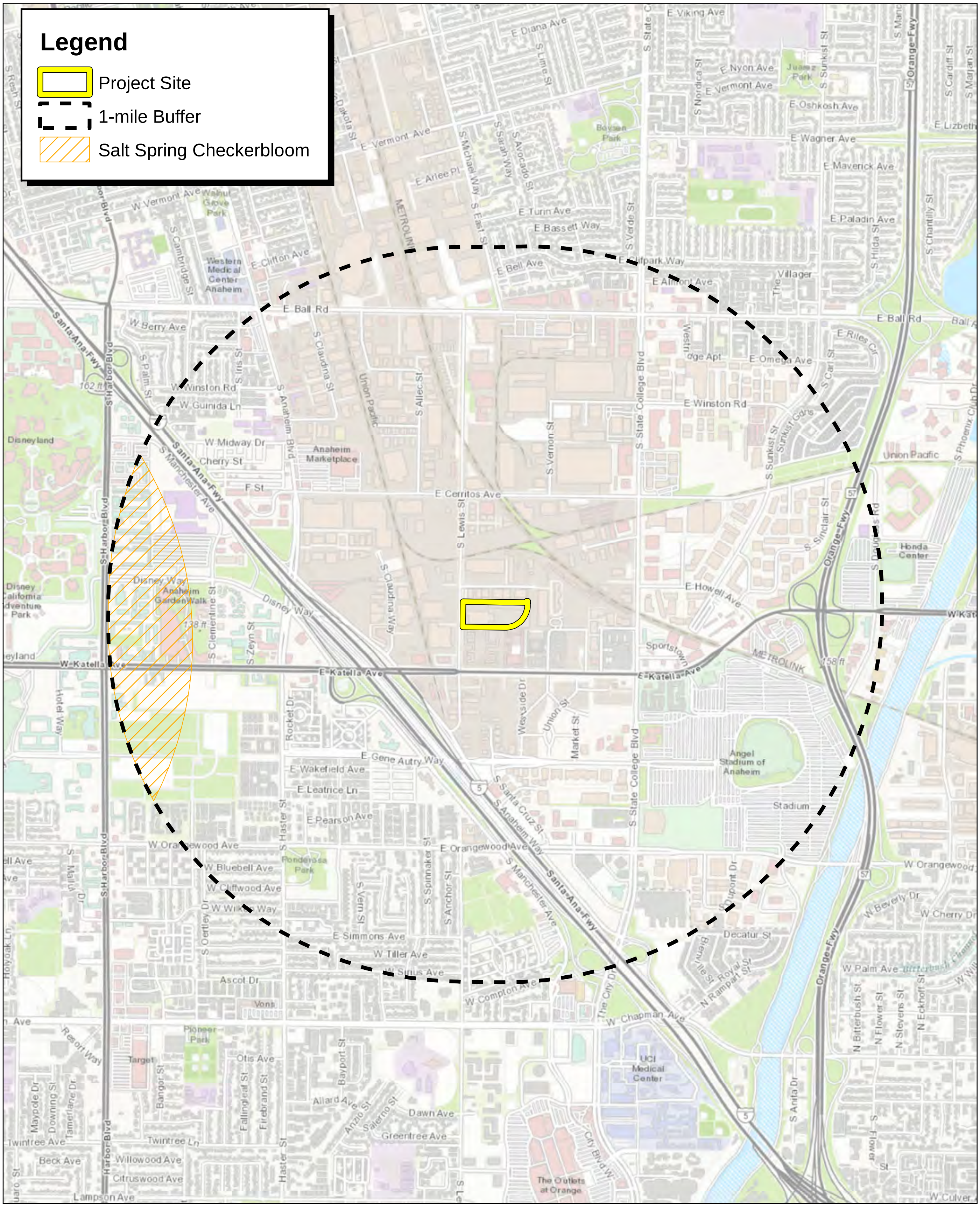
Mitigation Measures

MM BIO-1 Prior to issuance of demolition, grading or building permits, to avoid any direct and/or indirect impacts to resident and/or migratory birds, the Property Owner/Developer shall indicate on plans that the Project-related construction activities will occur outside the avian nesting season (February–August). If demolition, grading or construction must occur within the nesting season, the Property Owner/Developer shall hire a qualified biologist to perform a pre-construction survey to determine the presence or absence of nesting birds and nesting raptors on or within 500 feet of the construction area. The pre-construction survey shall be conducted no more than 10 calendar days prior to the commencement of demolition, grading or construction. If no active nests are detected or demolition, grading or construction activities occur outside the avian nesting season, no further action is necessary and permits may be issued without biological monitoring requirements.

MM BIO-2 If an active nest is located during pre-construction surveys, the Property Owner/Developer shall notify the United States Fish and Wildlife Service (USFWS) and/or the California Department of Fish and Wildlife (CDFW), as appropriate, regarding the status of the nest. Demolition, grading and construction activities shall be restricted as necessary to avoid disturbance of the nest until it is abandoned or the agencies deem disturbance potential to be minimal. Restrictions may include establishment of exclusion zones (no ingress of personnel or equipment at a minimum radius of 100 feet around an active raptor nest and a 50-foot radius around an active migratory bird nest) or alteration of the construction schedule. A biological monitor shall be present during construction activities to maintain the exclusion zones, minimize construction impacts and ensure that no nest is removed or disturbed until all young have fledged. Compliance with the above restrictions shall be indicated on plans prior to issuance of permits.

b) Have a substantial adverse effect on 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 Game or U.S. Fish and Wildlife Service?

No impact. The entirety of the Project site is flat, urban/developed land cover with no natural drainages or hydrological features present. The urban/developed habitat on-site does not provide suitable habitat for riparian-associated species or other sensitive natural communities, or sensitive plant or wildlife species that may occur in sensitive natural communities. No riparian habitat is present on-site. Thus, no impacts to riparian habitat or other sensitive natural communities are expected to occur.



Source: CNDDB, April 2016

2,000 1,000 0 2,000
Feet

Exhibit 9
CNDDB Recorded Occurrences of Special-Status Species (1 Mile)

THIS PAGE INTENTIONALLY LEFT BLANK

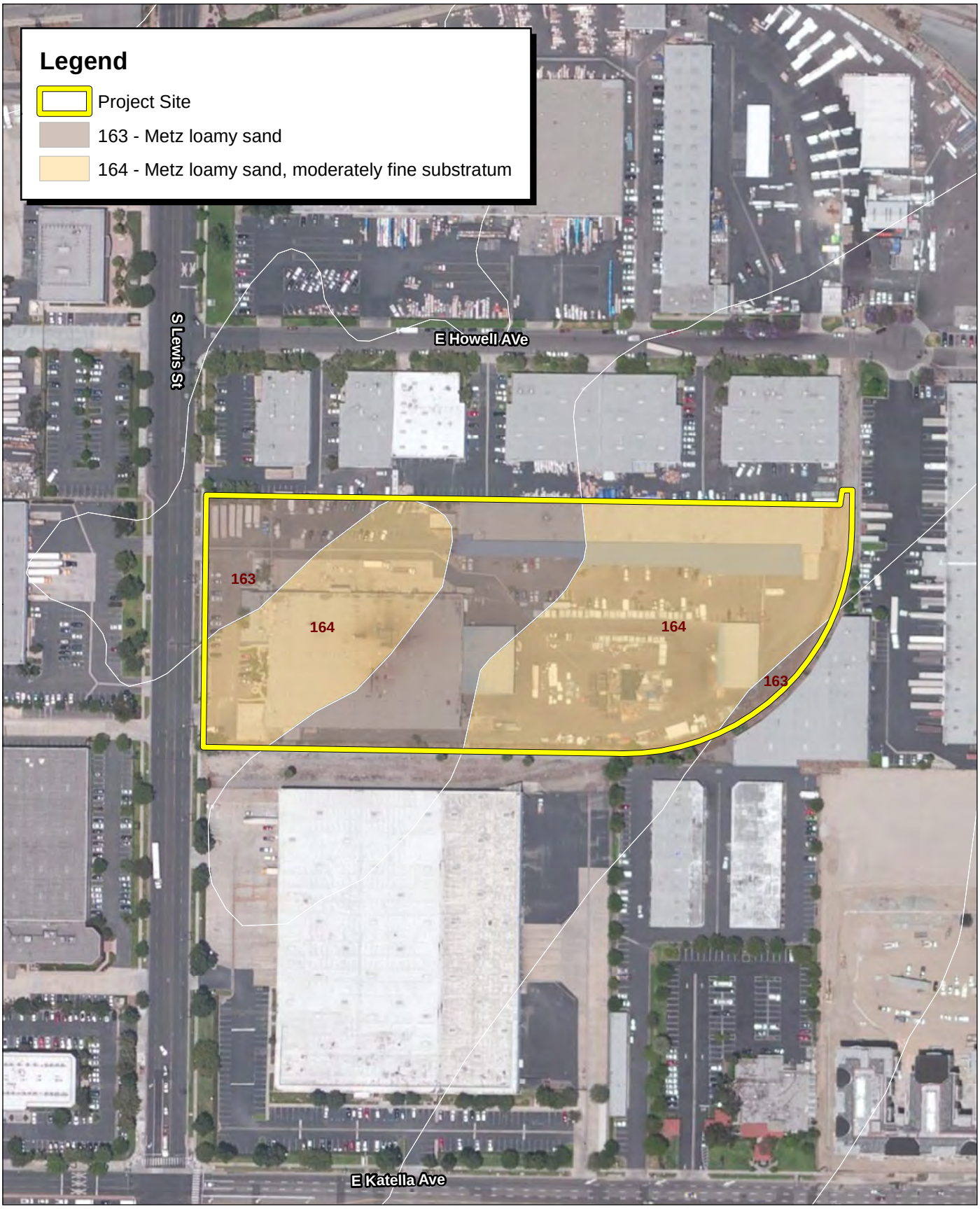
Source: ESRI Imagery, 2014

FirstCarbon SOLUTIONS

200 100 0 200 Feet

Exhibit 10
Vegetation Communities Map

THIS PAGE INTENTIONALLY LEFT BLANK



Source: ESRI Imagery, 2014

FirstCarbon SOLUTIONS

200 100 0 200 Feet

Exhibit 11
Soils Map

THIS PAGE INTENTIONALLY LEFT BLANK

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No impact. The entirety of the Project site is flat, urban/developed land cover with no drainages or hydrological features present. There are no wetlands, as defined by Section 404 of the Clean Water Act, present on-site. Thus, no impacts to federally protected wetlands are expected to occur.

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 wildlife nursery sites?

Less than significant impact with mitigation incorporated. The majority of the Project site is currently disturbed, and there is no habitat on-site that could support fish species. Additionally, the Project is located within a developed area of the City of Anaheim and would not be considered suitable habitat for use as a wildlife corridor. As discussed in Impact 4.4a), migratory birds may be present on-site and utilize the site for nesting purposes. Thus, MM BIO-1 and MM BIO-2 would be required to reduce impacts to migratory bird species covered under the California Fish and Game Code and/or the federal Migratory Bird Treaty Act. With implementation of mitigation, impacts would be less than significant.

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

No impact. The City of Anaheim Municipal Code Section 18.18.040 Tree Preservation defines Specimen Trees that are meant to be preserved within the City. Specimen Trees, as defined by the City of Anaheim, include:

> . . . any tree of the *Eucalyptus* varieties (Eucalyptus), *Quercus* varieties (oak), *Schinus* varieties (Pepper), or *Platanus* varieties (sycamore), with a trunk measuring eight (8) inches or greater In diameter, measured at a point four (4) feet above ground level, or in the case of *Eucalyptus* varieties, twenty (20) inches or greater in diameter, measured at a point four (4) feet above ground level (City of Anaheim 1993).

Removal of Specimen Trees requires a permit submitted and approved by the City Planning Department, and may require Planning Commission or City Council determination. No Specimen Trees requiring removal are present within the Project site. Thus, no impacts that conflict with any local policies or ordinances protecting biological resources are expected to occur.

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?

No impact. The Project site is not within the boundaries of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Thus, no impacts that would conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan are expected to occur.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
4.5 Cultural Resources *Would the project:*				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5 of the CEQA Guidelines and/or identified on the Qualified Historic Structures list of the Anaheim Colony Historic District Preservation Plan (April 15, 2010)?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5 of the CEQA Guidelines?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

Previous Determinations

The analysis of potential impacts to cultural resources within the Project site has been largely dependent upon a sequence of reports referencing previous studies. The most recent EIR for the Platinum Triangle was certified by the Anaheim City Council in October, 2010 (EIR No. 339 prepared for the Revised Platinum Triangle Expansion Project). This EIR determined that there would be "No Impact" to historical resources, archaeological resources, and human remains based on the findings of the Initial Study prepared in conjunction with the Notice of Preparation (NOP) for EIR No. 339 in 2008. The Initial Study determined that there would be "No Impact" to historical resources, archaeological resources, and human remains based on the findings of an EIR No. 332 prepared for the Platinum Triangle Master Land Use Plan and certified by the Anaheim City Council in October, 2005. The 2004 Initial Study determined that there would be "No Impact" to historical resources, archaeological resources, and human remains based on the findings of an EIR No. 321 prepared for the Anaheim Stadium Area Master Land Use Plan, which had generally the same project area boundaries as the Platinum Triangle, and was certified by the Anaheim City Council in March, 1999.

This chain of reliance on previous findings goes back over 15 years, if not longer. As such, it was determined that for this Initial Study, an updated cultural resources records search, historical aerial photography review, and a Native American Heritage Commission (NAHC) Sacred Lands File Search be conducted in order to evaluate for potential impacts to any newly discovered historic or prehistoric resources.

Cultural Setting

Following is a brief overview of the prehistory, ethnography, and historic background, providing a context in which to understand the background and relevance of sites found in the general Area of

Potential Effect (APE). This section is not intended to be a comprehensive review of the current resources available; rather, it serves as a general overview.

Further details can be found in ethnographic studies, mission records, and major published sources, including Beardsley (1948), Bennyhoff (1950), Fredrickson (1973), Kroeber (1925), Chartkoff and Chartkoff (1984), and Moratto (1984).

Prehistoric Background

Fagan (2003), Moratto (1984) and Chartkoff and Chartkoff (1984) provide recent overviews of California archaeology and historical reviews of the inland southern California coast, among other locales. The most accepted regional chronology for coastal and inland southern California is from Wallace's four-part Horizon format (1955), which was later updated and revised by Warren (1968), and most recently by Chartkoff and Chartkoff (1984). The latter modified the term "Period" to "Horizon," a term more common among researchers today.

Early Man

Spanning the period from approximately 17000 to 9500 Before Present (BP), archaeological assemblages attributed to the Early Man Period are characterized by large projectile points and scrapers. The limited data available suggests that prehistoric populations focused on hunting and gathering, moving about the region in small nomadic groups. Technologies associated with ocean resource gathering would have likely been utilized, but the sea level during this period was lower than it is today, meaning that sites on the coast are inundated and unavailable for study. Californians of this period are viewed as populations of big game hunters that were mobile enough to pursue herds. The entirety of California may have been occupied near the beginning of the Holocene epoch, about 11,750 years ago. During the Holocene, sea levels rose about 60 meters between 11750 and 7000 years BP, due to melting of the Pleistocene ice sheet in the higher latitudes. Although the sea level was about 120 meters lower off the coast of California roughly 22,000 years ago (Milne et al. 2005), sea level stabilization began about 7,000 years ago and only a slight rise has occurred since then.

Pleistocene flora and fauna are regularly uncovered from sediments at the La Brea tar pits, deep construction-related excavations in coastal Orange County and in the Santa Ana watershed. Such studies reinforce the idea that much of southern California exhibited a climate similar to that of Monterey or the San Francisco Bay area during this period (Chartkoff and Chartkoff 1984), with slightly drier conditions away from the coast.

Millingstone

As part of the slow restabilization effect of the melting continental ice sheet, rising sea levels and other environmental changes up to the end of the Early Man Period, the southern California climate became warmer and drier. Known as the Altithermal, Fagan (2003) notes that after 8500 BP, the climate of most of California became warmer and much drier, and remained so for 4,000 years.

Native groups altered their subsistence characteristics to compensate. Characterized by the appearance of handstones and millingstones that would have been used to grind seeds, the Millingstone Period tentatively dates to between 9500 and 3000 BP. Artifact assemblages in early

Millingstone sites reflect an emphasis on foraging subsistence systems. Because shrubby vegetative communities replaced the temperate forest, native populations would likely have shifted to seasonal rounds to take advantage of new patterns of seed ripening. Little is known about the types of cultural changes that would be needed, but the types of artifacts seen during this period can infer the subsistence systems.

Artifact assemblages typically included choppers and scraper planes, but there is a general lack of Projectile Project points. Large Projectile Project points began to appear in the late portion of the Millingstone Period, which suggests the development of a more diverse economy. The distribution of Millingstone sites reflects the theory that aboriginal groups may have followed a modified central-based wandering settlement pattern. In this semi-sedentary pattern, a base camp would have been occupied for a portion of the year, but small population groups seasonally occupied subsidiary camps in order to exploit resources not generally available near the base camp. Sedentism apparently increased in areas possessing an abundance of resources that were available for longer periods. Arid inland regions would have provided a more dispersed and sporadic resource base, further restricting sedentary occupations to locations near permanent water. The duration and intensity of encampment occupations increased, especially in the latter half of the period in the coastal areas. Huge shellmounds near coastal habitats indicated more intensive sedentism after 5000 BP (Fagan 2003), suggesting an increase in population.

Intermediate

Dating between 3000 and 1250 BP, the Intermediate Period represents a transitional period. Excavated assemblages retain many attributes of the Millingstone Period but with more elaborate and diverse artifact types in these deposits. Additionally, Intermediate Period sites can contain large-stemmed or notched, small Projectile Project points suggestive of bow and arrow use, especially near the end of the period, and the use of portable grinding tools continues. Intensive use of mortar and pestles signaled processing of acorns as the primary vegetative staple rather than a mixed diet of seeds and acorns. Because of a general lack of data, neither the settlement and subsistence systems nor the cultural evolution of this period are well understood, but it is very likely that the nomadic ways continued. It has been proposed that sedentism increased with the exploitation of storable food resources, such as acorns, but coastal sites from the period exhibit higher fishing activity than in previous periods. The first permanently occupied villages make their appearance (Chartkoff and Chartkoff 1984).

Late Prehistoric

Extending from 1250 BP to Spanish Contact in 1769, the Late Prehistoric Period reflects a slight increase in technological sophistication and diversity. Exploitation of marine resources continued to intensify. Assemblages characteristically contain Projectile Project points, and toward the end of the period the size of the points decrease and notched and stemmed bases appear, which imply the use of the bow and arrow. Use of personal ornaments, such as shell beads, is widely distributed east of the coast suggesting well-organized and codified trade networks. In addition, assemblages include steatite bowls, asphaltum, grave goods, and elaborate shell ornaments. Use of bedrock milling stations was widespread during this horizon. Increased hunting efficiency and widespread exploitation of acorns provided reliable and storable food resources. Village size increases, and

some of these villages may hold 1,500 persons or more (Chartkoff and Chartkoff 1984). Analyses of skeletons show that the first signs of malnutrition appear in this period, signaling greater competition for food resources (Fagan 2003).

The earliest part of this period may have seen an incursion of Cupan-Takic speakers from the Great Basin country (the so-called "Shoshonean wedge" of Kroeber 1925), who may have replaced the Hokan speakers in the area. At the time of Spanish conquest, Cupan-Takic speakers were located in Orange County, western Riverside County, and the Los Angeles Basin (Gabrielino, Juaneño and Cahuilla peoples). Serran-Takic speakers are now represented by the Serranos in the San Bernardino Mountains. Recent work (O'Neil 2002) has concluded that the "Shoshonean wedge" is misnamed: the original Los Angeles inhabitants replaced by the incoming Takic-speakers may have actually been Yuman speakers (similar to those in the California Delta region of the Colorado River) and not Hokan Salinan-Seri (Chumash) speakers as was suggested by Kroeber.

At the time of Spanish conquest, local Indian groups were composed of constantly moving and shifting clans and cultures. Early ethnographers applied the concept of territorial boundaries to local Indian groups purely as a conceptualization device, and the data was based on fragmented information provided to them from secondhand sources.

Native American Background

The Project lies in the southeastern region of an area currently mapped to have been utilized by the Gabrieliño. However, historic sources (Bean and Smith 1978) depict the region as a "crossroads" associated with three indigenous cultures: The Juaneño, the Gabrieliño, and the Luiseño. This statement appears to be a relatively accurate description of the state of affairs prior to the incursion of the Spanish, Mexican, and Americans in the 1700s and 1800s.

Juaneño

The Project area lies just outside the northern portion of the traditional use area of the Juaneño people of the Acjachemen Nation. Named by the Spanish for their association with Mission San Juan Capistrano in what is now southern Orange County, the Juaneño are believed to be closely related to their southerly neighbors, the Luiseño (Bean and Smith 1978; Bean and Shipek 1978). Historically, the Juaneño spoke a language that belongs to the Cupan group of the Takic subfamily of the Uto-Aztecan language family (a language family that includes the Shoshoean groups of the Great Basin).

Juaneño settlement and subsistence systems may extend back in time to the beginning of the Late Prehistoric Period about A.D. 650. The Juaneño were semi-sedentary hunters and gatherers. One of the most important food resources for inland groups was acorns gathered from oak groves in canyons, drainages, and foothills. Acorns were ground into flour using mortars and pestles. Seeds from sage and grasses, goosefoot, and California buckwheat were collected and ground into meal with manos and metates. Protein was supplied through the meat of deer, rabbits, and other animals, hunted with the bow and arrow or trapped using snares, nets, and deadfalls. Coastal dwellers collected shellfish and used carved shell hooks for fishing in bay/estuary, near shore, and kelp bed zones. Dried fish and shellfish were probably traded for inland products such as acorns and deer meat.

The Juaneño lived in villages of up to 250 people located near permanent water and a variety of food sources. Each village was typically located at the center of an established territory from which resources for the group were gathered. Small groups left the village for short periods of time to hunt, fish, and gather plant foods. While away from the village, they established temporary camps and created locations where food and other materials were processed. Archaeologically, such locations are evidenced by manos and metates for seed grinding, bedrock mortars for acorn pulverizing, and lithic scatters indicating manufacturing or maintenance of stone tools used in hunting or butchering. Overnight stays in field camps are evidenced by fire-affected rock used in hearths (Kroeber 1925; White 1963; O'Neil 1988).

The San Juan Basin was densely populated and villages were closely spaced because of the year-round availability of fresh water in San Juan Creek and its tributaries. Juaneño territory has been reported to have ranged from the mouth of the Santa Ana River in the north to the San Onofre and Las Pulgas areas in the south, and from the Pacific coast in the west to the upper reaches of the Santa Ana Mountains in the east, where the Luiseno territory began (Kroeber 1925; Koerper and Mason 1998).

Archaeological excavations throughout Orange County attribute multiple complex village sites to the Acjachemen Nation. The village of Acjacheme was located just east of the present location of Mission San Juan Capistrano. The village of Putuidem was located at the confluence of Oso and Trabuco Creeks and is represented by archaeological site ORA-855 (Koerper and Mason 1998) and may also be represented by other adjacent sites. The village of Tobna was located on the east bank of San Juan Creek near its mouth and may be represented by archaeological site ORA-21. The village of Sajavit was located at the original mission site (O'Neil 1988).

Initial contact with Europeans occurred as a result of the Portolá expedition in 1769. In 1775, the original Mission San Juan Capistrano was established but was almost immediately abandoned when the Spanish fathers and soldiers were forced to rush south in order to assist with a Native American uprising in San Diego. The initial mission site was reported to be halfway between the mouth of Cañada Gobernadora and the present mission location somewhere on the LaCoaugue Ranch (CA-ORA-243) (Geiger 1967; Meadows 1967). The new mission was officially established in 1776 at a different location and was moved again in 1778 to its present location nearer to the dependable water source of Arroyo Trabuco (Hallan-Gibson 1986).

