PUBLIC REVIEW DRAFT | MAY 2020

Bewley Street Townhomes Project

Initial Study/Mitigated Negative Declaration

Prepared for:
City of Santa Ana

Prepared by:

Michael Baker
INTERNATIONAL

PUBLIC REVIEW DRAFT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Bewley Street Townhomes Project

Lead Agency:

CITY OF SANTA ANA
20 Civic Center Plaza
Santa Ana, California 92701
Contact: Mr. Jerry C. Guevara
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May 2020

JN 176288

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TABLE OF CONTENTS

APPENDICES (provided on CD at the end of the Table of Contents)

LIST OF EXHIBITS

LIST OF TABLES

MITIGATED NEGATIVE DECLARATION AND TECHNICAL APPENDICES ON CD

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1.0 INTRODUCTION

The Bewley Street Townhomes Project (herein referenced as the "project") involves the development of a ten-unit townhome community distributed among four separate two-story buildings; refer to Section 2.0, *Project Description*. Following a preliminary review of the proposed project, the City of Santa Ana (City) has determined that it 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 of the project, as proposed.

1.1 STATUTORY AUTHORITY AND REQUIREMENTS

In accordance with CEQA (Public Resources Code Section 21000-21177) and pursuant to California Code of Regulations Section 15063, the City of Santa Ana, acting in the capacity of Lead Agency under CEQA, is required to undertake the preparation of an Initial Study to determine if the proposed project would have a significant environmental impact. If, as a result of the Initial Study, the Lead Agency finds that there is evidence that any aspect of the project may cause a significant environmental effect, the Lead Agency shall further find that an Environmental Impact Report (EIR) is warranted to analyze project-related and cumulative environmental impacts. Alternatively, 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 shall find that the proposed project would not have a significant effect on the environment and shall prepare a 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 (Public Resources Code Section 21080(c)).

The environmental documentation, which is ultimately selected by the City in accordance with CEQA, is intended as an informational document undertaken to provide an environmental basis for subsequent discretionary actions upon the project. The resulting documentation is not, however, 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/or other discretionary approvals would be required.

The environmental documentation is subject to a public review period. During this review, public agency comments on the document relative to environmental issues should be addressed to the City. Following review of any comments received, the City will consider these comments as a part of the project's environmental review and include them with the Initial Study documentation for consideration by the City.

1.2 PURPOSE

CEQA Guidelines Section 15063 identifies specific disclosure requirements for inclusion in an Initial Study. Pursuant to those requirements, an Initial Study shall include:

- A description of the project, including the location of the project;
- Identification of the environmental setting;
- 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;
- Discussion of ways to mitigate significant effects identified, if any;
- Examination of whether the project is compatible with existing zoning, plans, and other applicable land use controls; and
- The name(s) of the person(s) who prepared or participated in the preparation of the Initial Study.

1.3 CONSULTATION

As soon as a Lead Agency (in this case, the City of Santa Ana) has determined that an Initial Study would be required for the project, the Lead Agency is directed to consult informally with all Responsible Agencies and Trustee Agencies that are responsible for resources affected by the project, to obtain the recommendations of those agencies as to whether an EIR or Negative Declaration should be prepared for the project. Following receipt of any written comments from those agencies, the Lead Agency considers any recommendations of those agencies in the formulation of the preliminary findings. Following completion of this Initial Study, the Lead Agency initiates formal consultation with these and other governmental agencies as required under CEQA and its implementing guidelines.

1.4 INCORPORATION BY REFERENCE

The following documents were utilized during preparation of this Initial Study and are incorporated into this document by reference. The documents are available for review at the City of Santa Ana, Planning and Building Agency, 20 Civic Center Plaza, Santa Ana, California 92701.

- *City of Santa Ana General Plan* (last comprehensively updated in 1982). The *City of Santa Ana General Plan* (General Plan) is the principal long-range policy and planning document guiding the development, conservation, and enhancement of Santa Ana. It contains a comprehensive collection of goals and policies related to the physical development of the City. The General Plan includes the following elements: Airport Environs (2009); Circulation (1998); Conservation (1982); Economic Development (1998); Education (1988); Energy (1982); Growth Management (1991); Housing (2014); Land Use (1998); Noise (1982); Open Space, Parks, and Recreation (1982); Public Facilities (1982); Public Safety (1982); Scenic Corridors (1982); Seismic Safety (1982); and Urban Design (1998).

  The City is currently undergoing a comprehensive General Plan Update intended to result in a total of twelve elements. Adoption of the General Plan Update is anticipated to occur in late 2020. The Housing Element is being amended separately in late 2021.

- *Santa Ana Municipal Code* (current through Supplement 21 and published 2007). The *Santa Ana Municipal Code* (Municipal Code) provides regulations for government administrative operations, construction, development, infrastructure, public safety, and business operations within the City. The Zoning Ordinance (Chapter 41 of the Municipal Code) is intended to serve the public health, safety, comfort, convenience and general welfare by establishing land use districts designed to obtain the physical, environmental, economic and social advantages resulting from planned use of land in accordance with the General Plan. The Zoning Ordinance provides a set of regulations which control permitted land uses, the density of development, the uses and locations of structures, the height of buildings and structures, the required amount of open space, the appearance of certain uses and structures, the areas and dimensions of sites, the location, size and illumination of signs and displays, requirements for off-street parking and off-street loading facilities, provisions for street dedications and improvements, standards for water efficient landscaping, and procedures for administering and amending such regulations and requirements.

2.0 PROJECT DESCRIPTION

2.1 PROJECT LOCATION

The City of Santa Ana (City) is located in central Orange County, generally north of the San Diego Freeway (Interstate 405 [I-405]), south of the Garden Grove Freeway (State Route 22 [SR-22]), and west of the Costa Mesa Freeway (SR-55). The City is approximately 30 miles southeast of downtown Los Angeles; refer to Exhibit 2-1, *Regional Vicinity*. Santa Ana is surrounded by the cities of Orange and Garden Grove to the north, Tustin to the east, Costa Mesa and Irvine to the south, and Fountain Valley and Westminster to the west.

The proposed Bewley Street Townhomes Project (project) site is approximately 0.87 acres and is located at 1122 North Bewley Street (Assessor's Parcel Number [APN] 198-101-07); refer to Exhibit 2-2, *Site Vicinity*. Regional access to the project site is provided via SR-22, I-405, and Interstate 5. Local access to the project site is provided via Harbor Boulevard, West Washington Avenue, and West 11th Street.

2.2 ENVIRONMENTAL SETTING

The project site is located within a highly developed and urbanized area of Santa Ana. The eastern portion of the project site was previously developed with a single-family residence, a concrete driveway, and landscaping along the frontage of North Bewley Street; however, was recently demolished in 2019. As such, the entire site is vacant and undeveloped with the exception of minimal remnant landscaping associated with the former residence at the project frontage (note, Exhibit 2-2 is not a recent aerial photograph). The site is accessible from North Bewley Street via the concrete driveway near the northeast corner of the site and a dirt driveway in the southeast corner of the site.

GENERAL PLAN LAND USE DESIGNATION AND ZONING

According to the *City of Santa Ana General Plan* (General Plan) Land Use Map, the project site is designated Low Density Residential (LR-7; seven dwelling units per acre). Based on the *City of Santa Ana Zoning Map* (Zoning Map), the site is zoned Two-Family Residence (R2).

SURROUNDING LAND USES

Surrounding land uses include a mixture of residential and industrial business uses. Specifically, land uses surrounding the project site include:

- *North:* West Washington Avenue; single- and multi-family residential uses designated LR-7 and zoned Single-Family Residence (R1) and R2; and industrial uses (e.g., auto dealerships and self-storage facility) designated District Center (DC) and zoned Harbor Mixed Use Transit Corridor Specific Plan (SP2) are located to the north of the project site;

- *East:* North Bewley Street bounds the project site to the east with single- and multi-family residential uses designated LR-7 and zoned R2 further east of North Bewley Street;

- *South:* West 11th Street and multi-family residential uses designated LR-7 and zoned R2 are located to the south; and

- *West:* Harbor Boulevard and industrial uses (e.g., auto repair businesses) designated Urban Neighborhood (UN) and zoned SP2 are located to the west of the project site.

NOT TO SCALE

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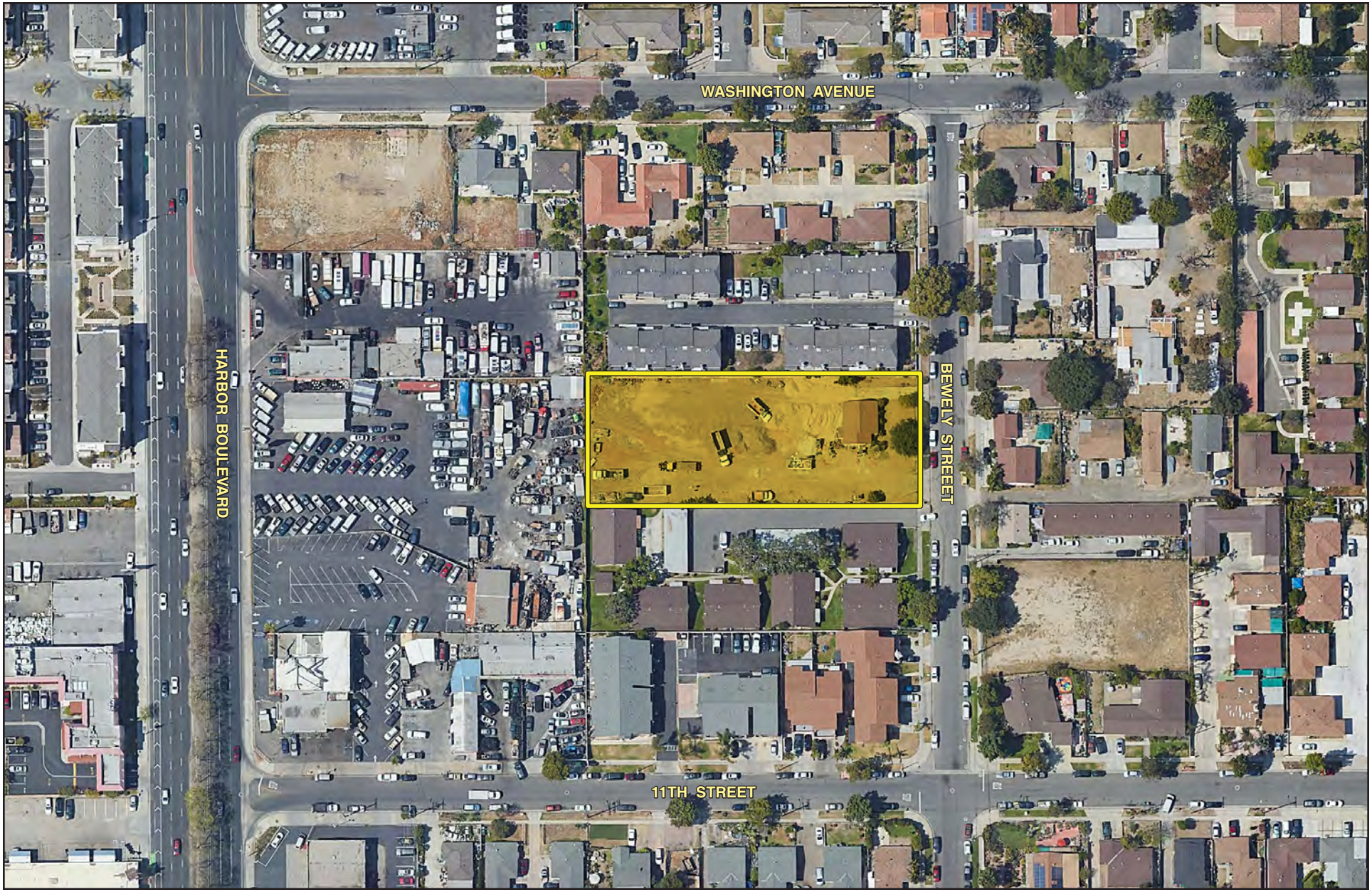
BEWLEY STREET TOWNHOMES PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Regional Vicinity

Exhibit 2-1



Source: Google Earth Pro, 2019.
- Project Boundary

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BEWLEY STREET TOWNHOMES PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Site Vicinity

Exhibit 2-2

2.3 BACKGROUND AND HISTORY

The project site was originally developed in 1964, with a single-family residence, detached garage, and detached guest house occupying the eastern portion of the project site. The western portion of the site was a yard, vacant of any structures. All of the on-site structures were demolished and cleared in recent years. Prior to development in 1964, the site and general project area was used for agriculture.

The project Applicant first submitted project plans to the City in October 2017 to develop a 12-unit townhome development. As previously proposed, the project would require approval of several variances, a General Plan Amendment, an inclusionary housing plan, and a tentative tract map. The City's Development Review Committee reviewed the project plans and provided comments in December 2017. Since then, the Applicant has revised the project plans and now proposes a ten-unit townhome development as described below in Section 2.4, *Project Characteristics*.

2.4 PROJECT CHARACTERISTICS

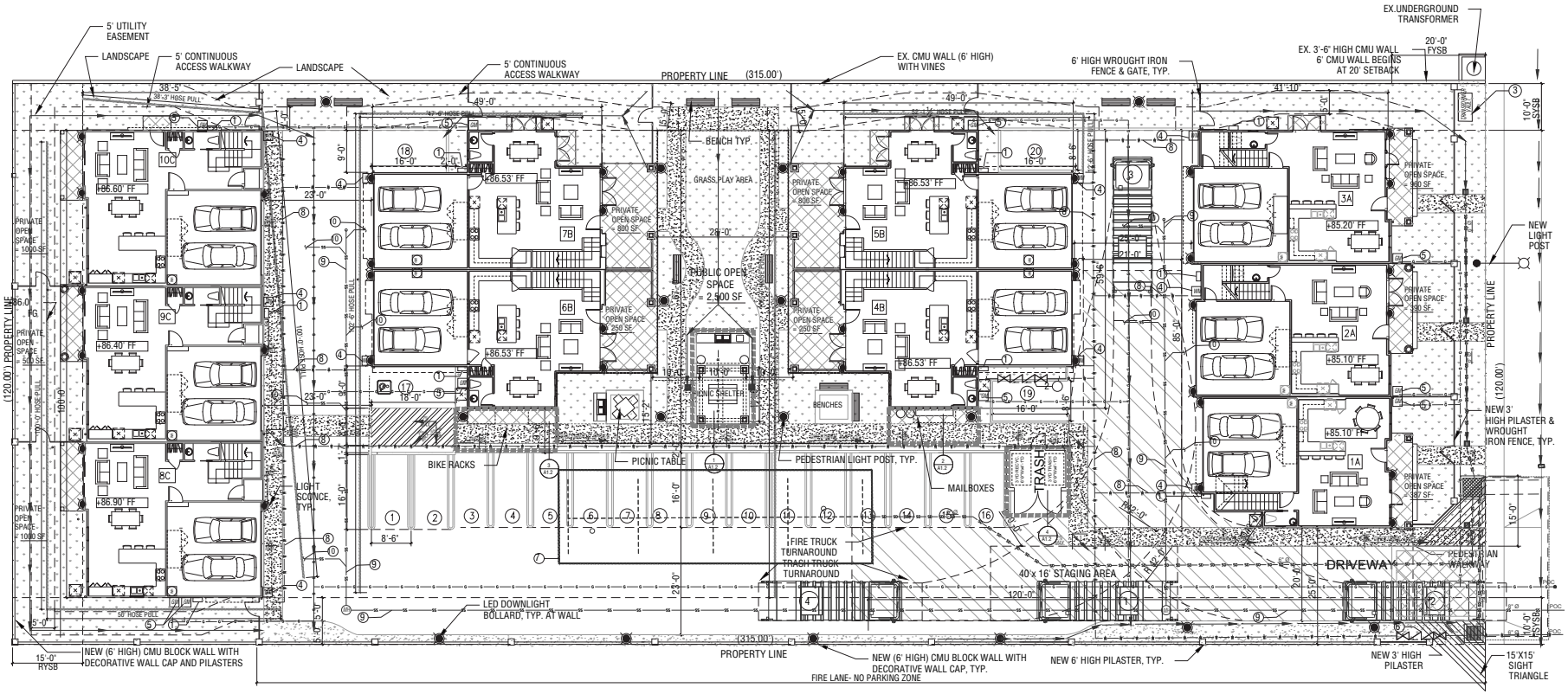
The proposed project would develop a ten-unit townhome community. The development would consist of four separate buildings, each with two to three units; refer to Exhibit 2-3, *Conceptual Site Plan*. Building A would front North Bewley Street and consist of three units; Buildings B and B1 would consist of two units each and be located in the center of the site; and Building C would consist of three units located in the western portion (rear) of the site. As shown on Exhibit 2-4, *Building Sections*, the four buildings would be two stories with a maximum building height of 27 feet. The units would range in size from 1,618 to 1,950 square feet, consisting of two to four bedrooms and a 400-square foot attached two-car garage; refer to Table 2-1, *Proposed Townhome Units*.

Table 2-1
Proposed Townhome Units

Unit	Building	Floor Area	Number of Bedrooms	Private Open Space	Balcony
1	A	1,618	2 + Den	387	59
2	A	1,796	3	413	44
3	A	1,871	3	960	44
4	B	1,950	4	250	250
5	B	1,950	4	800	30
6	B1	1,950	4	250	250
7	B1	1,950	4	800	30
8	C	1,946	3	1,000	169
9	C	1,943	3	500	160
10	C	1,946	3	1,000	169
TOTAL		**18,920 SF**	**33 + Den**	**6,360 SF**	**1,205 SF**

Notes: SF = square feet
Source: YNG Architects, 2019.

As shown on Exhibits 2-5a, *Building Elevations – Building A*, through *2-5c, Building Elevations – Building C*, the exterior building colors would include a variety of neutral earth tones (beiges, browns, grays, and greens), while the project's exterior building materials would include concrete roof tiles, metal roofing, painted wood, painted stucco, stone and brick veneer, panel siding, metal garage, metal and wood railings, and decorative light fixtures, among others. Additional project characteristics are described in detail below.



Source: YNG Architects, 2019.