Gabrieliño

The Project area lies within the southeastern portion of the Gabrieliño cultural area as defined by Kroeber (1925) and Bean and Smith (1978). Historically, the Gabrieliño spoke a language that belongs to the Cupan group of the Takic subfamily of the Uto-Aztecan language family (a language family that includes the Shoshoean groups of the Great Basin). The total Gabrieliño population 350 years ago was roughly 5,000 persons, based on an estimate of 100 small villages of 50 to 200 people each (Goldberg and Arnold 1988). Their range is generally thought to have been located on the Pacific coast from Malibu to San Pedro Bay and south to Aliso Creek, then east to Temescal Canyon and the San Bernardino area, and north to the headwaters of the San Gabriel River. This large area encompasses the City of Los Angeles, and much of Rancho Cucamonga, Corona, Glendale, and Long Beach. In general, Gabrieliño peoples occupied most of the fertile bottomlands in the Los Angeles basin. Some of the

Gabrieliño people prefer to be referred to as Tongva, an endonym of their original language and tribal name before Europeanized names were assigned to them by Spanish explorers.

The first modern social analyses of Gabrieliño culture took place in the early part of the 20th century (Kroeber 1925), but by that time acculturation and disease had taken their toll. The population studied at that time was a remnant of their cultural form prior to contact with the Spanish Missionaries. During his analysis of the Gabrieliño people, Kroeber regards them as the most advanced and wealthiest group south of the Tehachapi, except for the Chumash. The Gabrieliño were recorded as a chief-oriented society of semi-sedentary hunter-gatherers. Technology was sophisticated and reflected seasonal resource exploitation originating from village-centered territories. Influenced by the wide variety of coastal and interior environmental settings, their material culture was quite elaborate and consisted of well-made wood, bone, stone, and shell items.

Located in an area of extreme environmental diversity, large villages may have been permanent, such as that found on or near Red Hill in Alta Loma, with satellite villages utilized seasonally. Village populations ranged from 10 to 50 inhabitants and practiced exogamy. Multiple settlements were united under the leadership of a *tomyaar*, or chief, whose position of leadership was inherited patrilineally. The *tomyaar* served as a religious leader, a military leader, a civil administrator, presided as judge over village disputes, and acted as the distributor of village wealth. Village living structures were large, domed, and circular thatched rooms that may have housed multiple families. The society exhibited ranked individuals, possibly chiefs, who possessed a much higher level of economic power than unranked persons did (Kroeber 1925).

Because of its size and wealth, the Gabrieliño culture may have held a position of cultural influence over other groups (Kroeber 1925). Kroeber (1925) records an event in which the hallucinogenic plant *Datura meteloides*, or Jimson weed, is ingested prior to dancing and singing in a ritual dedicated to the deity *Chinigchinch*. He believed that this religious practice originated with the Gabrieliño culture and was adopted by neighboring bands of Juaneño, Luiseño, Cupeño, and Diegeño peoples.

The Gabrieliño relied on both inland and coastal resources for subsistence. They hunted small and large game, predominately rabbit and deer, and gathered a number of plant products, including buckwheat, chía, acorns, yucca, berries, and fruits. Seasonal camps along the coast and near estuaries reflect fishing practices, the gathering of shellfish, and the hunting of waterfowl (McCawley 1996). The Gabrieliño people living on Catalina Island would have relied on many of the same resources, with less variety and abundance of plant and seed resources. This was likely supplemented by increased reliance on and consumption of various marine sources.

Luiseño

The study area is also located just outside the northwestern boundary of the territory associated with the Luiseño, a tribe once associated with the San Luis Rey Mission at Oceanside, California. Historically, the Luiseño spoke a language that belongs to the Cupan group of the Takic subfamily of the Uto-Aztecan language family (a language family that includes the Shoshoean groups of the Great Basin). In addition, the study area is close to the ethnic boundaries of the Juaneño group. These

groups spoke languages closely related to the Luiseño (also part of the Cupan group) and once shared many common cultural traits.

The Luiseño were characterized by the occupation of sedentary autonomous village groups in subsistence territories that permitted them to reach the majority of their resources within a day's walk. Villages were commonly located along valley bottoms, streams, or coastal strands. Inland populations had access to fishing and gathering sites on the coast, which they used during the winter months. Luiseño subsistence was centered around the gathering of acorns, seeds, greens, bulbs, roots, berries, and other vegetal foods. This was supplemented with hunting mammals such as deer, antelope, rabbit, woodrat, ground squirrels, and mice, as well as quail, doves, ducks, and other birds. Bands along the coast also exploited marine resources, such as sea mammals, fish, crustaceans, and mollusks. Inland, trout and other fish were taken from mountain streams (Bean and Shipek 1978).

In comparison with the Gabrieleño to the north and the Cahuilla of the inland deserts, the Luiseño appear to have had a higher population density and a more rigid social structure. Villages had hereditary chiefs who controlled religious, economic, and territorial activities (Bean and Shipek 1978; Boscana 1933). An advisory council of ritual specialists and shamans was consulted for environmental and other knowledge. Large villages located along the coast or in inland valleys may have had more complex social and political structures than settlements controlling smaller territories (Bean and Shipek 1978; Strong 1929).

Because of their strong social infrastructure, the Luiseño patterns may have been relatively stable until late in the mission secularization period. Although initial contact with Europeans occurred as a result of the Portolá expedition in 1769, the Luiseño were not taken into the Catholic system until 1798 when Mission San Luis Rey was established. The policy of the Catholic Mission fathers or padres to maintain imported European traditional style settlement and economic patterns eventually suppressed traditional Luiseño subsistence methods and cultural traditions. However, the Luiseño were successful at retaining their language and certain rituals and ceremonies. Starting in the 1970s, there was a revival of interest in the Luiseño language and classes were organized in order to pass this knowledge on. Since then, traditional games, songs, and dances have been performed, traditional foods have been gathered and prepared, and traditional medicines and curing procedures have been practiced (Bean and Shipek 1978). Today, many Luiseño bands offer educational outreach programs and even organize annual traditional foods and crafts festivals.

Historic Background

The Spanish Period (1769–1821)

Father Junipero Serra was sent to Alta California to create a chain of Missions and Mission outposts to bring Christianity to the indigenous population and create a foundation for Spanish colonization of the region. Located between the previously established presidios in Monterey and San Diego, Serra had military assistance in his quest and the coastal region of California came under early control. The arrival of the Portolá Expedition in 1769 marked the first efforts at extending Spanish control into Alta California through the establishment of Catholic missions. This move by the Spanish King Carlos III was intended to protect Pacific Coast shipping against Russian or English occupation of the area. Beginning in San Diego, the padres surveyed the lands as far north as Monterey Bay and

secured them for the Spanish Crown. Mission sites were selected on the way north by Fathers Crespi and Gomez (Hallan-Gibson 1986).

In 1775, the original Mission San Juan Capistrano was established but was almost immediately abandoned when the Spanish fathers and soldiers were forced to rush south in order to assist with a Native American uprising in San Diego. The initial mission site was reported to be halfway between the mouth of Cañada Gobernadora and the present mission location somewhere on the LaCoaugue Ranch (CA-ORA-243) (Geiger 1967; Meadows 1967). The new mission was officially established in 1776 at a different location and was moved again in 1778 to its present location nearer to the dependable water source of Arroyo Trabuco (Hallan-Gibson 1986). The Native inhabitants were brought under control of the mission system and converted to Catholicism. They were formed into villages near the mission and put to work in the various farming, herding, candle and soap making, iron smelting, and weaving and tanning operations. In its first year, 1,649 baptisms were recorded at Mission San Juan Capistrano, and its successes was measured by the fact that nearly one thousand neophytes lived on or near the large Mission compound. An increasing population led to the building of numerous adobe homes for the native and intermarried families with ties to the Mission. In 1807, 34 adobes were built or remodeled. Records from 1811 reveal a prosperous year, with the Mission producing many tons of wheat, barley, corn, and beans, and thousands of head of cattle, sheep, and horses (Edgar and Edgar 2002).

The Mexican Period (1821–1848)

After years of internal fighting, Mexico achieved its independence from Spain in 1821 and Alta California became the northern frontier of the State of Mexico. The Mission padres were forced to swear allegiance to Mexico in 1822. Administration of the southern California ranchos shifted to Mexican hands about 1824, but effective control did not occur until the early 1830s. Once the ranchos were secularized, the Mexican administrators began granting vast tracts of the original Mission properties to members of prominent families whom had helped cut ties from the Spanish system. Secularization of the missions took place over the next decade and the former mission lands were transferred to the large Mexican families that had settled in the area. The Secularization Act went into legal effect in 1834 and mission San Juan Capistrano was the first mission to undergo the process.

Near the end of the mission period, lands across southern California were sold and resold many times over, and the Rancho of Orange County was no exception. The first land grant in Orange County included the land between the Santa Ana and San Gabriel rivers, which was given to Manuel Nieto in 1784. The Rancho Santiago de Santa Ana, went to Juan Grijalva, who passed it to his son-in-law, who eventually passed it to his grandson. There followed a period of growth and development as rancheros built adobe homes, ran large herds of cattle and sheep, engaged in foreign trade, and dabbled in politics (Hallan-Gibson 1986).

Historic Anaheim

California was drawn into the Mexican-American War in 1846, and Governor Pico fled the oncoming American Army. After the Treaty of Guadalupe Hidalgo ended the war in 1848, Alta California entered the Union. The land claims of the rancheros were scheduled to be upheld, but subsequent

laws required the landowners to prove their claims, requiring considerable time and expense. The ownership and resource rights or previously established Spanish and Mexican land grants were in a state of uncertainty. While some larger Ranchos remained in family hands, even more lands were seized by the United States Land Commission.

Although California shifted into American hands, development of much of the inland coastal regions was slow, while the coastal lands were quickly turned over. During the 1850s, much of modern Riverside County and Orange County was still simple cattle and sheep ranches. The Anaheim area was purchased from the family of Juan Pacifoca Ontiveros, the owners of the Rancho San Juan Cajon de Santa Ana, and was settled by German immigrants in 1857. Led by George Hansen representing the Los Angeles Vineyard Society, the colony of German farmers and vintners settled on 200 acres in the area now utilized as Anaheim's downtown area. The group purchased the land for approximately $2,300 and soon laid out a town of 50-acre plots and 64 city lots. Soon roads were laid out, irrigation ditches were dug and homes were built. The word "Anaheim" is composed of the name of the Santa Ana River and the German word for home—"heim." The first settlers included farmers, writers, artists, and musicians and soon an opera house and a school were built within the Colony area (Armor 1921; Faessel 2006).

The newcomers planted 400,000 grape vines, but a disease wiped out the vines in the 1870s and the land was replanted with citrus groves. The first commercially grown oranges in Orange County were grown in Anaheim and the growers attributed their success to the mild climate and protective hills. Walnuts and chili peppers were also important crops.

The City was incorporated in 1876 with a population of 881. By 1887, the Santa Fe Railroad came to the City, creating a link to the East Coast markets for the products grown in the area. This vital system allowed the agricultural products to be shipped to other points and creating a solid foundation for the City's growth. The City grew slowly, but steadily and by 1920, the population was over 5,500 people. The City acquired all the elements of a developing city with schools, churches, small family owned businesses, parks, and cultural centers (Armor 1921; Faessel 2006; City of Anaheim 2015).

By 1950, the town's population had grown to over 14,000 people but the City was poised on the edge of major changes. World War II was over in 1945, and the post-war era brought increased prosperity across the United States. A "baby boom" had increased the population dramatically, and California underwent an economic and industrial boom period. Thousands of soldiers had passed through California on the way to the Pacific war theaters and many returned with their memories of palm trees, sunny climate and lots of opportunity. Soon cities across Southern California found their populations expanding rapidly, suburban tract homes were under construction across the valleys, and soon the infrastructure systems had to be upgraded to meet the new demands for schools, roads, electrical and utility services. The construction of I-5 began in the mid-1950s and soon the cities of Southern California began to expand along the freeway corridor (Faessel 2007; City of Anaheim 2015). In this same timeframe, agricultural groves began to emerge throughout the city.

At this critical time, Walt Disney began to implement his dream of building a family-centered park. Seeking a suitable site for his park, Disney chose Anaheim and after much negotiation and planning,

he entered into a contract with ABC television to produce a television show. In addition, ABC produced the money to build his theme park, which has become a world-famous attraction. The grand opening took place in July 1955. By the seventh week, the one millionth guest had entered its gates and it was deemed a success (Faessel 2007; City of Anaheim 2015).

The success of Disneyland greatly affected the growth of Anaheim with the steady influx of tourists, the overall rising population of Southern California, and the industrial boom of the surrounding area. Everything had to be expanded—police and fire departments, utilities, housing, a new library, schools, and the number of motels for Disneyland guests. A major hotel industry with restaurants, shops, and infrastructure services all became central to the City's development. The City of Anaheim took a big gamble in 1967 with the construction of the Anaheim Convention Center but it succeeded, and it was soon filled to capacity, greatly increasing the City's revenue. Plans were also underway to build the Anaheim Stadium as a home for the Los Angeles Angels baseball team (Faessel 2007; City of Anaheim 2015).

During the 1970s, the Stadium began hosting all types of musical and sporting events, bringing major revenue to the City's coffers. The old orange groves gave way to new commercial shopping centers, business parks, and office complexes over the years from the 1970s to the present time. The pace of growth has continued steadily as Anaheim has proven to be a major tourist and business center. In the late 1980s, ground was broken for a new Pacific Bell facility that would bring 1,000 employees back to downtown, energizing the local economy. A new city hall was built in the 1990s, and redevelopment and revitalization projects gave new life to older areas of the City, producing more jobs and growth potential. The City has expanded greatly from its early beginnings as a small agricultural colony into an important and vital Southern California city.

Cultural Resources Investigations

South Central Coastal Information Center Records Search

On May 24, 2016, FCS Archaeologist Coral A. Eginton, MA, RPA, received records search results from the South Central Coastal Information Center (SCCIC) located at California State University, Fullerton, which are summarized in Appendix C.1, *Cultural Resources Records Search,* South Central Coastal Information Center, May 24, 2016. The records search included the Project area and a 1-mile search radius beyond the Proposed Project boundaries. To identify any resources within the study area or search radius, current inventories of the National Register of Historic Places (NR), the California Register for Historical Resources (CR), the California Historical Landmarks (CHL), and the California Points of Historical Interest (CPHI) were examined. The California State Historic Resources Inventory (HRI) for San Bernardino County was also reviewed to determine any local resources that have been previously evaluated for historic significance.

The results of the records search indicated that six resources are on file with the SCCIC as having been previously recorded within the search radius. All previously recorded resources are historic and none are located within the Proposed Project area. Resources included a church, two utility buildings, a single-family property, a railroad section, and Angel Stadium. The remaining five historic resources are all located more than 0.50 mile outside the Project area.

In addition, 36 cultural resource surveys or studies are on file with the SCCIC as having been conducted within the search radius. Most of these surveys or previous studies were conducted on specific historic-age resources and are relatively small in surface area. As a result, approximately 10 percent of the search radius has been previously studied.

A search for listed or potentially eligible resources or properties within the search radius on the Orange County HRI, NR, CR, CHL, or CHPI inventories returned two results. These historic resources, the Katella Substation (P-30-161816) and the Melrose Abbey Mausoleum (P-36-161815) are included in the six total resources within the search radius. Both resources were determined eligible for listing in the NR and will not be impacted by Project development.

Furthermore, the Project area is located approximately 3 miles south of the Anaheim Colony Historic District, and there are no historic resources listed on local City of Anaheim registers that will be impacted by Project implementation.

The results of the records search are confidential but have been shared with City of Anaheim staff for consideration and use in Native American consultations. Approved individuals or institutions can be provided with these results upon request.

Historic Aerial Photography Review

A review of historic maps and aerial photography from the Nationwide Environmental Title Research (NETR) database was conducted in order to better understand historic development within the Project area. Archived historic maps dated back to 1896 and aerial photography exists from 1953 onward. The 1896 map details the Project area as within Miraflores, an agricultural community active until the late 1800s, largely focused on walnut farming. By 1901, historic maps refer to the region of the Project area as Tustin Junction, a name adopted after the Santa Fe and Pacific Railroads had established active agricultural and transportation lines through the region. The 1925 map shows multiple roads and some historic structures in the general vicinity of the Project area, and the region is referred to as Anaheim instead of its more historic names. The 1950 map illustrates the first visible changes within the Project area itself and depicts the emergence of agricultural groves. The 1953 aerial photographs confirm this development and the Project area can be seen to be fully occupied by a large citrus or walnut grove encompassing many of the surrounding parcels. By 1963, the Project area had been fully cleared of standing trees and appears to be used for the cultivation of a low elevation crop or be retained as a furrowed field. While the Project area was maintained through regular tilling, it was not used for intensive agricultural activities again. The 1972 aerial photograph shows that the Project area had achieved its current irregular semi-ovaline shape, although it remained an unoccupied field. The first structures within the Project area were built sometime between 1972 and 1977. The two standing structures currently in existence within the Project area first appear on the 1977 historic map and remain completely original until 2003 when some minor additions and improvements can be seen.

All consulted maps are copyright property of NETR but can be accessed via the free NETR online database (http://www.historicaerials.com/).

Native American Heritage Commission Sacred Lands File Search

On May 16, 2016, FCS sent a letter to the NAHC in an effort to determine whether any sacred sites are listed on its Sacred Lands File for the Project area. A response from the NAHC was received on May 20, 2016, and noted that the Sacred Lands File search was returned with negative results. A list of 15 Native American tribal members who may have additional knowledge regarding the presence of cultural resources within the Project area was included with the results. These representatives were sent outreach letters on May 23, 2016 inviting them to contribute any addition information they may have. To date, no responses have been received.

The NAHC Sacred Lands File search is included in Appendix C.1, *Cultural Resources Records Search,* South Central Coastal Information Center, May 24, 2016.

Environmental Evaluation

Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5 of the CEQA Guidelines and/or identified on the Qualified Historic Structures list of the Anaheim Colony Historic District Preservation Plan (April 15, 2010)?

No impact. According to a review of historic maps and aerial photography, the Project area was occupied by agricultural lands until development within the Project occurred sometime between 1972 and 1977. As such, the standing structures on-site are not of an historic age (45 years of age or older) and do not currently require further study, recordation, or evaluation under CEQA. The results of the records search indicated that while six historic resources were recorded within the search radius, none were within or relatively near the Project area. Furthermore, the only resource still standing that was determined to be potentially significant under CEQA is well outside the Project area. Additionally, the Project area is not within the Anaheim Colony Historic District and there are no resources listed on local City of Anaheim registers that will be impacted by Project implementation. As such, the Project area has been determined to have a low sensitivity for the presence of historic resources and no mitigation measures are currently proposed.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5 of the CEQA Guidelines?

Less than significant impact with mitigation incorporated. The results of the records search did not indicate the presence of any prehistoric resources within the 1-mile search radius. Additionally, the Sacred Lands File Search determined that no sacred sites are within or near the Project area. However, as the majority of the area surrounding the Project location has existed as a built environment since the early 1970s, the lack of known prehistoric resources could simply be due early development prior to CEQA-level investigative requirements. As such, the Project area has been determined to have a low sensitivity for the presence of prehistoric resources. However, because of the lack of previous surveys of native soils in the surrounding area, and in order to ensure that any impacts to unknown buried prehistoric resources are less than significant, mitigation

measures for the discovery of inadvertent finds should be employed and are listed below (MM CUL-1, MM CUL-2, MM CUL-3, MM CUL-4).

c) Disturb any human remains, including those interred outside of formal cemeteries?

Less than significant impact with mitigation incorporated. The Project area is not located near any known historic cemeteries, and the results of the NAHC Sacred Lands File did not indicate the presence of any sacred sites or burial grounds. Furthermore, no responses were received from additional tribal correspondence attempts with Native American representatives indicating a high concern of encountering potentially sacred sites during Project development. As such, the Proposed Project area has been determined to have a low sensitivity for containing human remains. However, in order to ensure that any impacts to unknown buried human remains are less than significant, mitigation measures for the discovery of inadvertent finds should be employed and are listed below.

Mitigation Measures

MM CUL-1 Prior to the issuance of grading permits, a note shall be provided on project plans indicating that during ongoing grading and construction, in the event that buried historic or prehistoric cultural resources are discovered, the Property Owner/Developer will ensure that operations stop in the immediate vicinity of the find and a qualified archaeologist shall be consulted to determine whether the resource requires further study. The qualified archeologist shall make recommendations to the Lead Agency on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines. Potentially significant cultural resources consist of but are not limited to stone, bone, fossils, wood, shell, glass, or metal artifacts, and various features including hearths, structural remains, or historic dumpsites. Any previously undiscovered resources found during construction within the Project area shall be recorded on appropriate DPR forms and evaluated for significance in terms of CEQA criteria.

MM CUL-2 Ongoing during grading and construction, if any inadvertently discovered resources are determined to be unique or significant resources as defined under Section 15064.5 of the CEQA Guidelines, mitigation measures shall be identified by the archaeological monitor and recommended to the Lead Agency. Examples of appropriate mitigation measures for significant resources may include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds.

MM CUL-3 Ongoing during grading and construction, no further grading shall occur in the area of any inadvertent discovery until the Lead Agency approves the measures to protect these resources. Any archaeological artifacts recovered as a result of mitigation shall be donated to a qualified scientific institution approved by the Lead Agency where they would be afforded long-term preservation to allow future scientific study.

MM CUL-4 Ongoing during grading and construction, in the event of an accidental discovery or recognition of any human remains, the Property Owner/Developer shall be required to follow Public Resource Code (PRC) Section 5097.98. In this instance, once Project-related earthmoving begins and if there is accidental discovery or recognition of any human remains, the following steps shall be taken:

1. The Property Owner/Developer will ensure that there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the County Coroner is contacted to determine if the remains are Native American and if an investigation of the cause of death is required. If the coroner determines the remains to be Native American, the coroner shall contact the NAHC within 24 hours, and the NAHC shall identify the person or persons it believes to be the "most likely descendant" of the deceased Native American. The most likely descendant may make recommendations to the Property Owner/Developer and/or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98, or
2. Where the following conditions occur, the Property Owner/Developer or his/her authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the most likely descendent or on the Project area in a location not subject to further subsurface disturbance:
   - The NAHC is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 48 hours after being notified by the commission;
   - The descendent identified fails to make a recommendation; or
   - The Property Owner/Developer or his authorized representative rejects the recommendation of the descendent, and the mediation by the NAHC fails to provide measures acceptable to the Property Owner/Developer.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
4.6 Geology and Soils *Would the project:*				
a) Expose people or structures to 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 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?	☐	☐	☐	☒

Environmental Evaluation

Would the project:

a) Expose people or structures to 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.

Less than significant impact. The portion of Southern California that includes the subject property is considered seismically active. Because of the proximity of the property area to several nearby active faults, strong ground shaking could occur at the property as a result of an earthquake on any one fault. There are no known active faults crossing the property and the property is not within an Earthquake Fault Zone (Hart and Bryant 1997). While the potential risk of ground rupture cannot be completely ruled out, surface fault rupture at the property is relatively low and the risk is considered similar to other sites in the vicinity. Therefore, impacts are considered less than significant.

ii) Strong seismic ground shaking?

Less than significant impact. As with all areas of Southern California, the Project would be subject to strong ground shaking associated with seismic activity. The nearest potentially active fault is the San Joaquin Hills Fault, which is located approximately 7.8 miles west of the Project site (Blake 2000; Jennings 1994). Similar to other development projects in the City and throughout the Southern California Region, the Proposed Project would be required to comply with all applicable standards contained in the current California Building Code (CBC), including Section 1613-Earthquake Loads. Construction of the townhomes, in accordance with applicable requirements for development within Seismic Zone 4 (as listed within the CBC) would ensure that potential impacts are reduced to the maximum extent possible. Therefore, impacts associated with strong ground shaking would be less than significant.

iii) Seismic-related ground failure, including liquefaction?

Less than significant impact. Appendix D, *Geotechnical Report* includes the *Preliminary Geotechnical Evaluation,* EEI Geotechnical& Environmental Solutions, January 30, 2015, as well as subsequent peer review memos between the City and EEI. The geotechnical report evaluated the potential for seismic-related ground failure, including liquefaction, at the site. Liquefaction is the loss of soil strength or stiffness due to increasing pore-water pressure during severe ground shaking. Liquefaction is associated primarily with loose (low density), saturated, fine- to medium-grained, cohesion-less soils. Based on the results of the geotechnical investigation, the Project site is susceptible to liquefaction as it is underlain mainly by generally loose alluvial deposits and an observed lack of shallow groundwater. This may cause liquefaction to occur below the Project site during periods of strong ground motion.