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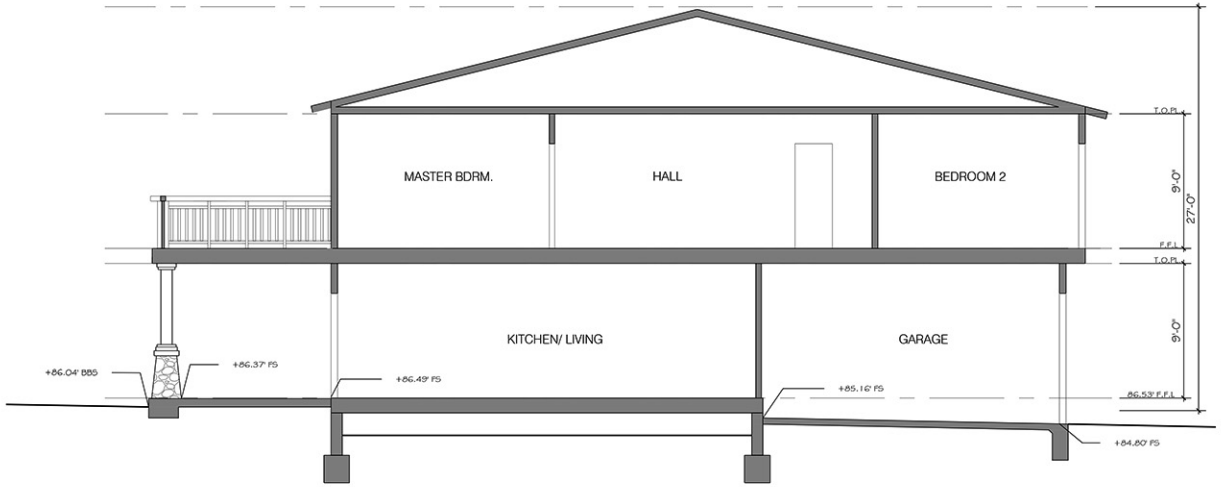
BEWLEY STREET TOWNHOMES PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

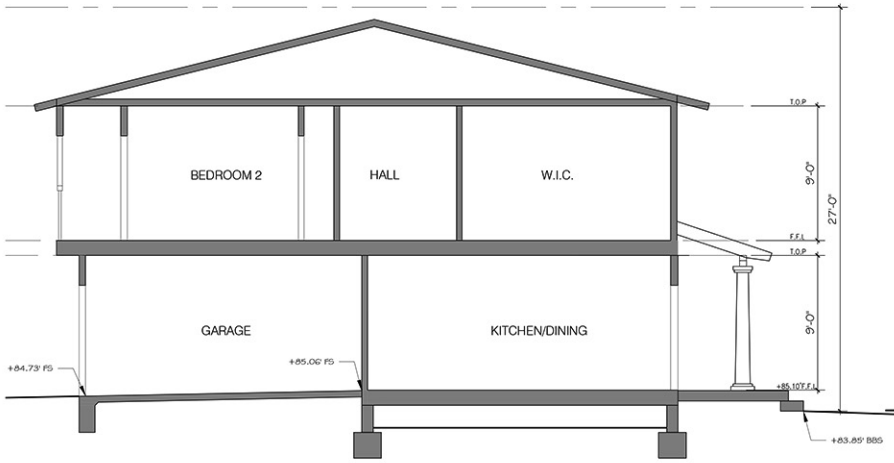
Conceptual Site Plan

Exhibit 2-3

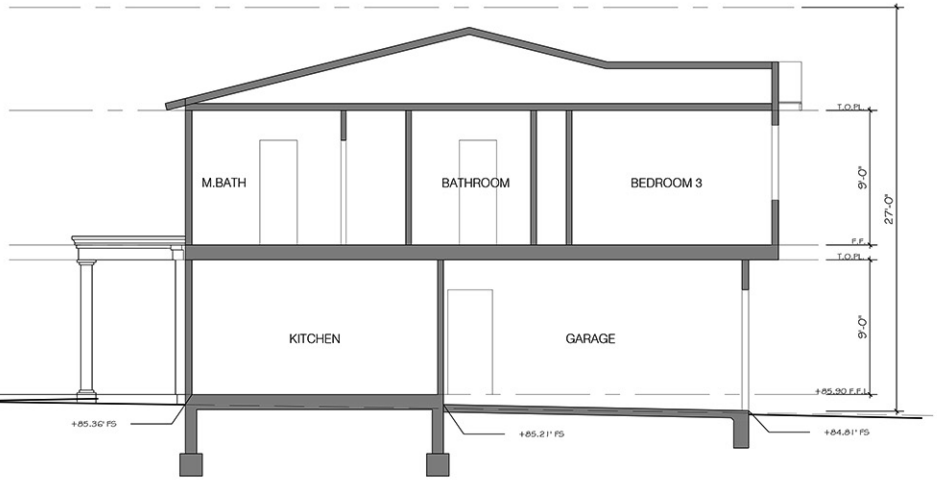


BUILDING SECTION- UNIT B

NOTE:
THE LOWEST FLOOR ELEVATION OF THE GARAGE IS 84.55' WHICH IS 1.35' HIGHER THAN THE 1% ANNUAL CHANCE OF FLOOD ELEVATION 83.2' (NAVD88)



BUILDING SECTION- UNIT A



BUILDING SECTION- UNIT C

Source: YNG Architects, 2019.

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BEWLEY STREET TOWNHOMES PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Building Sections

Exhibit 2-4

WEST ELEVATION

NORTH ELEVATION

Source: YNG Architects, 2019.

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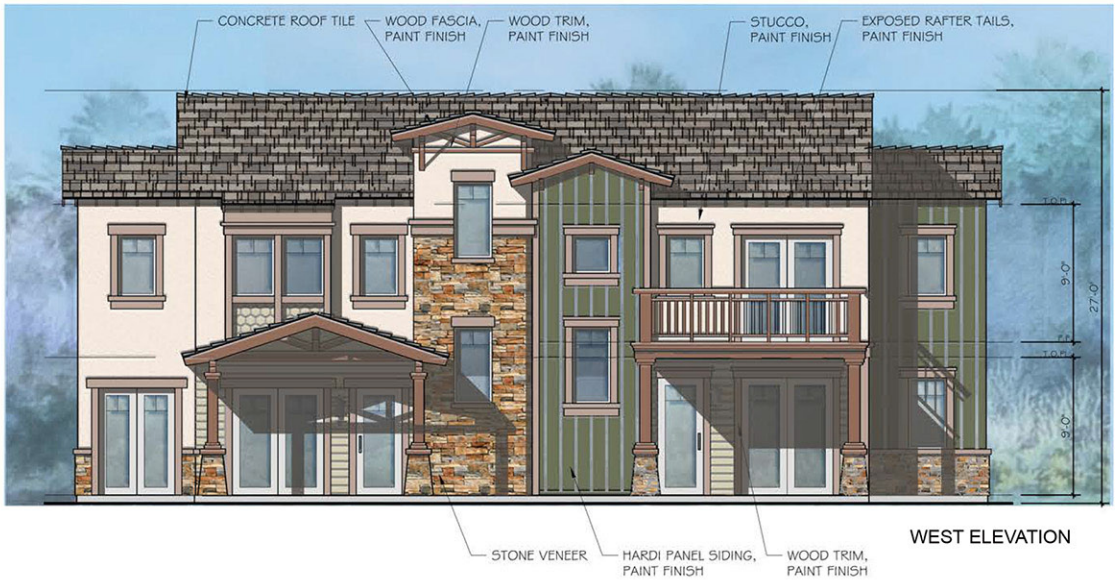
BEWLEY STREET TOWNHOMES PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Building Elevations – Building A

Exhibit 2-5a



WEST ELEVATION

NORTH ELEVATION

Source: YNG Architects, 2019.

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05/2020 | JN 176288

BEWLEY STREET TOWNHOMES PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Building Elevations – Building B

Exhibit 2-5b

WEST ELEVATION

SOUTH ELEVATION

Source: YNG Architects, 2019.

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BEWLEY STREET TOWNHOMES PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Building Elevations – Building C

Exhibit 2-5c

SITE ACCESS AND PARKING

The site would be accessed via a driveway in the southeast corner of the site adjacent to North Bewley Street. Internal drive aisles would provide access to each townhome unit and the central surface parking area.

Based on *Santa Ana Municipal Code* (Municipal Code) Section 41-282, *Off-Street Parking*, the project is required to provide two residential spaces in a garage and two guest spaces per unit. As such, the project is required to provide 40 total parking spaces. Each unit includes an attached two-car garage and a 20-space surface parking area is located in the center of the site; refer to Exhibit 2-3. A four-space bicycle rack is also provided near the surface parking area.

AMENITIES AND OPEN SPACE

A 2,500-square foot central public open space area is provided between Buildings B and B1; refer to Exhibit 2-3. The public open space would include a grass play area; benches; a picnic shelter with a table, benches, barbecue, and sink; trash and recycle receptacles; and pedestrian lighting. Additionally, a meandering five-foot-wide walkway would be constructed along the northern project boundary to provide pedestrian access to each building along the northern site perimeter.

Private open space (backyard or patio) and balconies would also be provided for each townhome unit. As detailed in Table 2-1, the backyards and patios range in size from 250 to 1,000 square feet, and the balconies range in size from 30 to 250 square feet.

LANDSCAPING

Ornamental landscaping would be installed throughout the project site. Planting materials would include a mix of trees, shrubs, and groundcover, and may include strawberry trees, honey locust, dwarf magnolia, southern live oak, Brisbane fox, fern pine, yarrow, foxtail agave, blue hibiscus, red yucca, coast rosemary, creeping fig, and flowering carpet rose; refer to Exhibit 2-6, *Conceptual Landscape Plan*.

Six-foot high concrete masonry unit (CMU) block walls with decorate wall caps and pilasters would be constructed along the site's southern and western boundary. The existing six-foot CMU wall along the northern project boundary would be planted with creeping fig vines.

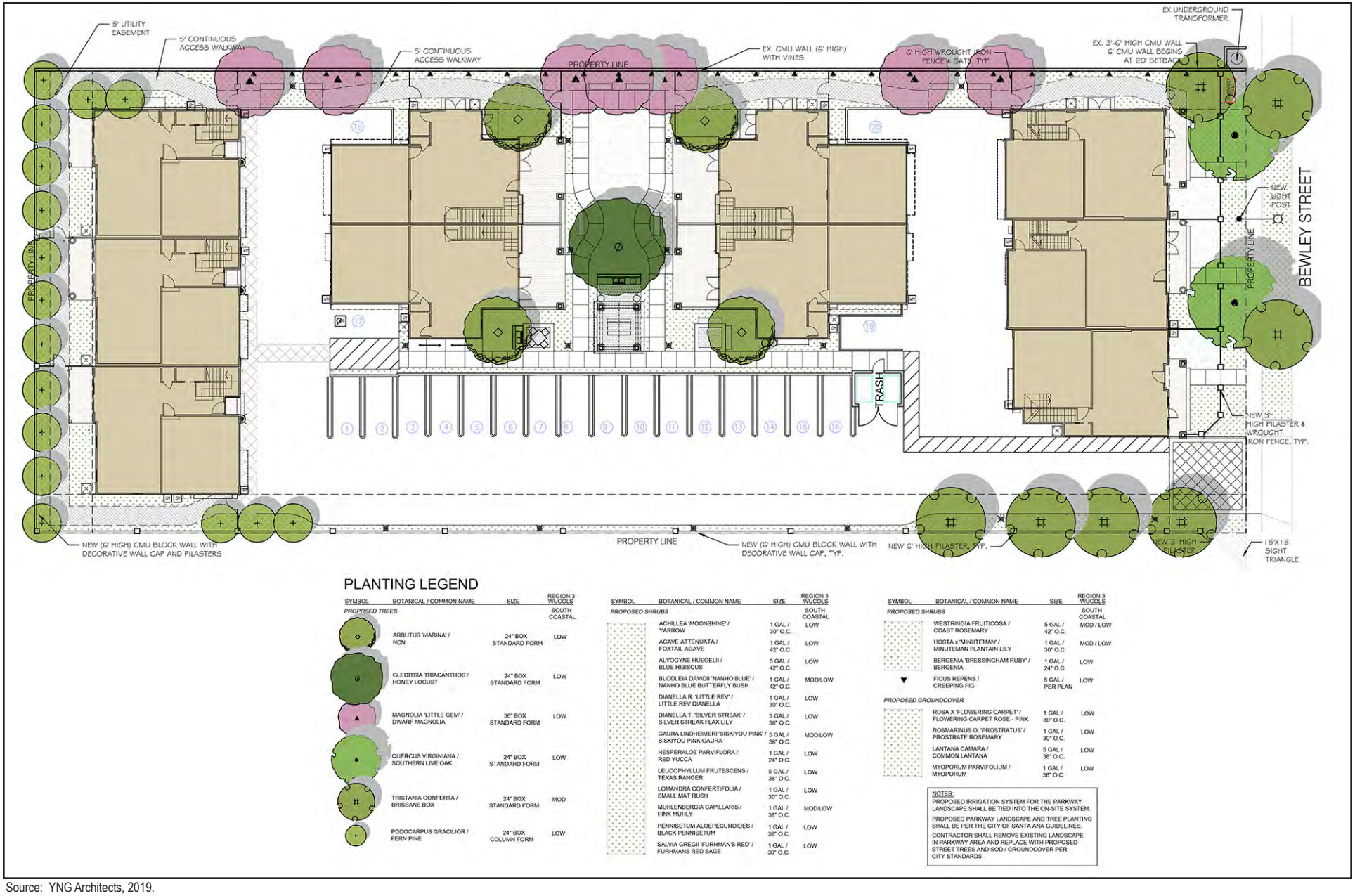
The project would also replace the existing sidewalks and curb and gutter along the project frontage with new sidewalks, a street light, and curb and gutter in accordance with City standards.

UTILITIES AND SERVICES

The following utilities and services would serve the project site:

- *Water*. The project site would be served by the City of Santa Ana Public Works Agency. Proposed six-inch private water lines would be constructed on-site to connect to existing public water facilities in North Bewley Street.

- *Sewer*. The City of Santa Ana Public Works Agency would provide sanitary sewer service to the project site. An eight-inch private sewer main and four-inch sewer laterals would be constructed on-site to connect to existing sewer facilities in North Bewley Street.



PLANTING LEGEND

SYMBOL	BOTANICAL / COMMON NAME	SIZE	REGION 3 WUCOLS
PROPOSED TREES			SOUTH COASTAL
	ARBUTUS 'MARINA' / NCN	24" BOX STANDARD FORM	LOW
	GLEDITSIA TRIACANTHOS / HONEY LOCUST	24" BOX STANDARD FORM	LOW
	MAGNOLIA 'LITTLE GEM' / DWARF MAGNOLIA	36" BOX STANDARD FORM	LOW
	QUERCUS VIRGINIANA / SOUTHERN LIVE OAK	24" BOX STANDARD FORM	LOW
	TRISTANIA CONFERTA / BRISBANE BOX	24" BOX STANDARD FORM	MOD
	PODOCARPUS GRACILIOR / FERN PINE	24" BOX COLUMN FORM	LOW

SYMBOL	BOTANICAL / COMMON NAME	SIZE	REGION 3 WUCOLS
PROPOSED SHRUBS			SOUTH COASTAL
	ACHILLEA 'MOONSHINE' / YARROW	1 GAL / 30" O.C.	LOW
	AGAVE ATTENUATA / FOXTAIL AGAVE	1 GAL / 42" O.C.	LOW
	ALYOGYNE HUEGELII / BLUE HIBISCUS	5 GAL / 42" O.C.	LOW
	BUDDLEIA DAVIDII 'NANHO BLUE' / NANHO BLUE BUTTERFLY BUSH	1 GAL / 42" O.C.	MOD/LOW
	DIANELLA R. 'LITTLE REV' / LITTLE REV DIANELLA	1 GAL / 30" O.C.	LOW
	DIANELLA T. 'SILVER STREAK' / SILVER STREAK FLAX LILY	5 GAL / 36" O.C.	LOW
	GAURA LINDHEIMERI 'SISKIYOU PINK' / SISKIYOU PINK GAURA	5 GAL / 36" O.C.	MOD/LOW
	HESPERALOE PARVIFLORA / RED YUCCA	1 GAL / 24" O.C.	LOW
	LEUCOPHYLLUM FRUTESCENS / TEXAS RANGER	5 GAL / 36" O.C.	LOW
	LOMANDRA CONFERTIFOLIA / SMALL MAT RUSH	1 GAL / 30" O.C.	LOW
	MUHLENBERGIA CAPILLARIS / PINK MUHLY	1 GAL / 36" O.C.	MOD/LOW
	PENNISETUM ALOEPECUROIDES / BLACK PENNISETUM	1 GAL / 36" O.C.	LOW
	SALVIA GREGII 'FURHMAN'S RED' / FURHMANS RED SAGE	1 GAL / 30" O.C.	LOW

SYMBOL	BOTANICAL / COMMON NAME	SIZE	REGION 3 WUCOLS
PROPOSED SHRUBS			SOUTH COASTAL
	WESTRINGIA FRUITICOSA / COAST ROSEMARY	5 GAL / 42" O.C.	MOD / LOW
	HOSTA x 'MINUTEMAN' / MINUTEMAN PLANTAIN LILY	1 GAL / 30" O.C.	MOD / LOW
	BERGENIA 'BRESSINGHAM RUBY' / BERGENIA	1 GAL / 24" O.C.	LOW
▼	FICUS REPENS / CREEPING FIG	5 GAL / PER PLAN	LOW
PROPOSED GROUNDCOVER			
	ROSA X 'FLOWERING CARPET' / FLOWERING CARPET ROSE - PINK	1 GAL / 30" O.C.	LOW
	ROSMARINUS O. 'PROSTRATUS' / PROSTRATE ROSEMARY	1 GAL / 30" O.C.	LOW
	LANTANA CAMARA / COMMON LANTANA	5 GAL / 36" O.C.	LOW
	MYOPORUM PARVIFOLIUM / MYOPORUM	1 GAL / 36" O.C.	LOW

NOTES:
PROPOSED IRRIGATION SYSTEM FOR THE PARKWAY LANDSCAPE SHALL BE TIED INTO THE ON-SITE SYSTEM.
PROPOSED PARKWAY LANDSCAPE AND TREE PLANTING SHALL BE PER THE CITY OF SANTA ANA GUIDELINES.
CONTRACTOR SHALL REMOVE EXISTING LANDSCAPE IN PARKWAY AREA AND REPLACE WITH PROPOSED STREET TREES AND SOD / GROUNDCOVER PER CITY STANDARDS.

Source: YNG Architects, 2019.

NOT TO SCALE

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05/2020 I JN 176288

BEWLEY STREET TOWNHOMES PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Conceptual Landscape Plan

Exhibit 2-6

- *Drainage*. The proposed project would install an on-site infiltration trench system under the central surface parking lot area. A crescent pipe screen would be installed to provide pre-treatment prior to stormwater conveyance to the proposed infiltration trench. Excess runoff that exceeds the infiltration trench capacity during the peak rainfall event would flow into a parkway culvert drain that outflows to the existing North Bewley Street gutter. The street gutter flows southerly towards 5th Street, Harbor Boulevard, and into the East Garden Grove-Wintersburg Channel that drains into the Bolsa Bay, Huntington Harbor, Anaheim Bay, and ultimately the Pacific Ocean.

- *Dry Utilities*. The project site would be served by Southern California Edison for electricity services and SoCalGas for natural gas services. Electricity and natural gas connections would be constructed on-site to connect to existing service lines in North Bewley Street.

An existing five-foot-wide easement located on the western end of the project site utilized for pipeline and public utilities (e.g., pole lines, conduits, utility installation, maintenance, and incidental purposes) would remain.

GENERAL PLAN AMENDMENT

The project requires a General Plan Amendment to change the site's land use designation from LR-7 to Medium Density Residential (MR-15; 15 dwelling units per acre) to allow the proposed density of 11.5 dwelling units per acre. According to the General Plan, areas designated MR-15 are characterized by duplexes, apartments, or a combination of both.

TENTATIVE TRACT MAP

A Tentative Tract Map is also required as part of the project to subdivide the property into separate parcels for each townhome unit.

2.5 PHASING/CONSTRUCTION

Project construction would occur as a single phase and would require approximately 235 cubic yards of cut and 2,474 cubic yards of fill. In total, the project would require 2,239 cubic yards of soil import. Construction activities are anticipated to occur for approximately 13 months beginning in February 2021 and ending in March 2022.

2.6 AGREEMENTS, PERMITS, AND APPROVALS

The City of Santa Ana, as Lead Agency, has discretionary authority over the proposed project, which requires the following discretionary approvals:

- California Environmental Quality Act Clearance;
- General Plan Amendment; and
- Tentative Tract Map.

In addition, the following permits/approvals may be required of other agencies:

- General Construction Permit – Santa Ana Regional Water Quality Control Board (as required under National Pollutant Discharge Elimination System [NPDES] General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ [as amended by 2010-0014-DWQ and 2012-006-DWQ], NPDES Number CAS000002).

3.0 INITIAL STUDY CHECKLIST

3.1 BACKGROUND

1. **Project Title:**
   Bewley Street Townhomes Project

2. **Lead Agency Name and Address:**
   City of Santa Ana
   20 Civic Center Plaza
   Santa Ana, California 92701

3. **Contact Person and Phone Number:**
   City of Santa Ana
   Jerry C. Guevara, Assistant Planner I
   714.647.5481

4. **Project Location:**
   The proposed project is located at 1122 North Bewley Street in the City of Santa Ana.

5. **Project Sponsor's Name and Address:**
   YNG Architects
   1524 Brookhollow Drive, Suite 6
   Santa Ana, California 92705

6. **General Plan Designation:**
   Low Density Residential (LR-7)

7. **Zoning:**
   Two-Family Residence (R2)

8. **Description of Project:**
   Refer to Section 2.4, *Project Characteristics*.

9. **Surrounding Land Uses and Setting:**
   Surrounding land uses include a mixture of residential and industrial business uses. Specifically, land uses surrounding the project site are as follows:

   - *North:* West Washington Avenue; single- and multi-family residential uses designated LR-7 and zoned Single-Family Residence (R1) and R2; and industrial uses (e.g., auto dealerships and self-storage facility) designated District Center (DC) and zoned Harbor Mixed Use Transit Corridor Specific Plan (SP2) are located to the north of the project site;

   - *East:* North Bewley Street bounds the project site to the east with single- and multi-family residential uses designated LR-7 and zoned R2 further east of North Bewley Street;

- *South:* West 11th Street and multi-family residential uses designated LR-7 and zoned R2 are located to the south; and

- *West:* Harbor Boulevard and industrial uses (e.g., auto repair businesses) designated Urban Neighborhood (UN) and zoned SP2 are located to the west of the project site.

10. Other public agencies whose approval is required:
No other public agencies whose approval is required are expected at this time.

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?
In compliance with Assembly Bill 52, the City distributed letters notifying each tribe that requested to be on the City's list for the purposes of AB 52 of the opportunity to consult with the City regarding the proposed project. The letters were distributed by certified mail on February 10, 2020. The tribes had 30 days to respond to the City's request for consultation. The Gabrieleno Band of Mission Indians – Kizh Nation requested consultation on February 12, 2020. Refer to Section 4.18, *Tribal Cultural Resources*, for additional information.

3.2 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" or "Less Than Significant Impact with Mitigation Incorporated," as indicated by the following checklist.

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

3.3 EVALUATION OF ENVIRONMENTAL IMPACTS

This Initial Study analyzes the potential environmental impacts associated with the proposed project. The issue areas evaluated include:

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

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the CEQA Guidelines Appendix G and used by the City of Santa Ana in its environmental review process. For the preliminary environmental assessment undertaken as part of this Initial Study's preparation, a determination that there is a potential for significant effects indicates the need to more fully analyze the development's impacts and to identify mitigation.

For the evaluation of potential impacts, the questions in the Initial Study Checklist are stated and an answer is provided according to the analysis undertaken as part of the Initial Study. The analysis considers the long-term, direct, indirect, and cumulative impacts of the development. To each question, there are four possible responses:

- *No Impact*. The development will not have any measurable environmental impact on the environment.

- *Less Than Significant Impact*. The development will have the potential for impacting the environment, although this impact will be below established thresholds that are considered to be significant.

- *Less Than Significant Impact With Mitigation Incorporated*. The development will have the potential to generate impacts which may be considered as a significant effect on the environment, although mitigation measures or changes to the development's physical or operational characteristics can reduce these impacts to levels that are less than significant.

- *Potentially Significant Impact*. The development will have impacts which are considered significant, and additional analysis is required to identify mitigation measures that could reduce these impacts to less than significant levels.

Where potential impacts are anticipated to be significant, mitigation measures will be required, so that impacts may be avoided or reduced to insignificant levels.

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4.0 ENVIRONMENTAL ANALYSIS

4.1 AESTHETICS

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

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

No Impact. The General Plan does not designate any scenic resources within Santa Ana. Further, the project site is relatively flat and is surrounded in all directions by urbanized uses. As such, the project area does not include any scenic vistas and project development would not have a substantial adverse effect on scenic vistas. No impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

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

No Impact. According to the General Plan Scenic Corridors Element, Harbor Boulevard is designated as an inter-city corridor in recognition of its function as a major image-maker for Santa Ana. Harbor Boulevard is located approximately 330 feet to the west of the project site across existing industrial uses (e.g., auto repair businesses). There are no officially-designated State scenic highways in the City.[1] Thus, the project would not substantially damage scenic resources within a State scenic highway. No impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

[1] California Department of Transportation, *Officially Designated County Scenic Highways*, https://dot.ca.gov/-/media/dot-media/programs/design/documents/od-county-scenic-hwys-2015-a11y.pdf, accessed December 31, 2019.

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

Less Than Significant Impact. The project site is surrounded in all directions by urbanized uses. As a result, project implementation would not substantially degrade the existing visual character or quality of the site and its surroundings. The following discussion analyzes the project's potential to conflict with applicable zoning and other regulations governing scenic quality.

A discussion of the project's consistency with the Zoning Code is presented in Response 4.11(b). As discussed, development of townhomes in the City is regulated under Municipal Code Chapter 41, Division 6, *Townhouse Standards*. Table 4.11-2, *Townhouse Development Standards Consistency Analysis*, details the project's consistency with applicable townhouse development standards and concludes the project would be consistent with applicable townhouse development standards.

Further, the project's design, including its architectural features, building materials, and landscaping would be reviewed and approved by the City during the plan check process. This process would verify that the project's design is compatible with development in the surrounding vicinity and that it is consistent with applicable zoning regulations. As a result, implementation of the proposed project would not conflict with applicable zoning and other regulations governing scenic quality. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

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. A potentially significant impact would occur if a new source of substantial light or glare causes an adverse effect on day or nighttime views. Light impacts are typically associated with the use of artificial light during the evening and nighttime hours. Glare may be a daytime occurrence caused by the reflection of sunlight or artificial light from highly polished surfaces, such as window glass and reflective cladding materials, and may interfere with the safe operation of a motor vehicle on adjacent streets. Daytime glare generation is common in urban areas and is typically associated with mid- to high-rise buildings with exterior façades largely or entirely comprised of highly reflective glass or mirror-like materials. Nighttime glare is primarily associated with bright point source lighting that contrasts with existing low ambient light conditions.

The proposed project is located within an urbanized area of the City. No existing lighting sources are present within the project boundaries. Existing sources of light and glare in the project vicinity are produced by residential uses to the north, east, and south; industrial business uses to the west; and vehicular traffic and street lighting along North Bewley Street and neighboring roadways.

The types of land uses that are typically sensitive to excess light and glare include residential uses, hospitals, senior housing, and other types of uses where excessive light may disrupt sleep. The closest light sensitive receptors to the project site include adjacent residential uses to the north, east, and south of the project site.

Construction

Project construction could involve temporary glare impacts as a result of construction equipment and materials. However, based on the project's limited scope of activities, these sources of glare would not be substantial. The project would comply with the Municipal Code Section 18-314, *Special Provisions*, for allowable construction hours, which are limited to between 7:00 a.m. and 8:00 p.m. on weekdays and Saturdays. Construction is not allowed on Sundays or

Federal holidays. Thus, as no construction activities would be permitted after 8:00 p.m. on weekdays and Saturdays or on Sundays or Federal holidays, no short-term construction-related increase in nighttime lighting would occur.

Operations

Project implementation would increase lighting at the project site compared to existing conditions. Interior lighting associated with the project may be visible from surrounding uses. However, these lighting conditions would appear similar in character to those emitted from the residential uses to the north, east, and south of the project site. Impacts would be less than significant in this regard. Additionally, pursuant to Municipal Code Section 41-611.1, *Development Standards; Conditions*, all site lighting is required to be arranged in a manner as to not unreasonably interfere with adjacent residences.

Vehicle headlights entering and exiting the project's entrance along North Bewley Street would also generate new sources of nighttime lighting in the project area. However, upon entry into the project site, vehicle headlights would be screened from surrounding residential uses by the existing and proposed six-foot concrete block walls along the project's northern, western, and southern boundaries. As a result, vehicle headlights are not anticipated to result in a significant increase in nighttime lighting conditions in the immediate project vicinity.

The proposed project's exterior building materials would include concrete roof tiles, metal roofing, painted wood, painted stucco, stone and brick veneer, panel siding, metal garage, metal and wood railings, and decorative light fixtures, among others. If not properly treated, these materials could cause increased daytime glare. The City's plan check review process would involve reviewing the project's proposed building materials to ensure neighboring uses are not exposed to substantial daytime glare. As such, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

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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 Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:	**Potentially Significant Impact**	**Less Than Significant Impact With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				✓
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?				✓
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				✓
d. Result in the loss of forest land or conversion of forest land to non-forest use?				✓
e. Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				✓

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 project site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.[1] No farmland exists within the site vicinity. Thus, no impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

[1] California Department of Conservation, *California Important Farmland Finder*, https://maps.conservation.ca.gov/DLRP/CIFF/, accessed January 16, 2020.

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

No Impact. The project site is zoned Two-Family Residence (R2) and is not covered under an existing Williamson Act contract.[2] Thus, project implementation would not conflict with existing zoning for agricultural use, or a Williamson Act contract. No impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

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

No Impact. The project site is zoned R2 and is not occupied or used for forest land or timberland. Further, project implementation would not result in the rezoning of forest land, timberland, or timberland zoned timberland production. No impacts would occur.

Mitigation Measures: No mitigation measures are required.

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

No Impact. Refer to Response 4.2(c). No impacts would occur.

Mitigation Measures: No mitigation measures are required.

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

No Impact. Refer to Responses 4.2(a) through 4.2(d). No impacts would occur.

Mitigation Measures: No mitigation measures are required.

[2] California Department of Conservation, *Agricultural Preserves 2004, Williamson Act Parcels – Orange County*, 2004.

4.3 AIR QUALITY

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

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

Less Than Significant Impact. The project is located within the South Coast Air Basin (Basin), which is governed by the South Coast Air Quality Management District (SCAQMD). Consistency with the SCAQMD *2016 Air Quality Management Plan for the South Coast Air Basin* (2016 AQMP) means that a project is consistent with the goals, objectives, and assumptions set forth in the 2016 AQMP that are designed to achieve Federal and State air quality standards. According to the SCAQMD *CEQA Air Quality Handbook*, in order to determine consistency with the 2016 AQMP, two main criteria must be addressed:

Criterion 1:

With respect to the first criterion, SCAQMD methodologies require that an air quality analysis for a project include forecasts of project emissions in relation to contributing to air quality violations and delay of attainment.

a) Would the project result in an increase in the frequency or severity of existing air quality violations?

Since the consistency criteria identified under the first criterion pertains to pollutant concentrations, rather than to total regional emissions, an analysis of the project's pollutant emissions relative to localized pollutant concentrations is used as the basis for evaluating project consistency. As discussed in Response 4.3(c), localized concentrations of carbon monoxide (CO), nitrogen oxides (NO_X), particulate matter less than 10 microns in diameter (PM_{10}), and particulate matter less than 2.5 microns in diameter ($PM_{2.5}$) would be less than significant during project construction and operations. Therefore, the proposed project would not result in an increase in the frequency or severity of existing air quality violations.[1]

[1] Because reactive organic gases (ROGs) are not a criteria pollutant, there is no ambient standard or localized threshold for ROGs. Due to the role ROG plays in ozone formation, it is classified as a precursor pollutant and only a regional emissions threshold has been established.

b) Would the project cause or contribute to new air quality violations?

As discussed in Response 4.3(b), the proposed project would result in emissions that are below the SCAQMD thresholds. Therefore, the project would not have the potential to cause or affect a violation of the ambient air quality standards.

c) Would the project delay timely attainment of air quality standards or the interim emissions reductions specified in the AQMP?

The proposed project would result in less than significant impacts with regard to localized concentrations during project construction and operations; refer to Responses 4.3(b) and 4.3(c). As such, the project would not delay the timely attainment of air quality standards or 2016 AQMP emissions reductions.

Criterion 2:

With respect to the second criterion for determining consistency with SCAQMD and Southern California Association of Governments (SCAG) air quality policies, it is important to recognize that air quality planning within the Basin focuses on attainment of ambient air quality standards at the earliest feasible date. Projections for achieving air quality goals are based on assumptions regarding population, housing, and growth trends. Thus, the SCAQMD's second criterion for determining project consistency focuses on whether or not the proposed project exceeds the assumptions utilized in preparing the forecasts presented in the 2016 AQMP. Determining whether or not a project exceeds the assumptions reflected in the 2016 AQMP involves the evaluation of the three criteria outlined below. The following discussion provides an analysis of each of these criteria.

a) Would the project be consistent with the population, housing, and employment growth projections utilized in the preparation of the AQMP?

Growth projections included in the 2016 AQMP form the basis for the projections of air pollutant emissions and are based on the General Plan land use designations and SCAG's *2016-2040 Regional Transportation Plan/Sustainability Communities Strategy* (2016-2040 RTP/SCS) demographics forecasts. The population, housing, and employment forecasts within the 2016-2040 RTP/SCS are based on local general plans as well as input from local governments, such as the City of Santa Ana. The SCAQMD has incorporated these same demographic growth forecasts for various socioeconomic categories (e.g., population, housing, employment) into the 2016 AQMP.

Based on the General Plan Land Use Map, the project site is designated Low Density Residential (LR-7; seven dwelling units per acre). As proposed, the ten-unit townhome community on the 0.87-acre site would result in a density of 11.5 dwelling units per acre, which exceeds the allowed density under the site's existing LR-7 land use designation. However, the project is proposing a General Plan Amendment to redesignate the site from LR-7 to Medium Density Residential (MR-15; 15 dwelling units per acre). According to the General Plan, MR-15 designated areas are characterized by duplexes, apartments, or a combination of both.

As discussed in Section 4.14, *Population and Housing*, based on the City's average household size of 4.42, the ten proposed townhomes would introduce up to 44 additional residents within the City. For this reason, the project is considered growth-inducing since it would generate population growth through its provision of a residential development. However, the project's potential growth-inducing impacts would be considered less than significant since the 44 additional residents represent only a 0.01 percent increase from the City's current population of 337,716 persons. Additionally, SCAG growth forecasts estimate the City's population to reach 343,100 persons by 2040, representing a total increase of 13,900 persons between 2012 and 2040. The project's residential population (44 persons) represents 0.3 percent of the City's anticipated growth by 2040, and only 0.01 percent of the City's total projected 2040 population. Upon approval of the General Plan Amendment, the proposed project would be consistent with the types, intensity, and patterns of land use

envisioned for the site in the 2016-2040 RTP/SCS. Additionally, as the SCAQMD has incorporated these same projections into the 2016 AQMP, it can be concluded that the proposed project would be consistent with the projections included in the 2016 AQMP. A less than significant impact would occur in this regard.

b) Would the project implement all feasible air quality mitigation measures?

The proposed project would result in less than significant air quality impacts. Compliance with all feasible emission reduction measures identified by the SCAQMD would be required as identified in Responses 4.3(b) and 4.3(c). As such, the proposed project meets this 2016 AQMP consistency criterion.

c) Would the project be consistent with the land use planning strategies set forth in the AQMP?

Land use planning strategies set forth in the 2016 AQMP are primarily based on the 2016-2040 RTP/SCS. As discussed in Section 4.8, *Greenhouse Gas Emissions*, the project would be consistent with the actions and strategies of the 2016-2040 RTP/SCS in that it would be located within a quarter mile of multiple bus stops, which would incentive residents to take public transportation and therefore reduce criteria pollutant emissions. In addition, as discussed above, the project would be consistent with the General Plan MR-15 land use designation upon approval of the General Plan Amendment. As such, the proposed project meets this AQMP consistency criterion.

In conclusion, the determination of 2016 AQMP consistency is primarily concerned with the long-term influence of a project on air quality in the Basin. The proposed project would not result in a long-term impact on the region's ability to meet State and Federal air quality standards. Further, the proposed project's long-term influence on air quality in the Basin would also be consistent with the SCAQMD and SCAG's goals and policies and is considered consistent with the 2016 AQMP.

Mitigation Measures: No mitigation measures are required.

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

Less Than Significant Impact.

Criteria Pollutants

Carbon Monoxide (CO). CO is an odorless, colorless toxic gas that is emitted by mobile and stationary sources as a result of incomplete combustion of hydrocarbons or other carbon-based fuels. In cities, automobile exhaust can cause as much as 95 percent of all CO emissions. CO replaces oxygen in the body's red blood cells. Individuals with a deficient blood supply to the heart, patients with diseases involving heart and blood vessels, fetuses (unborn babies), and patients with chronic hypoxemia (oxygen deficiency) as seen in high altitudes are most susceptible to the adverse effects of CO exposure. People with heart disease are also more susceptible to developing chest pains when exposed to low levels of carbon monoxide.

Ozone (O_3). O_3 occurs in two layers of the atmosphere. The layer surrounding the Earth's surface is the troposphere. The troposphere extends approximately 10 miles above ground level, where it meets the second layer, the stratosphere. The stratosphere (the "good" ozone layer) extends upward from about 10 to 30 miles and protects life on Earth from the sun's harmful ultraviolet rays. "Bad" O_3 is a photochemical pollutant, and needs volatile organic compounds (VOCs), NO_X, and sunlight to form; therefore, VOCs and NO_X are O_3 precursors. To reduce O_3 concentrations, it is necessary to control the emissions of these O_3 precursors. Significant O_3 formation generally requires an adequate amount of precursors in the atmosphere and a period of several hours in a stable atmosphere with strong sunlight. High O_3 concentrations can form over large regions when emissions from motor vehicles and stationary sources are carried hundreds of miles from their origins.

While O_3 in the upper atmosphere (stratosphere) protects the Earth from harmful ultraviolet radiation, high concentrations of ground-level O_3 (in the troposphere) can adversely affect the human respiratory system and other tissues. O_3 is a strong irritant that can constrict the airways, forcing the respiratory system to work hard to deliver oxygen. Individuals exercising outdoors, children, and people with pre-existing lung disease such as asthma and chronic pulmonary lung disease are considered to be the most susceptible to the health effects of O_3. Short-term exposure (lasting for a few hours) to O_3 at elevated levels can result in aggravated respiratory diseases such as emphysema, bronchitis and asthma, shortness of breath, increased susceptibility to infections, inflammation of the lung tissue, increased fatigue, as well as chest pain, dry throat, headache, and nausea.

Nitrogen Dioxide (NO_2). NO_X are a family of highly reactive gases that are a primary precursor to the formation of ground-level ozone and react in the atmosphere to form acid rain. NO_2 (often used interchangeably with NO_X) is a reddish-brown gas that can cause breathing difficulties at elevated levels. Peak readings of NO_2 occur in areas that have a high concentration of combustion sources (e.g., motor vehicle engines, power plants, refineries, and other industrial operations). NO_2 can irritate and damage the lungs and lower resistance to respiratory infections such as influenza. The health effects of short-term exposure are still unclear. However, continued or frequent exposure to NO_2 concentrations that are typically much higher than those normally found in the ambient air may increase acute respiratory illnesses in children and increase the incidence of chronic bronchitis and lung irritation. Chronic exposure to NO_2 may aggravate eyes and mucus membranes and cause pulmonary dysfunction.

Coarse Particulate Matter (PM_{10}). PM_{10} refers to suspended particulate matter, which is smaller than 10 microns or ten one-millionths of a meter. PM_{10} arises from sources such as road dust, diesel soot, combustion products, construction operations, and dust storms. PM_{10} scatters light and significantly reduces visibility. In addition, these particulates penetrate into lungs and can potentially damage the respiratory tract. On June 19, 2003, the California Air Resources Board (CARB) adopted amendments to the Statewide 24-hour particulate matter standards based upon requirements set forth in the Children's Environmental Health Protection Act (Senate Bill 25).

Fine Particulate Matter ($PM_{2.5}$). Due to recent increased concerns over health impacts related to $PM_{2.5}$, both State and Federal $PM_{2.5}$ standards have been created. Particulate matter impacts primarily affect infants, children, the elderly, and those with pre-existing cardiopulmonary disease. In 1997, the U.S. Environmental Protection Agency (EPA) announced new $PM_{2.5}$ standards. Industry groups challenged the new standard in court and the implementation of the standard was blocked. However, upon appeal by the EPA, the United States Supreme Court reversed this decision and upheld the EPA's new standards. On January 5, 2005, the EPA published a Final Rule in the Federal Register that designates the Basin as a nonattainment area for Federal $PM_{2.5}$ standards. On June 20, 2002, CARB adopted amendments for Statewide annual ambient particulate matter air quality standards. These standards were revised and established due to increasing concerns by CARB that previous standards were inadequate, as almost everyone in California is exposed to levels at or above the current State standards during some parts of the year, and the Statewide potential for significant health impacts associated with particulate matter exposure was determined to be large and wide-ranging.

Sulfur Dioxide (SO_2). SO_2 is a colorless, irritating gas with a rotten egg smell; it is formed primarily by the combustion of sulfur-containing fossil fuels. SO_2 is often used interchangeably with SO_X. Exposure of a few minutes to low levels of SO_2 can result in airway constriction in some asthmatics.

Volatile Organic Compounds (VOC). VOCs are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. VOCs contribute to the formation of smog through atmospheric photochemical reactions and may be toxic. Compounds of carbon (also known as organic compounds) have different levels of reactivity; that is, they do not react at the same speed or do not form O_3 to the same extent when exposed to photochemical processes. VOCs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints. Exceptions to the VOC designation include: CO, CO_2, carbonic acid, metallic carbides or carbonates, and ammonium carbonate. VOCs are a criteria pollutant since they are a

precursor to O_3, which is a criteria pollutant. The SCAQMD uses the terms VOC and ROG interchangeably (see below).

Reactive Organic Gases (ROG). Similar to VOC, ROG are also precursors in forming O_3 and consist of compounds containing methane, ethane, propane, butane, and longer chain hydrocarbons, which are typically the result of some type of combustion/decomposition process. Smog is formed when ROG and NO_X react in the presence of sunlight. ROGs are a criteria pollutant since they are a precursor to O_3, which is a criteria pollutant.

Short-Term Construction Emissions

The project involves construction activities associated with grading, paving, construction, and architectural coating applications. The project would be constructed over approximately 13 months and require approximately 2,239 cubic yards of soil import. Exhaust emission factors for typical diesel-powered heavy equipment are based on the California Emissions Estimator Model version 2016.3.2 (CalEEMod) program defaults. Variables factored into estimating the total construction emissions include the level of activity, length of construction period, number of pieces and types of equipment in use, site characteristics, weather conditions, number of construction personnel, and the amount of materials to be transported on- or off-site. The analysis of daily construction emissions has been prepared utilizing CalEEMod. Refer to Appendix A, *Air Quality/GHG/Energy Analysis*, for the CalEEMod outputs and results. Table 4.3-1, *Project-Generated Construction Emissions*, presents the anticipated daily short-term construction emissions.