Prior to the issuance of a grading permit, the Property Owner/Developer would be required to submit grading and foundation plans to the City for review to demonstrate compliance with the City's grading requirements as well as any applicable recommendations contained in the geotechnical report. Adherence to the standards of the CBC, as amended by the City, would reduce impacts due to seismic-related ground failure, including liquefaction, to less than significant.

iv) Landslides?

No impact. Review of the Anaheim, California 7.5-minute topographic quadrangle (USGS 2007) indicates that the subject property is very gently sloping to nearly level with approximate site elevation ranging from approximately 149 to 150 feet above mean sea level (amsl). This topographic map also indicates that the general area of the property slopes gently toward the south-southwest. Because of the level topography, landslides are not anticipated to occur on the Project site.

b) Result in substantial soil erosion or the loss of topsoil?

Less than significant impact. The results of the geotechnical report, provided as Appendix D, *Geotechnical Report,* EEI Geotechnical& Environmental Solutions, January 30, 2015 indicate that underlying the existing pavement on-site are undocumented artificial fill soils, which in turn are underlain by Quaternary-aged Holocene alluvial deposits that extends to the maximum explored depth of 51.5 feet below the existing ground surface. As encountered in the exploratory borings, the fill materials were observed to consist of clayey silt or silty sand that were typically moist and generally loose to medium dense at the time of the subsurface exploration. The alluvial deposits were observed to consist of poorly graded sand, silty sand, clayey sand, silt and sandy silt that were observed to be generally moist and loose to medium dense at the time of the subsurface exploration.

The Project site is currently developed with three industrial buildings that previously required grading and the removal of topsoil during construction. The Project would require minimal grading because of the site's current use. The Project would not result in substantial soil erosion or the loss of topsoil and therefore, impacts related to erosion would be less than significant.

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

Less than significant impact. Refer to Impacts 4.6.a.ii) and 4.6.a.iii) above for discussions of potential impacts related to liquefaction and earthquake-induced landslides, respectively. As the site is relatively level, there is no potential for landslides or slope instabilities. Additionally, as the Project site has a low potential for liquefaction, the potential for lateral spreading is also low. Compliance with the City's Building Regulations would ensure that project implementation would not expose people or structures to potential substantial adverse effects involving unstable geologic units or soils. Therefore, impacts resulting from unstable soil would be less than significant.

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

No impact. Expansive soils typically consist of clay and other similar, poorly drained soils. One soil sample from boring B-8 within the upper 5 feet of existing grade was tested for its expansion potential. Expansion index testing was conducted for this soil type on-site, and the results of the laboratory Expansion Index (EI) testing indicated an expansion index of 0 for the tested soils, which represents a very low expansion potential. Therefore, there would be no impact.

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?

No impact. The Proposed Project would connect to the City's sewer collection system, which provides service to the surrounding vicinity, and it would not require an alternative method of wastewater conveyance. Therefore, no impacts associated with septic or alternative wastewater disposal systems would occur.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
4.7 Greenhouse Gas Emissions *Would the project:*				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Environmental Evaluation

Would the project:

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

Less than significant impact. The SCAQMD developed interim recommended significance thresholds for greenhouse gases for local lead agency consideration (SCAQMD draft local agency threshold) in 2008. The current interim thresholds recommend a tiered approach that provides a quantitative annual threshold of 3,500 metric tons of carbon dioxide equivalent ($MTCO_2e$) for residential land use projects. Although the SCAQMD provided substantial evidence supporting the use of the above threshold, the SCAQMD Board has not approved the thresholds as of the date of this analysis.

The City of Anaheim adopted a Greenhouse Gas Reduction Plan on July 21, 2015. The Plan identifies 2020 and 2030 targets, but it does not include specific greenhouse gas (GHG) thresholds for private development. Instead, the City relies on the expertise of the SCAQMD and utilizes the SCAQMD as guidance for the environmental review of plans and development proposals within its jurisdiction. Therefore, the Project would utilize SCAQMD's GHG emission threshold to determine significant impacts.

The Project would result in the development of 153 townhomes. The Project is anticipated to generate GHG emissions from area sources, energy usage, mobile sources, waste disposal, water usage, and construction equipment. CalEEMod Version 2013.2.2 was used to calculate the GHG emissions from the Proposed Project. A summary of the estimated emissions that would result from the construction of the Project are shown below in Table 9: Construction Greenhouse Gas Emissions. A summary of the Project's total and net estimated greenhouse gas emissions are detailed in Table 10: Operational Greenhouse Gas Emissions. As shown in Table 10: Operational Greenhouse Gas Emissions, the Proposed Project results in a net increase of 252 $MTCO_2e$ of GHG emissions per year, which would not exceed SCAQMD's draft threshold of significance of 3,500 $MTCO_2e$. Therefore, a

cumulative global climate change impact would not occur from the ongoing operations of the Proposed Project. Impacts would be less than significant.

Table 9: Construction Greenhouse Gas Emissions

Construction Activity	$MTCO_2e$
Demolition	50.4
Site Preparation	19.2
Grading	29.5
Building Construction—2017	366.9
Building Construction—2018	64.6
Paving	21.9
Architectural Coatings	5.6
Total	**558.1**
Amortized over 30 years[1]	*18.6*

Note:
[1] Construction greenhouse gas emissions are amortized over the 30-year life of the Project.
Source: CalEEMod Output (see Appendix A, *Air Quality and Greenhouse Gas Analysis Report*, FirstCarbon Solutions, August 23, 2016).

Table 10: Operational Greenhouse Gas Emissions

Emissions Source	Emissions ($MTCO_2e$)
Area	35.9
Energy	562.2
Mobile	897.1
Waste	32.0
Water	119.3
Amortized Construction	18.6
Total Project Emissions	*1,665.1*
Emissions from Existing Industrial Use	*1,413.2*
Net Project Emissions	**251.9**
SCAQMD Threshold	**3,500**
Significant?	**No**

Note:
$MTCO_2e$ = metric tons of carbon dioxide equivalent
Source of emissions: CalEEMod Output (see Appendix A, *Air Quality and Greenhouse Gas Analysis Report*, FirstCarbon Solutions, August 23, 2016).
Source of thresholds: SCAQMD 2008c.

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

Less than significant impact. As shown in Table 10: Operational Greenhouse Gas Emissions above, implementation of the Project would result in the generation of 1,665 $MTCO_2e$ per year and a net increase of 252 $MTCO_2e$ per year. The Project would be below the SCAQMD's proposed residential threshold of 3,500 $MTCO_2e$ per year. Therefore, the Project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing GHG emissions and impacts from the Project would be less than significant.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
4.8 Hazards and Hazardous Materials *Would the project:*				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan (Los Alamitos Armed Forces Reserve Center or Fullerton Municipal Airport), would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒
i) Would the project include a new or retrofitted stormwater treatment control Best Management Practice (BMP), (e.g., water quality treatment basin, constructed treatment wetlands, etc.), the operation of which could result in significant environmental effects (e.g., increased vectors and noxious odors)?	☐	☐	☐	☒

Environmental Evaluation

Would the project:

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

Less than significant impact. During demolition and construction activities associated with the Proposed Project, potentially hazardous building materials (e.g., lead-based paint, asbestos, mercury), and small quantities of hazardous materials stored or used at the existing industrial use may be encountered. As discussed in the Phase I Environmental Site Assessment (ESA) prepared for the Project, contained in Appendix G.1, *Phase I Environmental Site Assessment Report*, Partner Engineering and Science, Inc., May 6, 2013. Project site soils may be impacted with residual contaminants from past industrial and agricultural uses. Removal of these materials, if present, by contractors licensed to remove and handle these materials in accordance with existing federal, State, and local regulations would ensure that risks associated with the transport, storage, use, and disposal of such materials would be reduced to less than significant.

In addition, operation of the Proposed Project would result in the on-site use of common types of hazardous materials, such as cleaning and degreasing solvents, fertilizers, pesticides, and other materials used in the regular maintenance of residential developments. Thus, the Project would result in an increase in the use of household cleaning products and other materials routinely used in building maintenance and landscaping. The future residential uses would be required to comply with existing hazardous materials regulations, and verification of compliance would be monitored by state agencies (e.g., Occupational Safety and Health Administration in the workplace or Department of Toxic Substances Control for hazardous waste) and local agencies (e.g., the Anaheim Fire Department). Therefore, impacts would be less than significant.

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

Less than significant impact. Construction activities would involve the demolition of the existing industrial use, and the construction of 153 townhomes. Based on the nature of the hazardous materials that would be used and stored during construction (e.g., diesel-fueled equipment, asphalt) and operation (e.g., household cleaners) of the Project, it is unlikely that upset and accident conditions involving the release of hazardous materials into the environment would occur. As indicated in Impact 8a) above, all hazardous materials would be handled in accordance with applicable laws.

According to the information reviewed, structures on the subject property were built prior to 1978. Therefore, the presence of asbestos-containing materials and lead-based paint within building materials is likely. The Phase I and Phase II ESAs recommend a pre-demolition hazardous materials survey be performed on the site structures and related building materials, prior to any proposed future site improvements or demolition activities, as well as implementation of the following

standard conditions. Implementation of these standard conditions would reduce impacts to less than significant.

Standard Conditions

SC 4.8-1 Prior to demolition activities, removal and/or abatement of asbestos containing building materials, lead based paints, and hazardous materials associated with the existing building materials, an investigation shall be conducted by a qualified environmental professional in consultation with the Anaheim Fire Department. An asbestos and hazardous materials abatement plan shall be developed by the qualified environmental professional, in order to clearly define the scope and objective of the abatement activities.

SC 4.8-2 During demolition, grading, and excavation, workers shall comply with the requirements of Title 8 of the California Code of Regulations, Section 1529, which provides for exposure limits, exposure monitoring, respiratory protection, and good working practices by workers exposed to asbestos. Asbestos-contaminated debris and other wastes shall be managed and disposed of in accordance with the applicable provision of the California Health and Safety Code.

SC 4.8-3 During demolition, grading, and excavation, workers shall comply with the requirements of Title 8 of the California Code of Regulations, Section 1532.1, which provides for exposure limits, exposure monitoring, respiratory protection, and good working practice by workers exposed to lead. Lead-contaminated debris and other wastes shall be managed and disposed of in accordance with the applicable provision of the California Health and Safety Code.

SC 4.8-4 Prior to investigations, demolition, or renovation, all activities shall be coordinated with Dig Alert (811).

SC 4.8-5 Visual inspections for areas of impact to soil shall be conducted during site grading. If unknown or suspect materials are discovered during construction by the contractor that are believed to involve hazardous wastes or materials, the contractor shall:

- Immediately stop work in the vicinity of the suspected contaminant, removing workers and the public from the area;
- Notify the City Engineer and Anaheim Fire Department;
- Secure the area(s) in question; and Implement required corrective actions, including remediation if applicable.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less than significant impact. Revere Elementary School is located approximately 0.9 mile northwest of the Project site, Pomona Elementary School is located approximately 0.9 mile southwest of the Project site, South Junior High School is located 2.0 miles northeast of the Project site, and Katella

High School is approximately 1.4 miles northeast of the Project site. As explained in discussions in Impacts 3.8a) and 3.8b), the Project is a residential development and would not involve the use of significant quantities of hazardous materials; therefore, it would not have the potential to expose nearby schools to hazardous materials, substances, or wastes. Because of the nature of the allowable uses, it is not anticipated that the future residential building would emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste in reportable quantities. Therefore, Project implementation would result in less than significant impacts involving hazardous emissions or handling hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. Impacts would be less than significant.

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

No impact. The California Department of Toxic Substances Control compiles a list, most commonly known as a Cortese List, of known sites containing hazardous materials. The Project site is not listed as a known site containing hazardous materials; therefore, no impacts would occur.

e) For a project located within an airport land use plan (Los Alamitos Armed Forces Reserve Center or Fullerton Municipal Airport), would the project result in a safety hazard for people residing or working in the project area?

No impact. The Project site is approximately 9.3 miles southwest of John Wayne Airport, 9.1 miles northeast of the Los Alamitos Armed Forces Reserve Center, 6.5 miles southeast of the Fullerton Municipal Airport, and outside the Airport Impact Zones, Airport Safety Zones, Federal Aviation Regulation (FAR) Part 77 Notification Area for John Wayne Airport and the Airport Environs Land Use Plan (AELUP) Height Restriction Zone. FAR Part 77 Notification allows the Federal Aviation Administration (FAA) to identify potential aeronautical hazards in advance to prevent or minimize the adverse impacts to the safe and efficient use of navigable airspace. Project implementation would not result in an airport-related safety hazard for people residing or working at the proposed residential development. There would be no impact.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No impact. The Proposed Project is not within the vicinity of a private airstrip. The nearest heliport is the North Net Fire Training Heliport—CL45, located approximately 1.1 miles from the Project site. In addition, the Orange County Steel Salvage Heliport—CL44 is located approximately 4.0 miles from the Project site. Since the Project is not within the vicinity of a private airstrip, it would not result in a safety hazard for people residing or working in the project area. There would be no impacts related to a private airstrip.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No impact. The City of Anaheim 2015 Draft Hazard Mitigation Plan provides guidance during emergency situations associated with natural disasters, public health emergencies, and industrial accidents. The Plan does not address normal day-to-day emergencies or the well-established and routine procedures used in coping with such emergencies. Rather, the plan analyzes potential large-scale disasters that require a coordinated and immediate response. The Project does not include any characteristics that would physically impair or otherwise interfere with emergency response or evacuation in the project vicinity. These conditions preclude the possibility of the Project conflicting with an emergency response or evacuation plan. No impact would occur.

h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

No impact. According to Map 9-3 of the City of Anaheim 2015 Draft Hazard Mitigation Plan[1], the Project site is not located in a fire hazard severity zone and is well outside a hazardous wildland fire area.

i) For a project located within an airport land use plan (Los Alamitos Armed Forces Reserve Center or Fullerton Municipal Airport), would the project result in a safety hazard for people residing or working in the project area?

No impact. As stated in Impact 4.8e), this Project is located outside the Airport Impact Zones, Airport Safety Zones, Federal Aviation Regulation (FAR) Part 77 Notification Area for John Wayne Airport and the Airport Environs Land Use Plan (AELUP) Height Restriction Zone. No safety hazards are created during pre-construction or post-construction phases, and, therefore, no impact would occur.

[1] http://www.anaheim.net/DocumentCenter/View/11286.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
4.9 Hydrology and Water Quality *Would the project:*				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☒	☐
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☒	☐

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
k) Substantially degrade water quality by contributing pollutants from areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling, or storage, delivery areas, loading docks or other outdoor work areas?	☐	☐	☒	☐
l) Substantially degrade water quality by discharge which affects the beneficial uses (i.e., swimming, fishing, etc.) of the receiving or downstream waters?	☐	☐	☒	☐
m) Potentially impact stormwater runoff from construction activities?	☐	☐	☒	☐
n) Potentially impact stormwater runoff from post-construction activities?	☐	☐	☒	☐
o) Create the potential for significant changes in the flow velocity or volume of stormwater runoff to cause environmental harm?	☐	☐	☒	☐
p) Create significant increases in erosion of the project site or surrounding areas?	☐	☐	☒	☐

Environmental Evaluation

Would the project:

a) Violate any water quality standards or waste discharge requirements?

Less than significant impact. Construction of the Proposed Project would include grading, excavation, and other earthmoving activities that have the potential to cause erosion that would subsequently degrade water quality and/or violate water quality standards. As required by the Clean Water Act, the Project will comply with the Santa Ana Municipal Separate Storm Sewer (MS4) National Pollution Discharge Elimination System (NPDES) Permit. The NPDES MS4 Permit Program—which is administered in the project area by the City of Anaheim and County of Orange and is issued by the Santa Ana Regional Water Quality Control Board (RWQCB)—regulates stormwater and urban runoff discharges from developments to natural and constructed storm drain systems in the City of Anaheim. Since the Proposed Project would disturb one or more acres of soil, the Property Owner/Developer would be required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit Order 2009-0009-DWQ). Construction activities subject to the Construction General Permit include clearing, grading, and disturbances such as stockpiling or excavation. The Construction General Permit requires implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP would generally

contain a site map showing the construction perimeter, proposed buildings, stormwater collection and discharge points, general pre- and post-construction topography, drainage patterns across the site, and adjacent roadways.

The SWPPP must also include Best Management Practices (BMPs) designed to protect against stormwater runoff; a visual monitoring program; a chemical monitoring program for "non-visible" pollutants should the BMPs fail; and a sediment monitoring plan, should the site discharge directly into a water body listed on the 303(d) list for sediment. The Project site is within the Anaheim Bay-Huntington Harbor Watershed, which covers 80.34 square miles in Orange County, including most of the central portion of Anaheim. Approximately 80 percent of drainage on the Project site currently flows directly to Lewis Street, where it is conveyed via curb and gutter to an existing catch basin located just southeast of the property. The remaining portions of the property surface drains to a storm drain grated inlet structure, which connects to the existing catch basin in Lewis Street. The proposed drainage from the improved site will be connected into two proposed on-site drain systems: (1) A primary storm drain system to convey flood control drainage and (2) A secondary storm drain system to convey and treat water quality flows. The primary storm drain system will collect drainage from several proposed inlet structures and convey it through storm drain conduit to an existing 78-inch storm drain in Lewis Street via a new connection. The secondary storm drain will divert water quality flows from several proposed inlets on the site or divert water quality flows from a primary storm drain line via a diversion structure and convey the drainage into a secondary water quality storm drain conduit. Section A of the Construction General Permit describes the elements that must be contained in the SWPPP. Incorporation of these policies and the requirements therein would reduce project impacts to less than significant.

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

Less than significant impact. The City of Anaheim receives water from two main sources: about 70% of its water supply from the Orange County Groundwater Basin, which is managed by the Orange County Water District (OCWD), and about 30% of its water supply from imported water from the Metropolitan Water District of Southern California (MWD). Groundwater is pumped from 18 active wells within the City, and imported water is delivered through seven treated water connections and one untreated connection. According to the City of Anaheim 2015 Urban Water Management Plan (UWMP)[2], local groundwater has been the least expensive and most reliable source of water supply for the City. The City depends heavily on the groundwater from the Orange County Groundwater Basin each year.

As detailed in Table 11: Water Supply Sources in the City (AF), under normal conditions, the 2015 UWMP predicts a Citywide total water demand of 62,050 afy in 2020, and 67,065 afy in 2030. Of the

[2] http://www.anaheim.net/DocumentCenter/View/11777

Citywide total water demand predicted, an estimated 43,435 afy in 2020 and 46,946 afy in 2030 would come from groundwater.

Table 11: Water Supply Sources in the City (AF)

Year	2020	2025	2030	2035	2040
Groundwater	43,435	46,626	46,946	46,933	47,000
Imported	18,460	19,827	19,965	19,959	19,988
Recycled Water	155	155	155	155	155
Total Citywide Water Demand	61,895	66,453	66,910	66,892	66,988
Notes: Numbers are in Acre Feet. Table adapted from Figure 3-1: Water Supply Sources in the City (AF) from the 2015 Urban Water Management Plan, available: http://www.anaheim.net/DocumentCenter/View/11777.					

The Proposed Project would include the construction of 153 townhomes and generate approximately 505 new residents. Based on the City's 2015 UWMP, which reported a baseline water use of 203 gallons per capita per day (gpcd), an estimated 505 new residents would result in a water demand of approximately 102,515 gallons of water per day or 114.83 acre-feet per year (afy). The estimated water demand for the Proposed Project is nominal compared with the projected supply. The City would have sufficient water supply to service the Proposed Project.

The Project site is not an identified groundwater recharge facility. Development of the Proposed Project would not interfere with groundwater recharge through the development of impervious areas on the Project site. The Project will minimize impervious area as compared to the site's previous land use as a light industrial facility. Landscaping shrubs and trees will be provided in open space areas and adjacent to walkways and residential units to minimize the Project's impervious footprint, thereby reducing runoff generated during rain events. Aside from the residential units, concrete driveways, asphalt streets, and concrete walkways, the remainder of the Project site would consist of landscaping and other pervious materials. Therefore, the production rates of local wells would not be significantly impacted and development would not result in a significant deficit in aquifer volume or a lowering of the local groundwater table. Impact on groundwater supplies would be less than significant.

c) Substantially alter the existing drainage pattern of area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

Less than significant impact. The Proposed Project would preserve the existing drainage pattern to Lewis Street. Drainage on the Project site currently flows to Lewis Street and exits via curb openings and an existing storm drainage system, through a 78-inch storm drain in Lewis Street. A primary storm drain system would convey flood control drainage and a secondary storm drain system would convey and treat water quality flows. The two storm drain systems will consist of storm drain conduits, drainage inlets, water quality treatment facilities, and yard drains. As described in

Appendix J, *Preliminary Water Quality Management Plan Vesting Tentative Tract Map No. 17994*, Hunsaker & Associates Irvine, Inc., December 22, 2015, the goal of the site design principles and techniques is to reduce land development impacts on water quality and downstream hydrologic conditions. The Project site will do so by minimizing impervious areas, maximizing natural infiltration capacity, preserving existing drainage patterns and time of concentration, disconnecting impervious areas, and utilizing xeriscape landscaping. These BMPs would further reduce the rainfall volumes discharged from the Project site as well as improve the quality of water discharged. Post-development discharges would be below pre-development discharges as a result of reduced impervious areas.

Therefore, development of the Proposed Project would not significantly alter the existing drainage pattern of the Project site or increase the amount of runoff. Furthermore, the Proposed Project would not involve an alteration of the course of a stream or river. Erosion and siltation impacts potentially resulting from the Proposed Project would occur, for the most part, during the Project's site preparation and earthmoving phase. However, implementation of the NPDES permit requirements, as they apply to the Project site, would reduce potential erosion, siltation, and water quality impacts. Impacts would be less than significant.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

Less than significant impact. As discussed under Impact 4.9.c) above, the Proposed Project would not substantially alter the existing drainage pattern of the Project site. The Proposed Project would not involve an alteration of the course of a stream or river. The post-construction drainage pattern would remain the same as the preconstruction drainage pattern, with minor improvements, and drainage would continue to flow into Lewis Street.

According to the hydrology report for the Proposed Project, provided as Appendix E, *Hydrology Analysis for Tentative Tract No. 17994*, Brian Jeffery Sauther, R. C. E., April 7, 2016, pre-development peak flows for the Project site are slightly lower than those for post-development. The pre- and post-construction 10-year peak flows would be the same (10.67 cubic feet per second [cfs]) but differ for 100-year storms at 16.89 cfs and 16.91, respectively. The increase in flow rates is due to the proposed on-site water treatment facilities, which would retain and treat Project runoff. Although there is an increase in flow rates on the Project site, they are not substantial. Therefore, the Proposed Project would not substantially increase the rate or amount of surface runoff. Impacts would be considered less than significant.

e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less than significant impact. As discussed under Impact 4.9c) and Impact 4.9d) above, the Proposed Project would result in increased flow rates. For pre- and post-construction 10-year peak flows, the flow rates would be the same (10.67 cubic feet per second [cfs]), but would differ for 100-year storms at 16.89 cfs and 16.91, respectively. The on-site treatment facility would retain and treat

runoff from the Project site. Non-structural BMPs such as activity restrictions, basin inspection, street sweeping, and common area landscape maintenance and litter control would also contribute towards runoff control and water quality protection. In addition, the Proposed Project would be required to comply with the NPDES permit requirements to reduce any potential water quality impacts. Therefore, the Proposed Project would not create or contribute runoff water that would exceed the capacity of the drainage systems or provide additional sources of polluted runoff. Impacts would be considered less than significant.

f) Otherwise substantially degrade water quality?

Less than significant impact. See discussions under Impact 4.9a), Impact 4.9c) and Impact 4.9e) above. Potential pollutants from the Proposed Project include suspended-solids/sediments, nutrients, pathogens, pesticides, oil and grease, and trash and debris. The Proposed Project includes the development of BMPs that would mitigate the degradation of water quality during the construction and operational phases of the Project. Proposed BMP's include minimizing impervious areas, maximizing natural infiltration capacity, preserving existing drainage patterns and time of concentration, disconnecting impervious areas, uniform fire code implementation, common area litter control, and utilizing xeriscape landscaping. As such, impacts would be less than significant.