Table 4.3-1
Project-Generated Construction Emissions

Emissions Source	Pollutant (pounds/day)[1,2]					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Year 1						
Construction Emissions[2]	1.89	15.99	13.43	0.02	2.62	1.57
SCAQMD Thresholds	*75*	*100*	*550*	*150*	*150*	*55*
Threshold Exceeded?	***No***	***No***	***No***	***No***	***No***	***No***
Year 2						
Construction Emissions[2]	3.84	14.30	15.12	0.03	0.85	0.70
SCAQMD Thresholds	*75*	*100*	*550*	*150*	*150*	*55*
Threshold Exceeded?	***No***	***No***	***No***	***No***	***No***	***No***

Notes:
1. Emissions were calculated using CalEEMod version 2016.3.2, as recommended by the SCAQMD.
2. The reduction/credits for construction emissions are based on "mitigation" included in CalEEMod and are required by the SCAQMD Rules. The "mitigation" applied in CalEEMod include the following: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces three times daily; cover stockpiles with tarps; water all haul roads twice daily; and limit speeds on unpaved roads to 15 miles per hour. The emissions results in this table represent the "mitigated" emissions shown in Appendix A.

Source: Refer to Appendix A for assumptions used in this analysis.

Fugitive Dust Emissions

Construction activities are a source of fugitive dust emissions that may have a substantial, temporary impact on local air quality. In addition, fugitive dust may be a nuisance to those living and working in the project area. Fugitive dust emissions are associated with land clearing, ground excavation, cut-and-fill, and truck travel on unpaved roadways (including demolition as well as construction activities). Fugitive dust emissions vary substantially from day to day, depending on the level of activity, specific operations, and weather conditions. Fugitive dust from grading, excavation and construction is expected to be short-term and would cease upon project completion. Most of this material is inert

silicates, rather than the complex organic particulates released from combustion sources, which are more harmful to health.

Dust (larger than 10 microns) generated by such activities usually becomes more of a local nuisance than a serious health problem. Of particular health concern is the amount of PM_{10} generated as a part of fugitive dust emissions. PM_{10} poses a serious health hazard alone or in combination with other pollutants. $PM_{2.5}$ is mostly produced by mechanical processes. These include automobile tire wear, industrial processes such as cutting and grinding, and re-suspension of particles from the ground or road surfaces by wind and human activities such as construction or agriculture. $PM_{2.5}$ is mostly derived from combustion sources, such as automobiles, trucks, and other vehicle exhaust, as well as from stationary sources. These particles are either directly emitted or are formed in the atmosphere from the combustion of gases such as NO_X and sulfur oxides (SO_X) combining with ammonia. $PM_{2.5}$ components from material in the Earth's crust, such as dust, are also present, with the amount varying in different locations.

The project would implement required SCAQMD dust control techniques (i.e., daily watering), limitations on construction hours, and adhere to SCAQMD Rules 402 and 403 (which require watering of inactive and perimeter areas, track out requirements, etc.), to reduce PM_{10} and $PM_{2.5}$ concentrations. As depicted in Table 4.3-1, total PM_{10} and $PM_{2.5}$ emissions would not exceed the SCAQMD thresholds during construction. Thus, PM_{10} and $PM_{2.5}$ emissions impacts associated with project construction would be less than significant.

Construction Equipment and Worker Vehicle Exhaust

Exhaust emissions from construction activities include emissions associated with the transport of machinery and supplies to and from the project site, employee commutes to the project site, emissions produced on-site as the equipment is used, and emissions from trucks transporting materials to/from the site. As presented in Table 4.3-1, construction equipment and worker vehicle exhaust emissions (i.e., ROG, NO_X, CO, SO_2, PM_{10}, and $PM_{2.5}$) would not exceed the established SCAQMD threshold for all criteria pollutants. Therefore, impacts in this regard would be less than significant.

ROG Emissions

In addition to gaseous and particulate emissions, the application of asphalt and surface coatings creates ROG emissions, which are O_3 precursors. In accordance with the methodology prescribed by the SCAQMD, ROG emissions associated with paving and architectural coating have been quantified with the CalEEMod model. As required by SCAQMD Regulation XI, Rule 1113 – *Architectural Coating,* all architectural coatings for the proposed structures would comply with specifications on painting practices as well as regulation on the ROG content of paint.[2] ROG emissions associated with the proposed project would be less than significant; refer to Table 4.3-1.

Naturally Occurring Asbestos

Asbestos is a term used for several types of naturally occurring fibrous minerals that are a human health hazard when airborne. The most common type of asbestos is chrysotile, but other types such as tremolite and actinolite are also found in California. Asbestos is classified as a known human carcinogen by State, Federal, and international agencies and was identified as a toxic air contaminant by CARB in 1986.

Asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. These rocks have been commonly used for unpaved gravel roads, landscaping, fill projects, and other improvement projects in some localities. Asbestos may be released to the atmosphere due to vehicular traffic on unpaved roads, during grading for development projects, and at quarry operations. All of these activities may have the effect of releasing potentially

[2] South Coast Air Quality Management District, *Rule 1113 Architectural Coatings*, http://www.aqmd.gov/docs/default-source/rule-book/reg-xi/r1113.pdf, accessed February 18, 2020.

harmful asbestos into the air. Natural weathering and erosion processes can act on asbestos bearing rock and make it easier for asbestos fibers to become airborne if such rock is disturbed. According to the Department of Conservation Division of Mines and Geology, *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos Report* (August 2000), serpentinite and ultramafic rocks are not known to occur within the project area. Thus, no impacts would occur in this regard.

Long-Term Operational Emissions

Long-term operational air quality impacts consist of mobile source emissions generated from project-related traffic and emissions from stationary area and energy sources. Emissions associated with each of these sources are detailed in Table 4.3-2, *Project-Generated Operational Emissions*, and discussed below.

Table 4.3-2
Project-Generated Operational Emissions

Emissions Source	Pollutant (pounds/day)[1]					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Project Summer Emissions						
Area	0.46	0.16	0.89	0.00	0.02	0.02
Energy	0.00	0.03	0.01	0.00	0.00	0.00
Mobile	0.11	0.43	1.48	0.01	0.53	0.15
Total Summer Emissions[2]	***0.57***	***0.62***	***2.39***	***0.01***	***0.55***	***0.16***
SCAQMD Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Threshold Exceeded?	***No***	***No***	***No***	***No***	***No***	***No***
Project Winter Emissions						
Area	0.46	0.16	0.89	0.00	0.02	0.02
Energy	0.00	0.03	0.01	0.00	0.00	0.00
Mobile	0.11	0.45	1.41	0.01	0.53	0.15
Total Winter Emissions[3]	***0.56***	***0.63***	***2.32***	***0.01***	***0.55***	***0.16***
SCAQMD Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Threshold Exceeded?	***No***	***No***	***No***	***No***	***No***	***No***

Notes:
1. Emissions were calculated using CalEEMod version 2016.3.2, as recommended by the SCAQMD.
2. The numbers may be slightly off due to rounding.

Source: Refer to Appendix A for assumptions used in this analysis.

Area Source Emissions

Area source emissions would be generated due to an increased demand for natural gas associated with the development of the proposed project. The primary use of natural gas producing area source emissions by the project would be for consumer products, architectural coating, and landscaping. As shown in Table 4.3-2, area source emissions during both summer and winter would not exceed established SCAQMD thresholds. Impacts would be less than significant in this regard.

Energy Source Emissions

Energy source emissions would be generated as a result of electricity and natural gas usage associated with the proposed project. The primary use of electricity and natural gas by the project would be for space heating and cooling, water heating, ventilation, lighting, appliances, and electronics. Energy source emissions would not exceed established SCAQMD thresholds; refer to Table 4.3-2. Impacts in this regard would be less than significant.

Mobile Source

Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions. Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, ROG, NO_X, SO_X, PM_{10}, and $PM_{2.5}$ are all pollutants of regional concern (NO_X and ROG react with sunlight to form O_3 [photochemical smog], and wind currents readily transport SO_X, PM_{10}, and $PM_{2.5}$). However, CO tends to be a localized pollutant, dispersing rapidly at the source.

Project-generated vehicle emissions were estimated using CalEEMod. According to the *1122 Bewley Street Townhomes Project Trip Generation Analysis* (Trip Generation Memo) prepared by Ganddini Group, Inc. (dated December 20, 2019), the proposed project would generate approximately 73 average daily trips. As shown in Table 4.3-2, mobile source emissions for both summer and winter would not exceed established SCAQMD thresholds. Therefore, impacts in this regard would be less than significant.

Air Quality Health Impacts

Adverse health effects induced by criteria pollutant emissions are highly dependent on a multitude of interconnected variables (e.g., cumulative concentrations, local meteorology and atmospheric conditions, and the number and character of exposed individual [e.g., age, gender]). In particular, O_3 precursors, VOCs and NO_X, affect air quality on a regional scale. Health effects related to O_3 are therefore the product of emissions generated by numerous sources throughout a region. Existing models have limited sensitivity to small changes in criteria pollutant concentrations, and, as such, translating project-generated criteria pollutants to specific health effects or additional days of nonattainment would produce meaningless results. In other words, the project's less than significant increases in regional air pollution from criteria air pollutants would have nominal or negligible impacts on human health.

As noted in the Brief of Amicus Curiae by the SCAQMD (April 6, 2015) for the *Sierra Club vs. County of Fresno*, the SCAQMD acknowledged it would be extremely difficult, if not impossible to quantify health impacts of criteria pollutants for various reasons including modeling limitations as well as where in the atmosphere air pollutants interact and form. Further, as noted in the Brief of Amicus Curiae by the San Joaquin Valley Air Pollution Control District (SJVAPCD) (April 13, 2015) for the *Sierra Club vs. County of Fresno*, SJVAPCD acknowledged that currently available modeling tools are not equipped to provide a meaningful analysis of the correlation between an individual development project's air emissions and specific human health impacts.

The SCAQMD acknowledges that health effects quantification from O_3, as an example, is correlated with the increases in ambient level of O_3 in the air (concentration) that an individual person breathes. The SCAQMD's Brief of Amicus Curiae states that it would take a large amount of additional emissions to cause a modeled increase in ambient O_3 levels over the entire region. The SCAQMD states that based on their own modeling in the SCAQMD's *2012 Air Quality Management Plan*, a reduction of 432 tons (864,000 pounds) per day of NO_X and a reduction of 187 tons (374,000 pounds) per day of VOCs would reduce O_3 levels at highest monitored sites by only nine parts per billion. As such, the SCAQMD concludes that it is not currently possible to accurately quantify O_3 -related health impacts caused by NO_X or VOC emissions from relatively small projects (defined as projects with regional scope) due to photochemistry and regional model limitations. Thus, as the project would not exceed SCAQMD thresholds for construction and operational air emissions, the project would have a less than significant impact for air quality health impacts.

Mitigation Measures: No mitigation measures are required.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. The CARB has identified the following groups of individuals as those most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis.

Sensitive receptors near the project site include surrounding residences to the north, east, and south. In order to identify impacts to sensitive receptors, the SCAQMD recommends addressing localized significance thresholds for construction and operational impacts (stationary sources only).

Localized Significance Thresholds

Localized Significance Thresholds (LSTs) were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4). The SCAQMD provided the *Final Localized Significance Threshold Methodology* (dated June 2003 [revised 2008]) for guidance. The LST methodology assists lead agencies in analyzing localized air quality impacts. The SCAQMD provides the LST lookup tables for one-, two-, and five-acre projects emitting CO, NO_X, $PM_{2.5}$, and/or PM_{10}. The LST methodology and associated mass rates are not designed to evaluate localized impacts from mobile sources traveling over the roadways. The SCAQMD recommends that any project over five acres should perform air quality dispersion modeling to assess impacts to nearby sensitive receptors. The project site is located within Source Receptor Area (SRA) 17, Central Orange County.

The closest sensitive receptors to the project site are residential uses adjacent to the north, east, and south. Additionally, commercial uses adjoin the project site to the west. Commercial uses (i.e., non-residential receptors) are not included in the definition of sensitive receptor because employees and patrons do not typically remain on-site for a full 24 hours but are typically on-site for eight hours or less. The LST Methodology explicitly states that "*LSTs based on shorter averaging periods, such as the NO_2 and CO LSTs, could also be applied to receptors such as industrial or commercial facilities since it is reasonable to assume that a worker at these sites could be present for periods of one to eight hours.*"[3] Consistent with LST Methodology, commercial uses (referred to as "non-residential receptors") adjoining the project site to the west, as well as residential uses adjacent to the north, east, and south were used to determine construction LST air impacts for emissions of CO, NO_X, $PM_{2.5}$, and PM_{10}. LST thresholds are provided for distances to sensitive receptors of 25, 50, 100, 200, and 500 meters. As the nearest sensitive receptors and non-residential receptors adjoin the project site, the lowest available LST values for 25 meters were used.

Construction LST

The SCAQMD's guidance on applying CalEEMod to LSTs specifies the number of acres a particular piece of equipment would likely disturb per day. Based on default information provided by CalEEMod, the project is anticipated to disturb up to 16.5 acres during the grading phase. The grading phase would take approximately 44 days in total to complete. As such, the project would actively disturb an average of approximately 0.4-acre per day (16.5 acres divided by 44 days). Therefore, the LST thresholds for one acre was utilized for the construction LST analysis. As previously mentioned, the closest sensitive receptors and non-residential receptors are located adjacent to the project site. These land uses may be potentially affected by air pollutant emissions generated during on-site construction activities.

Table 4.3-3, *Localized Emissions Significance*, shows the localized unmitigated and mitigated construction-related emissions for NO_X, CO, PM_{10}, and $PM_{2.5}$ compared to the LSTs for SRA 17. It is noted that the localized emissions presented in Table 4.3-3 are less than those in Table 4.3-1 because localized emissions include only on-site emissions

[3] South Coast Air Quality Management District, *Final Localized Significance Threshold Methodology*, revised July 2008.

(e.g., from construction equipment and fugitive dust) and do not include off-site emissions (e.g., from hauling activities). As shown in Table 4.3-3, the project's localized construction emissions would not exceed the LSTs for SRA 17. Therefore, localized significance impacts from project-related construction activities would be less than significant.

Table 4.3-3
Localized Emissions Significance

Source[1,2,3]	Pollutant (pounds/day)			
	NO_X	**CO**	**PM_{10}**	**$PM_{2.5}$**
Year 1	14.33	12.90	2.46	1.52
Year 2	12.50	12.73	0.59	0.57
Maximum Daily Emissions	**14.33**	**12.90**	**2.46**	**1.52**
Localized Significance Threshold[4]	81	485	4	3
Thresholds Exceeded?	***No***	***No***	***No***	***No***

Notes:
1. The grading phase emissions are presented as the worst-case scenario for NO_X, PM_{10}, and $PM_{2.5}$ in Year 1 and the building construction phase emissions present the worst-case scenario for CO in Year 1.
2. The building construction phase emissions are presented as the worst-case scenario for NO_X, CO, PM_{10}, and $PM_{2.5}$ in Year 2.
3. The reduction/credits for construction emissions are based on "mitigation" included in CalEEMod and are required by the SCAQMD Rules. The "mitigation" applied in CalEEMod include the following: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces three times daily; cover stockpiles with tarps; water all haul roads twice daily; and limit speeds on unpaved roads to 15 miles per hour. The emissions results in this table represent the "mitigated" emissions shown in Appendix A.
4. The Localized Significance Threshold was determined using Appendix C of the SCAQMD's *Final Localized Significant Threshold Methodology* guidance document for pollutants NO_X, CO, PM_{10}, and $PM_{2.5}$. The Localized Significance Threshold was based on the anticipated daily acreage disturbance for construction (approximately 0.4-acre; therefore, the one-acre threshold was used) for Source Receptor Area 17, Central Orange County.

Source: Refer to Appendix A for assumptions used in this analysis.

Operational LST

According to SCAQMD LST methodology, LSTs would apply to operational activities if the project includes stationary sources or attracts mobile sources that may spend extended periods queuing and idling at the site (e.g., warehouse or transfer facilities). The proposed project does not include such uses. Thus, due to the lack of such emissions, no long-term LST analysis is needed. Operational LST impacts would be less than significant in this regard.

Carbon Monoxide Hotspots

CO emissions are a function of vehicle idling time, meteorological conditions, and traffic flow. Under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthful levels (e.g., adversely affecting residents, school children, hospital patients, and the elderly).

The Basin is designated as an attainment/maintenance area for the Federal CO standards and an attainment area under State standards. There has been a decline in CO emissions even though vehicle miles traveled (VMT) on U.S. urban and rural roads have increased; estimated anthropogenic CO emissions have decreased 68 percent between 1990 and 2014. In 2014, mobile sources accounted for 82 percent of the nation's total anthropogenic CO emissions.[4]

[4] U.S. Environmental Protection Agency, *Carbon Monoxide Emissions*, https://cfpub.epa.gov/roe/indicator_pdf.cfm?i=10, accessed February 18, 2020.

Three major control programs have contributed to the reduced per-vehicle CO emissions, including exhaust standards, cleaner burning fuels, and motor vehicle inspection/maintenance programs.

According to the SCAQMD *CEQA Air Quality Handbook*, a potential CO hotspot may occur at any location where the background CO concentration already exceeds 9.0 parts per million (ppm), which is the 8-hour California ambient air quality standard. As previously discussed, the site is located in SRA 17. Communities within SRAs are expected to have similar climatology and ambient air pollutant concentrations. The monitoring station representative of SRA 17 is the Anaheim-Loara School station, which is located approximately 5.4 miles northwest of the site. The CO concentration at Anaheim-Loara School station was measured at 2.441 ppm in 2019. Given that the background CO concentration does not currently exceed 9.0 ppm, a CO hotspot would not occur at the project site. Therefore, CO hotspot impacts would be less than significant in this regard.

Air Quality Health Impacts

As evaluated above, the project's air emissions would not exceed the SCAQMD's LST thresholds, and CO hotpots would not occur as a result of the proposed project. Therefore, the project would not exceed the most stringent applicable Federal or State ambient air quality standards for emissions of CO, NO_X, PM_{10}, or $PM_{2.5}$. It should be noted that the ambient air quality standards are developed and represent levels at which the most susceptible persons (e.g., children and the elderly) are protected. In other words, the ambient air quality standards are purposefully set in a stringent manner to protect children, elderly, and those with existing respiratory problems. Thus, air quality health impact would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

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

Less Than Significant Impact. According to the SCAQMD *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The proposed project does not include any uses identified by the SCAQMD as being associated with odors.

Construction activities associated with the project may generate detectable odors from heavy-duty equipment exhaust and architectural coatings. However, construction-related odors would be short-term in nature and cease upon project completion. In addition, the project would be required to comply with the California Code of Regulations, Title 13, Sections 2449(d)(3) and 2485, which minimizes the idling time of construction equipment either by requiring equipment to be shut off when not in use or limiting idling time to no more than five minutes. Compliance with these existing regulations would further reduce the detectable odors from heavy-duty equipment exhaust. The project would also be required to comply with the SCAQMD Regulation XI, *Rule 1113 – Architectural Coating*, which would minimize odor impacts from ROG emissions during architectural coating. Any odor impacts to existing adjacent land uses would be short-term and negligible. As such, the project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

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4.4 BIOLOGICAL RESOURCES

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

a) 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 project site is predominantly graded and vacant with the exception of minimal remnant ornamental landscaping at the project frontage associated with the former residence. The site does not support any sensitive or special status species and project implementation would not adversely affect any candidate, sensitive, or special status species.

However, the proposed project would result in the removal of ornamental vegetation on-site, including some mature trees. Thus, the project could result in potential impacts to nesting birds protected by the Migratory Bird Treaty Act (MBTA). The MBTA prohibits activities that result in the direct take (defined as killing or possession) of a migratory bird. The proposed project has the potential to impact nesting birds if construction activities occur during the nesting season. As such, Mitigation Measure BIO-1 has been provided to reduce impacts in this regard to less than significant levels.

Mitigation Measures:

BIO-1 If ground-disturbing activities or removal of any trees, shrubs, or any other potential nesting habitat are scheduled within the avian nesting season (generally from February 1 through August 31), a pre-construction clearance survey for nesting birds shall be conducted within three days prior to any ground disturbing activities.

The biologist conducting the clearance survey shall document the negative results if no active bird nests are observed on the project site during the clearance survey with a brief letter report indicating that no impacts to active bird nests would occur before construction can proceed. If an active avian nest is discovered during the pre-construction clearance survey, construction activities shall stay outside of a 300-foot buffer around the active nest. For raptor species, this buffer shall be 500 feet. A biological monitor shall be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Results of the pre-construction survey and any subsequent monitoring shall be provided to the California Department of Fish and Wildlife (CDFW) and other appropriate agency.