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No impact. According to the Federal Emergency Management Agency (FEMA),[3] the Proposed Project is not within a flood hazard zone. There is a 1 percent annual chance of flood discharge contained on the western boundary of the Project site. Furthermore, according to the Phase I ESA for the Project, the Project is within Flood Zone X, an area located outside the 100- and 500-year flood plains; please refer to Exhibit 12: 100 and 500-year Floodplain Map. Although the Proposed Project involves the construction of 153 townhomes, 100-year flood events would not occur on the Project site, and, therefore, there would be no impact.

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

No impact. As stated above under Impact 4.9g), the Proposed Project is not within a flood hazard zone. The Proposed Project would not place within a 100-year flood hazard area structures that would impede or redirect flood flows. Therefore, no impact would occur.

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

Less than significant impact. Flooding as a result of dam or levee failure is most commonly associated with earthquake events. According to the City of Anaheim General Plan Safety Element, Figure S-7, the Proposed Project is within the general limits of the flood impact zone associated with Prado Dam failure. There is ongoing monitoring of all area dams through dam safety regulations

[3] FEMA Flood Map Service Center, Address Search; see: http://msc.fema.gov/portal/search?AddressQuery=415%20south%20anaheim%20hills%20road%2C%20anaheim%2C%20CA; flood map 06059C0142J, effective 12/03/2009

enforced by the Division of Dams, the United States Army Corps of Engineers (USACE), and the Department of Water Resources. Inspectors may require dam owners to perform work, maintenance, or implement controls if issues are discovered which may affect the safety of the dams. Because of continuous monitoring by the USACE and others, as well as periodic improvements, the potential for earthquake induced flooding to affect the Project site is low. As such, impacts are considered less than significant.

j) Inundation by seiche, tsunami, or mudflow?

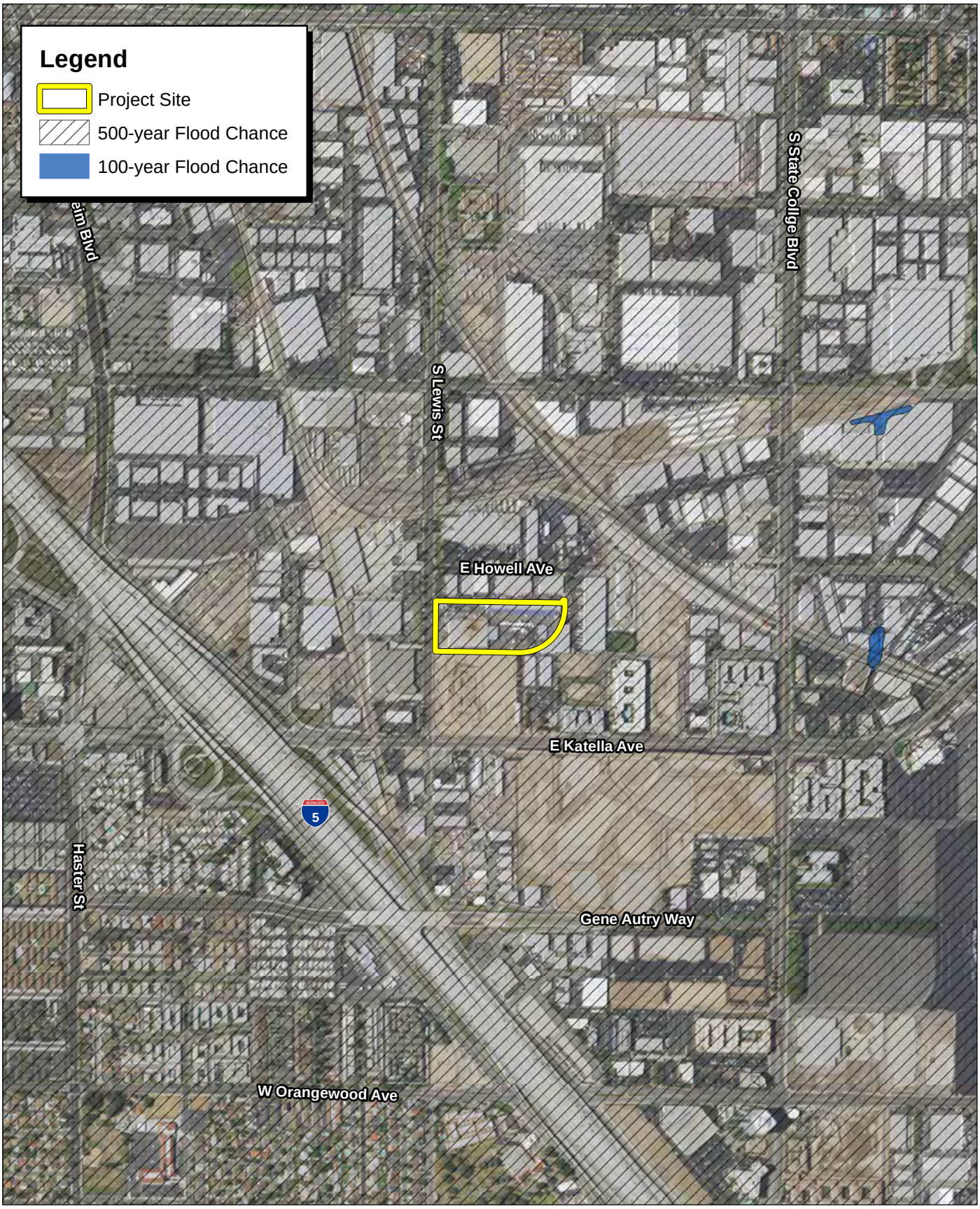
Less than significant impact. Seiches are large waves generated in enclosed bodies of water in response to ground shaking. The Project site is surrounded by a relatively flat and urbanized area and not adjacent to any enclosed body of water, such as a lake or reservoir. A tsunami is a long sea wave caused by an earthquake or other geologic submarine disturbance. The Project site is located over 11 miles from the Pacific Ocean and would not likely be impacted by a tsunami. Because of the location of the Project site and the topography of the surrounding locale, it is also not likely that mudflows will inundate the site. As such, the impact is considered less than significant.

k) Substantially degrade water quality by contributing pollutants from areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling, or storage, delivery areas, loading docks or other outdoor work areas?

Less than significant impact. As discussed previously under Impacts 4.9a), 4.9c) and 4.9d), above, the post-development flow rate for the Proposed Project would be slightly greater than the pre-development flow rate, but would not exceed the capacity of the existing and planned drainage system. BMPs would be required to control runoff and protect water quality. In addition, the Proposed Project would be required to comply with the MS4 NPDES Permit, which regulates stormwater and urban runoff discharge from developments to natural and constructed storm drain systems in the City of Anaheim. Project operation must also comply with the NPDES General Construction Permit. Furthermore, the Proposed Project would not include material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas, loading docks, or other outdoor work areas. As such, impacts are expected to be less than significant.

l) Substantially degrade water quality by discharge which affects the beneficial uses (i.e., swimming, fishing, etc.) of the receiving or downstream waters?

Less than significant impact. As discussed previously under Impacts 4.9a), 4.9c) and 4.9d), above, the post-development flow rate for the Proposed Project would be slightly greater than the pre-development flow rate but would not exceed the capacity of the existing and planned drainage system. BMPs would be required to control runoff and protect water quality. In addition, the Proposed Project would be required to comply with the MS4 NPDES Permit, which regulates stormwater and urban runoff discharge from developments to natural and constructed storm drain systems in the City of Anaheim. Project operation must also comply with the NPDES General Construction Permit. Therefore, the Proposed Project would not substantially degrade water quality or impact the beneficial uses of receiving or downstream waters. Impacts would be less than significant.



Source: Fema Dfirm ID 06059C

FirstCarbon SOLUTIONS

1,000 500 0 1,000 Feet

Exhibit 12
100 and 500-year Floodplain Map

THIS PAGE INTENTIONALLY LEFT BLANK

m) Potentially impact stormwater runoff from construction activities?

As discussed previously under Impact 4.9a), Impact 4.9c) above, BMPs would be required to control runoff and protect water quality. In addition, the Proposed Project would be required to comply with the MS4 NPDES Permit, which regulates stormwater and urban runoff discharges from developments to natural and constructed storm drain systems in the City of Anaheim. The SWPPP must also include BMPs designed to protect against stormwater runoff; a visual monitoring program; a chemical monitoring program for "non-visible" pollutants, should the BMPs fail; and a sediment monitoring plan, should the site discharge directly into a water body listed on the 303(d) list for sediment. Therefore, stormwater runoff impacts from construction activities would be less than significant.

n) Potentially impact stormwater runoff from post-construction activities?

Less than significant impact. As discussed previously, under Impact 4.9a), Impact 4.9c), Impact 4.9f) above, BMPs would be required to control runoff and protect water quality. In addition, the Proposed Project would be required to comply with the MS4 NPDES Permit, which regulates stormwater and urban runoff discharges from developments as well as constructed and natural storm drain systems in the City of Anaheim. Therefore, stormwater runoff impacts from post-construction activities would be less than significant.

o) Create the potential for significant changes in the flow velocity or volume of stormwater runoff to cause environmental harm?

Less than significant impact. As discussed previously, under Impact 4.9a), Impact 4.9c) and Impact 4.9d), the Proposed Project would result in a slightly increased flow rate for a 10-year storm, 25-year storm, and 100-year storm. Additionally, the proposed infiltration basin will be designed to retain and treat Project runoff. In addition, the post-development flow rate for the Proposed Project would not exceed the capacity of the existing drainage system. Therefore, the Proposed Project would not create potential for significant changes in flow velocity or volume of stormwater runoff in a way that would cause environmental harm. Impacts would be less than significant.

p) Create significant increases in erosion of the project site or surrounding areas?

Less than significant impact. Construction activity associated with Proposed Project may result in wind-driven soil erosion and loss of topsoil due to grading activities. However, all construction and grading activities would comply with the City's grading ordinance through implementation of BMPs, including the use of fiber rolls, street sweeping, sandbag barriers, straw bale barriers, and storm drain inlet protection. Upon Project completion, the Project site would be developed with residential homes, paved surfaces, and landscaping, which would prevent substantial erosion from occurring. With the adherence to local policies and ordinances, the impact would be less than significant.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
4.10 Land Use and Planning *Would the project:*				
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐
c) Conflict with any applicable habitat conservation plan or natural communities conservation plan?	☐	☐	☐	☒

Environmental Evaluation

Would the project:

a) Physically divide an established community?

No impact. The Proposed Project is located at 1700 South Lewis Street within the boundary of the Platinum Triangle, which is located at the confluence of the I-5 Freeway and the SR-57 Freeway. The Project site is bounded and surrounded by industrial uses to the north and east; Mason Lane, a small park and high-density apartments to the south; and, Lewis Street and industrial uses to the west. The Project site is currently developed with three industrial buildings, which will be demolished as part of the Project. None of the proposed activities associated with Project implementation would physically divide an established community.

The physical division of an established community typically refers to the construction of a linear feature, such as an interstate highway or railroad tracks, or removal of a means of access, such as a local bridge, that would impact mobility within an existing community of between a community and outlying area. The Project does not involve any such features, and it would not remove any means of access or impact mobility. Adequate points of access will be provided from a new collector street that is currently being developed as part of the apartment development to the south, and adequate pedestrian access and paths of travel within the site will be provided. Therefore, the Project will not physically divide an established community and there will be no impact.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Less than significant impact. According to the City of Anaheim General Plan, the Platinum Triangle is intended to become a dynamic, integrated mix of land uses in an urban, pedestrian-friendly environment. The General Plan Land Use Plan calls for the inclusion of high-quality, high-density residential uses, in a mixed-use setting, to provide housing opportunities for this core employment area. The Project site is currently located within the Office District of the Platinum Triangle Master Land Use Plan.

The Project site currently has a General Plan Designation of Office-Low, and is within the Office District of the Platinum Triangle Mixed-Use Overlay Zone, which is intended to permit office uses. The Project site currently has an underlying zoning designation of Industrial, which allows research and development, fabrication, and manufacturing.

To allow for the residential uses associated with the Proposed Project, the Project will require approval of a General Plan Amendment, Master Land Use Plan Amendment/New District Designation, and a Zone Change. Specifically, the General Plan designation would be changed to Mixed Use and the zoning designation would be changed to Platinum Triangle Mixed-Use (PTMU) Overlay Zone, in order to allow for residential uses. The Project will also be included within a new mixed-use district, the "Lewis District," which will be added to Platinum Triangle Master Land Use Plan and the proposed Lewis District of the PTMU Overlay Zone. The Project will also be required to annex into the Platinum Triangle Community Facilities District (CFD). These approvals will serve to reconcile any inconsistencies between the existing land use designations and the Proposed Project, which is considered a self-mitigating aspect of the Project.

Upon the approval of the requested land use entitlements, the Proposed Project would be consistent with the adjacent residential development and with the development pattern of the surrounding area. Located on approximately 7.8 acres, the 153-unit Project will result in a density of 19.8 dwelling units per acre. The overall maximum development intensity allowed within the Platinum Triangle area is 19,027 dwelling units, and the minimum density required by the PTMU Overlay Zone for townhomes with individual garages is 16 dwelling units per acre. Therefore, the proposed density of 19.8 dwelling units per acre is consistent with the permitted density range within the PTMU Overlay Zone. On October 25, 2016, the Anaheim City Council adopted changes to the Platinum Triangle in conjunction with the LT Platinum Center project (DEV2015-00024) on the northeast corner of State College Boulevard and Orangewood Avenue. These changes will increase the total commercial square footage permitted in the Platinum Triangle by 47,132 square feet and reduce the permitted office square footage by 472,000 and residential units by 1,679 units.

Because of the strength of the City's economic activity centers, Anaheim has become an increasingly "job rich" city. According to the Southern California Association of Governments (SCAG), a jurisdiction that will achieve a jobs-housing ratio of over 1.35 by the year 2025 will generally be considered "job-rich." Orange County is projected to have a jobs-to-housing ratio of 1.90 in 2025,

becoming the greatest job rich sub-region. Consistent with that ratio, Anaheim will achieve a projected jobs-to-housing ratio of 1.94, based on the Land Use Plan. The estimated ratio is generally consistent with Orange County Projections-2000 (Center for Demographic Research at California State University at Fullerton), which projects a jobs-to-housing ratio of 2.18 for Anaheim in the year 2030 (City of Anaheim General Plan at LU-44). Providing an additional 153 dwelling units is consistent with SCAG's strategy to increase housing opportunities in job-rich areas. It is important to note that, given the "built-out" nature of the City, opportunities to address jobs-housing balance are somewhat limited. The Platinum Triangle area is specifically identified in the General Plan as one such area where opportunities for increased residential development do exist. The Proposed Project would include the development of new housing on an industrial infill parcel, which would help to address the City's housing needs.

Furthermore, the project design would adhere to the development standards specified in the Anaheim Municipal Code for residential zones. Thus, the Proposed Project would be in compliance with the General Plan Land Use Element and with the zoning requirements for the Project site.

Specifically, development of the Proposed Project would support the following goals and policies from the General Plan Land Use Element:

- **Goal 2.1**: Continue to provide a variety of quality housing opportunities to address the City's diverse housing needs.
- **Goal 4.1**: Promote development that integrates with and minimizes impacts to surrounding land uses.
- **Goal 6.1**: Enhance the quality of life and economic vitality in Anaheim through strategic infill development and revitalization of existing development.
- **Goal 7.1**: Address the jobs-housing relationship by developing housing near job centers and transportation facilities.
- **Goal 15.1**: Establish The Platinum Triangle as a thriving economic center that provides residents, visitors and employees with a variety of housing, employment, shopping and entertainment opportunities that are accessed by arterial highways, transit systems and pedestrian promenades.

In addition, the Project would be designed to comply with all development criteria contained within Section 18.22 of the Anaheim Municipal Code (Platinum Triangle Mixed Use (PTMU) Overlay Zone). Therefore, the Project will not conflict with any applicable land use plan, policy, or regulation.

c) Conflict with any applicable habitat conservation plan or natural communities conservation plan?

No impact. The Project site is located on a developed site within an urban area and is not located within any habitat conservation plan or natural community conservation plan.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
4.11 Mineral Resources *Would the project:*				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Environmental Evaluation

Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No impact. The Project site is classified as Mineral Resource Zone 2 (MRZ-2). The MRZ-2 designation represents "areas where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists" (CA Division of Mines and Geology 1981). However, the Project site is developed with industrial uses and is located within a developed urban area. Thus, the site does not support mineral extraction operations, thereby precluding the possibility of related impacts. No impacts would occur.

b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No impact. The Anaheim General Plan designates the site for mixed use, and mineral extraction is not permitted. In addition, the Project site is developed with an industrial use that does not support mineral extraction operations. This condition precludes the possibility of related impacts. No impacts would occur.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
4.12 Noise *Would the project result in:*				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
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 expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Environmental Evaluation

The following analysis is based on the Noise Impact Analysis report prepared for the Project, which is included in its entirety in Appendix F, *Noise Impact Analysis*, FirstCarbon Solutions, August 19, 2016 of this document.

Would the project result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less than significant impact with mitigation incorporated. Noise levels in the project area would be influenced by construction activities and from the ongoing operation of the Project.

Short-term Construction Impacts

Two types of short-term noise impacts could occur during the construction of the Proposed Project. First, construction crew commutes and the transport of construction equipment and materials to the Project site would incrementally increase noise levels on access roads leading to the Project site. Although there would be a relatively high, single-event noise exposure potential causing intermittent noise nuisance, the effect on longer-term (hourly or daily) ambient noise levels would be small. Therefore, short-term, construction-related impacts associated with worker commute and equipment transport to the Project site would be less than significant.

The second type of short-term noise impact is related to noise generated during construction on the Project site. Construction is completed in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated on the site and, therefore, the noise levels surrounding the site as construction progresses. Despite the variety in type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full-power operation followed by 3 or 4 minutes at lower power settings. Impact equipment such as pile drivers are not expected to be used during construction of this project.

The demolition phase is expected to use concrete saws, excavators, and rubber tired dozers. The site preparation and grading phase of the Project is expected to require the use of rubber-tired dozers, tractors, front-end loaders, backhoes, excavators, and graders. The paving phase of construction is expected to require the use of pavers, rollers, and concrete mixer trucks. The building construction phase is expected to require the use of cranes, forklifts, portable generators, tractors, front-end loaders, backhoes, and welder torches.

The highest noise levels would be generated during ground clearing, excavation, and foundation construction, as these phases require the use of the heaviest, and loudest, pieces of construction equipment. Large pieces of earth-moving equipment, such as graders, excavators, and bulldozers, generate maximum noise levels of 85 to 90 dBA L_{max} at a distance of 50 feet. These noise levels drop off at a rate of about 6 dBA per doubling of distance between the noise source and receptor. The closest sensitive receptors are the multi-family residential units located south of the Project site at a distance of approximately 75 feet from the construction footprint. At this distance, these residential land uses may be exposed to average noise levels between 81 and 86 dBA L_{max} during busy construction periods when construction activities occur at the portion of the Project site nearest these homes. As construction moves away from noise-sensitive receptors, noise levels generated by heavy construction will be lower.

According to the City's noise ordinances, noise created by construction or building repair of any premises within the City is exempt from the noise performance standards of the Municipal Code, provided that the activities are restricted to the hours of 7:00 a.m. to 7:00 p.m., daily. Therefore, restricting construction activities to these stated time periods, as well as implementing the best management noise reduction techniques and practices outlined in MM NOI-1, would ensure that

potential, short-term construction noise impacts on sensitive receptors in the project vicinity would be reduced to less than significant.

Long-term Operational Impacts

Mobile-Source Noise Impacts

A significant impact would occur for the proposed multi-family residential-type land use development if the Project would be exposed to transportation noise levels in excess of the City's "normally acceptable" land use compatibility standard of 65 dBA CNEL for new, multi-family residential land use development. The exterior noise level standard applies at outdoor activity areas for multi-family land uses.

The projected future traffic noise levels adjacent to the Project site were also analyzed to determine compliance with the City's noise and land use compatibility standards. Noise from vehicular traffic was modeled using the FHWA Traffic Noise Prediction Model (FHWA-RD-77-108). Site-specific information is entered, such as roadway traffic volumes, roadway active width, source-to-receiver distances, travel speed, noise source and receiver heights, and the percentages of automobiles, medium trucks, and heavy trucks that constitute traffic throughout the day, among other variables. The model inputs and outputs—including the 60-dBA, 65-dBA, and 70-dBA CNEL noise contour distances—are provided in Appendix A, *Air Quality and Greenhouse Gas Analysis Report,* FirstCarbon Solutions, August 23, 2016 of this document. A summary of the traffic noise modeling results is shown in Table 12: Traffic Noise Level Results.

Table 12: Traffic Noise Level Results[1]

Roadway Segment	CNEL (dBA) 50 feet from Centerline of Outermost Lane								
	Existing No Project	Existing + Project	Increase over Existing No Project (dBA)	Opening Year No Project	Opening Year + Project	Increase over Opening Year No Project (dBA)	General Plan Buildout No Project	General Plan Buildout + Project	Increase over General Plan Buildout No Project (dBA)
Lewis Street—Cerritos Avenue to Mason Lane	65.3	65.3	0.0	65.6	65.7	0.1	68.7	68.5	-0.2[2]
Lewis Street—Mason Lane to Katella Avenue	64.3	64.4	0.1	64.7	64.8	0.1	69.0	68.8	-0.2[2]
Katella Avenue—I-5 to Lewis Street	68.7	68.7	0.0	69.9	69.9	0.0	72.8	72.8	0.0
Katella Avenue—Lewis Street to State College Boulevard	68.2	68.2	0.0	69.6	69.6	0.0	72.2	72.2	0.0

Notes:
[1] Modeling results do not take into account mitigating features such as topography, vegetative screening, fencing, building design, or structure screening; rather, they assume a worst case of having a direct line of site on flat terrain.
[2] Noise level reductions due to reduction in traffic volumes as shown in the traffic study for the Project.
Source: FirstCarbon Solutions, 2016.

As is shown in Table 12: Traffic Noise Level Results, the traffic noise model results show that projected traffic noise levels along Lewis Street adjacent to the Project site would range up to 65.3 dBA CNEL as measured at 50 feet from the centerline of the nearest travel lane under existing plus Project conditions. Additionally, traffic noise levels are projected to range up to approximately 65.7 dBA CNEL with implementation of the Proposed Project under opening year plus Project conditions as measured at 50 feet from the centerline of Lewis Street, and up to approximately 68.5 dBA CNEL with implementation of the Proposed Project under General Plan buildout plus Project conditions as measured at 50 feet from the centerline of Lewis Street.

The City's exterior standards for new multi-family residential land uses applies to outdoor active use areas and to private patios or balconies that are greater than 6 feet in depth. Based on the current site plans, the Proposed Project includes rooftop decks, but does not propose patios or balconies that are greater than 6 feet in depth and therefore are not subject to the City's exterior noise standard. However, the Project is still subject to the City's land use compatibility standards of 65 dBA CNEL for new multi-family residential land uses. The nearest proposed façade of the Project, due to setbacks, would be approximately 70 feet from the centerline of Lewis Street. At this distance, these traffic noise levels would attenuate to 62.3 dBA, 63.7 dBA, and 65.5 dBA CNEL under existing plus Project, opening year plus Project, and General Plan buildout plus Project conditions, respectively. These noise levels are considered conditionally acceptable for new multi-family residential land uses according to the City's land use compatibility standards. Therefore, a detailed noise analysis of noise reduction requirements must be made to ensure that the interior noise levels are acceptable. Conventional construction, but with closed windows and fresh air supply system or air conditioning will normally suffice.

Therefore, a significant impact would also occur for the proposed multi-family residential-type land use development, if the Project would be exposed to noise that would result in an exceedance of the interior noise exposure standard of 45 dBA CNEL for the proposed land use. According to the City's policies, the interior noise level standard is typically satisfied with windows in the closed position and the supply of mechanical ventilation that conform to Uniform Building Code (UBC) requirements.

Based on the EPA's Protective Noise Levels (EPA 550/9-79-100, November 1978), with a combination of walls, doors, and windows, standard construction for northern California residential buildings would provide approximately 25 dBA CNEL in exterior to interior noise reduction with windows closed and approximately 15 dBA CNEL with windows open. Based on modeled future year traffic noise levels that could occur under General Plan buildout conditions with the Project, with windows open, the interior living spaces for the proposed multi-family residential land uses would exceed the interior noise standard of 45 dBA CNEL (65.5 dBA CNEL-15 dBA CNEL = 50.5 dBA). However, the Project would include mechanical ventilation that conforms to the UBC requirements for multi-family dwellings that would permit windows to remain closed for prolonged periods of time. Therefore, resulting interior noise levels would be expected to be well below the interior noise standard of 45 dBA CNEL (65.5 dBA CNEL-25 dBA CNEL = 40.5 dBA CNEL).

Therefore, traffic noise impacts to the Proposed Project would not exceed the City's land use compatibility or the applicable interior noise standards for the proposed noise-sensitive land uses.

Traffic noise impacts to the Proposed Project would be considered less than significant and no mitigation would be required.

Stationary-Source Noise

The Proposed Project would include new stationary noise sources, such as typical parking lot activities. Typical parking lot activities such as people conversing, doors slamming, or vehicles idling generate noise levels of approximately 60 dBA to 70 dBA L_{max} at 50 feet. The Proposed Project site map shows 435 potential surface parking spaces. These activities are expected to occur sporadically throughout the day, as residents and visitors enter and leave the parking lot areas. Although there would be occasional high, single-event noise exposure of up to 70 dBA L_{max} from parking lot activities, such activities spread out over the Project site parking areas would not result in an increase above existing ambient noise levels. In addition, these single-event maximum noise levels are not expected to occur for more than a cumulative 1 minute within any hour and thus would not exceed the City's exterior noise performance threshold for stationary noise sources of 60 dBA as measured at any off-site sensitive receptor. Therefore, Project-related parking lot activities would not result in exposure of persons to noise levels in excess of existing noise levels nor result in noise levels that would exceed established standards.

At the time of preparation of this analysis, details pertaining to proposed rooftop mechanical ventilation systems for the Project were not available. Instead, a reference noise level for typical rooftop mechanical ventilation systems was used. Noise levels from typical rooftop mechanical ventilation equipment are anticipated to range up to approximately 60 dBA L_{eq} at a distance of 25 feet. Rooftop mechanical ventilation systems could be located as close as 85 feet from the nearest off-site sensitive receptor. Therefore, noise generated by rooftop mechanical ventilation equipment would attenuate to less than approximately 49 dBA L_{eq} at the nearest off-site residential receptor. These noise levels are below the City's exterior noise performance threshold for stationary noise sources of 60 dBA. Therefore, rooftop mechanical ventilation equipment operational noise levels, as measured at the nearest off-site sensitive receptor, would not exceed established standards, and stationary operational noise levels would result in a less than significant impact.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Less than significant impact. Project-related construction and operational groundborne vibration impacts are analyzed separately below.

Groundborne vibrations consist of rapidly fluctuating motions within the ground that have an average motion of zero. Vibrating objects in contact with the ground radiate vibration waves through various soil and rock strata to the foundations of nearby buildings.

In extreme cases, excessive groundborne vibration has the potential to cause structural damage to buildings. Common sources of groundborne vibration include construction activities such as blasting, pile driving, and operating heavy earthmoving equipment. Construction vibration impacts on building structures are generally assessed in terms of peak particle velocity (PPV). For purposes of this analysis, Project related impacts are expressed in terms of PPV.

Of the variety of equipment used during construction, the vibratory rollers that are anticipated to be used in the site preparation phase of construction would produce the greatest groundborne vibration levels. Impact equipment such as pile drivers is not expected to be used during construction of this Project. Large vibratory rollers produce groundborne vibration levels ranging up to 0.210 inch per second (in/sec) PPV at 25 feet from the operating equipment.

The nearest off-site receptor are the multi-family residential land uses located immediately south of the Project site, approximately 75 feet from the nearest construction footprint where heavy construction equipment would potentially operate. At this distance, groundborne vibration levels could range up to 0.033 PPV from operation of a large vibratory roller. This is less than the industry standard construction vibration damage criterion of 0.3 PPV for this type of structure, a building of engineered concrete and masonry construction. Therefore, construction vibration impacts would be less than significant and no mitigation would be required.

Implementation of the Project would not include any permanent sources that would expose persons in the project vicinity to groundborne vibration levels that could be perceptible without instruments at any existing sensitive land use in the project vicinity. In addition, there are no existing significant permanent sources of groundborne vibration in the project vicinity to which the Proposed Project would be exposed. Therefore, Project operational groundborne vibration level impacts would be considered less than significant.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Less than significant impact. As noted in the characteristics of noise discussion, audible increases in noise levels generally refer to a change of 3 dBA or more, as this level has been found to be barely perceptible to the human ear in outdoor environments. A change of 5 dBA is considered the minimum change readily perceptible to the human ear in outdoor environments. Therefore, for purposes of this analysis, an increase of 5 dBA or greater would be considered a substantial permanent increase in ambient noise levels. Another characteristic of noise is that a doubling of sound sources with equal strength is required to result in even a perceptible increase (defined to be a 3 dBA or greater increase) in noise level.

Based on the traffic noise modeling results summarized in Table 12: Traffic Noise Level Results, there is no roadway segment that would experience a substantial (5 dBA or greater) increase in traffic noise levels with implementation of the Project.

Under the existing plus Project traffic conditions, the segment of Lewis Street from Mason Lane to Katella Avenue would experience an increase of 0.1 dBA, compared with conditions that would exist without implementation the Project.

Under the opening year plus Project traffic conditions, both modeled segments of Lewis Street, from Cerritos Avenue to Mason Lane and from Mason Lane to Katella Avenue, would experience an increase of 0.1 dBA, compared with conditions that would exist without implementation of the Project.

Under the general plan buildout plus Project traffic conditions, both roadway segments of Lewis Street, from Cerritos Avenue to Mason Lane and Lewis Street from Mason Lane to Katella Avenue, would actually experience a reduction in traffic noise levels of 0.2 dBA, compared with noise levels that would exist without the Project. This is due to trip diversion that would occur with implementation of the Project.

Under all the modeled scenarios, both segments of Katella Avenue, from I-5 to Lewis Street and Katella Avenue from Lewis Street to State College Boulevard, would not experience an increase in traffic noise levels, compared with conditions that would exist without implementation of the Project. Therefore, implementation of the Proposed Project would not result in a significant permanent increase in ambient noise levels; Project-related traffic noise increases would be less than significant and no mitigation would be required.

Additionally, as shown in the impact discussion under section 4.12a, above, the Proposed Project would not include any stationary noise sources that would result in permanent increases in ambient noise levels in the project vicinity above levels existing without the Project. Therefore, potential permanent operational noise increase impacts resulting from implementation of the Proposed Project would be less than significant.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less than significant impact with mitigation incorporated. Implementation of the Project would result in short-term increases in ambient noise levels due to demolition and construction activities. Construction noise impacts were analyzed in the impact discussion under Impact 4.12 a, above. Project-related construction activities could result in high intermittent noise levels of up to approximately 86 dBA L_{max} at the closest noise-sensitive land uses. Although there would be a relatively high single-event noise exposure potential causing intermittent noise nuisance, the effect on hourly or daily ambient noise levels would be small. Compliance with the City's permissible hours of construction and implementation of MM NOI-1, which requires construction noise reduction measures (including required use of approved mufflers on equipment) would reduce short-term construction impacts on sensitive receptors in the project vicinity to a less than significant level.

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 expose people residing or working in the project area to excessive noise levels?

Less than significant impact. The nearest public airport to the Project site is John Wayne Airport, located approximately 8.5 miles south of the Project site. The Project site is not located within the 55 dBA CNEL contours for any commercial airport. While aircraft noise is occasionally audible on the Project site from aircraft flyovers, aircraft noise associated with airport activity would not expose people residing or working in the project area to excessive noise levels. Therefore, impacts associated with public airport noise would be less than significant.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No impact. The nearest private airport is the Los Alamitos Army Airfield, located approximately 8.1 miles west of the Project site. While aircraft noise is occasionally audible on the Project site from aircraft flyovers, aircraft noise associated with private airstrip activity would not expose people residing or working in the project area to excessive noise levels. Therefore, no impacts associated with private airstrip noise would occur.

Mitigation Measures

MM NOI-1 Ongoing during grading, demolition, and construction, the Property Owner/Developer shall be responsible for requiring contractors to implement the following measures to limit construction-related noise:

- The construction contractor shall ensure that all equipment driven by internal combustion engines shall be equipped with mufflers, which are in good condition and appropriate for the equipment.
- The construction contractor shall ensure that unnecessary idling of internal combustion engines (i.e., idling in excess of 5 minutes) is prohibited.
- The construction contractor shall utilize "quiet" models of air compressors and other stationary noise sources where technology exists.
- The construction contractor shall ensure that stationary noise-generating equipment be located as far as practicable from sensitive receptors and placed so that emitted noise is directed away from adjacent sensitive receptors.
- The construction contractor shall ensure that the construction staging areas shall be located to create the greatest feasible distance between the staging area and noise-sensitive receptors nearest the Project site.
- All on-site demolition and construction activities, including deliveries and engine warm-up, shall be restricted to the hours between 7:00 a.m. and 7:00 p.m., daily.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
4.13 Paleontological Resources *Would the project:*				
a) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

Paleontological Resources

On May 16, 2016, FCS requested that Dr. Samuel A. McLeod of the Los Angeles Natural History Museum conduct a paleontological literature review and localities database search for the Proposed Project area. A Vertebrate Paleontology Records Check letter report was received from Dr. McLeod on March 31, 2016. The report indicated that while deposits consist of younger Quaternary Alluvium, the underlying sediments are composed of older Quaternary Alluvium deposited by the Santa Ana River. While the uppermost strata of younger Quaternary Alluvium do not generally contain fossilized materials, in a nearby locality, the remains of a sheep (LACM 1652) were recovered from similar sediments just north-northeast of the project area along Rio Vista Avenue south of Lincoln Avenue. Additionally, in the closest locality from older Quaternary Alluvium, the remains of a horse (LACM 4943) was encountered at a depth of 8 to 10 feet below surface at a location along Fletcher Avenue east of Glassell Street.

Dr. McLeod concluded that shallower excavations within the project area would be in younger Quaternary Alluvium and would be unlikely to yield fossilized materials, but that deeper excavations into older deposits may be more paleontologically sensitive. He recommended that any substantial excavations below the uppermost layers be monitored by a qualified paleontologist in order to quickly and professionally recover and inadvertently encountered fossils. Dr. McLeod also suggested that sediment samples be taken sporadically in order to determine small fossil potential within the general area.

A copy of the Vertebrate Paleontology Records Check letter report can be found in Appendix C.2, *Paleontological Resources Letter*, Samuel A. McLeod, PhD, May 31, 2016.

Environmental Evaluation

Would the project:

a) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than significant impact with mitigation incorporated. Based on the analysis of the Vertebrate Paleontology Records Check, the Proposed Project area has been determined to have a low to moderate sensitivity for paleontological resources. Construction-related monitoring for

paleontological resources is not recommended for shallower excavation depths, but should be employed if excavations are intended to reach depths of greater than five feet below surface. Mitigation measures apply to excavations exceeding five feet in depth, and those to be implemented in the event of the inadvertent discovery of paleontological resources, are detailed below.

Mitigation Measures

MM PALEO-1 Prior to issuance of demolition, grading or building permits, the Property Owner/Developer shall provide to the City a detailed Paleontological Resource Impact Management Plan (PRIMP) prepared by a qualified paleontological monitor who has been retained by the Property Owner/Developer to observe subsurface excavations exceeding a depth of five feet below surface.

MM PALEO-2 Ongoing during grading and construction, the Property Owner/Developer shall halt or divert excavations within a 50-foot radius of an inadvertent find of fossils or fossil-bearing deposits discovered during construction activities at a depth of less than five feet below surface and retain a qualified paleontologist to examine the discovery. The paleontologist shall document the discovery in accordance with Society of Vertebrate Paleontology [1995] standards, evaluate the potential resource, and assess the significance of the find under the criteria set forth in CEQA Guidelines Section 15064.5. Further excavation within the 50-foot radius of the find shall not recommence until the paleontologist has completed this assessment and notified the appropriate agencies to determine procedures that shall be followed. If the Property Owner/Developer determines that avoidance is not feasible, the paleontologist shall prepare an excavation plan which shall mitigate the effect of construction activities on the discovery. The plan shall be submitted to the City of Anaheim for review and approval prior to implementation.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
4.14 Population and Housing *Would the project:*				
a) Induce substantial 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 housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Environmental Evaluation

Would the project:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less than significant impact. The Proposed Project would include the development of 153 dwelling units on 7.8 acres, with a projected population of 505 based on the average household size of 3.3 persons in accordance with the City's General Plan projections. The additional 505 residents would represent less than 1 percent of the City's buildout population. The Proposed Project would not construct or extend roads or other infrastructure that may indirectly induce population growth; rather, existing infrastructure would be upgraded and/or replaced in order to accommodate the new homes. Furthermore, the Proposed Project would not include the development of job growth-inducing commercial uses and thereby would not generate job-related population growth in the area. Therefore, the impact on population growth is considered less than significant.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

No impact. The site is currently developed with industrial buildings. There are no residential uses or structures on the Project site. Therefore, the Proposed Project would not displace substantial numbers of existing housing necessitating the construction of replacement housing elsewhere.

The Proposed Project involves the construction of new housing in support of the City's housing needs; therefore, no related impact would occur.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No impact. As mentioned above in Impact 4.14b), above, the Project site is currently developed with industrial buildings and does not have any residential structures on-site. Therefore, the Proposed Project would not displace substantial numbers of people, necessitating the construction of replacement housing elsewhere. Furthermore, the Proposed Project involves the construction of new housing in support of the City's housing needs. There would be no impact.

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

Environmental Evaluation

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

a) Fire protection?

Less than significant impact. The Anaheim Fire Department (AFD) provides fire protection and emergency medical services to the City, which include fire prevention and suppression, paramedic, emergency medical, and hazardous materials management/environmental safety. The AFD consists of four divisions: Financial Services, Community Risk Reduction, Operations, and Support Services. The Operations Division is the largest division in the Anaheim Fire & Rescue. Under the direction of the Operation's Deputy Chief, the Division employs seven Battalion Chiefs, approximately 200 Suppression Personnel, an Emergency Medical Services (EMS) Coordinator, a registered nurse EMS Educator, and a senior secretary. The Operation Division manages all major emergency responses and staffs 12 engine and five truck companies, one contract paramedic company, one hazardous-materials unit, one technical rescue unit, and two Battalions in 11 Fire Stations. The closest station to the Project is Resort Station 3, located at 1717 S. Clementine Street, approximately 0.79 mile west of the Project site. Depending on the nature, size, and location of the alarm, units from multiple stations may respond.

According to the General Plan, response times for the Anaheim Fire Department require first engine response within 5 minutes to 90 percent of all incidents and within 8 minutes to the remaining 10 percent. The Department also requires a maximum of 10 minutes for truck company response to 100 percent of all incidents.

The Project does not propose new or physically altered fire protection facilities. The Project involves construction of 153 townhomes; however, it is not anticipated to increase AFD response times to the Project site or surrounding vicinity, or require construction of new or physically altered fire protection facilities. The Project's design would be subject to compliance with the requirements set forth in the 2013 California Fire Code (and all amendments), including the provision of fire sprinkler systems throughout building. The development would also be subject to compliance with the fire provisions specified in the 2013 California Building Code and all incorporated amendments, and the 2013 International Fire Code. The Project plans would be reviewed and approved by the Anaheim Building and Fire Departments, which would ensure adequate emergency access, fire hydrant availability, and compliance with all applicable codes and standards and would ensure that Project implementation would result in a less than significant impact to fire protection services.

b) Police protection?

Less than significant impact. The Anaheim Police Department (APD) provides police protection services to the City from their headquarters located at 425 South Harbor Boulevard. The APD is composed of three divisions: Administration, Community Engagement, and Crime Prevention. The APD currently employs approximately 370 sworn officers, a support staff of over 195, and a Reserve Officer Detail of 36. The ratio of sworn police officers is approximately 1.13 officers per 1,000 residents.

The Project does not propose new or physically altered police protection facilities. The Project involves construction of 153 townhomes. As discussed in Impact 4.15a) above, Project implementation would result in a net increase of 153 dwelling units, with a resultant increase in the demand for police protection services. However, Project implementation is not anticipated to increase APD response times to the Project site or surrounding vicinity, or require construction of new or physically altered police protection facilities. The Project plans would be reviewed and approved by the Anaheim Building and Police Departments, which would ensure that adequate safety and crime prevention measures are provided and would ensure that Project implementation would result in a less than significant impact to police protection services.

c) Schools?

Less than significant impact. The Project site is situated within the Anaheim City School District (ACSD) (grades K thru 12). The Project site is located in the Paul Revere Elementary School (grades K–6), Ball Junior High School (grades 7 and 8), and Loara High School (grades 9–12) service areas, with school enrollments of approximately 772 students, 1,377 students, and 2,133 students, respectively.

The Project does not propose new or physically altered school facilities. The Project involves construction of 153 townhomes. Based on the student generation rates of 0.116 for elementary students (grades K–6), 0.013 for junior high school students (grades 7 and 8), and 0.032 for high school students (grades 9–12) provided in the Anaheim General Plan/Zoning Code Update EIR,[4]

[4] Table 5.13-14 of the Anaheim General Plan/Zoning Code Update EIR.

development of 153 new townhomes would generate approximately 18 elementary students, two junior high students, and five high school students. The increase in the amount of students would be nominal, and the Proposed Project would not significantly impact school services. Payment of the appropriate school fees would be required for all new development in accordance with Assembly Bill 2926 and Senate Bill 50 (SB 50) to offset the impact to school services and is considered full mitigation. Impacts would be less than significant.

d) Parks?

Less than significant impact. The Anaheim Parks Division of the Community Services Department is responsible for the maintenance and upkeep of 57 existing parks totaling nearly 800-acres. Near the Project site is the 0.8-acre Magnolia Park, located immediately to the east of the Project site at 1515 E. Wright Circle, and Coral Tree Park, located immediately south of the Project site at 915 E. Katella Avenue. There are also three existing parks located within a 1-mile radius of the Project site: the 24.6-acre Boysen Park (951 S. State College Boulevard), the 3.0-acre Walnut Grove Park (905 S Anaheim Boulevard), and the 9.4-acre Stoddard Park (1901 S. 9th Street). Jacaranda Park, approximately 1.1 acres, will be provided within the Jefferson Stadium Park residential development located on Artisan Way at the southwest corner of State College Boulevard and Gene Autry Way. Aloe Greens Park and Aloe Promenade Park, which are a combined 1.8 acres, are part of the 43-acre Lennar Homes A-Town Development, also located in Platinum Triangle at the southwest corner of State College Boulevard and Katella Avenue.

As indicated in the Anaheim General Plan, Green Element, Figure G-1, Green Plan, the Project site is not located within a Park Deficiency Area. The Proposed Project would include the development of residential uses that would increase the population in the area, which could result in impacts to the City's parks and recreational facilities. The construction of 153 dwelling units on the Project site would eliminate the existing industrial use and generate approximately 505 new residents. According to the Anaheim General Plan/Zoning Code Update EIR (EIR No. 330), the City has a goal of providing at least 2 acres of parkland per 1,000 residents. In order to help achieve this goal, Anaheim Municipal Code Section 17.34.010 would require the Applicant to pay the appropriate development fees prior to the issuance of building permits in order to offset the increase in demand and use of recreational facilities. The City of Anaheim currently collects $8,114.01 per new residential dwelling unit within the Platinum Triangle area.

Although the Proposed Project would remove an existing industrial building and generate new residents that would increase demand and use of the City's other facilities, the increased demand would not be so substantial as to result in physical deterioration of any existing park or recreational facilities. The impact would be less than significant.

e) Other public facilities?

Less than significant impact. The Anaheim library system consists of a Central Library, six branches, Founders Park with Heritage Services, and a Bookmobile. The nearest public library to the Project site is the Ponderosa Joint Use Library at 240 East Orangewood, Anaheim CA, 92802, located 1.7 miles south of the Project site.

The Project does not propose new or physically altered library facilities. Project implementation would result in a net increase of 153 dwelling units, with a corresponding population increase of approximately 505 persons. As of June 2003, the square footage per capita for library facilities in the City of Anaheim was 0.31, which is below the mid-level service standard of 0.5 square foot per capita. Implementation of the General Plan and Zoning Code update was anticipated to result in an additional 52,858 residents to the City of Anaheim. Therefore, an additional 26,429 square feet of library space would be required to meet the City's mid-level service standard of 0.5 square foot per capita at buildout. Since the adoption of the 2004 General Plan EIR, four libraries have been opened or renovated:

- Haskett Branch Library, May 2006, 24,000 square feet
- East Hills Branch Library, June 2007, 10,000 square feet
- Downtown Local History Annex, October 2007, 10,000 square feet
- Central Library, July 2010, Renovation of existing square footage

According to the City of Anaheim General Plan Final EIR, any increase in the population or employee population of the City of Anaheim is anticipated to have an impact on library services. However, the projected growth of the City has been included in the City of Anaheim General Plan EIR. The funded capital projects listed above would increase the capacity of the library system and meet the need for library building space. Therefore, impacts would be less than significant.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
4.16 Recreation				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
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?	☐	☐	☐	☒

Environmental Evaluation

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Less than significant impact. As discussed in Section 4.15 d) above, the Anaheim Parks Division of the Community Services Department is responsible for the maintenance and upkeep of 57 existing parks totaling nearly 800-acres. Near the Project site is the 0.8-acre Magnolia Park, located immediately to the east of the Project site at 1515 E. Wright Circle, and Coral Tree Park, located immediately south of the Project site at 915 E. Katella Avenue. There are also three existing parks located within a 1-mile radius of the Project site: the 24.6-acre Boysen Park (951 S. State College Boulevard), the 3.0-acre Walnut Grove Park (905 S Anaheim Boulevard), and the 9.4-acre Stoddard Park (1901 S. 9th Street). A public park, (Jacaranda Park), approximately 1.1 acres, will be provided within the Jefferson Stadium Park residential development located on Artisan Way at the southwest corner of State College Boulevard and Gene Autry Way. Also proposed in the vicinity of the Project site are Aloe Greens Park and Aloe Promenade Park, which are a combine 1.8 acres, ,are the two parks are at separate sites and would be a combined 1.8 acres. Both parks are part of the 43-acre Lennar Homes A-Town Development, also located in Platinum Triangle at the southwest corner of State College Boulevard and Katella Avenue.

As indicated in the Anaheim General Plan, Green Element, Figure G-1, Green Plan, the Project site is not located within a Park Deficiency Area. The Proposed Project would include the development of residential uses that would increase the population in the area, which could result in impacts to the City's parks and recreational facilities. The construction of 153 dwelling units on the Project site would eliminate the existing industrial use and generate approximately 505 new residents. According to the Anaheim General Plan/Zoning Code Update EIR (EIR No. 330), the City has a goal of providing at least 2 acres of parkland per 1,000 residents. In order to help achieve this goal, Anaheim Municipal Code Section 17.34.010 would require the Applicant to pay the appropriate

development fees prior to the issuance of building permits in order to offset the increase in demand and use of recreational facilities. The City of Anaheim currently collects $8,114.01 per new residential dwelling unit within the Platinum Triangle area.

Although the Proposed Project would remove an existing industrial building and generate new residents that would increase demand and use of the City's other facilities, the increased demand would not be so substantial as to result in physical deterioration of any existing park or recreational facilities. Converting an existing industrial land use to a residential land use would not contribute to the City's park deficit because the Project site is located in Central Anaheim, which has approximately 172.2 acres of park acreage according to the City's General Plan Element. An analysis of the City's Park Fee Areas determined that the distribution of park acreage within the City is uneven. Central Anaheim is park-rich and has 172.2 total acres of parks, which exceeds the City's standard of providing 2 acres per 1,000 residents. In addition, the payment of park and recreation impact fees as identified above would offset the Project's proportional share of any increased demand on park facilities. Therefore, impacts to park and recreational facilities would be less than significant.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

No impact. The Proposed Project would not require the expansion or construction of other off-site recreational facilities. However, as shown in Exhibit 3: Site Plan, the Proposed Project would include open space areas for passive recreational activities, which would serve residents of the Proposed Project. No impacts resulting from the construction or expansion of recreational facilities would occur.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
4.17 Transportation and Traffic *Would the project:*				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☒	☐	☐
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
e) Result in inadequate emergency access?	☐	☐	☒	☐
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☒	☐

Would the Project:

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Less than significant impact. Kunzman Associates, Inc. conducted the Trumark on Lewis Traffic Impact Analysis, dated November 8, 2016 for the Proposed Project, which is included as Appendix I, *Trumark on Lewis, Traffic Impact Analysis*, Kunzman Associates, Inc., November 8, 2016 of this document.