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

No Impact. As stated, the project site is predominantly graded and vacant. No riparian habitat or sensitive natural communities occur on-site. Additionally, the site is surrounded by residential, industrial, and commercial uses in an urbanized environment. Thus, project implementation would not adversely affect riparian habitat or other sensitive natural communities. No impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

c) Have a substantial adverse effect on State or Federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. As discussed, the project site is mostly graded and disturbed and is located within an urbanized area of the City. According to the U.S. Fish and Wildlife Services' National Wetlands Inventory Mapper, the closest wetlands to the project site is the East Garden Grove Wintersburg Channel, approximately 0.4-mile to the west, and the Santa Ana River, approximately 0.7-mile to the east.[1] Thus, project implementation would not adversely affect any State or Federally protected wetlands. No impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

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

Less Than Significant Impact With Mitigation Incorporated. The project site is disturbed and located within an urbanized area of the City. Based on the lack of suitable habitat within the project site and surrounding vicinity, there are no areas within the project vicinity which could function as wildlife corridors or nursery sites. However, the mature trees on-site could provide habitat for migratory birds during nesting season. Thus, implementation of Mitigation

[1] U.S. Fish and Wildlife Services, *National Wetlands Inventory Mapper*, https://www.fws.gov/wetlands/Data/Mapper.html, accessed December 30, 2019.

Measure BIO-1 would ensure ground disturbing activities do not adversely impact nesting birds on-site. As such, impacts would be reduced to less than significant levels.

Mitigation Measures: Refer to Mitigation Measure BIO-1.

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

No Impact. Municipal Code Chapter 33, Article VII, *Regulation of the Planting, Maintenance, and Removal of Trees*, establishes policies and standards for the planting, maintenance, and removal of street trees in Santa Ana. Implementation of the proposed project would not require the removal of any street trees. As such, the project would not conflict with any local policies or ordinances protecting biological resources and no impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

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

No Impact. According to the California Department of Fish and Wildlife, the proposed project is located within the plan area of the Orange County Transportation Authority (OCTA) Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP).[2] The OCTA NCCP/HCP encompasses all of Orange County and involves the acquisition, conservation, and enhancement of natural habitat as mitigation for impacts on biological resources from freeway capital improvement projects.[3] No natural habitat is present on-site and thus, the site would not be a candidate for conservation or enhancement under the OCTA NCCP/HCP. Additionally, the project is not a freeway capital improvement project. As such, development of the project would not conflict with the OCTA NCCP/HCP and no impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

[2] California Department of Fish and Wildlife, *California Natural Community Conservation Plans*, April 2019, https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=68626&inline, accessed December 30, 2019.

[3] Orange County Transportation Authority, *Implementing Agreement for the Orange County Transportation Authority Natural Community Conservation Plan (NCCP)/Habitat Conservation Plan (HCP)*, 2016.

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4.5 CULTURAL RESOURCES

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

This section is primarily based upon the *Cultural Resource Assessment for the Bewley Street Townhomes Project, City of Santa Ana, Orange County, California* (Cultural Resources Assessment) prepared by Rincon Consultants, Inc. (dated January 23, 2020); refer to Appendix B, *Cultural Resources Assessment*.

a) Cause a substantial adverse change in the significance of a historical resource pursuant to in Section 15064.5?

No Impact. The Cultural Resources Assessment included a field survey and a record search of the California Historical Resources Inventory System (CHRIS) at the South Central Coast Information Center (SCCIC). The CHRIS record search was conducted to identify previously recorded cultural resources and previously conducted cultural resources studies within a 0.5-mile radius of the project site. Sources of the record search include the National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), Office of Historic Preservation (OHP) Properties Directory, OHP Archaeological Determinations of Eligibility File, and California Inventory of Historic Resources. A search of the Sacred Lands File (SLF) was also requested through the Native American Heritage Commission (NAHC). Additionally, the record search included a review of available aerial images of the project site from 1952 to 2016.

The record search identified 19 recorded cultural resources within a 0.5-mile radius of the project site, all of which are historic buildings outside of the project site. The record search also identified ten previously conducted cultural resources studies within a 0.5-mile radius. However, none have been completed within the project site. Additionally, the field survey conducted on January 17, 2020 includes an examination of all areas of exposed ground surface for prehistoric artifacts, ecofacts, soil discoloration that might indicate the presence of a cultural midden, soil depression and features indicative of a former presence of structures or buildings, and historic debris. Results of the field survey indicated no evidence of archaeological remains, historic built-environment resources, or prehistoric cultural resources located within the project site. Due to past disturbance and the lack of identified cultural resources within the project site, project implementation would not cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the CEQA Guidelines. No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

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

Less Than Significant Impact With Mitigation Incorporated. As detailed in the Cultural Resources Assessment, no archaeological remains or prehistoric cultural resources were identified within the project site during the records search or pedestrian survey, and the project site is not considered sensitive for buried archaeological resources. The proposed earthwork would involve approximately 235 cubic yards of cut and approximately 2,474 cubic yards of fill, resulting in

approximately 2,239 cubic yards of import. In addition to on-site improvements, off-site excavation would be required for utility improvements and reconstruction of sidewalk, curb, and gutters along project frontage. Thus, project construction has the potential to adversely impact previously undiscovered archaeological resources. In the unlikely event that archaeological resources are encountered during project construction, Mitigation Measure CUL-1 would require all project construction efforts to halt until an archaeologist examines the site, identifies the archaeological significance of the find, and recommends a course of action. With implementation of Mitigation Measure CUL-1, the project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the CEQA Guidelines, and impacts would be reduced to less than significant levels.

Mitigation Measures:

CUL-1 If previously unidentified cultural resources are encountered during ground-disturbing activities, work in the immediate area shall halt and a qualified archaeologist, defined as an archaeologist who meets the Secretary of the Interior's Professional Qualification Standards for archaeology, shall be contacted immediately to evaluate the find. If necessary, the evaluation may require preparation of a treatment plan and archaeological testing for California Register of Historical Resources (CRHR) eligibility. If the discovery proves to be eligible for the CRHR and cannot be avoided by the project, additional work, such as data recovery excavation, may be warranted to mitigate any significant impacts to historical resources. In the event that an identified cultural resource is of Native American origin, the qualified archaeologist shall consult with the project owner and City of Santa Ana to implement Native American consultation procedures.

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

Less Than Significant Impact. Due to the level of disturbance on the project site and in the site vicinity, it is not anticipated that human remains, including those interred outside of formal cemeteries, would be encountered during earth removal or ground-disturbing activities. Nonetheless, if human remains are found, those remains would require proper treatment, in accordance with applicable laws. State of California Public Resources Health and Safety Code Section 7050.5 through 7055 describe the general provisions for human remains. Specifically, Health and Safety Code Section 7050.5 describes the requirements if any human remains are accidentally discovered during excavation of a site. As required by State law, the requirements and procedures set forth in Section 5097.98 of the California Public Resources Code would be implemented, including notification of the County Coroner, notification of the NAHC, and consultation with the individual identified by the NAHC to be the most likely descendant. If human remains are found during excavation, excavation must stop near the find and any area that is reasonably suspected to overlay adjacent remains until the County Coroner has been called out, the remains have been investigated, and appropriate recommendations have been made for the treatment and disposition of the remains. Following compliance with the aforementioned regulations, impacts related to the disturbance of human remains are less than significant.

Mitigation Measures: No mitigation measures are required.

4.6 ENERGY

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

REGULATORY FRAMEWORK

State

California Building Energy Efficiency Standards (Title 24)

The 2019 California Building Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6), commonly referred to as "Title 24," became effective on January 1, 2020. In general, Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. Under 2019 Title 24 standards, residential buildings will use about 53 percent less energy (mainly due to solar photovoltaic panels and lighting upgrades) when compared to those constructed under 2016 Title 24 standards.[1] The 2019 Title 24 standards require installation of energy efficient windows, insulation, lighting, ventilation systems, and other features that reduce energy consumption in homes and businesses.

California Green Building Standards (CALGreen)

The 2019 California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as CALGreen, went into effect on January 1, 2020. CALGreen is the first-in-the-nation mandatory green buildings standards code. The California Building Standards Commission developed CALGreen in an effort to meet the State's landmark initiative Assembly Bill (AB) 32 goals, which established a comprehensive program of cost-effective reductions of greenhouse gas (GHG) emissions to 1990 levels by 2020. CALGreen was developed to (1) reduce GHG emissions from buildings; (2) promote environmentally responsible, cost-effective, and healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the environmental directives of the administration. CALGreen requires that new buildings employ water efficiency and conservation, increase building system efficiencies (e.g. lighting, heating/ventilation and air conditioning [HVAC], and plumbing fixtures), divert construction waste from landfills, and incorporate electric vehicles charging infrastructure. There is growing recognition among developers and retailers that sustainable construction is not prohibitively expensive, and that there is a significant cost-savings potential in green building practices and materials.[2]

[1] California Energy Commission, *2019 Building Energy Efficiency Standards*, https://www.energy.ca.gov/title24/2019standards/documents/2018_Title_24_2019_Building_Standards_FAQ.pdf, accessed February 19, 2020.

[2] U.S. Green Building Council, *Green Building Costs and Savings*, https://www.usgbc.org/articles/green-building-costs-and-savings, accessed February 19, 2020.

Senate Bill 100

Senate Bill (SB) 100 (Chapter 312, Statutes of 2018) requires that retail sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatt-hours (kWh) of those products sold to their retail end-use customers achieve 44 percent of retail sales by December 31, 2024; 52 percent by December 31, 2027; 60 percent by December 31, 2030; and 100 percent by December 31, 2045. The bill requires the California Public Utilities Commission (CPUC), California Energy Commission (CEC), State board or the California Air Resources Board's (CARB), and all other State agencies to incorporate the policy into all relevant planning. In addition, SB 100 requires the CPUC, CEC, and CARB to utilize programs authorized under existing statutes to achieve that policy and, as part of a public process, issue a joint report to the Legislature by January 1, 2021, and every four years thereafter, that includes specified information relating to the implementation of SB 100.

Local

City of Santa Ana General Plan

The General Plan Energy Element provides policies and programs for reducing energy consumption and increasing utilization of new energy sources within the City. Specifically, the Energy Element focuses on reducing energy consumed with transportation, construction, and City operations. The General Plan Energy Element includes the following goals and policies that are applicable to the proposed project.

Goal 1 To reduce consumption of non-renewable energy.

Goal 2 To support, develop, and utilization of new energy sources.

Objective 1.2 Reduce land use related energy consumption.
Objective 1.3 Reduce construction-related energy consumption.

Policies:

- Require and/or provide incentives for energy-efficient subdivision and site planning and building design.
- Establish, update and/or enforce energy performance requirements in the building code.
- Introduce concepts of energy efficiency and life cycle costing to City planning and operating decisions.

Programs:

- Incorporate solar access and other energy conservation considerations into zoning code.
- Encourage solar power and solar heat fixtures for businesses and residential.

Santa Ana Climate Action Plan

The *Santa Ana Climate Action Plan* (CAP) was adopted on December 15, 2015. The CAP includes a GHG emissions inventory as well as the following reduction targets for community-wide emissions: 15 percent of 2008 levels by 2020 and 30 percent of 2008 levels by 2035. The CAP outlines GHG reduction measures for various sectors, including transportation, land use, energy, solid waste, water, and wastewater. Reduction measures include developing residential nodes near retail and employment, implementing Title 24 energy efficiency standards for commercial and residential projects, installing solar photovoltaic systems on municipal buildings, and implementing AB 341, which would require diverting waste from landfills to reduce overall landfill waste.

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less Than Significant Impact.

Project-Related Sources of Energy Consumption

This analysis focuses on three sources of energy that are relevant to the proposed project: electricity, natural gas, and transportation fuel for vehicle trips associated with project construction and operations. The analysis of operational electricity/natural gas usage is based on the California Emissions Estimator Model version 2016.3.2 (CalEEMod) modeling results for the project, which quantifies energy use for occupancy. The project's estimated electricity/natural gas consumption is based primarily on CalEEMod's default settings for Orange County, and consumption factors provided by Southern California Edison (SCE) and the Southern California Gas Company (SoCalGas), the electricity and natural gas providers for the City and the project site. The results of the CalEEMod modeling are included in Appendix A, *Air Quality/GHG/Energy Analysis*. The amount of operational fuel consumption was estimated using the CARB Emissions Factor 2017 (EMFAC2017) computer program which provides projections for typical daily fuel usage in the County, and the project's annual vehicle miles traveled (VMT) outputs from CalEEMod. The estimated construction fuel consumption is based on the project's construction equipment list, construction timing and phasing, and duration of use of construction equipment.

The project's estimated energy consumption is summarized in Table 4.6-1, *Energy Consumption*. As shown in Table 4.6-1, the project's electricity usage would constitute an approximate 0.0003 percent increase above the County's typical annual electricity consumption and an approximate 0.0002 percent increase above the County's typical annual natural gas consumption. The project's construction and operational vehicle fuel consumption would increase the County's consumption by 0.0197 percent and 0.0012 percent, respectively.

Table 4.6-1
Energy Consumption

Energy Type	Project Annual Energy Consumption[1]	Orange County Annual Energy Consumption[2]	Percent Increase[2]
Electricity Consumption	66 MWh	20,196,975 MWh	0.0003%
Natural Gas Consumption	1,122 therms	575,133,597 therms	0.0002%
Fuel Consumption			
Construction (Heavy-Duty Diesel Vehicle) Fuel Consumption[3]	25,118 gallons	127,809,380 gallons	0.0197%
Operational Automotive Fuel Consumption[3]	14,024 gallons	1,182,503,928 gallons	0.0012%

Notes: MWh = Megawatt-hour
1. As modeled in CalEEMod version 2016.3.2.
2. The project increases in electricity and natural gas consumption are compared to the total consumption in Orange County in 2018. The project increases in automotive fuel consumption are compared with the projected Countywide fuel consumption in 2018.
   Orange County electricity consumption data source: California Energy Commission, *Electricity Consumption by County*, http://www.ecdms.energy.ca.gov/elecbycounty.aspx, accessed February 19, 2020.
   Orange County natural gas consumption data source: California Energy Commission, *Gas Consumption by County*, http://www.ecdms.energy.ca.gov/gasbycounty.aspx, accessed February 19, 2020.
3. Project fuel consumption calculated based on CalEEMod results. Countywide fuel consumption is calculated from the California Air Resources Board EMFAC2017 model for the project operational (buildout) year of 2022.

Source: Refer to Appendix A for assumptions used in this analysis.

Construction-Related Energy Consumption

Project construction would consume energy in two general forms: (1) the fuel energy consumed by construction vehicles and equipment; and (2) bound energy in construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials (e.g., lumber and glass).

Fossil fuels used for construction vehicles and other energy-consuming equipment would be used during site clearing, grading, and construction. Fuel energy consumed during construction would be temporary and would not represent a significant demand on energy resources. In addition, some incidental energy conservation would occur during construction through compliance with State requirements that equipment not in use for more than five minutes be turned off. Project construction equipment would also be required to comply with the latest U.S. Environmental Protection Agency (EPA) and CARB engine emissions standards. These emissions standards require highly efficient combustion systems that maximize fuel efficiency and reduce unnecessary fuel consumption. Due to increasing transportation costs and fuel prices, contractors and owners have a strong financial incentive to avoid wasteful, inefficient, and unnecessary consumption of energy during construction. There is growing recognition among developers and retailers that sustainable construction is not prohibitively expensive, and that there is a significant cost-savings potential in green building practices and materials.

Reductions in energy inputs for construction materials can be achieved by selecting green building materials composed of recycled materials that require less energy to produce than non-recycled materials.[3] The integration of green building materials can help reduce environmental impacts associated with the extraction, transport, processing, fabrication, installation, reuse, recycling, and disposal of these building industry source materials.[4] The project-related incremental increase in the use of energy bound in construction materials such as asphalt, steel, concrete, pipes and manufactured or processed materials (e.g., lumber and gas) would not substantially increase demand for energy compared to overall local and regional demand for construction materials. As indicated in Table 4.6-1, the project's fuel consumption from construction would be approximately 25,118 gallons, which would increase Countywide fuel use by 0.0197 percent. As such, project-related construction activities would have a nominal effect on the local and regional energy supplies. It is also noted that construction fuel use is temporary and would cease upon completion of construction activities. There are no unusual project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than those at comparable construction sites in the region or State. Therefore, construction fuel consumption would not be any more inefficient, wasteful, or unnecessary than other similar development projects of this nature. A less than significant impact would occur in this regard.

Operational Energy Consumption

Transportation Energy Demand

Pursuant to the Federal Energy Policy and Conservation Act of 1975, the National Highway Traffic and Safety Administration is responsible for establishing additional vehicle standards and for revising existing standards. Compliance with Federal fuel economy standards is not determined for each individual vehicle model. Rather, compliance is determined based on each manufacturer's average fuel economy for the portion of their vehicles produced for sale in the United States. Table 4.6-1 provides an estimate of the daily fuel consumed by vehicles traveling to and from the site. As indicated in Table 4.6-1, project operations are estimated to consume approximately 14,024 gallons of fuel per year, which would increase Countywide automotive fuel consumption by 0.0012 percent. The project would not result in any unusual characteristics that would result in excessive operational fuel consumption. Fuel consumption associated with project-related vehicle trips would not be considered inefficient, wasteful, or

[3] California Department of Resources Recycling and Recovery, *Green Building Materials*, https://www.calrecycle.ca.gov/greenbuilding/materials#Material, accessed January 20, 2020.
[4] Ibid.

unnecessary in comparison to other similar developments in the region. As such, a less than significant impact would occur in this regard.

Electricity Demand

The project would consume energy for interior and exterior lighting, heating/ventilation and air conditioning (HVAC), electronics systems, appliances, and security systems, among other common residential features. The project would be required to comply with Title 24 standards, which provide minimum efficiency standards related to various building features, including appliances, water and space heating and cooling equipment, building insulation and roofing, and lighting. Implementation of the 2019 Title 24 standards would significantly reduce energy usage. Furthermore, the electricity provider, SCE, is subject to California's Renewables Portfolio Standard (RPS). The RPS requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020 and to 50 percent of total procurement by 2030. As indicated in Table 4.6-1, operational energy consumption would represent an approximate 0.0003 percent increase in Countywide electricity consumption. Therefore, the project would not result in the inefficient, wasteful, or unnecessary consumption of building energy, and impacts in this regard would be less than significant.

As depicted in Table 4.6-1, operational energy consumption would represent an approximate 0.0003 percent increase in Countywide electricity consumption and a 0.0002 percent increase in Countywide natural gas consumption. The project would adhere to all Federal, State, and local requirements for energy efficiency, including the 2019 Title 24 standards. Additionally, the project would not result in a substantial increase in demand for transmission service, resulting in the need for new or expanded sources of energy supply or new or expanded energy delivery systems or infrastructure. The project would not result in the inefficient, wasteful, or unnecessary consumption of building energy. A less than significant impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

b) Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?

Less than Significant Impact. The project would comply with the following applicable energy goals and measures identified in the City's CAP, as listed in Table 4.6-2, *Santa Ana Climate Action Plan Project Consistency Analysis*. The CAP contains energy efficiency goals and measures that would help implement energy efficient measures and subsequently reduce GHG emissions within the City. Compliance with the 2019 Title 24 and CALGreen standards would ensure the project incorporates energy efficient windows, insulation, lighting, ventilation systems, and water efficient fixtures. Adherence to the 2019 Title 24 energy requirements would ensure conformance with the State's goal of promoting energy and lighting efficiency and the City's CAP. Furthermore, the project would comply with General Plan Energy Element Goals 1 and 2, Objectives 1.2 and 1.3, and subsequent policies and programs, as described above. Therefore, the proposed project would result in less than significant impacts associated with renewable energy or energy efficiency plans.

Table 4.6-2
Santa Ana Climate Action Plan Project Consistency Analysis

Santa Ana Climate Action Plan Measure	Consistency Analysis
Community-wide Energy Measures	
Solar Photovoltaic Systems — New Private Installs. This measure accounts for the impact of new private installations of solar photovoltaic (PV) systems in Santa Ana. Solar PV systems can lower energy costs for residents and businesses. In addition, having more PV systems connected to the grid leads to increased electric system reliability during peak demand periods and increased electric price stability.	**Consistent.** The project would comply with the 2019 Title 24 standards, which requires residential projects to install solar panels.
Title 24 Energy Efficiency Standards—Residential. Title 24 is the energy code that establishes the minimum energy efficiency standards for new construction in California. The code is set by the State and enforced locally by the City of Santa Ana through the building permit review and inspection process.	**Consistent.** The project would comply with the 2019 Title 24 standards. The standards promote the use of better windows, insulation, lighting, ventilation systems and other features that reduce energy consumption in homes and businesses. Further, the project would be required to install solar panels on the proposed townhome units to comply with the 2019 Title 24 standards. Construction of new residential development under the 2019 Title 24 standards will result in approximately 53 percent less energy usage than residential buildings constructed under the 2016 Title 24 standards.