The analysis focused on weekday AM (7:00–9:00 a.m.) peak period and PM (4:00–6:00 p.m.) peak period traffic volumes. These periods represent when the highest cumulative total traffic on the adjacent street system occurs. The study area includes the following six intersections and five roadway segments:

Intersections

1. Manchester Avenue/I-5 SB Ramps and Katella Avenue
2. Anaheim Way and Katella Avenue
3. Lewis Street and Cerritos Avenue
4. Lewis Street and Mason Lane
5. Lewis Street and Katella Avenue
6. State College Boulevard and Katella Avenue

Roadway Segments

7. Katella Avenue, from Manchester Avenue to Anaheim Way
8. Katella Avenue, from Anaheim Way to Lewis Street
9. Katella Avenue, from Lewis Street to State College Boulevard
10. Lewis Street, from Cerritos Avenue to Mason Lane
11. Lewis Street, from Mason Lane to Katella Avenue

Based on the City of Anaheim Criteria for Preparation of Traffic Impact Studies, an intersection/roadway segment impact is considered significant if the Project-related increase in volume to capacity (V/C) equals or exceeds the following thresholds as described in Table 13: City of Anaheim LOS Thresholds:

Table 13: City of Anaheim LOS Thresholds

Level of Service	Final V/C Ratio	Project-Related Increase in V/C
C	> 0.700–0.800	equal to or greater than 0.050
D	> 0.800–0.900	equal to or greater than 0.030
E,F	> 0.900	equal to or greater than 0.010

The City of Anaheim Criteria for Preparation of Traffic Impact Studies does not address unsignalized intersections, except for stating that the minimum allowable Level of Service (LOS) after mitigation is LOS D. For purposes of the analysis, the traffic study defines an impact as significant if the Project-related increase in delay causes or worsens an unsignalized intersection to operate at LOS E/F.

To assess the performance of study area roadway segments, the volume of traffic using the roadway segment is compared to the capacity of the roadway segment. Roadway segment capacity assumptions for the City of Anaheim are based on the number of lanes and median type as shown in Table 14: City of Anaheim Roadway Segment Capacity.

Table 14: City of Anaheim Roadway Segment Capacity

Roadway Segment Number of Lanes	Daily Capacity (Vehicles Per Day)
8-Lane Divided	75,000
6-Lane Divided	56,300
4-Lane Divided	37,500
4-Lane Undivided	25,000
2-Lane Undivided	12,500
Source: City of Anaheim	

Existing Conditions

An intersection operations analysis was conducted for the study area intersections to evaluate the existing traffic conditions. Table 15: Existing Intersection Capacity Utilization/Delay and Levels of Service presents the existing intersection V/C ratios and weekday peak hour LOS values for the study area intersections. Table 16: Existing Roadway Segment Capacity Analysis shows the roadway segment capacity under existing conditions.

Table 15: Existing Intersection Capacity Utilization/Delay and Levels of Service

Intersection	Traffic Control[1]	Intersection Approach Lanes[2]												Peak Hour ICU (Delay)—LOS[3]	
		Northbound			Southbound			Eastbound			Westbound				
		L	T	R	L	T	R	L	T	R	L	T	R	Morning	Evening
Manchester Ave/I-5 SB Ramps (NS) at:															
Katella Avenue (EW)—#1	TS	1.5	1	1.5	2	2	1	0	3	1>	2	4	0	0.415-A	0.402-A
Anaheim Way (NS) at:															
Katella Avenue (EW)—#2	TS	1.5	3	0.5	0	0	0	2	4	0	0	3.5	1.5	0.358-A	0.545-A
Lewis Street (NS) at:															
Cerritos Avenue (EW)—#3	TS	1	2	1	1	1.5	0.5	1	1.5	0.5	1	1.5	0.5	0.340-A	0.400-A
Mason Lane (EW)—#4	CSS	0	1.5	0.5	1	2	0	0	0	0	0.5	0	0.5	(13.0)-B	(10.7)-B
Katella Avenue (EW)—#5	TS	1	0.5	0.5	1	1	1	1	2.5	0.5	1	3	1	0.546-A	0.522-A
State College Boulevard (NS) at:															
Katella Ave (EW)—#6	TS	2	3	1	2	3	1	2	3.5	1.5	2	3	1	0.555-A	0.486-A

Notes:
[1] TS = Traffic Signal; CSS = Cross Street Stop
[2] L = Left; T = Through; R = Right; > = Right Turn Overlap
[3] ICU = Intersection Capacity Utilization; LOS = Level of Service. Delay is shown in (seconds) for unsignalized intersections. Per the Highway Capacity Manual, Level of Service is based on average delay of the worst individual lane for intersections with cross street stop control.
Source: Kunzman Associates, Inc., 2016.

Table 16: Existing Roadway Segment Capacity Analysis

Roadway	Segment	Number of Lanes[1]	Capacity[2]	Average Daily Traffic Volume	Volume to Capacity	Level of Service
Katella Avenue	Manchester Avenue to Anaheim Way–#7	8D	75,000	38,400	0.512	A
	Anaheim Way to Lewis Street–#8	6D	56,300	34,100	0.606	B
	Lewis Street to State College–#9Boulevard	6D	56,300	30,300	0.538	A
Lewis Street	Cerritos Avenue to Mason Lane–#10	4D	37,500	9,800	0.261	A
	Mason Lane to Katella Avenue–#11	4D	37,500	7,800	0.208	A

Notes:
[1] # = Number of lanes; D = Divided
[2] Source: Revised Platinum Triangle Expansion Project, Draft Traffic Study Report (October 2010).
Source: Kunzman Associates, Inc., 2016

All study area intersections and roadway segments are currently operating within acceptable LOS during the peak hours under existing traffic conditions.

Existing Plus Project (E+P) Conditions

The Project site is currently developed with industrial land uses. Therefore, the Project trip generation is equal to the net difference between trips currently generated by the existing industrial land use and future trips generated by the proposed residential land use. Existing Project site traffic counts were obtained at the Project site driveways to determine the existing number of trips currently generated by the Project site.

The Proposed Project is forecast to generate a net increase of approximately 335 new daily trips, 33 of which will occur during the AM peak hour and 32 of which will occur during the PM peak hour. An intersection operations analysis was conducted for the study area to evaluate E+P weekday AM and PM peak hour conditions. Table 17: E+P Intersection Capacity Utilization/Delay and Levels of Service provides a comparison of intersection V/C ratios and LOS values between Existing and E+P traffic conditions. Table 18: E+P Roadway Segment Capacity Analysis provides a comparison of roadway segment capacity between Existing and E+P traffic conditions.

Table 17: E+P Intersection Capacity Utilization/Delay and Levels of Service

Intersection	Traffic Control[1]	Peak Hour ICU (Delay)—LOS2				Delay/ICU Increase		Significant Impact?
		Existing		Existing Plus Project				
		Morning	Evening	Morning	Evening	Morning	Evening	
Manchester Ave/I-5 SB Ramps (NS) at:								
Katella Avenue (EW)—#1	TS	0.415-A	0.402-A	0.418-A	0.402-A	+0.003	0.000	No
Anaheim Way (NS) at:								
Katella Avenue (EW)—#2	TS	0.358-A	0.545-A	0.359-A	0.545-A	+0.001	0.000	No
Lewis Street (NS) at:								
Cerritos Avenue (EW)—#3	TS	0.340-A	0.400-A	0.340-A	0.402-A	0.000	+0.002	No
Mason Lane (EW)—#4	TS[3]	(13.0)-B	(10.7)-B	0.249-A	0.220-A	n/a[4]	n/a[4]	No
Katella Avenue (EW)—#5	TS	0.546-A	0.522-A	0.549-A	0.537-A	+0.003	+0.015	No
State College Boulevard (NS) at:								
Katella Ave (EW)—#6	TS	0.555-A	0.486-A	0.556-A	0.487-A	+0.001	+0.001	No

Notes:
[1] TS = Traffic Signal; CSS = Cross Street Stop
[2] ICU = Intersection Capacity Utilization; LOS = Level of Service. Delay is shown in (seconds) for unsignalized intersections. Per the Highway Capacity Manual, Level of Service is based on average delay of the worst individual lane for intersections with cross street stop control.
[3] Cross street stop-controlled for existing conditions.
[4] Project-related increase in ICU/delay is not applicable since the change in traffic controls and performance measures are not comparable.
Source: Kunzman Associates, Inc., 2016

Table 18: E+P Roadway Segment Capacity Analysis

Roadway	Segment	Number of Lanes[1]	Capacity	Without Project			With Project			Change in V/C	Significant Impact?
				ADT	V/C	LOS	ADT	V/C	LOS		
Katella Avenue	Manchester Avenue to Anaheim Way–#7	8D	75,000	38,400	0.512	A	38,500	0.513	A	0.001	No
	Anaheim Way to Lewis Street–#8	6D	56,300	34,100	0.606	B	34,300	0.609	B	0.003	No
	Lewis Street to State College Boulevard–#9	6D	56,300	30,300	0.538	A	30,400	0.540	A	0.002	No
Lewis Street	Cerritos Avenue to Mason Lane–#10	4D	37,500	9,800	0.261	A	9,900	0.264	A	0.003	No
	Mason Lane to Katella Avenue–#11	4D	37,500	7,800	0.208	A	8,000	0.213	A	0.005	No

Notes:
[1] # = Number of lanes; D = Divided
[2] Source: City of Anaheim.
Source: Kunzman Associates, Inc., 2016.

The addition of Project traffic is not anticipated to result in any deficiencies to the study area intersections or roadways under Existing Plus Project traffic conditions based on the City-established impact criteria.

Opening Year Without and With Project Conditions

Opening Year intersection capacity utilization/delay and LOS comparisons under With and Without Project scenarios are shown in Table 19: Opening Year Intersection Capacity Utilization/Delay and Levels of Service. As shown in Table 19: Opening Year Intersection Capacity Utilization/Delay and Levels of Service, the study area intersections are projected to operate at acceptable LOS during the peak hours under both Opening Year Without Project and Opening Year With Project traffic conditions. Table 20: Opening Year Roadway Segment Capacity Analysis shows the roadway segment capacity analysis for Opening Year traffic conditions.

Table 19: Opening Year Intersection Capacity Utilization/Delay and Levels of Service

Intersection	Traffic Control[1]	Peak Hour ICU (Delay)—LOS[2]				ICU Increase		Significant Impact?
		Opening Year Without Project		Opening Year With Project				
		Morning	Evening	Morning	Evening	Morning	Evening	
Manchester Ave/I-5 SB Ramps (NS) at:								
Katella Avenue (EW)—#1	TS	0.492-A	0.501-A	0.495-A	0.501-A	+0.003	0.000	No
Anaheim Way (NS) at:								
Katella Avenue (EW)—#2	TS	0.450-A	0.617-B	0.452-A	0.617-B	+0.002	0.000	No
Lewis Street (NS) at:								
Cerritos Avenue (EW)—#3	TS	0.354-A	0.416-A	0.354-A	0.418-A	0.000	+0.002	No
Mason Lane (EW)—#4	TS[3]	(13.5)-B	(10.9)-B	0.398-A	0.301-A	n/a[4]	n/a[4]	No
Katella Avenue (EW)—#5	TS	0.646-B	0.616-B	0.649-B	0.632-B	+0.003	+0.016	No
State College Boulevard (NS) at:								
Katella Ave (EW)—#6	TS	0.621-B	0.596-A	0.622-B	0.597-A	+0.001	+0.001	No

Notes:
[1] TS = Traffic Signal; CSS = Cross Street Stop
[2] ICU = Intersection Capacity Utilization; LOS = Level of Service. Delay is shown in (seconds) for unsignalized intersections. Per the Highway Capacity Manual, Level of Service is based on average delay of the worst individual lane for intersections with cross street stop control.
[3] Cross street stop-controlled for existing conditions.
[4] Project-related increase in ICU/delay is not applicable since the change in traffic controls and performance measures are not comparable.
Source: Kunzman Associates, Inc., 2016.

Table 20: Opening Year Roadway Segment Capacity Analysis

Roadway	Segment	Number of Lanes[1]	Capacity	Without Project			With Project			Change in V/C	Significant Impact?
				ADT	V/C	LOS	ADT	V/C	LOS		
Katella Avenue	Manchester Avenue to Anaheim Way–#7	8D	75,000	49,000	0.653	B	49,100	0.655	B	0.002	No
	Anaheim Way to Lewis Street–#8	6D	56,300	44,800	0.796	C	45,000	0.799	C	0.003	No
	Lewis Street to State College Boulevard–#9	6D	56,300	41,500	0.737	C	41,600	0.739	C	0.002	No
Lewis Street	Cerritos Avenue to Mason Lane–#10	4D	37,500	10,600	0.283	A	10,700	0.285	A	0.002	No
	Mason Lane to Katella Avenue–#11	4D	37,500	8,600	0.229	A	8,800	0.235	A	0.006	No

Notes:
[1] # = Number of lanes; D = Divided
[2] Source: City of Anaheim.
Source: Kunzman Associates, Inc., 2016.

As shown in Table 19: Opening Year Intersection Capacity Utilization/Delay and Levels of Service, the Proposed Project is forecast to result in no significant traffic impacts at the study intersections or roadway segments under Opening Year With Project traffic conditions, based on the City-established impact criteria.

General Plan Buildout Conditions

The Anaheim Traffic Analysis Model was used to derive General Plan buildout traffic conditions. The Anaheim Traffic Analysis Model uses socioeconomic data and the General Plan roadway network to develop forecast traffic volumes upon full buildout of the City of Anaheim by year 2035, according to the General Plan Land Use Element. At the time the traffic analysis was conducted, the proposed LTG Platinum Project had not yet been approved. Its potential approval would alter land use designations within the Project vicinity, thus having the potential to affect traffic volumes within the study area. Therefore, the General Plan buildout scenario was analyzed both without and with the proposed LTG Platinum Project.

General Plan Buildout conditions reflect ultimate buildout of the City and circulation system. Future lane geometrics were assumed for General Plan Buildout traffic conditions, which are consistent with the future baseline geometrics (i.e., 2030 No Project) used in the Revised Platinum Triangle Expansion Project Draft Traffic Study Report (October 2010).

General Plan Buildout Without LTG Platinum Intersection Conditions

The General Plan Buildout intersection capacity utilization/delay and LOS comparisons under the Without LTG Platinum, Without and With Project scenarios are shown in Table 21: General Plan Buildout Without LTG Platinum Intersection Capacity Utilization/Delay and Levels of Service. As shown in Table 21: General Plan Buildout Without LTG Platinum Intersection Capacity Utilization/Delay and Levels of Service, the study area intersections are projected to operate at acceptable LOS during the peak hours under both General Plan Buildout Without LTG Platinum and General Plan Buildout Without LTG Platinum With and Without Project traffic conditions. Table 22: General Plan Buildout Without LTG Platinum Intersection Roadway Segment Capacity Analysis shows the roadway segment capacity analysis for General Plan Buildout Without LTG Platinum traffic conditions.

Table 21: General Plan Buildout Without LTG Platinum Intersection Capacity Utilization/Delay and Levels of Service

Intersection	Traffic Control[1]	Peak Hour ICU (Delay)—LOS[2]				ICU Increase		Significant Impact?
		General Plan Buildout Without Project		General Plan Buildout With Project				
		Morning	Evening	Morning	Evening	Morning	Evening	
Manchester Ave/I-5 SB Ramps (NS) at:								
Katella Avenue (EW)—#1	TS	0.714-C	0.591-A	0.705-C	0.591-A	-0.009	0.000	No
Anaheim Way (NS) at:								
Katella Avenue (EW)—#2	TS	0.714-C	0.664-B	0.707-C	0.663-B	-0.007	-0.001	No
Lewis Street (NS) at:								
Cerritos Avenue (EW)—#3	TS	0.683-B	0.567-A	0.660-B	0.587-A	-0.023	+0.020	No
Mason Lane (EW)—#4	CSS	0.454-A	0.428-A	0.489-A	0.451-A	+0.035	+0.023	No
Katella Avenue (EW)—#5	TS	0.635-B	0.783-C	0.629-B	0.781-C	-0.006	-0.002	No
State College Boulevard (NS) at:								
Katella Ave (EW)—#6	TS	0.865-D	0.787-C	0.876-D	0.783-C	+0.011	-0.004	No

Notes:
[1] TS = Traffic Signal; CSS = Cross Street Stop
[2] ICU = Intersection Capacity Utilization; LOS = Level of Service. Delay is shown in (seconds) for unsignalized intersections. Per the Highway Capacity Manual, Level of Service is based on average delay of the worst individual lane for intersections with cross street stop control.
Source: Kunzman Associates, Inc., 2016.

Table 22: General Plan Buildout Without LTG Platinum Intersection Roadway Segment Capacity Analysis

Roadway	Segment	Number of Lanes[1]	Capacity	Without Project			With Project			Change in V/C	Significant Impact?
				ADT	V/C	LOS	ADT	V/C	LOS		
Katella Avenue	Manchester Avenue to Anaheim Way–#7	8D	75,000	90,400	1.205	F	90,000	1.200	F	-0.005	No
	Anaheim Way to Lewis Street–#8	8D	75,000	86,800	1.157	F	86,300	1.151	F	-0.006	No
	Lewis Street to State College–#9Boulevard	8D	75,000	77,100	1.028	F	76,900	1.025	F	-0.003	No
Lewis Street	Cerritos Avenue to Mason Lane–#10	4D	37,500	21,600	0.576	A	20,300	0.541	A	-0.035	No
	Mason Lane to Katella Avenue–#11	4D	37,500	22,800	0.608	B	21,900	0.584	A	-0.024	No

Notes:
[1] # = Number of lanes; D = Divided
[2] Source: City of Anaheim.
Source: Kunzman Associates, Inc., 2016.

As shown in Table 21: General Plan Buildout Without LTG Platinum Intersection Capacity Utilization/Delay and Levels of Service, the Proposed Project is forecast to result in no significant traffic impacts at the study intersections under General Plan Buildout Without LTG Platinum With Project traffic conditions based on the City-established impact criteria.

General Plan Buildout With LTG Platinum Intersection Conditions

The General Plan Buildout intersection capacity utilization/delay and LOS comparisons under the With LTG Platinum, Without and With Project scenarios are shown in Table 23: General Plan Buildout With LTG Platinum Intersection Capacity Utilization/Delay and Levels of Service. As shown in Table 23: General Plan Buildout With LTG Platinum Intersection Capacity Utilization/Delay and Levels of Service, the study area intersections are projected to operate at acceptable LOS during peak hours under General Plan Buildout With LTG Platinum With and Without Project traffic conditions. Table 24: General Plan Buildout With LTG Platinum Intersection Roadway Segment Capacity Analysis shows the roadway segment capacity analysis for General Plan Buildout With LTG Platinum traffic conditions.

Table 23: General Plan Buildout With LTG Platinum Intersection Capacity Utilization/Delay and Levels of Service

Intersection	Traffic Control[1]	Peak Hour ICU (Delay)—LOS2				ICU Increase		Significant Impact?
		General Plan Buildout Without Project		General Plan Buildout With Project				
		Morning	Evening	Morning	Evening	Morning	Evening	
Manchester Ave/I-5 SB Ramps (NS) at:								
Katella Avenue (EW)—#1	TS	0.735-C	0.594-A	0.694-B	0.609-B	-0.041	+0.015	No
Anaheim Way (NS) at:								
Katella Avenue (EW)—#2	TS	0.717-C	0.666-B	0.711-C	0.667-B	-0.006	+0.001	No
Lewis Street (NS) at:								
Cerritos Avenue (EW)—#3	TS	0.685-B	0.580-A	0.678-B	0.567-B	-0.007	-0.013	No
Mason Lane (EW)—#4	TS	0.452-A	0.433-A	0.491-A	0.456-A	+0.039	+0.023	No
Katella Avenue (EW)—#5	TS	0.641-B	0.782-C	0.655-B	0.792-C	+0.014	+0.010	Yes
State College Boulevard (NS) at:								
Katella Ave (EW)—#6	TS	.864-D	0.799-C	0.867-D	0.781-C	+0.003	-0.018	No

Notes:
[1] TS = Traffic Signal; CSS = Cross Street Stop
[2] ICU = Intersection Capacity Utilization; LOS = Level of Service. Delay is shown in (seconds) for unsignalized intersections. Per the Highway Capacity Manual, Level of Service is based on average delay of the worst individual lane for intersections with cross street stop control.
Source: Kunzman Associates, Inc., 2016.

Table 24: General Plan Buildout With LTG Platinum Intersection Roadway Segment Capacity Analysis

Roadway	Segment	Number of Lanes[1]	Capacity	Without Project			With Project			Change in V/C	Significant Impact?
				ADT	V/C	LOS	ADT	V/C	LOS		
Katella Avenue	Manchester Avenue to Anaheim Way–#7	8D	75,000	90,500	1.207	F	90,400	1.205	F	-0.002	No
	Anaheim Way to Lewis Street–#8	8D	75,000	87,200	1.163	F	8,700	0.116	A	-1.047	No
	Lewis Street to State College–#9 Boulevard	8D	75,000	76,700	1.023	F	76,700	1.023	F	0.000	No
Lewis Street	Cerritos Avenue to Mason Lane–#10	4D	37,500	21,600	0.576	A	20,300	0.541	A	-0.035	No
	Mason Lane to Katella Avenue–#11	4D	37,500	22,900	0.611	B	21,900	0.584	A	-0.027	No

Notes:
[1] # = Number of lanes; D = Divided
[2] Source: City of Anaheim.
Source: Kunzman Associates, Inc., 2016.

As shown in Table 23: General Plan Buildout With LTG Platinum Intersection Capacity Utilization/Delay and Levels of Service, based on the City-established impact criteria, the Proposed Project is forecast to result in no significant Project-specific traffic impacts at the study intersections under General Plan Buildout With LTG Platinum With Project traffic conditions.

The study area is currently served by Orange County Transportation Authority (OCTA) Route 50 along Katella Avenue. Metrolink Rail Feeder Route 430 also runs along Katella Avenue during weekday rush hours. Bus stops with shelter and/or seating are provided at Katella Avenue near the intersection at Lewis Street. The Project would not alter any sidewalks or bike lanes. Existing pedestrian facilities, such as sidewalks, are currently provided along Lewis Street, including along the west Project frontage. There are generally no existing designated bicycle facilities within the study area. However, there are future planned Class II bike lanes on Lewis Street and Cerritos Avenue. Class I bike lanes are proposed on the Union Pacific Railroad right-of-way, north of Katella Avenue, and Union Pacific Railroad to Olive Street Continuation. The Project would not conflict with any plans, ordinances, or policies, and would not result in significant impacts to the circulation system.

b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Less than significant impact. OCTA is responsible for adopting the CMP for Orange County. In Anaheim, the CMP roadway system includes all or parts of seven streets: Harbor Boulevard, State College Boulevard, Katella Avenue, Tustin Avenue (north of SR-91), Orangethorpe Avenue, Beach Boulevard, and Imperial Highway (north of SR-91). According to the 2015 Orange County CMP, the nearest CMP facility in the Project vicinity is Katella Avenue. There are no designated CMP intersections within the Project study area. The Orange County CMP uses the following criteria to determine if a proposed development requires analysis:

- Development Projects forecast to generate 2,400 daily trips or more and have indirect access to a CMP facility; or development Projects forecast to generate 1,600 daily trips or more and have direct access to a CMP facility; or
- Projects with a potential to create an impact of more than three percent of Level of Service E capacity.

To determine whether the addition of Project-generated trips results in a significant impact at a CMP study intersection, and thus requires mitigation, the Orange County CMP utilizes the following threshold of significance:

- A significant Project impact is defined to occur when a proposed project is forecast to increase traffic demand at a CMP study facility by more than three percent of capacity (V/C > 0.03), causing or worsening Level of Service F (V/C > 1.00).

As shown in Table 25: Congestion Management Program Impact Analysis, the Proposed Project is forecast to result in no significant traffic impacts at the CMP monitored study intersections for the evaluated scenarios.