Source: City of Santa Ana, *Santa Ana Climate Action Plan*, December 2015.

Mitigation Measures: No mitigation measures are required.

4.7 GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
1) 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.				✓
2) Strong seismic ground shaking?			✓	
3) Seismic-related ground failure, including liquefaction?			✓	
4) Landslides?				✓
b. Result in substantial soil erosion or the loss of topsoil?			✓	
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			✓	
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?				✓
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				✓
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		✓		

This section is primarily based upon the *Geotechnical Investigation Report Multi-Family Condominium Complex 1122 N. Bewley Street, City of Santa Ana, CA 92703* (Geotechnical Investigation), prepared by ZS Engineering (dated January 29, 2020); refer to Appendix C, *Geotechnical Investigation*.

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

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

No Impact. The project site, like the rest of Southern California, is located within a seismically active margin between the North American and Pacific tectonic plates. According to the Geotechnical Investigation, nearby known active and potentially active faults include the Newport-Inglewood-Rose Canyon Fault Zone (south Los Angeles Basin section) approximately 8.6 kilometers to the southwest; Peralta Hills Fault approximately 11.7 kilometers to the northeast; THUMS-Huntington Beach Fault (offshore) approximately 13.4 kilometers to the southwest; Pelican Hill Fault (north terminus) approximately 13.6 kilometers to the south; and Los Alamitos Fault (southeast terminus) approximately 14.5 kilometers to the northwest of the site. However, there are no known active or potentially active faults trending toward

or through the project site, and the site is not within a currently designated Alquist-Priolo Earthquake Fault Zone. As such, no impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

2) Strong seismic ground shaking?

Less Than Significant Impact. Considering the proximity of the aforementioned active and potentially active faults to the project site (e.g., Newport-Inglewood-Rose Canyon Fault Zone, Peralta Hills Fault, THUMS-Huntington Beach Fault, Pelican Hill Fault, and Los Alamitos Fault), moderate to high ground shaking can be expected at the site during the design lifetime of the proposed residential development. Nevertheless, in conformance with existing seismic design requirements of the California Building Code as incorporated by reference in Municipal Code Chapter 8, Article II, *Building Code*, the project would be subject to the site-specific seismic design recommendations identified in the Geotechnical Investigation to minimize the potential for damage and major injury during a seismic event; refer to Section 4.0, *Conclusions and Recommendations*, of the Geotechnical Investigation. Following conformance with the seismic design recommendations identified in the Geotechnical Investigation, impacts related to seismic ground shaking would be less than significant.

Mitigation Measures: No mitigation measures are required.

3) Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. Liquefaction and seismically-induced settlement or ground failure is generally related to strong seismic shaking events where the groundwater occurs at shallow depth (generally within 50 feet of the ground surface) or where lands are underlain by loose, cohesionless deposits. Liquefaction typically results in the loss of shear strength of a soil, which occurs due to the increase of pore water pressure caused by the rearrangement of soil particles induced by shaking or vibration. During liquefaction, soil strata behave similarly to a heavy liquid.

According to the Geotechnical Investigation, historic shallow groundwater level at the project site is within the contours of five and ten feet below grade. Due to shallow historic groundwater, a broad plain surrounding this site is mapped within a liquefaction hazard zone as shown in Geotechnical Investigation Figure 3, *Seismic Hazard Zones Map*. During the field exploration, groundwater was encountered on-site at depths varying from about 19 to 20 feet below the existing grade. An analysis for liquefaction potential at the project site was conducted; refer to Appendix C, *Liquefaction and Seismic Settlement Analysis*, of the Geotechnical Investigation. The analysis results indicated a potentially liquefiable soil layer, approximately two feet thick, within depths about 29 to 31 feet below grade. Due to this relatively small zone of liquefiable soils and its depth below the existing grade, surface manifestation (such as sand boiling, ground fissure, etc.) causing loss of bearing capacity of the foundation subgrade soils is not anticipated in the event of a major earthquake. Moreover, the liquefaction potential analysis considered concurrence of the historical shallow groundwater level during a major earthquake, which is very unlikely. As such, impacts associated with seismic-related ground failure, including liquefaction, would be less than significant.

Mitigation Measures: No mitigation measures are required.

4) Landslides?

No Impact. The project site and surrounding area is generally flat. According to the Geotechnical Investigation, the site is not mapped within any landslide hazard area; refer to Figure 3, *Seismic Hazard Zones Map*, of the Geotechnical Investigation. Additionally, no upsloping hillside grade exists within close proximity of the site. Thus, the potential for seismically-induced landslides, or debris flows, would not occur. No impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

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

Less Than Significant Impact. The primary concern in regard to soil erosion or loss of topsoil would be from construction activities associated with the project (e.g., earthwork and grading). Construction activities associated with the project would expose soils to short-term erosion by wind and water. However, as stated in Response 4.10(c)(1), the project would be subject to compliance with the best management practices identified in the project's Water Quality Management Plan and Erosion Control Plan as well as the requirements set forth in Municipal Code Article IV, *Water Pollution*. For example, project construction would be required to retain eroded sediments and other pollutants on-site; protect stockpiles and other construction-related materials from being transported from the site by wind and/or water; stabilize construction roadways to inhibit sediments from being deposited into the public right-of-way; and stabilize any slopes with disturbed soils to inhibit erosion by wind and/or water, among others. Compliance with the project's WQMP, Erosion Control Plan, and Municipal Code would ensure project construction results in less than significant impacts regarding soil erosion and the loss of topsoil.

Mitigation Measures: No mitigation measures are required.

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

Less Than Significant Impact. Refer to Responses 4.7(a)(3), 4.7(a)(4), and 4.7(d) for a discussion concerning liquefaction, landslides, and expansive soils.

Lateral spreading is typically exemplified by the formation of vertical cracks on the surface of liquefied soils, and usually takes place on gently sloping ground or level ground with nearby free surface, such as a drainage or stream channel. According to the Geotechnical Investigation, ground failure from lateral spreading is generally analytically unpredictable, since it is difficult to determine where the first tension crack would occur. However, the project site is relatively far away from a free face. The nearest free face of the Santa Ana River Channel is approximately one kilometer to the southeast of the site. The potentially liquefiable subsurface soil layer identified on-site is too deep (approximately 29 feet below existing grade) to cause any surface failure. As such, the probability of lateral spreading occurring on-site is considered to be very low and impacts would be less than significant.

Subsidence can occur in various ways during an earthquake. Large areas of land can subside drastically during an earthquake because of offset along fault lines; land subsidence can also occur as a result of settling and compacting of unconsolidated sediment (i.e., settlement) from seismic shaking. Based on the Geotechnical Investigation, seismicity level at the project site is relatively low and subsurface soils are found to be medium dense, stiff. These soils are not likely to experience damaging settlement during a major seismic event. The maximum dynamic settlement at the site is approximately 0.29-inch; refer to Geotechnical Investigation Appendix C, *Liquefaction and Seismic Settlement Analysis*. The Geotechnical Investigation concluded that the integrity of the proposed townhome buildings would not be adversely impacted by subsidence, including settlement, upon conformance with the seismic design recommendations. Thus, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

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

No Impact. Expansive soils are those that undergo volume changes as moisture content fluctuates, swelling substantially when wet or shrinking when dry. Soil expansion can damage structures by cracking foundations, causing settlement, and distorting structural elements. Subsurface soils at shallow depths on-site (upper five feet) were identified as sand to silty sand with little clay. Laboratory test results of the soil borings on-site indicated very low

expansion potential, with a tested Expansion Index value of 11. Based on Section 1803.5.3 of the California Building Code, these on-site soils are considered non-expansive. Thus, impacts in this regard would not occur.

Mitigation Measures: No mitigation measures are required.

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

No Impact. No septic tanks or alternative wastewater systems would be constructed as part of the project. No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

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

Less Than Significant Impact With Mitigation Incorporated. The project site has been graded in the past and was previously developed with a single-family residence, a concrete driveway, and landscaping until 2017 when it was demolished by the property owner. As a result, it is not expected that paleontological resources would be encountered during project construction. Nonetheless, in the unlikely event that paleontological resources are encountered during project construction, Mitigation Measure GEO-1 would require all project construction activities to halt until a qualified paleontologist evaluates the paleontological significance of the find and recommends a course of action. Thus, following implementation of Mitigation Measure GEO-1, impacts would be less than significant.

Mitigation Measures:

GEO-1 If evidence of subsurface paleontological resources is found during construction, excavation and other construction activity in that area shall cease and the construction contractor shall contact the City of Santa Ana Planning and Building Agency Director. With direction from the Planning and Building Agency Director, a qualified paleontologist certified by the County of Orange shall evaluate the find prior to resuming grading in the immediate vicinity of the find. If warranted, the qualified paleontologist shall prepare and complete a standard Paleontological Resources Mitigation Program for the salvage and curation of the identified resource(s).

4.8 GREENHOUSE GAS EMISSIONS

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

GLOBAL CLIMATE CHANGE

California is a substantial contributor of global greenhouse gases (GHGs), emitting over 424 million tons of carbon dioxide (CO_2) per year.[1] Climate studies indicate that California is likely to see an increase of three to four degrees Fahrenheit over the next century. Methane (CH_4) is also an important GHG that potentially contributes to global climate change. GHGs are global in their effect, which is to increase the earth's ability to absorb heat in the atmosphere. As primary GHGs have a long lifetime in the atmosphere, accumulate over time, and are generally well-mixed, their impact on the atmosphere is mostly independent of the point of emission.

The impact of human activities on global climate change is apparent in the observational record. Air trapped by ice has been extracted from core samples taken from polar ice sheets to determine the global atmospheric variation of CO_2, CH_4, and nitrous oxide (N_2O) from before the start of industrialization (approximately 1750), to over 650,000 years ago. For that period, it was found that CO_2 concentrations ranged from 180 to 300 parts per million (ppm). For the period from approximately 1750 to the present, global CO_2 concentrations increased from a pre-industrialization period concentration of 280 to 379 ppm in 2005, with the 2005 value far exceeding the upper end of the pre-industrial period range. As of April 2018, the highest monthly average concentration of CO_2 in the atmosphere was recorded at 410 ppm.[2]

The Intergovernmental Panel on Climate Change (IPCC) constructed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. It concluded that a stabilization of GHGs at 400 to 450 ppm carbon dioxide equivalent (CO_2eq)[3] concentration is required to keep global mean warming below 2 degrees Celsius (ºC), which in turn is assumed to be necessary to avoid dangerous climate change.

REGULATORY FRAMEWORK

Federal

U.S. Environmental Protection Agency Endangerment Finding. The U.S. Environmental Protection Agency's (EPA) authority to regulate GHG emissions stems from the U.S. Supreme Court decision in *Massachusetts v. EPA* (2007). The Supreme Court ruled that GHGs meet the definition of air pollutants under the existing Clean Air Act and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the

1 California Environmental Protection Agency, *California Greenhouse Gas Emissions for 2000 to 2017*, https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2017/ghg_inventory_trends_00-17.pdf, accessed February 25, 2020.

2 Scripps Institution of Oceanography, *Carbon Dioxide in the Atmosphere Hits Record High Monthly Average*, https://scripps.ucsd.edu/programs/keelingcurve/2018/05/02/carbon-dioxide-in-the-atmosphere-hits-record-high-monthly-average/, accessed February 21, 2020.

3 Carbon Dioxide Equivalent (CO_2eq) – A metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential.

Court's ruling, the EPA finalized an endangerment finding in December 2009. Based on scientific evidence it found that six GHGs (CO_2, CH_4, N_2O, hydrofluorocarbons [HFCs], perfluorocarbons [PFCs], and sulfur hexafluoride [SF_6]) constitute a threat to public health and welfare. Thus, it is the Supreme Court's interpretation of the existing Clean Air Act and the EPA's assessment of the scientific evidence that form the basis for the EPA's regulatory actions.

State

Assembly Bill 32 (California Global Warming Solutions Act of 2006). California passed the California Global Warming Solutions Act of 2006 (AB 32; California Health and Safety Code Division 25.5, Sections 38500-38599). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on Statewide GHG emissions. AB 32 requires that Statewide GHG emissions be reduced to 1990 levels by 2020. AB 32 specifies that regulations adopted in response to Assembly Bill (AB) 1493 (Pavley Bill) should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then the California Air Resources Board (CARB) should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

Senate Bill 375. Senate Bill (SB) 375, signed in September 2008 (Chapter 728, Statutes of 2008), aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocations. SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a sustainable communities' strategy (SCS) or alternative planning strategy (APS) that will prescribe land use allocation in that MPOs regional transportation plan. CARB, in consultation with MPOs, is required to provide each affected region with GHG reduction targets emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets are to be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned targets. If MPOs do not meet the GHG reduction targets, transportation projects may not be eligible for funding.

Executive Order S-3-05. Executive Order S-3-05 set forth a series of target dates by which Statewide emissions of GHGs would be progressively reduced, as follows:

- By 2010, reduce GHG emissions to 2000 levels;
- By 2020, reduce GHG emissions to 1990 levels; and
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

The Executive Order directed the California Environmental Protection Agency (Cal/EPA) Secretary to coordinate a multi-agency effort to reduce GHG emissions to the target levels. The Secretary is required to submit biannual reports to the Governor and California Legislature describing the progress made toward the emissions targets, the impacts of global climate change on California's resources, and mitigation and adaptation plans to combat these impacts. To comply with Executive Order S-3-05, the Cal/EPA Secretary created the California Climate Action Team, made up of members from various State agencies and commissions. The Climate Action Team released its first report in March 2006, which proposed to achieve the targets by building on the voluntary actions of California businesses, local governments, and communities and through State incentive and regulatory programs.

Title 24, Part 6. The California Energy Efficiency Standards for Residential and Nonresidential Buildings, Title 24, Part 6 of the California Code of Regulations (CCR) and commonly referred to as "Title 24," were established in 1978 in response to a legislative mandate to reduce California's energy consumption. Part 6 of Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The 2019 Title 24 standards took effect on January 1, 2020. Under 2019 Title 24 standards, residential buildings will use about 53 percent

less energy, mainly due to solar photovoltaic panels and lighting upgrades, when compared to those constructed under 2016 Title 24 standards.[4]

Title 24, Part 11. The California Green Building Standards Code (CCR Title 24, Part 11), commonly referred to as CALGreen, is a Statewide mandatory construction code developed and adopted by the California Building Standards Commission and the Department of Housing and Community Development. CALGreen also provides voluntary tiers and measures that local governments may adopt that encourage or require additional measures in five green building topical areas. The most recent update to the CALGreen Code went into effect on January 1, 2020.

Senate Bill 32. Signed into law on September 2016, SB 32 codifies the 2030 GHG reduction target in Executive Order B-30-15 (40 percent below 1990 levels by 2030). SB 32 authorizes CARB to adopt an interim GHG emissions level target to be achieved by 2030. CARB also must adopt rules and regulations in an open public process to achieve the maximum, technologically feasible, and cost-effective GHG reductions.

CARB Scoping Plan. On December 11, 2008, CARB adopted its *Climate Change Scoping Plan* (Scoping Plan), which functions as a roadmap to achieve GHG reductions in California required by AB 32 through subsequently enacted regulations. The Scoping Plan contains the main strategies California will implement to reduce CO_2eq emissions by 174 million metric tons (MT), or approximately 30 percent, from the State's projected 2020 emissions levels of 596 million $MTCO_2$eq under a business as usual (BAU)[5] scenario. This is a reduction of 42 million $MTCO_2$eq, or almost ten percent, from 2002 to 2004 average emissions, and requires the reductions in the face of population and economic growth through 2020.

The Scoping Plan calculates 2020 BAU emissions as the emissions that would be expected to occur in the absence of any GHG reduction measures. The 2020 BAU emissions estimate was derived by projecting emissions from a past baseline year using growth factors specific to each of the different economic sectors (e.g., transportation, electrical power, industrial, commercial, and residential). CARB used three-year average emissions, by sector, from 2002 to 2004 to forecast emissions to 2020. The measures described in the Scoping Plan are intended to reduce projected 2020 BAU emissions to 1990 levels, as required by AB 32.

AB 32 requires CARB to update the Scoping Plan at least once every five years. CARB adopted the first major update to the Scoping Plan on May 22, 2014. The 2014 Scoping Plan summarizes recent science related to climate change, including anticipated impacts to California and the levels of GHG reduction necessary to likely avoid risking irreparable damage. It identifies the actions California has already taken to reduce GHG emissions and focuses on areas where further reductions could be achieved to help meet the 2020 target established by AB 32. The 2014 Scoping Plan also looks beyond 2020 toward the 2050 goal, established in Executive Order S-3-05, and observes that "a mid-term statewide emission limit will ensure that the State stays on course to meet our long-term goal." The 2014 Scoping Plan did not establish or propose any specific post-2020 goals, but identified such goals adopted by other governments or recommended by various scientific and policy organizations.

In December 2017, CARB approved the *California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target* (2017 Scoping Plan). This update focused on implementation of a 40-percent reduction in GHGs by 2030 compared to 1990 levels. To achieve this, the 2017 Scoping Plan draws on a

[4] California Energy Commission, *2019 Building Energy Efficiency Standards*, https://www.energy.ca.gov/title24/2019standards/documents/2018_Title_24_2019_Building_Standards_FAQ.pdf, accessed February 19, 2020.

[5] "Business as Usual" refers to emissions that would be expected to occur in the absence of GHG reductions; refer to http://www.arb.ca.gov/cc/inventory/data/bau.htm. Note that there is significant controversy as to what BAU means. In determining the GHG 2020 limit, CARB used the above as the "definition." It is broad enough to allow for design features to be counted as reductions.

decade of successful programs that addresses the major sources of climate changing gases in every sector of the economy:

- *More Clean Cars and Trucks:* The 2017 Scoping Plan establishes far-reaching programs to incentivize the sale of zero-emission vehicles, drive the deployment of zero-emission trucks, and shift to a cleaner system of handling freight Statewide.

- *Increased Renewable Energy:* California's electric utilities are ahead of schedule meeting the requirement that 33 percent of electricity come from renewable sources by 2020. The 2017 Scoping Plan guides utility providers to 50 percent renewables, as required under SB 350.

- *Slashing Super-Pollutants:* The 2017 Scoping Plan calls for a significant cut in super-pollutants, such as $CH_4$and HFC refrigerants, which are responsible for as much as 40 percent of global warming.

- *Cleaner Industry and Electricity:* California's renewed cap-and-trade program extends the declining cap on emissions from utilities and industries and the carbon allowance auctions. The auctions will continue to fund investments in clean energy and efficiency, particularly in disadvantaged communities.

- *Cleaner Fuels:* The Low Carbon Fuel Standard will drive further development of cleaner, renewable transportation fuels to replace fossil fuels.

- *Smart Community Planning:* Local communities will continue developing plans which will further link transportation and housing policies to create sustainable communities.

- *Improved Agriculture and Forests:* The 2017 Scoping Plan also outlines innovative programs to account for and reduce emissions from agriculture, as well as forests and other natural lands.

Local

Santa Ana Climate Action Plan. CARB encourages local governments to adopt a reduction goal for emissions from municipal operations and move toward establishing goals for community emissions that parallel the State's commitment to reducing GHG emissions. CEQA Guideline Section 15183.5 provides that a lead agency may analyze and mitigate significant effects of GHG emissions at a programmatic level (e.g., in a plan targeted to reduce GHG emissions). Subsequent projects may be able to tier off the environmental analysis for an adopted climate action plan to determine that a project's incremental contribution to the cumulative effect of GHG emissions is not cumulatively considerable so long as the project complies with the adopted plan and mitigation program.

The *Santa Ana Climate Action Plan* was adopted on December 15, 2015. The CAP includes a GHG emissions inventory as well as the following reduction targets for community-wide emissions: 15 percent of 2008 levels by 2020 and 30 percent of 2008 levels by 2035. The CAP outlines GHG reduction measures for various sectors, including transportation, land use, energy, solid waste, water, and wastewater. Reduction measures include developing residential nodes near retail and employment, implementing Title 24 energy efficiency standards for commercial and residential projects, installing solar photovoltaic systems on municipal buildings, and implementing AB 341, which requires diverting waste from landfills.

Although it was determined that implementation of CAP emissions reduction measures would achieve the reduction target for 2020, the measures would fall short of achieving the City's 2035 target. The City notes in its staff report that in coming years, as the CAP is reviewed and revised, measures will be implemented to achieve the 2035 target.[6] The CAP includes monitoring and a target for tracking progress with re-inventorying at later dates.