The Proposed Project is forecast to result in no significant traffic impacts at the State highway study intersections for the scenarios analyzed based on the Caltrans-prescribed delay methodology (see Table 26: State Highway Intersection Delay and Levels of Service).

Table 25: Congestion Management Program Impact Analysis

Intersection	Traffic Control[1]	Peak Hour ICU—LOS[2]				Change in ICU		Significant Impact?
		Without Project		With Project				
		Morning	Evening	Morning	Evening	Morning	Evening	
Existing								
Manchester Ave/I-5 SB Ramps (NS) at:								
Katella Avenue (EW)—#1	TS	0.415-A	0.402-A	0.418-A	0.402-A	+0.003	0.000	No
Anaheim Way (NS) at:								
Katella Avenue (EW)—#2	TS	0.358-A	0.545-A	0.359-A	0.545-A	+0.001	0.000	No
Opening Year								
Manchester Ave/I-5 SB Ramps (NS) at:								
Katella Avenue (EW)—#1	TS	0.492-A	0.501-A	0.495-A	0.501-A	+0.003	0.000	No
Anaheim Way (NS) at:								
Katella Avenue (EW)—#2	TS	0.450-A	0.617-B	0.452-A	0.617-B	+0.002	0.000	No
General Plan Buildout Without LTG								
Manchester Ave/I-5 SB Ramps (NS) at:								
Katella Avenue (EW)—#1	TS	0.714-C	0.591-A	0.705-C	0.591-A	-0.009	0.000	No
Anaheim Way (NS) at:								
Katella Avenue (EW)—#2	TS	0.714-C	0.664-B	0.707-C	0.663-B	-0.007	-0.001	No
General Plan Buildout With LTG								
Manchester Ave/I-5 SB Ramps (NS) at:								
Katella Avenue (EW)—#1	TS	0.735-C	0.594-A	0.694-B	0.609-B	-0.041	+0.015	No
Anaheim Way (NS) at:								
Katella Avenue (EW)—#2	TS	0.717-C	0.666-B	0.711-C	0.667-B	-0.006	+0.001	No

Notes:
[1] TS = Traffic Signal
[2] ICU = Intersection Capacity Utilization; LOS = Level of Service.
Source: Kunzman Associates, Inc., 2016.

Table 26: State Highway Intersection Delay and Levels of Service

Intersection	Traffic Control[1]	Peak Hour Delay—LOS[2]				Change in Delay		Significant Impact?
		Without Project		With Project				
		Morning	Evening	Morning	Evening	Morning	Evening	
Existing								
Manchester Ave/I-5 SB Ramps (NS) at:								
Katella Avenue (EW)—#1	TS	21.2-C	15.1-B	22.2-C	15.2-B	+1.0	+0.1	No
Anaheim Way (NS) at:								
Katella Avenue (EW)—#2	TS	14.1-B	23.2-C	17.2-B	24.6-C	+3.1	+1.4	No
Opening Year								
Manchester Ave/I-5 SB Ramps (NS) at:								
Katella Avenue (EW)—#1	TS	25.5-C	18.6-B	26.0-C	18.8-B	+0.5	+0.2	No
Anaheim Way (NS) at:								
Katella Avenue (EW)—#2	TS	18.1-B	25.8-C	18.1-B	25.9-C	0.0	+0.1	No
General Plan Buildout Without LTG								
Manchester Ave/I-5 SB Ramps (NS) at:								
Katella Avenue (EW)—#1	TS	43.2-D	29.8-C	41.7-D	30.0-C	-1.5	+0.2	No
Anaheim Way (NS) at:								
Katella Avenue (EW)—#2	TS	27.4-C	23.5-C	26.6-C	17.9-B	-0.8	-5.6	No
General Plan Buildout With LTG								
Manchester Ave/I-5 SB Ramps (NS) at:								
Katella Avenue (EW)—#1	TS	45.6-D	30.1-C	40.8-D	30.8-C	-4.8	+0.7	No
Anaheim Way (NS) at:								
Katella Avenue (EW)—#2	TS	25.5-C	24.4-C	27.6-C	24.3-C	+2.1	-0.1	No

Notes:
[1] TS = Traffic Signal
[2] LOS = Level of Service. Delay is shown in (seconds) for unsignalized intersections. Per the 2010 Highway Capacity Manual, overall average intersection delay and Level of Service are shown for intersections with traffic signal control.
Source: Kunzman Associates, Inc., 2016.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No impact. The Proposed Project does not include any facilities that would impact air traffic patterns. The nearest major airport to the Project site is John Wayne Airport, which is located approximately 9 miles to the south. The NorthNet and UCI Medical Center helipads are also located in the vicinity of the Platinum Triangle, but as discussed in the Platinum Triangle Subsequent Environmental Impact Report No. 339, there would be no impact on either facility.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less than significant impact. The Proposed Project would not include hazardous design features nor would it include incompatible uses. There are no sharp curves along Lewis Street or Mason Street that would create hazards to either pedestrian or vehicular traffic. The Property Owner/Developer would construct Lewis Street and Mason Lane along the Project site boundary at its ultimate half-section width, including landscaping and parkway improvements in conjunction with development, as necessary and/or required by the City of Anaheim Public Works Department, and a traffic signal at the intersection of Lewis Street and Mason Lane in accordance with the Platinum Triangle Implementation Plan. The Proposed Project driveways will be constructed in conformance with City of Anaheim standards, including provisions for sight distance requirements. On-site traffic signing and striping will be implemented in conjunction with detailed construction plans for the Project and as approved by the City of Anaheim. Therefore, the Proposed Project would not substantially increase hazards related to Project design features.

e) Result in inadequate emergency access?

Less than significant impact. The Proposed Project would not substantively change the way emergency access is provided to the Project site via Mason Lane. As part of the plan check process, the Project site plan would undergo a fire, life, and safety review by the Fire and Police Departments to ensure that adequate infrastructure for emergency response and access is provided. Therefore, the Proposed Project would not interfere with an adopted emergency response plan or emergency evacuation plan.

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Less than significant impact. The study area is currently served by Orange County Transportation Authority (OCTA) Route 50 along Katella Avenue. Metrolink Rail Feeder Route 430 also runs along Katella Avenue during weekday rush hours. Bus stops with shelter and/or seating are provided at Katella Avenue near the intersection at Lewis Street. The Project would not alter any sidewalks or bike lanes. Existing pedestrian facilities, such as sidewalks, are currently provided along Lewis Street, including along the west Project frontage. There are generally no existing designated bicycle facilities within the study area. However, there are future planned Class II bike lanes on Lewis Street and Cerritos Avenue. Class I bike lanes are proposed on the Union Pacific Railroad right-of-way, north of Katella Avenue, and Union Pacific Railroad to Olive Street Continuation. The Proposed

Project would not alter or remove any pedestrian or bicycle facility within vicinity of the Project site. Therefore, impacts would be less than significant and no mitigation measures would be required.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
4.18 Tribal Cultural Resources *Would the project:*				
Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section §21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section §5020.1(k), or	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of a tribal cultural resource determined by the lead agency to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section §5024.1?	☐	☒	☐	☐

Tribal Cultural Resources

Effective July 1, 2015, Assembly Bill 52 requires meaningful consultation with California Native American Tribes on potential impacts to Tribal Cultural Resources, as defined in Section 21074. A tribe must submit a written request to the relevant lead agency if it wishes to be notified of proposed projects within its traditionally and culturally affiliated area. The lead agency must provide written, formal notification to the tribes that have requested it within 14 days of determining that a project application is complete, or deciding to undertake a project. The tribe must respond to the lead agency within 30 days of receipt of the notification if it wishes to engage in consultation on the project, and the lead agency must begin the consultation process within 30 days of receiving the request for consultation. Consultation concludes when either (1) the parties agree to mitigation measures to avoid a significant effect, if one exists, on a tribal cultural resource, or (2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. AB 52 also addresses confidentiality during tribal consultation per Public Resources Code Section 21082.3(c).

The City of Anaheim has received requests from three California Native American Tribes to be notified of projects in which the City of Anaheim is the Lead Agency under CEQA. The Gabrieleño Band of Mission Indians—Kizh Nation was notified of the Proposed Project on February 10, 2016, and responded to the City on February 28, 2016. Additional information regarding the consultation request is detailed in section TRIBAL 4.18 b) below. The Soboba Band of Luiseño Indians was notified of the Proposed Project on February 10, 2016, and the 30-day notification period lapsed on

March 10, 2016, with no response from the tribe. The Juaneño Band of Mission Indians—Acjachemen Nation was notified of the Proposed Project on February 10, 2016, and the 30-day notification period lapsed on March 10, 2016, with no response from the tribe.

Copies of correspondences sent as part of AB 52 consultations can be found in Appendix C.3, *Tribal Cultural Resources Response Letters*.

Environmental Evaluation

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

a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section §5020.1(k), or

No impact. The Project site is in the Industrial Zone and is currently developed with three industrial buildings constructed in 1973 and 1998. As discussed in Section CUL 4.5 a), there are no features of the Project site that are listed or eligible for listing in the California Register of Historical Resources or on the City of Anaheim's Qualified Historic Structures list of the Anaheim Colony Historic District Preservation Plan (April 15, 2010). No impact would occur.

b) Cause a substantial adverse change in the significance of a tribal cultural resource determined by the lead agency to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section §5024.1?

Less than significant impact with mitigation incorporated. The Gabrieleño Band of Mission Indians—Kizh Nation was notified of the Proposed Project on February 10, 2016, and responded to the consultation invitation on February 28, 2016. In this letter, Mr. Andrew Salas indicated that the Project area is within the traditional use area of the Gabrieleño Band of Mission Indians—Kizh Nation. He stated that he does have concerns regarding the potential presence of cultural resources within the Project area and requested that one of the Tribe's certified monitors be present during all ground-disturbing activity. The City of Anaheim responded to Mr. Salas on March 28, 2016 stating that it understood his request for monitoring and has incorporated his request. Potential impacts to Tribal Cultural Resources would be less than significant with implementation of MM TRIBAL-1.

Mitigation Measures

MM TRIBAL-1 Prior to issuance of a grading permit, The Property Owner/Developer shall provide grading plans to the designated representative of the Gabrieleno Band of Mission Indians—Kizh Nation for review. Upon request of the tribal representative, the Property Owner/Developer shall retain a qualified tribal monitor from the Gabrieleno Band of Mission Indians—Kizh Nation to work cooperatively with the project archaeologist during ground disturbing activities to identify and protect any potential tribal cultural resources discovered on site.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
4.19 Utilities and Service Systems *Would the project:*				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d) Have sufficient water supplies available to serve the project (including large-scale developments as defined by Public Resources Code Section 21151.9 and described in Question No. 20 of the Environmental Information Form) from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
e) 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?	☐	☐	☒	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐
h) Result in a need for new systems or supplies, or substantial alterations related to electricity?	☐	☐	☒	☐
i) Result in a need for new systems or supplies, or substantial alterations related to natural gas?	☐	☐	☒	☐
j) Result in a need for new systems or supplies, or substantial alterations related to telephone service?	☐	☐	☒	☐
k) Result in a need for new systems or supplies, or substantial alterations related to television service/reception?	☐	☐	☒	☐

Environmental Evaluation

Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Less than significant impact. The Applicant proposes to develop 153 townhomes on an existing industrial site. The Project does not include commercial or industrial elements, such as food service facilities, retail stores, delivery areas, loading docks, or outdoor material storage areas. None of the proposed uses would generate atypical wastewater such as industrial or agricultural effluent. All wastewater generated by the Project is expected to be domestic sewage. Typical wastes from households are anticipated to be generated daily from the Project. These include food wastes, paper products, and recyclable materials.

Pursuant to the City of Anaheim Municipal Code Title 10, Chapter 09, Section 030.010, the Project is subject to the requirements of New Development and Significant Redevelopment Projects to control urban runoff, in accordance with the County of Orange Drainage Area Management Plan (DAMP). The Property Owner/Developer would be required to implement the provisions of the Preliminary Water Quality Management Plan (WQMP), included as Appendix J, *Preliminary Water Quality Management Plan Vesting Tentative Tract Map No. 17994*, Hunsaker & Associates Irvine, Inc., December 22, 2015 and ensure the plan is amended as appropriate to reflect up-to-date conditions on the site, consistent with the DAMP and the intent of the non-point source NPDES Permit for Waste Discharge Requirements for the County of Orange, the Orange County Flood Control District, and the incorporated cities of Orange County within the Santa Ana Region. The NPDES permit implements federal and state law governing point source discharges (a municipal or industrial discharge at a specific location or pipe) and nonpoint source discharges (diffuse runoff of water from adjacent land uses) to surface waters of the United States. Implementation of the Project would result in an increase in wastewater generation, and related treatment demand.

Therefore, the Project would comply with all requirements of DAMP, and ultimately Project implementation would not cause an exceedance of wastewater treatment requirements of the Santa Ana RWQCB. Impacts would be less than significant.

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less than significant impact.

Water Facilities

The Applicant proposes to construct 153 townhomes on a project site that is currently occupied by single-story industrial buildings. Wet and dry utilities would connect to facilities located in Mason Lane, a connector street located to the south of the Project, including connecting to existing water mains that are serviced by the Anaheim Public Utility District (APUD), the water service provider for the City, and existing sewer lines. Based on the City's 2015 UWMP (which reported a baseline water

use of 203 gpcd) and an estimated 505 new residents, water demand for the Proposed Project is approximately 102,515 gallons of water per day, or 114.83 afy. Under normal conditions, the 2015 UWMP predicts a total citywide water demand of 62,050 afy in 2020, and 67,065 afy in 2030 (City of Anaheim 2015). The City of Anaheim receives water from two main sources: about 70 percent of its water supply from the Orange County Groundwater Basin, which is managed by the Orange County Water District (OCWD), and about 30 percent of its water supply from imported water from the Metropolitan Water District of Southern California (MWD). The estimated water demand for the Proposed Project is nominal compared with the projected supply.

Furthermore, the estimated water demand for the Proposed Project does not take into account the water-saving measures that the City would require in order to achieve water reduction target required by the State Water Control Resources Board for the City in response to California's current drought condition. With implementation of required water-saving measures, water demand for the Proposed Project is expected to be less than the estimated 114.83 afy. Therefore, the Proposed Project would not require or result in the construction or expansion of water facilities and impacts would be less than significant.

Wastewater Facilities

The sewer study for the Proposed Project is included as Appendix H, *Sewer Study—1700 S. Lewis Street, City Project Tracking No.: OTH2014-00749,* Psomas, February 4, 2015. The Project site would connect to the existing downstream 18-inch-diameter sewer in Lewis Street, which then connects to the existing 21-inch sewer in Katella Avenue. Based on modeling results of peak flows and depth-to-diameter ratios of the existing sewer pipe, the existing sewer collection system is projected to have sufficient capacity to serve the Proposed Project. This is concluded because the resultant depth-to-diameter capacity for the existing downstream sewers is 0.28, and the maximum depth-to-diameter increase due to the land use change on the parcel from industrial to residential is an increase of only 0.04 to 0.05 in the Lewis Street sewer and 0.02 to 0.03 in the Katella Avenue sewer. This increase to the existing sewer would be less than significant.

The sewer study analyzed a 165-unit residential development (which has since been reduced to 153 units), using an average flow of 250 gpd/du to be consistent with the calibrated flow factor for the rest of the Central Area. Therefore, the flow from this parcel would be 41,250 gpd, or 29 gallons per minute (gpm) of wastewater. The wastewater from the Proposed Project would be treated at OCSD's Reclamation Plant No. 1, located at 10844 Ellis Avenue in Fountain Valley, and Treatment Plant No. 2, located at 22212 Brookhurst Street in Huntington Beach. According to OCSD's 2009–10 Annual Report: Operations and Maintenance, OCSD wastewater facilities have a combined primary treatment capacity of approximately 372 million gallons per day (mgd). The average daily influent flow was 207 mgd in FY 2009/2010, which is 56 percent of the rated capacity. OCSD's facilities had a combined surplus primary treatment capacity of approximately 165 mgd in 2009/2010. The amount of wastewater generated by the Proposed Project is nominal compared to the average daily amount of wastewater treated by OCSD's wastewater treatment facilities and their combined surplus capacity.

As such, the Proposed Project would not require the construction or expansion of water or wastewater treatment facilities and impacts would be less than significant.

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less than significant impact. In general, post-development drainage area and flow direction will be consistent with pre-Project conditions. Runoff from the site is conveyed as surface flow to Project gutters discharged to catch basins and the Project's main storm drain system. Runoff would then be conveyed southerly to a storm drain line located in the connector street located just south of the Project site and discharged westerly to the Lewis Street Storm Drain System (County Facility C05P21), as in pre-Project conditions.

Drainage from the improved site will be collected into two proposed on-site storm drain systems:

1) A primary storm drain system to convey flood control drainage, and
2) A secondary storm drain system to convey and treat water quality flows.

The two storm drain systems that will consist of storm drain conduits, drainage inlets, water quality treatment facilities, and yard drains. The primary storm drain system will collect drainage from several proposed inlet structures and convey it though storm drain conduit to an existing 78-inch storm drain in Lewis Street via a new storm drain connection. The secondary storm drain will divert water quality flows from several proposed inlets on the site or divert water quality flows from primary storm drain line via a diversion structure and convey the drainage into a secondary water quality storm drain conduit. The secondary storm drain will convey water quality flows to four proposed water quality treatment facilities on the Project Site.

The pre-Project site consists of three industrial buildings along with related facilities and paved parking facilities. The proposed drainage pattern is consistent with existing drainage patterns. In general, runoff from the site is conveyed as surface flow southerly and westerly prior to discharging to Lewis Street and conveyed as gutter flow to an existing catch basin and the Lewis Street Storm Drain System (County Facility No. C05P21). Runoff is then conveyed approximately 1 mile south to the East Garden Grove-Wintersburg Channel (County Facility No. C05) and Haster Retarding Basin (County Facility No. C05B02). Downstream receiving waters include Bolsa Chica Wetlands, Huntington Harbour, and Anaheim Bay.

The Project is located within the Anaheim Bay-Huntington Harbor Watershed and is tributary to the East Garden Grove-Wintersburg Channel. Currently, there is no approved Watershed Infiltration and Hydromodification Management Plan for the Anaheim Bay-Huntington Harbor Watershed.

Although the Project's receiving waters are considered impaired under Section 303(d) of the Clean Water Act, there are currently no Total Daily Maximum Load requirements (TMDLs) have been established for these waterbodies.

Time of concentration for the Project's runoff is anticipated to increase (longer duration to reach peak runoff flow) from the Project's previous use as an industrial facility with minimal landscaping.

d) Have sufficient water supplies available to serve the Project (including large-scale developments as defined by Public Resources Code Section 21151.9 and described in Question No. 20 of the Environmental Information Form) from existing entitlements and resources, or are new or expanded entitlements needed?

Less than significant impact. Anaheim's water supply is a blend of groundwater from its own wells and water imported from Northern California and the Colorado River by the MWD. The source water for Anaheim's wells is a natural aquifer that is replenished with water from the Santa Ana River, local rainfall, and imported water.

The MWD has a basic entitlement of 550,000 afy of Colorado River water, plus surplus water up to an additional 662,000 afy. However, MWD has not received surplus water for a number of years. The Colorado River water supply faces current and future imbalances between supply and demand due to long-term drought conditions. Over the past 16 years (2000 to 2015), there have only been three years when the Colorado River flow has been above average (MWD 2015 UWMP, June 2016).

The State Water Project (SWP) consists of a series of pump stations, reservoirs, aqueducts, tunnels, and power plants operated by the Department of Water Resources. It is an integral part of the effort to ensure that business and industry, urban and suburban residents, and farmers throughout much of California have sufficient water. "Table A" water is the maximum entitlement of SWP water for each water contracting agency. Currently, the combined maximum amount in Table A is 4.17 million acre-feet per year. Of this, 4.13 million acre-feet per year is the maximum amount of Table A water available for delivery from the Delta pumps as stated in the State Water Contract. However, deliveries commonly are less than 50 percent of the Table A amount.

MWD's 2015 Integrated Water Resources Plan update describes its plans to meet full service demands at the retail level under all foreseeable hydrologic conditions from 2020 through 2040. The City has entitlements to receive imported water from MWD through a direct connection to MWD's regional distribution system. Although pipeline and connection capacity rights do not guarantee the availability of water in and of themselves, they do guarantee the ability to convey water when it is available to the MWD distribution system. All imported water supplies are assumed available to the City from existing water transmission facilities.

The Proposed Project would include the construction of 153 new residential units and generate approximately 505 new residents. Based on the City's 2015 UWMP, which reported a baseline water use of 203 gpcd, an estimated 505 new residents would result in a water demand of approximately 102,515 gallons of water per day or 114.83 afy. According to the City's 2015 UWMP, the total citywide water supply of 62,050 afy in 2020 and 67,065 afy in 2030 under normal year conditions. The estimated water demand for the Proposed Project is nominal compared with projected supply. The City would have sufficient water supply to service the Proposed Project.

e) Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?

Less than significant impact. The City operates and maintains the local sewer system consisting of over 500 miles of pipeline that connect to OCSD's trunk system to convey wastewater to OCSD's treatment plants. OCSD has an extensive system of gravity flow sewers, pump stations, and pressurized sewers. Collected wastewater is sent to OCSD's plants located in the cities of Huntington Beach and Fountain Valley. OCSD's Plant No. 1 in Fountain Valley has a capacity of 320 mgd and Plant No. 2 in Huntington Beach has a capacity of 312 mgd. Plant No. 1 currently provides all of its secondary treated wastewater to the Groundwater Replenishment System (GWRS) for beneficial reuse. Both plants share a common ocean outfall (120 inches in diameter) that extends 4 miles off the coast of Huntington Beach. A 78-inch-diameter emergency outfall also extends 1.3 miles off the coast.

The City recycles a small portion of wastewater at the downtown Water Recycling Facility; however, the City sends most of its collected wastewater to OCSD for treatment and disposal. The downtown Water Recycling Facility treats wastewater diverted from a sewer line to produce recycled water. The waste generated from this facility is disposed back to the City's sewer system for delivery to the OCSD for treatment. OCWD manages the Basin and strives to maintain and increase the reliability of the Basin through replenishment with imported water, stormwater, and advanced treated wastewater. OCWD and OCSD have jointly constructed two water recycling Projects to meet this goal that include the Green Acres Project (GAP) and the GWRS.

Green Acres Project

OCWD owns and operates the GAP, a water recycling system that provides up to 8,400 afy of recycled water for irrigation and industrial uses. GAP provides an alternate source of water that is mainly delivered to parks, golf courses, greenbelts, cemeteries, and nurseries in the cities of Costa Mesa, Fountain Valley, Newport Beach, and Santa Ana. Approximately 100 sites use GAP water, current recycled water users include Mile Square Park and Golf Courses in Fountain Valley, Costa Mesa Country Club, Chroma Systems carpet dyeing, Kaiser Permanente, and Caltrans. The City does not receive any GAP water.

Groundwater Replenishment System

The GWRS receives secondary treated wastewater from OCSD and purifies it to levels that meet and exceed all state and federal drinking water standards. The GWRS Phase I plant has been operational since January 2008, and it uses a three-step advanced treatment process consisting of microfiltration, reverse osmosis, and ultraviolet light with hydrogen peroxide. A portion of the treated water is injected into the seawater barrier to prevent seawater intrusion into the groundwater basin. The other portion of the water is pumped to ponds where the water percolates

into deep aquifers and becomes part of Orange County's water supply. The treatment process is described on OCWD's website[5] (OCWD, GWRS 2015).

The GWRS has a current production capacity of 112,100 afy with the expansion that was completed in 2015. Approximately 39,200 afy of the highly purified water is pumped into the injection wells, and 72,900 afy is pumped to the percolation ponds in the City of Anaheim where the water is naturally filtered through sand and gravel to deep aquifers of the groundwater basin. The Basin provides approximately 70 percent of the potable water supply for north and central Orange County.

The design and construction of the first phase (78,500 afy) of the GWRS Project was jointly funded by OCWD and OCSD; Phase 2 expansion (33,600 afy) was funded solely by OCWD. Expansion beyond this is currently in discussion and could provide an additional 33,600 afy of water, increasing total GWRS production to 145,700 afy.

The Project would result in a net increase of wastewater generation, because of the land use change from industrial to residential. The existing wastewater treatment facility has the capacity to adequately serve the Project site, and impacts would be less than significant.

f) Be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs?