A critical aspect of having a CAP that fits the criteria within CEQA Guidelines Section 15183.5 is to have reduction targets that align with Statewide goals. The CAP's 2020 reduction target (i.e., below baseline emission levels) parallels the State's commitment to reducing GHG emissions under AB 32. However, it proceeds even further by identifying targets that are specific to the City's geographic location as well as activity types and their associated sources. Therefore, because the CAP's 2020 target aligns with the Statewide goal for 2020 (i.e., achieving 1990 levels), the CAP is consistent with AB 32. Through 2020, the CAP is a qualifying plan under CEQA Guidelines Section 15183.5. However, although the City projects emissions and quantifies reductions to achieve the CAP's 2035 emissions target, the CAP does not achieve the requisite reductions. Moreover, the CAP's 2035 target does not fully align with Statewide targets. For example, the Statewide target for 2030 (as codified in SB 32) is 40 percent below 1990 levels and the 2050 target (not yet codified) is 80 percent below 1990 levels. The CAP's 2035 target of 1,371,602 $MTCO_2e$ is only 18 percent below the 2020 target of 1,665,516 $MTCO_2e$ (i.e., 1990 levels). This level of reduction is not enough to achieve a fair share contribution toward the Statewide targets of 40 percent and 80 percent below 1990 levels by 2030 and 2050, respectively. Therefore, because the City's CAP does not align with Statewide goals beyond 2020, the CAP is not consistent with the criteria within CEQA Guidelines Section 15183.5 for the post-2020 period.

THRESHOLDS OF SIGNIFICANCE

Amendments to CEQA Guidelines Section 15064.4 were adopted to assist lead agencies in determining the significance of the impacts of GHG emissions and gives lead agencies the discretion to determine whether to assess those emissions quantitatively or qualitatively. This section recommends certain factors to be considered in the determination of significance (i.e., the extent to which a project may increase or reduce GHG emissions compared to the existing environment; whether the project exceeds an applicable significance threshold; and the extent to which the project complies with regulations or requirements adopted to implement a plan for the reduction or mitigation of GHGs). The amendments do not establish a threshold of significance; rather, lead agencies are granted discretion to establish significance thresholds for their respective jurisdictions, including looking to thresholds developed by other public agencies or suggested by other experts, such as the California Air Pollution Control Officers Association (CAPCOA), so long as any threshold chosen is supported by substantial evidence (CEQA Guidelines Section 15064.7(c)). The California Natural Resources Agency has also clarified that the CEQA Guidelines amendments focus on the effects of GHG emissions as cumulative impacts, and therefore GHG emissions should be analyzed in the context of CEQA's requirements for cumulative impact analyses (CEQA Guidelines Section 15064(h)(3)).[7,8] A project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the project would comply with an approved plan or mitigation program that provides specific requirements to avoid or substantially lessen the cumulative problem within the geographic area of the project.[9]

The City has not adopted a numerical significance threshold for assessing impacts related to GHG emissions. Nor have the SCAQMD, CARB, or any other State or regional agency adopted a numerical significance threshold for assessing GHG emissions that is applicable to the project. Since there is no applicable adopted or accepted numerical threshold of significance for GHG emissions, the methodology for evaluating the project's impacts related to GHG

6 City of Santa Ana, *City Council and Housing Authority Meetings (incl. staff reports)*, December 1, 2015, https://santaana.granicus.com/GeneratedAgendaViewer.php?view_id=2&clip_id=539, accessed February 26, 2020.

7 California Natural Resources Agency, *Final Statement of Reasons for Regulatory Action*, pp. 11-13, 14, 16, December 2009, https://resources.ca.gov/CNRALegacyFiles/ceqa/docs/Final_Statement_of_Reasons.pdf, accessed February 26, 2020.

8 State of California Governor's Office of Planning and Research, *Transmittal of the Governor's Office of Planning and Research's Proposed SB97 CEQA Guidelines Amendments to the Natural Resources Agency*, April 13, 2009, https://planning.lacity.org/eir/CrossroadsHwd/deir/files/references/C01.pdf, accessed February 26, 2020.

9 14 CCR Section 15064(h)(3).

emissions focuses on its consistency with Statewide, regional, and local plans adopted for the purpose of reducing and/or mitigating GHG emissions. This evaluation of consistency with such plans is the sole basis for determining the significance of the project's GHG-related impacts on the environment.

Notwithstanding, for informational purposes, the analysis also calculates the amount of GHG emissions that would be attributable to the project using recommended air quality models, as described below. The primary purpose of quantifying the project's GHG emissions is to satisfy CEQA Guidelines Section 15064.4(a), which calls for a good-faith effort to describe and calculate emissions. The estimated emissions inventory is also used to determine if there would be a reduction in the project's incremental contribution of GHG emissions as a result of compliance with regulations and requirements adopted to implement plans for the reduction or mitigation of GHG emissions. However, the significance of the project's GHG emissions impacts is not based on the amount of GHG emissions resulting from the project.

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

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

Less Than Significant Impact.

Project-Related Sources of Greenhouse Gases

Project-related GHG emissions include emissions from direct and indirect sources. The proposed project would result in direct and indirect emissions of CO_2, N_2O, and CH_4, and would not result in other GHGs that would facilitate a meaningful analysis. Therefore, this analysis focuses on these three forms of GHG emissions. Direct project-related GHG emissions include emissions from construction activities, area sources, and mobile sources, while indirect sources include emissions from electricity consumption, water demand, and solid waste generation. Operational GHG estimations are based on energy emissions from natural gas usage and automobile emissions. The California Emissions Estimator Model version 2016.3.2 (CalEEMod) relies upon trip generation rates from the *1122 Bewley Street Townhomes Project Trip Generation Analysis* (Trip Generation Memo) prepared by Ganddini Group, Inc. (dated December 20, 2019), and project specific land use data to calculate emissions; refer to Appendix F, *Trip Generation Memo*. Based on the Trip Generation Memo, the proposed project would generate approximately 73 average daily trips. Table 4.8-1, *Estimated Greenhouse Gas Emissions*, presents the estimated CO_2, N_2O, and CH_4 emissions associated with the proposed project; refer to Appendix A, *Air Quality/GHG/Energy Analysis* for the CalEEMod outputs.

Direct Project-Related Sources of Greenhouse Gases

- *Construction Emissions*. Construction GHG emissions are typically summed and amortized over the lifetime of the project (assumed to be 30 years), then added to the operational emissions.[10] As shown in Table 4.8-1, the proposed project would result in 9.99 metric tons of CO_2 equivalent per year ($MTCO_2eq/yr$) when amortized over 30 years (or a total of 299.55 $MTCO_2eq$ in 30 years).

- *Area Source*. The project would directly result in 2.35 $MTCO_2eq/yr$ from area source emissions; refer to Table 4.8-1.

[10] The project lifetime is based on the standard 30-year assumption of the South Coast Air Quality Management District (South Coast Air Quality Management District, *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold*, October 2008).

- *Mobile Source*. CalEEMod relies upon trip generation rates from the Trip Generation Memo and project specific land use data to calculate mobile source emissions. The project would directly result in 94.40 $MTCO_2eq/yr$ of mobile source-generated GHG emissions; refer to Table 4.8-1.

Table 4.8-1
Estimated Greenhouse Gas Emissions

Source	CO_2	CH_4		N_2O		Total Metric Tons of CO_2eq[2,3]
	Metric Tons/yr[1]	Metric Tons/yr[1]	Metric Tons of CO_2eq[1]	Metric Tons/yr[1]	Metric Tons of CO_2eq[1]	
Direct Emissions						
• Construction (amortized over 30 years)	9.94	0.00	0.05	0.00	0.00	9.99
• Area Source	2.33	0.00	0.01	0.00	0.01	2.35
• Mobile Source	94.30	0.00	0.10	0.00	0.00	94.40
Indirect Emissions						
• Energy Consumption	21.33	0.00	0.02	0.00	0.09	21.44
• Water Demand	3.27	0.02	0.43	0.00	0.13	3.83
• Solid Waste	0.47	0.03	0.69	0.00	0.00	1.16
Total Project-Related Emissions[2]	***133.16 $MTCO_2eq/yr$***					

Notes: carbon dioxide equivalent = CO_2eq; metric tons of carbon dioxide equivalent per year = $MTCO_2eq/yr$
1. Emissions were calculated using CalEEMod version 2016.3.2, as recommended by the SCAQMD.
2. Totals may be slightly off due to rounding.
3. Carbon dioxide equivalent values calculated using the U.S. Environmental Protection Agency Website, *Greenhouse Gas Equivalencies Calculator*, http://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator, accessed February 19, 2020.

Source: Refer to Appendix A for detailed model input/output data.

Indirect Project-Related Sources of Greenhouse Gases

- *Energy Consumption*. Energy consumption emissions were calculated using CalEEMod and project-specific land use data. SCE would provide electricity to the project site. The project would indirectly result in 21.44 $MTCO_2eq$/year due to energy consumption; refer to Table 4.8-1.

- *Water Demand*. The project operations would result in a demand of approximately 1.11 million gallons of water per year. Emissions from indirect energy impacts due to water supply would result in 3.83 $MTCO_2eq$/year; refer to Table 4.8-1.

- *Solid Waste*. Solid waste associated with operations of the proposed project would result in 1.16 $MTCO_2eq$/year; refer to Table 4.8-1.

Total Project-Related Sources of Greenhouse Gases

As shown in Table 4.8-1, the total amount of project-related GHG emissions from direct and indirect sources combined would total 133.16 $MTCO_2eq/yr$.

Consistency with Applicable GHG Plans, Policies, or Regulations

2017 Scoping Plan Consistency

As stated above, the goal to reduce GHG emissions to 1990 levels by 2020 (Executive Order S-3-05) was codified by the California Legislature as AB 32. In 2008, CARB approved a Scoping Plan as required by AB 32. The Scoping Plan has a range of GHG reduction actions which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as a cap-and-trade system, and an AB 32 implementation fee to fund the program. The 2017 Scoping Plan identifies additional GHG reduction measures necessary to achieve the 2030 target. These measures build upon those identified in the first update to the Scoping Plan (2013 Scoping Plan). Although a number of these measures are currently established as policies and measures, some measures have not yet been formally proposed or adopted. It is expected that these measures or similar actions to reduce GHG emissions will be adopted subsequently as required to achieve Statewide GHG emissions targets.

Table 4.8-2, *Project Consistency with the 2017 Scoping Plan*, summarizes the project's consistency with applicable policies and measures of the 2017 Scoping Plan. As summarized, the project would not conflict with any of the provisions of the 2017 Scoping Plan and would support four of the action categories through energy efficiency, water conservation, recycling, and landscaping.

Table 4.8-2
Project Consistency with the 2017 Scoping Plan

Sector/Source	Category/Description	Consistency Analysis
Area		
SCAQMD Rule 445 (Wood Burning Devices)	Restricts the installation of wood-burning devices in new development.	**Mandatory Compliance.** Approximately 15 percent of California's major anthropogenic sources of black carbon include fireplaces and woodstoves.[1] The project would not include hearths (woodstove and fireplaces) as mandated by this rule.
Energy		
California Renewables Portfolio Standard, Senate Bill 350 (SB 350) and Senate Bill 100 (SB 100)	Increases the proportion of electricity from renewable sources to 33 percent renewable power by 2020. SB 350 requires 50 percent by 2030. SB 100 requires 44 percent by 2024, 52 percent by 2027, and 60 percent by 2030. It also requires the State Energy Resources Conservation and Development Commission to double the energy efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation.	**No Conflict.** The project would utilize electricity provided by Southern California Edison (SCE), which is required to meet the 2020, 2030, 2045, and 2050 performance standards. In 2018, 31 percent of SCE's electricity came from renewable resources.[2] By 2030 SCE plans to achieve 80 percent carbon-free energy.[3]
California Code of Regulations, Title 24, Building Standards Code	Requires compliance with energy efficiency standards for residential and nonresidential buildings.	**Mandatory Compliance.** The project is required to meet the applicable requirements of the 2019 Title 24 Building Energy Efficiency Standards, including installation of rooftop solar panels and additional CALGreen requirements (see discussion under CALGreen Code Requirements below).

Table 4.8-2 [cont'd]
Project Consistency with the 2017 Scoping Plan

Sector/Source	Category/Description	Consistency Analysis
California Green Building Standards (CALGreen) Code Requirements	All bathroom exhaust fans are required to be ENERGY STAR compliant.	**Mandatory Compliance.** The project construction plans are required to demonstrate that energy efficiency appliances, including bathroom exhaust fans, and equipment are ENERGY STAR compliant.
	HVAC system designs are required to meet American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) standards.	**Mandatory Compliance.** The project construction plans are required to demonstrate that the HVAC system meets the ASHRAE standards.
	Air filtration systems are required to meet a minimum efficiency reporting value (MERV) 8 or higher.	**Mandatory Compliance.** The project is required to install air filtration systems (MERV 8 or higher) as part of its compliance with 2019 Title 24 Section 401.2, *Filters*.
	Refrigerants used in newly installed HVAC systems shall not contain any chlorofluorocarbons.	**Mandatory Compliance.** The project must meet this requirement as part of its compliance with the CALGreen Code.
	Parking spaces shall be designed for carpool or alternative fueled vehicles. Up to eight percent of total parking spaces is required for such vehicles.	**Mandatory Compliance.** The project would meet this requirement as part of its compliance the CALGreen Code. Per the 2019 CALGreen Code Residential Mandatory Measure 4.106.4.1, new townhomes with attached private garages are required to install a raceway to accommodate a future electric vehicle (EV) charging space. Additionally, in compliance with 2019 CALGreen Code Residential Mandatory Measure 4.106.4.2, a project is required to provide ten percent of the total number of residential parking spaces as EV spaces.
Mobile Sources		
Mobile Source Strategy (Cleaner Technology and Fuels)	Reduce GHGs and other pollutants from the transportation sector through transition to zero-emission and low-emission vehicles, cleaner transit systems, and reduction of vehicle miles traveled.	**Consistent.** The project would be consistent with this strategy by supporting the use of zero-emission and low-emission vehicles; refer to CALGreen Code discussion above.
Senate Bill (SB) 375	SB 375 establishes mechanisms for the development of regional targets for reducing passenger vehicle GHG emissions. Under SB 375, CARB is required, in consultation with the state's Metropolitan Planning Organizations, to set regional GHG reduction targets for the passenger vehicle and light-duty truck sector for 2020 and 2035.	**Consistent.** The project would comply with the Southern California Association of Governments (SCAG) *2016–2040 Regional Transportation Plan/Sustainable Communities Strategy* (2016-2040 RTP/SCS), and therefore, the project would be consistent with SB 375. Consistency with the 2016–2040 RTP/SCS is discussed below in Table 4.8-3, *Project Consistency with the 2016-2040 RTP/SCS*.

Table 4.8-2 [cont'd]
Project Consistency with the 2017 Scoping Plan

Sector/Source	Category/Description	Consistency Analysis
Water		
CCR, Title 24, Building Standards Code	Title 24 includes water efficiency requirements for new residential and non-residential uses.	**Mandatory Compliance.** See discussion under 2019 Title 24 Building Standards Code and CALGreen Code above.
Water Conservation Act of 2009 (Senate Bill X7-7)	The Water Conservation Act of 2009 sets an overall goal of reducing per capita urban water use by 20 percent by December 31, 2020. Each urban retail water supplier shall develop water use targets to meet this goal. This is an implementing measure of the Water Sector of the AB 32 Scoping Plan. Reduction in water consumption directly reduces the energy necessary and the associated emissions to convene, treat, and distribute the water; it also reduces emissions from wastewater treatment.	**Consistent.** See discussion under 2019 Title 24 Building Standards Code and CALGreen Code above.
Solid Waste		
California Integrated Waste Management Act (IWMA) of 1989 and Assembly Bill (AB) 341	The IWMA mandates that State agencies develop and implement an integrated waste management plan which outlines the steps to divert at least 50 percent of solid waste from disposal facilities. AB 341 directs the California Department of Resources Recycling and Recovery (CalRecycle) to develop and adopt regulations for mandatory commercial recycling and sets a Statewide goal for 75 percent disposal reduction by the year 2020.	**Mandatory Compliance.** The project would be required to comply with AB 341 which requires multifamily residential dwelling of five units or more to arrange for recycling services. This would reduce the overall amount of solid waste disposed of at landfills. The decrease in solid waste would in return decrease the amount of methane released from decomposing solid waste. Additionally, project-related GHG emissions from solid waste generation provided in Table 4.8-1 includes a 50-percent reduction in solid waste generation source emissions.

Notes:
1. California Air Resources Board, *California's 2017 Climate Change Scoping Plan*, Figure 4: California 2013 Anthropogenic Black Carbon Emission Sources, November 2017.
2. California Energy Commission, *2018 Power Content Label Southern California Edison*, https://www.energy.ca.gov/sites/default/files/2020-01/2018_PCL_Southern_California_Edison.pdf, accessed February 20, 2020.
3. Southern California Edison, *The Clean Power and Electrification Pathway*, https://newsroom.edison.com/internal_redirect/cms.ipressroom.com.s3.amazonaws.com/166/files/20187/g17-pathway-to-2030-white-paper.pdf, accessed February 20, 2020.
4. California Energy Commission, *2013 California Energy Efficiency Potential and Goals Study*, Appendix Volume I, August 15, 2013.

Source: Michael Baker International, 2020.

2016-2040 RTP/SCS

At the regional level, the 2016-2040 RTP/SCS is an applicable plan adopted for the purpose of reducing GHGs resulting from vehicular emissions by passenger vehicles and light duty trucks. In order to assess the project's consistency with the 2016-2040 RTP/SCS, this section also analyzes the project's land use assumptions for consistency with those utilized by SCAG in its SCS. Generally, projects are considered consistent with the provisions and general policies of applicable City and regional land use plans and regulations, such as the 2016-2040 RTP/SCS, if they are compatible with the general intent of the plans and would not preclude the attainment of their primary goals. Table 4.8-3, *Project*

Consistency with the 2016-2040 RTP/SCS, addresses the project's consistency with the actions and strategies set forth in the 2016-2040 RTP/SCS.

In summary, the project would be consistent with applicable plans, policies, regulations, and GHG reduction actions/strategies outlined in the 2017 Scoping Plan and 2016-2040 RTP/SCS. Therefore, the project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing emissions of GHGs, and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

Table 4.8-3
Project Consistency with the 2016-2040 RTP/SCS

Actions and Strategies	Responsible Party(ies)	Consistency Analysis
Land Use Strategies		
Focus new growth around transit.	Local Jurisdictions	**Consistent.** Multiple bus stops are located along Harbor Boulevard to the west of the project site and are served by Orange County Transportation Authority routes.
Provide more options for short trips through Neighborhood Mobility Areas and Complete Communities.	SCAG; Local Jurisdictions	**Consistent.** The Complete Communities strategy supports the creation of mixed-use districts through a concentration of activities with housing and employment located in close proximity to each other. The proposed project would support this strategy by providing residential uses within walking distance to employment opportunities (i.e., retail and restaurant uses). Neighborhood Mobility Areas provide sustainable transportation options to make short trips within urban neighborhoods. The project would support this strategy by incorporating walking paths, bicycle racks, and EV parking spaces. Further, the project would be located within walking distance (i.e. 0.25-mile) to retail and restaurants.
Respond to changing housing needs.	Local Jurisdictions; Private Developers	**Consistent.** The project would support this strategy by providing a ten-unit townhome development on a currently vacant lot.
Transportation Strategies		
Manage congestion through programs like the Congestion Management Program, Transportation Demand Management, and Transportation Systems Management strategies.	County Transportation Commissions; Local Jurisdictions	**Not Applicable.** This strategy applies to public agencies that govern transportation facilities and transportation programs.
Technological Innovation and 21st Century Transportation		
Promote zero-emissions vehicles.	SCAG; Local Jurisdictions	**Not Applicable.** This action/strategy is directed at regional and local agencies, and not at individual development projects. However, per the 2019 CALGreen Code Residential Mandatory Measure 4.106.4.2, the project would be required to designate a minimum of ten percent of the total multifamily dwelling parking spaces as EV spaces.

Source: Southern California Association of Governments, *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy*, Chapter 5: The Road to Greater Mobility and Sustainable Growth, April 2016.

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4.9 HAZARDS AND HAZARDOUS MATERIALS

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

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

Less Than Significant Impact. Exposure of the public or the environment to hazardous materials could occur through improper handling or use of hazardous materials or hazardous wastes particularly by untrained personnel, a transportation accident, environmentally unsound disposal methods, or fire, explosion, or other emergencies. The severity of potential effects varies with the activity conducted, the concentration and type of hazardous material or wastes present, and the proximity of sensitive receptors.