Less than significant impact. Development and operation of the Project (including demolition of existing structures on-site) would generate solid waste, which would be served by existing solid waste disposal services. Additionally, the Project would create a corresponding minor increase in solid waste demand. The increase in residential usage is not substantial enough to create an effect on the existing solid waste facilities. The City of Anaheim contracts Republic Services (Anaheim Disposal) to provide waste collection services. Republic Services offers a disposal center located in Anaheim to provide a convenient alternative to the landfill. The facility helps the environment by ensuring items that can be recycled are removed from the waste stream before they are sent to the landfill. However, Republic Services does not accept hazardous or toxic materials.

The County of Orange currently has three landfill locations: Frank R. Boweman Landfill, Olinda Landfill, and Prima Deshecha Landfill. Frank R. Bowerman Landfill is located in Irvine for commercial customers only and covers approximately 725 acres, of which 534 acres are permitted for refuse disposal. The landfill opened in 1990 and is scheduled to close around 2053. If the state permitted daily tonnage limit is reached at any Orange County landfill, waste haulers are subject to diversion. The County experiences more diversion at the Frank R. Bowerman Landfill than at the other two County landfill sites. Commercial haulers that do not have a Waste Disposal Agreement with the County of Orange are subject to diversion at any time to the Olinda Landfill near Brea, the Prima Deshecha Landfill in San Juan Capistrano, or transfer stations located throughout the County, due to the regulatory tonnage limit of this landfill.

[5] http://www.ocwd.com/gwrs/the-process/.

The Olinda Landfill is located in the City of Brea and is open to commercial and public dumping. Olinda Landfill opened in 1960. It is permitted to receive a daily maximum of no more than 8,000 tons per day (tpd). The landfill is required to comply with numerous landfill regulations from federal, state, and local regulatory agencies. The landfill is subject to regular inspections from the California Integrated Waste Management Board and the Board's Local Enforcement Agency, the California RWQCB, and the SCAQMD to ensure compliance with those regulations. The Olinda Landfill covers approximately 565 acres, of which 420 acres are permitted for refuse disposal. The proposed end use after landfill closure is a county regional park.

The Prima Desecha Landfill is located in the City of San Juan Capistrano and is open to commercial and public (Orange County residents only) dumping. Prima Landfill is permitted to accept up to 4,000 tpd. The landfill is required to comply with numerous landfill regulations from federal, state, and local regulatory agencies. The landfill is subject to regular inspections from the California Integrated Waste Management Board and the Board's Local Enforcement Agency, the California RWQCB and the SCAQMD to ensure compliance with those regulations. The Prima Desecha Landfill covers approximately 1,530 acres, of which 699 acres are permitted for refuse disposal. The landfill was opened in 1976 and is scheduled to close around 2067. A General Development Plan is being prepared for Prima Deshecha Landfill that indicates an end use as a regional park.

g) Comply with federal, state, and local statutes and regulations related to solid waste?

Less than significant impact. All collection, transportation, and disposal of any solid waste generated by the Proposed Project will comply with all applicable federal, state, and local statutes and regulations.

The Project would utilize the existing solid waste services for the surrounding area and Project. Furthermore, consistent with provisions stated in the 2013 CalGreen Building Code, any hazardous materials collected on the Project site during either construction or operation of the Project would be transported and disposed of by a permitted and licensed hazardous materials service provider at a facility permitted to accept such hazardous materials. Therefore, impacts associated with solid waste statutes and regulations would be less than significant.

h) Result in a need for new systems or supplies, or substantial alterations related to electricity?

Less than significant impact. The APUD Electrical Division would provide electricity for the Proposed Project. APUD's distribution system consists of approximately 3,400 circuit miles of transmission and distribution lines, over 1,600 miles of which are underground. In order to facilitate the safe and efficient transfer of electricity to residences and businesses, 13 distribution substations are located throughout the City. APUD has an annual historic system peak demand of 593 megawatts and provides more than 2.9 million megawatt-hours annually to its customers. The Project site is already served by APUD. It is anticipated that APUD would have the capabilities to meet future demands. Impacts would be less than significant and mitigation measures would not be required.

i) Result in a need for new systems or supplies, or substantial alterations related to natural gas?

Less than significant impact. Southern California Gas Company provides gas service in the City of Anaheim and has facilities throughout the City. The availability of natural gas service is based upon current gas supply and regulatory policies. As a public utility, Southern California Gas Company is under the jurisdiction of the Public Utilities Commission and federal regulatory agencies. Should these agencies take any action that affects gas supply or the conditions under which service is available, gas service will be provided in accordance with revised conditions. Development on the Project site would be required to comply with standard regulatory requirements related to natural gas. Therefore, impacts would be less than significant and mitigation measures would not be required.

j) Result in a need for new systems or supplies, or substantial alterations related to telephone service?

Less than significant impact. AT&T (Formerly SBC) would provide telephone service for the Proposed Project. It is anticipated that AT&T would have sufficient capabilities to provide service for future development on the Project site. Therefore, impacts would be less than significant and mitigation measures would not be required.

k) Result in a need for new systems or supplies, or substantial alterations related to television service/reception?

Less than significant impact. Time Warner Cable (TWC) would provide television and data service for the Proposed Project. It is anticipated that TWC would have sufficient capabilities to provide service for future development on the Project site. Therefore, impacts would be less than significant and mitigation measures would not be required.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
4.20 Mandatory Findings of Significance				
a) Does the Project have the potential to 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, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the Project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are 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) Does the Project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Environmental Evaluation

a) Does the Project have the potential to 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, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

Less than significant impact with mitigation incorporated. As previously described, the Proposed Project is an infill development Project located in an urbanized area of the City, and the Project site is not within or adjacent to—and would not conflict with—the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. However, the Project site has the potential to support birds that are protected by the Migratory Bird Treaty Act as well as to support nesting of several raptor species. Incorporation of MM-BIO-1 and MM-BIO-2 would ensure that the Proposed Project would not degrade the quality of the environment, substantially reduce the habitat of wildlife species, cause wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal.

b) Does the Project 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)?

The Proposed Project would result in potentially significant Project-specific impacts to air quality, biological, cultural, and paleontological resources and; noise impacts; transportation and traffic impacts, and, could result in hazardous materials impacts to the Project site. However, all mitigation measures have been identified that would reduce these impacts to less than significant levels. Furthermore, the Air Quality and Transportation/Traffic analyses presented in Section 4.3 and Section 4.17, respectively, of this document considered cumulative impacts and determined that cumulative air and traffic impacts would less than significant. No additional mitigation measures would be required to reduce cumulative impacts to less than significant levels.

c) Does the Project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?

All potential impacts of the Proposed Project have been identified, and mitigation measures have been provided, where applicable, to reduce potential impacts to less than significant levels. Upon implementation of mitigation measures, the Proposed Project would not have the potential to result in substantial adverse impacts on human beings either directly or indirectly. No additional mitigation measures would be required.

SECTION 5: CONSULTANT RECOMMENDATIONS

Based on the information and environmental analysis contained in this Initial Study, we recommend that the City of Anaheim prepare a Mitigated Negative Declaration for the Trumark on Lewis Townhomes Project. We find that the Project could have a significant effect on a number of environmental issues, but that the specified mitigation measures would reduce such impacts to a less than significant level. We recommend that the second category, which specifies preparation of a Mitigated Negative Declaration, be selected for the City's determination; refer to Section 3, Environmental Factors and Determination.

Date: November 28, 2016 Signed: 

Vanessa Welsh, Project Manager
FirstCarbon Solutions
Environmental Services

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 6: REFERENCES

Armor, Samuel. 1921. History of Orange County with Biographical Sketches. Historic Record Company: Los Angeles.

Bean, L.J. 1978. Cahuilla. In R.F. Heizer, (ed.), Handbook of North American Indians, Vol. 8: California: 575-587. Washington, D.C.: Smithsonian Institution.

Bean, L.J. and C.R. Smith. 1978. Gabrielino. In R.F. Heizer, (ed.), Handbook of North American Indians, Vol. 8: California: 538–549. Washington, D.C.: Smithsonian Institution.

Bean, L.J. and C.R. Smith. 1978. Serrano. In R.F. Heizer, (ed.), Handbook of North American Indians, Vol. 8: California: 538–549. Washington, D.C.: Smithsonian Institution.

Bean, L.J. and F.C. Shipek. 1978. Luiseño. In R.F. Heizer (ed.), Handbook of North American Indians, Vol. 8: California: 550-563. Washington, D.C.: Smithsonian Institution.

Beardsley, R.K. 1948. "Cultural Sequences in Central California Archaeology." American Antiquity 14:1-28.

Bennyhoff, J. 1950. Californian Fish Spears and Harpoons. University of California Anthropological Records 9(4):295-338.

Boscana, G. 1933. Chinigchinich: A Revised and Annotated Version of Alfred Robinson's Translation of Father Geronimo Boscana's Historical Account of the Belief, Usages, Customs and Extravagancies of the Indians of San Juan Capistrano Called the Acagchemem Tribe. Originally published in 1846. Fine Arts Press, Santa Ana, California.

CalEEMod. California Emissions Estimator Model. Version 2013.2.2. Website: http://caleemod.com/. Accessed May 23, 2016.

California Air Pollution Control Officers Association (CAPCOA). 2009. Health Risk Assessments for Proposed Land Use Projects. Website: http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf. Accessed March 9, 2015 and June 2, 2016.

California Air Pollution Control Officers Association (CAPCOA). 2010. Quantifying Greenhouse Gas Mitigation Measures. August 2010. Website: http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf. Accessed May 27, 2016.

California Air Pollution Control Officers Association (CAPCOA). 2015. CAPCOA Greenhouse Gas Reduction Exchange. Website: http://www.ghgrx.org/. Accessed April 19, 2016.

California Air Resources Board (ARB). 2005. California Environmental Protection Agency. Air Quality and Land Use Handbook: A Community Health Perspective. April 2005. Website: www.arb.ca.gov/ch/landuse.htm. Accessed July 6, 2016.

California Air Resources Board (ARB). 2011a. Status of Scoping Plan Recommended Measures. Website: www.arb.ca.gov/cc/scopingplan/sp_measures_implementation_timeline.pdf. Accessed April 25, 2016.

California Air Resources Board (ARB). 2011b. Airborne Toxic control Measure For Diesel Particulate Matter From Portable Engines Rated at 50 Horsepower and Greater. http://www.arb.ca.gov/portable/perp/perpatcm.pdf.Accessed July 1, 2016.

California Air Resources Board (ARB). 2014. First Update to the Climate Change Scoping Plan. Website: http://www.arb.ca.gov/cc/scopingplan/document/updatedscopingplan2013.htm. Accessed April 25, 2016.

California Air Resources Board (ARB). 2015a. Short-Lived Climate Pollutant Reduction Strategy, Concept Paper. May. Website: http://www.arb.ca.gov/cc/shortlived/concept_paper.pdf. Accessed April 28, 2016.

California Air Resources Board (ARB). 2015b. Risk Management. Website: http://www.arb.ca.gov/toxics/rma/rma_guidancedraft052715.pdf. Accessed June 6, 2016.

California Air Resources Board (ARB). 2016a. Proposed Short-Lived Climate Pollutant Reduction Strategy. Website: http://www.arb.ca.gov/cc/shortlived/shortlived.htm. Accessed July 1, 2016.

California Building Standards Commission (CBSC) 2013. California Building Standards Code, California Code of Regulations Title 24, Part 11. Website: http://www.ecodes.biz/ecodes_support/free_resources/2013California/13Green/PDFs/2013%20California%20Green%20Building%20Standards%20Code%20Title%20page.pdf. Accessed April 25, 2016.

California Department of Fish and Game (CDFG). 2005. *Biogeographic Information and Observation System (BIOS 5).* Website: https://map.dfg.ca.gov/bios/. Accessed April 21, 2016.

California Department of Fish and Wildlife (CDFW). 2015. *CNDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species.* Website: https://map.dfg.ca.gov/rarefind/view/RareFind.aspx. Accessed April 21, 2016.

California Energy Commission (CEC). 2014b. New Title 24 Standards Will Cut Residential Energy Use by 25 Percent, Save Water, and Reduce Greenhouse Gas Emissions. Website: http://www.energy.ca.gov/releases/2014_releases/2014-07-01_new_title24_standards_nr.html. Accessed April 25, 2016.

California Native Plant Society (CNPS). 2015. *Rare Plant Program.* Website: http://www.rareplants.cnps.org. Accessed April 21, 2016.

Centers for Disease Control and Prevention (CDC). 2012. Construction—Website: www.cdc.gov/niosh/construction/. Indoor Environmental Quality—Website: www.cdc.gov/niosh/topics/indoorenv/constructionieq.html. Accessed April 26, 2016.

Chartkoff J.L. and K.K. Chartkoff. 1984. The Archaeology of California. Stanford University Press, Menlo Park.

City of Anaheim. 2016. Public Health and Safety. Website: http://library.amlegal.com/nxt/gateway.dll/California/anaheim/anaheimmunicipalcode?f=templates$fn=default.htm$3.0$vid=amlegal:anaheim_ca. Accessed August 8, 2016.

City of Anaheim. City of Anaheim General Plan. Revised 2004. Website: http://www.anaheim.net/712/General-Plan. Accessed August 8, 2016.

City of Anaheim. Energy Facilities. 2015a. Website: http://www.anaheim.net/817/Anaheim-Energy-Facilities. Accessed July 5, 2016.

City of Anaheim. General Plan Final EIR NO. 330. 2004a. Website: m.anaheim.net/generalplan/EIR/docs/Volume_I/vI_5_2_EA_AirQuality.pdf. Accessed July 7, 2016.

City of Anaheim. Greenhouse Gas Reduction Plan. 2015b. Website: http://www.anaheim.net/DocumentCenter/View/7987. Accessed July 6, 2016.

City of Anaheim. 2015. Urban Water Management Plan. Website: http://www.anaheim.net /DocumentCenter/View/11777. Accessed November 1, 2016.

City of Anaheim. City of Anaheim General Plan. 2004b. Website: http://www.anaheim.net/712/General-Plan. Accessed June 27, 2016.

Edgar, Kathleen J. and Susan E. Edgar. 2002. Mission San Juan Capistrano. PowerKids Press: New York.

Faessel, Stephen J. 2006. Early Anaheim. Arcadia Publishing: San Francisco.

Faessel, Stephen J. 2007. Anaheim 1940-2007. Arcadia Publishing: San Francisco.

Fagan, B.M. 2003. Before California: An Archaeologist Looks at Our Earliest Inhabitants. New York: Alta Mira Press.

Federal Highway Administration (FHWA). 2006. Highway Construction Noise Handbook. August.

Federal Transit Administration (FTA). 2006. Transit Noise and Vibration Impact Assessment. May.

Frederickson, D.A. 1973. Early Cultures of the North Coast Ranges, California. Unpublished Ph.D. dissertation, Department of Anthropology, University of California, Davis.

Geiger, Maynard. 1967. New Data on Mission San Juan Capistrano. In Southern California Historical Quarterly, XLIX.

Goldberg, S.K. and J.E. Arnold. 1988. Prehistoric Sites in the Prado Basin, California: Regional Context and Significance Evaluation. Unpublished report submitted to the U.S. Army Corps of Engineers, Los Angeles District.

Hallan-Gibson, P. 1986. The Golden Promise: An Illustrated History of Orange County. Windsor Publications: Northridge.

Holland, R. 1986. *Preliminary Descriptions of the Terrestrial Natural Communities of California,* Sacramento: California Department of Fish and Wildlife.

Koerper, Henry C. and Roger D. Mason. 1998. Archaeological Evaluation Report for CA-ORA-855 on the 29.3 Acre Property South and East of the Intersection of Camino Capistrano and Junipero Serra Road, San Juan Capistrano, California. Prepared for Archon Group LP, Los Angeles. Prepared by Chambers Group, Inc.: Irvine.

Kroeber, A.L. 1925. Handbook of the Indians of California. Bureau of Ethnology Bulletin No. 78. Washington D.C.

Kunzman Associates, Inc. 2016. Trumark on Lewis Traffic Impact Analysis. August 8.

Kunzman Associates, Inc. 2016. Trumark on Lewis Traffic Impact Analysis. August 8.

McCawley, William. 1996. The First Angelinos: The Gabrielino Indians of Los Angeles. Maliki Museum Press: Banning.

Meadows, Don. 1967. Orange County Place Names: Balboa Island.

Milne, G.A., A.J. Long, and S.E. Bassett. 2005. "Modeling Holocene relative sea-level observations from the Caribbean and South America." Quaternary Science Reviews 24 (10-11): 1183-1202.

Moratto, M.J. 1984. California Archaeology. San Diego, Academic Press.

Nationwide Environmental Title Research, LLC. 2014. Historic Aerials. Website: http://www.historicaerials.com/. Accessed July 30, 2014.

Natural Resources Conservation Service (NRCS). 2015a. NRCS Hydric Soils, National List; all states (December 2015). Website: http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/. Accessed April 28, 2016.

Natural Resources Conservation Service (NRCS). 2015b. *NRCS Web Soil Survey.* Website: http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed April 21, 2016.

O'Neil, S. 1988. Their Mark Upon the Land: Native American Place Names in Orange County and Adjacent Areas. In The Natural and Social Sciences of Orange County, edited by Henry C. Koerper, pp. 106-122. Memoirs of the Natural History Foundation of Orange County, Vol. 2: Newport.

Occupational Safety and Health Administration (OSHA). 2003. United States Department of Labor. Safety and Health Topics: Methane. Website: www.osha.gov/dts/chemicalsampling/data/CH_250700 South Coast Air Quality Management District (SCAQMD). 1993. CEQA Handbook. Available at SCAQMD, 21865 Copley Drive, Diamond Bar, CA 91765.

South Coast Air Quality Management District (SCAQMD). 2000. Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES-II). Website: http://www.aqmd.gov/home/library/air-quality-data-studies/health-studies/mates-ii. Accessed June 16, 2016.

South Coast Air Quality Management District (SCAQMD). 2003. Air Quality Management Plan. Website: http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/2003-aqmp. Accessed July 1, 2016.

South Coast Air Quality Management District (SCAQMD). 2007a. Final 2007 Air Quality Management Plan. Website: www.aqmd.gov/aqmp/07aqmp/index.html. Accessed July 18, 2013. (Note: information is used in Table 3: Comparison of Construction LSTs and Unmitigated Project Construction Emissions—2017.)

South Coast Air Quality Management District (SCAQMD). 2007b. Odor Detection, Mitigation and Control Technology Forum and Roundtable Discussion. 2007. Website: www.aqmd.gov/tao/conferencesworkshops/OdorForum/OdorForumSummary.pdf. Accessed July 18, 2013.

South Coast Air Quality Management District (SCAQMD). 2008a. Mates III Final Report. Website: http://www.aqmd.gov/home/library/air-quality-data-studies/health-studies/mates-iii/mates-iii-final-report. Accessed June 13, 2016.

South Coast Air Quality Management District (SCAQMD). 2008b. Board Meeting Date: December 5, 2008, Agenda 31, Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans. Website: www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ghg-significance-thresholds. Draft Guidance Document—Interim CEQA Greenhouse (GHG) Significance Threshold Document. Website: http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgattachmentsa_d.pdf?sfvrsn=2. Accessed July 5, 2016.

South Coast Air Quality Management District (SCAQMD). 2008c. June 2003, revised July 2008. Final Localized Significance Threshold Methodology. Website: www.aqmd.gov/CEQA/handbook/LST/Method_final.pdf. Accessed July 18, 2013.

South Coast Air Quality Management District (SCAQMD). 2009. Final Localized Significance Threshold Methodology, Appendix C. Revised October 21, 2009. Website: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds. Accessed July 5, 2016.

South Coast Air Quality Management District (SCAQMD). 2011a. Air Quality Significance Thresholds. Revised March 2015. Website: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2. Accessed June 9, 2016.

South Coast Air Quality Management District (SCAQMD). 2011b. Portable Engine Tier Ratings. Website: http://www.aqmd.gov/comply/PERP/tier.htm. Accessed July 18, 2013.

South Coast Air Quality Management District (SCAQMD). 2011c. Fact Sheet for Applying CalEEMod to Localized Significance Thresholds. Website: www.aqmd.gov/ceqa/handbook/LST/CalEEModguidance.pdf.

South Coast Air Quality Management District (SCAQMD). 2012. 2012 Air Quality Management Plan. Website: http://www.aqmd.gov/aqmp/2012aqmp/index.htm. Accessed July 6, 2016.

South Coast Air Quality Management District (SCAQMD). 2013. Historical Data by Year. Air Quality. Website: www.aqmd.gov/smog/historicaldata.htm.

South Coast Air Quality Management District (SCAQMD). 2015. MATES IV Multiple Air Toxics Exposure Study. Draft Final Report, April 1, 2015. Website: www.aqmd.gov/home/library/air-quality-data-studies/health-studies/mates-iv. Accessed July 1, 2016.

South Coast Air Quality Management District (SCAQMD). 2016. CEQA Regulations. Website: http://www.aqmd.gov/home/regulations/ceqa. Accessed July 6, 2016.

Southern California Association of Governments. 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). 2012. Website: http://rtpscs.scag.ca.gov/Documents/2012/scag2012RTPSCS2011.pdf. Accessed July 7, 2016.

Strong, W.D. 1929. Aboriginal Society in Southern California. University of California Publications in American Archaeology and Ethnology 26(1):1-358.

U.S. Environmental Protection Agency (EPA). 2010b. Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule. Website: https://www.epa.gov/nsr/clean-air-act-permitting-greenhouse-gases. Accessed June 6, 2016.

U.S. Environmental Protection Agency (EPA). 2012b. EPA and NHTSA Set Standards to Reduce Greenhouse Gases and Improve Fuel Economy for Model Years 2017–2025 Cars and Light Trucks. Website: http://www.epa.gov/otaq/climate/documents/420f12051.pdf. Accessed April 26, 2016.

U.S. Environmental Protection Agency (EPA). 2016. Federal Register. National Ambient Air Quality Standards for Particulate Matter. Website: https://www.epa.gov/criteria-air-pollutants/naaqs-table. Accessed June 2, 2016.

U.S. Geological Survey. 2011. Van Gosen, B.S., and Clinkenbeard, J.P. California Geological Survey Map Sheet 59. Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Other Natural Occurrences of Asbestos in California. Open-File Report 2011-1188 Website: http://pubs.usgs.gov/of/2011/1188/. Accessed July 1, 2016.

United States Environmental Protection Agency. 1978. Protective Noise Levels, EPA 550/9-79-100. November.

United States Fish and Wildlife Service (USFWS). 2011. Environmental Conservation Online System: U.S. FWS Threatened and Endangered Species Active Critical Habitat Report (online mapper). Website: http://ecos.fws.gov/ecp/report/table/critical-habitat.html. Accessed April 21, 2016.

United States Geological Survey (USGS). 2015. *Anaheim, California 7.5-Minute Topographic Quadrangle Map.* Washington, D.C.: U.S. Government Printing Office.

Wallace, W.J. 1955. A Suggested Chronology for Southern California Coastal Archaeology. Southwestern Journal of Anthropology 11(3): 214-230.

Warren, C.N. 1968. Cultural Tradition and Ecological Adaptation on the Southern California Coast. In Archaic Prehistory in the Western United States, C. Irwin-Williams, ed. Eastern New Mexico University Contributions in Anthropology vol. 1, no. 3, pp. 1-4. Portales.

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 7: LIST OF PREPARERS

FirstCarbon Solutions
250 Commerce, Suite 250
Irvine, CA 92602
Phone: 714.508.4100
Fax: 714.508.4173

Project Director ..... Frank Coyle
Project Manager ..... Vanessa Welsh
Assistant Project Manager ..... Cecilia So
Air Quality Analyst ..... Kimberly Johnson
Air Quality Analyst ..... Vince Mirabella
Analyst ..... Paul Smallman
Noise and Air Quality Scientist ..... Phil Ault
Archaeologist ..... Coral Eginton
Editor ..... Ed Livingston
Word Processor ..... Ericka Rodriguez
GIS/Graphics ..... John De Martino
Reprographics ..... Octavio Perez

Subconsultant

Kunzman Associates, Inc. ..... Transportation and Traffic Technical Subconsultant

THIS PAGE INTENTIONALLY LEFT BLANK