Construction

Project construction could expose construction workers and the public to temporary hazards related to the transport, use, and maintenance of construction materials (i.e., oil, diesel fuel, and transmission fluid). These activities would be short-term, and the materials used would not be in such quantities or stored in such a manner as to pose a significant safety hazard. All project construction activities would demonstrate compliance with the applicable laws and regulations governing the use, storage, and transportation of hazardous materials, ensuring that all potentially hazardous materials are used and handled in an appropriate manner. Impacts concerning the routine transport, use, or disposal of hazardous materials during project construction would be less than significant.

Operations

Hazardous materials are not typically associated with residential uses. Compliance with applicable laws and regulations governing the use, storage, and transportation of hazardous materials would ensure that all potentially hazardous materials are used and handled in an appropriate manner and would minimize the potential for safety impacts to occur. Impacts concerning the routine transport, use, or disposal of hazardous materials during project operations would be less than significant.

Mitigation Measures: No mitigation measures are required.

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

Less Than Significant Impact.

Construction

Construction activities would include grading, site preparation, building construction, and architectural coating. There is a possibility of accidental release of hazardous substances such as petroleum-based fuels or hydraulic fluid used for construction equipment during project construction. The level of risk associated with the accidental release of hazardous substances is not considered significant due to the small volume and low concentration of hazardous materials utilized for construction equipment. The construction contractor would be required to use standard construction controls and safety procedures that would avoid and minimize the potential for accidental release of such substances into the environment. Standard construction practices would be observed such that any materials released are appropriately contained and remediated as required by local, State, and Federal law. As such, impacts in this regard would be less than significant.

Operations

Refer to Response 4.9(a), for a description of impacts related to project operations. Impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

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

No Impact. The closest schools to the project site include Hazard Elementary School, approximately 0.4-mile to the southwest and Santiago High School, approximately 0.6-mile to the north. There are no existing or proposed schools within 0.25-mile of the project site. As such, no impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

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

No Impact. Government Code Section 65962.5 requires the Department of Toxic Substances Control (DTSC) and State Water Resources Control Board (SWRCB) to compile and update a regulatory sites list (pursuant to the criteria of the Section). The California Department of Health Services is also required to compile and update, as appropriate, a list of all public drinking water wells that contain detectable levels of organic contaminants and that are subject to water analysis pursuant to Health and Safety Code Section 116395. Government Code Section 65962.5 requires the

local enforcement agency, as designated pursuant to Section 18051 of Title 14 of the California Code of Regulations, to compile, as appropriate, a list of all solid waste disposal facilities from which there is a known migration of hazardous waste.

The project site is not listed pursuant to Government Code Section 65962.5.[1] Thus, no impact would result in this regard.

Mitigation Measures: No mitigation measures are required.

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

No Impact. The nearest airport to the project site is the John Wayne Airport located approximately six miles to the southeast. According to the *Airport Environs Land Use Plan for John Wayne Airport* (AELUP), the project site is located outside of the Airport Impact Zones, AELUP Notification Area, Federal Aviation Regulation Part 77 Notification Area, and Airport Safety Zones.[2] Additionally, the project site is not located within the vicinity of a private airstrip or related facilities. Therefore, project implementation would not expose people residing or working in the project area to excessive airport noise levels or safety hazards. No impact would occur.

Mitigation Measures: No mitigation measures are required.

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

Less Than Significant Impact. The proposed project would not cause any permanent alterations to vehicular circulation routes or obstruct public access along adjacent roadways. Additionally, all construction staging would occur within the boundaries of the project site and would not interfere with circulation along North Bewley Street, West Washington Avenue, West 11th Street, or any other nearby roadways. Therefore, project implementation is not expected to impair or interfere with any adopted emergency response plan or emergency evacuation plan. Additionally, the project's site access and internal circulation would be reviewed by the City Engineer and Orange County Fire Authority to ensure emergency access requirements are met. A less than significant impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

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

No Impact. The project site is surrounded by urban/developed land and no wildland areas are present in the project vicinity. According to the California Department of Forestry and Fire Protection's Very High Fire Hazard Severity Zone (VHFHSZ) Map for Orange County, the entire City of Santa Ana, including the project site, is not designated as a very high fire hazard severity zone under local or State responsibility.[3] Therefore, project implementation would not expose people or structures to a significant risk involving wildland fires, and no impacts would occur in this regard

Mitigation Measures: No mitigation measures are required.

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1 California Environmental Protection Agency, *Cortese List Data Resources*, https://calepa.ca.gov/sitecleanup/corteselist/, accessed January 2, 2020.

2 Orange County Airport Land Use Commission, *Airport Environs Land Use Plan for John Wayne Airport*, April 17, 2008.

3 California Department of Forestry and Fire Protection, *Orange County Very High Fire Hazard Severity Zones in LRA Map*, October 2011.

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4.10 HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			✓	
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			✓	
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
1) Result in substantial erosion or siltation on- or off-site?			✓	
2) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?			✓	
3) 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?			✓	
4) Impede or redirect flood flows?			✓	
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			✓	
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				✓

The information presented in this analysis is based on the *Hydrology and Hydraulics Calculation for Bewley Street Townhomes 1122 North Bewley Street* (Hydrology Study), prepared by P.A. Arca Engineering, Inc. (dated August 8, 2019), and *Bewley Street 10 Unit Condominium Development Preliminary Water Quality Management Plan* (WQMP), prepared by P.A. Arca Engineering, Inc. (dated November 11, 2019); refer to Appendix D, *Hydrology Study and WQMP*.

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less Than Significant Impact. As part of Section 402 of the Clean Water Act, the U.S. Environmental Protection Agency (EPA) has established regulations under the National Pollutant Discharge Elimination System (NPDES) program to control direct storm water discharges. In California, the State Water Resources Control Board (SWRCB) administers the NPDES permitting program and is responsible for developing NPDES permitting requirements. The NPDES program regulates industrial pollutant discharges, which include construction activities. The SWRCB works in coordination with the Regional Water Quality Control Boards (RWQCB) to preserve, protect, enhance, and restore water quality. The City of Santa Ana is within the jurisdiction of the Santa Ana RWQCB.

Construction

The proposed project may result in water quality impacts during short-term construction activities. The grading required for project implementation would result in exposed soils that may be subject to wind and water erosion. Since the

project impact area (approximately 0.87-acre) would be less than one acre in size, the proposed project would not be subject to the requirements of the Construction General Permit under the NPDES program.

Since the NPDES Construction General Permit would not apply to the project, construction activities would be required to comply with Municipal Code Article IV, *Water Pollution*. This article includes conditions and requirements established by the City related to the control of urban pollutants to stormwater runoff. Construction activities would also be required to comply with water quality best management practices (BMPs) in accordance with the project's WQMP and Erosion Control Plan. For example, project construction would be required to retain eroded sediments and other pollutants on-site; protect stockpiles and other construction-related materials from being transported from the site by wind and/or water; store fuels, oils, solvents, and other toxic materials in accordance with their listing; dispose of trash and construction-related solid wastes in a covered receptable to prevent contamination of rainwater and dispersal by wind; stabilize construction roadways to inhibit sediments from being deposited into the public right-of-way; and stabilize any slopes with disturbed soils to inhibit erosion by wind and/or water, among others. Upon adherence to the project's WQMP, Erosion Control Plan, and existing laws and regulations related to water quality, impacts would be reduced to less than significant levels.

Operations

The project would be regulated under the NPDES Phase I Municipal Stormwater Permits issued by the Santa Ana RWQCB for Orange County (Order No. R8-2009-0030 and NPDES Permit No. CAS618030, as amended by Order No. R8-2010-0062).[1] Since 1990, operators of MS4s are required to develop a stormwater management program designed to prevent harmful pollutants from impacting water resources via stormwater runoff. The Orange County Stormwater Program (Stormwater Program) is a cooperative of the County of Orange, Orange County Flood Control District (OCFCD), and all 34 Orange County cities. As the Principal Permittee on the Santa Ana RWQCB NPDES permits, the County guides development and implementation of the Stormwater Program, collaborating regularly with co-permittees to ensure compliance and prevent ocean pollution.

The Stormwater Program's specific water pollutant control elements are documented in the Drainage Area Management Plan (DAMP). The DAMP satisfies the NPDES permit conditions to reduce pollutant discharges to the maximum extent practicable for the protection of water quality at receiving water bodies and the support of designated beneficial uses. The DAMP contains guidance on both structural and nonstructural BMPs for meeting these goals. With implementation of the DAMP requirements, as required by Municipal Code Section 18-156, *Control of Urban Runoff*, the project would be required to prepare a WQMP in accordance with the requirements of the NPDES standards.

The Applicant has prepared a WQMP, which includes non-structural and structural BMPs. The project's non-structural BMPs include education materials for property owners, tenants, and occupants; activity restrictions; common area landscape management; BMP maintenance; spill contingency plan; hazardous materials disclosure compliance, Uniform Fire Code implementation; common area litter control; common area catch basin inspection; and street sweeping private streets and parking lots. Structural BMPs include providing storm drain system stenciling and signage; designing and constructing trash and waste storage areas; and using efficient irrigation systems and landscaping design, water conservation, smart controllers, and source control.

The proposed project would also install an underground infiltration trench approximately 20 feet wide, 67 feet long, and four feet deep. The infiltration trench would have a capacity of approximately 1,876 cubic feet of stormwater volume, which is greater than the project's design capture volume of 1,857 cubic feet. At project completion, on-site stormwater

[1] California Regional Water Quality Control Board Santa Ana Region, *Waste Discharge Requirements for the County of Orange, Orange County Flood Control District and the Incorporated Cities of Orange County within the Santa Ana Region Areawide Urban Storm Water Runoff Orange County*, May 22, 2009, https://www.waterboards.ca.gov/santaana/board_decisions/adopted_orders/orders/2009/09_030_OC_MS4_as_amended_by_10_062.pdf, accessed December 31, 2019.

would flow from west (rear of the site) to east (front of site) into on-site catch basins that connect to a junction structure prior to entering the infiltration trench. The junction structure would be equipped with a crescent pipe screen to provide pre-treatment prior to stormwater conveyance into the proposed infiltration trench. Excess runoff during the peak rainfall event that exceeds the infiltration trench capacity would flow into an overflow pipe to outflow into the existing street gutter along North Bewley Street, which would eventually flow into the East Garden Grove Wintersburg Channel, and ultimately to the Pacific Ocean.

Following compliance with the requirements of the MS4 permit, the DAMP, and Municipal Code, project implementation would not violate any water quality standards or waste discharge requirements associated with long-term operations. Impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

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

Less Than Significant Impact. Although the project would increase impervious surfaces at the project site by 71 percent as compared to existing conditions, implementation of the proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. The proposed project is an infill development and the site is not currently used for groundwater extraction or groundwater recharge purposes. Further, as analyzed in Section 4.19, *Utilities and Service Systems*, the City's water services are available to serve the proposed project's water demands from existing supplies and facilities. Accordingly, project implementation is not expected to impede sustainable groundwater management of the basin. A less than significant impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

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

1) Result in substantial erosion or siltation on- or off-site?

Less Than Significant Impact. Soil disturbance would temporarily occur during project construction due to earth-moving activities such as excavation and trenching for foundations and utilities, soil compaction and moving, and grading. Disturbed soils would be susceptible to high rates of erosion from wind and rain, resulting in sediment transport via stormwater runoff from the project site.

Project development would alter the existing drainage pattern on-site. Existing stormwater currently sheet flows from west (front of site) to east (rear of site). At project completion, drainage would flow from west to east into on-site catch basins and the proposed junction structure and infiltration trench. However, the project would be subject to compliance with the BMPs identified in the project's Erosion Control Plan and Grading Plan as well as the requirements set forth in Municipal Code Article IV, *Water Pollution*; refer to Response 4.10(a). Compliance with the Municipal Code would reduce the volume of sediment-laden runoff discharging from the site. Therefore, project implementation would not result in a substantial increase in erosion or siltation on- or off-site during construction. Further, no existing channels are located within proximity to the project site. The nearest channel, the East Garden Grove Wintersburg Channel, is located approximately 0.4-mile to the west of the project site.

Given the nature of residential uses and the urbanized project area, long-term project operations would not have the potential to result in substantial erosion or siltation off-site. The project would not include large areas of exposed soils that would be subject to runoff; rather, any unpaved areas (i.e., the central public open space, private patios/yards, and setbacks) would be planted with groundcover, shrubs, and ornamental trees to minimize the potential for

erosion/siltation; refer to Exhibit 2-6, *Conceptual Landscape Plan*. In addition, as stated within Response 4.10(a), the project would also be subject to existing requirements of the NPDES permit, DAMP, and Municipal Code Article IV. Thus, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

2) 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. The project site is generally flat and is located within an urbanized area. Existing on-site runoff sheet flows from the east to west. As stated above, project development would alter the existing drainage pattern on-site to flow from west to east into on-site catch basins, the proposed junction structure, and ultimately into the infiltration trench in the center of the site. Based on the WQMP, the infiltration trench would have a capacity of approximately 1,876 cubic feet of stormwater volume, which is greater than the project's design capture volume of 1,857 cubic feet. Excess runoff during the peak rainfall event that exceeds the infiltration trench capacity would flow into an overflow pipe to outflow into the existing street gutter along North Bewley Street, which would eventually flow into the East Garden Grove Wintersburg Channel, and ultimately to the Pacific Ocean. Thus, on-site stormwater flow would be adequately accommodated by existing and proposed storm drain facilities. While the project would alter existing drainage patterns on-site, storm water runoff rates and volumes would not substantially increase and impacts pertaining to flooding conditions on- and off-site would be less than significant.

Mitigation Measures: No mitigation measures are required.

3) 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 noted in Response 4.10(c)(1), although project implementation would result in a 71 percent increase in impervious areas, the proposed catch basins, junction structure, and infiltration trench would be sized and designed to accommodate the project's design capture volume. Therefore, the proposed project is not anticipated to exceed the capacity of the existing or planned stormwater drainage systems. Additionally, as indicated in Response 4.10(a), less than significant impacts related to potential polluted runoff from the site would occur upon compliance with the MS4 permit, DAMP, and Municipal Code Article IV. As a result, project implementation is not anticipated to 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. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

4) Impede or redirect flood flows?

Less Than Significant Impact. Refer to Response 4.10(c)(2).

Mitigation Measures: No mitigation measures are required.

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

Less Than Significant Impact.

Flood Hazard

According to the Flood Insurance Rate Map (FIRM) No. 06059C0143J, Panel 143, the project site is located within a 100-year flood hazard area.[2] However, potential inundation on the project site would not risk the release of pollutants. As stated above, the project proposes to install on-site catch basins, a junction structure with a crescent pipe screen for pretreatment, and an infiltration trench to collect stormwater flows. The infiltration trench is sized and designed to accommodate the project's design capture volume. Additionally, as stated in Response 4.10(a), the project would be subject to existing water quality related requirements of the NPDES permit, DAMP, and Municipal Code Article IV. Thus, impacts in this regard would be less than significant.

Tsunami

A tsunami is a great sea wave, commonly referred to as a tidal wave, produced by a significant undersea disturbance such as tectonic displacement of a sea floor associated with large, shallow earthquakes. The project site is located over eight miles inland from the Pacific Ocean and is located at a sufficient distance so as not to be subject to tsunami impacts. No impacts would occur in this regard.

Seiche

A seiche is an oscillation of a body of water in an enclosed or semi-enclosed basin, such as a reservoir, harbor, lake, or storage tank. The project site is not in the vicinity of a reservoir, harbor, lake, or storage tank capable of creating a seiche. No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

No Impact. The *Santa Ana River Basin Water Quality Control Plan* (Basin Plan) establishes water quality standards for ground and surface waters within the Santa Ana River Basin, which includes the City, and is the basis for the Santa Ana RWQCB's regulatory programs.

The 2014 Sustainable Groundwater Management Act requires local public agencies and groundwater sustainability agencies in high- and medium-priority basins to develop and implement groundwater sustainability plans (GSPs) or prepare an alternative to a GSP. The City is located within the Coastal Plan of Orange County groundwater basin, which is designated as a medium-priority basin and regulated by the Orange County Water District (OCWD).[3] OCWD, in conjunction with the City of La Habra and Irvine Ranch Water District, prepared the *Basin 8-1 Alternative*, which is functionally equivalent to a GSP and sets forth basin management goals and objectives and describes how the basin is managed, including a description of basin hydrogeology, water supply monitoring programs, management and operation of recharge facilities, water quality protection and management, and natural resource and collaborative watershed programs.[4] Specifically, the City of Santa Ana and project site are located within the OCWD Management Area of the Coastal Plan of Orange County groundwater basin. According to the *Basin 8-1 Alternative*, the Sustainability Goal for the OCWD Management Area is to continue to sustainably manage the groundwater basin to prevent

2 Federal Emergency Management Agency, *Flood Insurance Rate Map No. 06059C0143J, Panel 143*, December 4, 2009.
3 California Department of Water Resources, *SGMA Basin Prioritization Dashboard*, https://gis.water.ca.gov/app/bp2018-dashboard/p1/, accessed December 31, 2019.
4 Orange County Water District, *Basin 8-1 Alternative*, January 1, 2017.

conditions that would lead to significant and unreasonable (1) lowering of groundwater levels, (2) reduction in storage, (3) water quality degradation, (4) seawater intrusion, (5) inelastic land subsidence and (6) adverse impacts on hydrologically connected surface water. As indicated in Response 4.10(b), the proposed project would not substantially deplete groundwater supplies or interfere with groundwater recharge. For these reasons, the proposed project is not anticipated to conflict with or obstruct the Sustainability Goal for the OCWD Management Area. Accordingly, the proposed project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Mitigation Measures: No mitigation measures are required.

4.11 LAND USE AND PLANNING

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

a) Physically divide an established community?

No Impact. Factors that could physically divide a community include, but are not limited to:

- Construction of major highways or roadways;
- Construction of storm channels;
- Closing bridges or roadways; and
- Construction of utility transmission lines.

The key factor with respect to this question is creating physical barriers that change the connectivity between areas of a community to the extent that persons are separated from other areas of the community. The proposed project would not physically divide an established community. As indicated in Section 2.0, *Project Description*, the project site is graded and vacant. Existing multi-family residences adjoin the project's northern and southern boundary while North Bewley Street bounds the site to the east. Industrial business uses facing Harbor Boulevard abut the western project boundary. Rather than physically divide the existing residential community surrounding the project site, development of the ten-unit townhome community would contribute to a more established residential community than the existing vacant lot. Thus, no impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

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

Less Than Significant Impact.

General Plan Consistency

Based on the General Plan Land Use Map, the project site is designated Low Density Residential (LR-7; seven dwelling units per acre). As proposed, the ten-unit townhome community on the 0.87-acre site would result in a density of 11.5 dwelling units per acre, which exceeds the allowed density under the site's existing LR-7 land use designation. As such, the project is proposing a General Plan Amendment to redesignate the site from LR-7 to Medium Density Residential (MR-15; 15 dwelling units per acre). According to the General Plan, MR-15 designated areas are characterized by duplexes, apartments, or a combination of both. Upon approval of the General Plan Amendment, the project would be consistent with the MR-15 designation.

Table 4.11-1, *General Plan Land Use Consistency Analysis*, analyzes the project's consistency with relevant General Plan Land Use Element goals and policies. As demonstrated in Table 4.11-1, the project is consistent with the General Plan Land Use Element.

Table 4.11-1
General Plan Land Use Consistency Analysis

Relevant Policies	Project Consistency Analysis
Goal 1: Promote a balance of land uses to address basic community needs.	
Policy 1.5: Maintain and foster a variety of residential land uses in the City.	Consistent. The project would develop a ten-unit townhome community in an area that includes single- and multi-family residential uses.
Policy 1.7: Support open space in under-served areas.	Consistent. While the project area is not identified as an under-served area, the project proposes public and private open space areas as part of the residential development. A 2,500-square foot central public open space area would be provided in the center of the site; refer to Exhibit 2-3, *Conceptual Site Plan*. The public open space would include a grass play area; benches; a picnic shelter with a table, benches, barbecue, and sink; trash and recycle receptacles; and pedestrian lighting. Additionally, a meandering five-foot-wide walkway would be constructed along the northern project boundary to provide pedestrian access to each building along the northern site perimeter. Private open space (backyard or patio) and balconies would also be provided for each townhome unit. The backyards and patios range in size from 250 to 1,000 square feet, and the balconies range in size from 30 to 250 square feet.
Goal 2: Promote land uses which enhance the City's economic and fiscal viability.	
Policy 2.10: Support new development which is harmonious in scale and character with existing development in the area.	Consistent. The proposed townhome community would complement the existing single- and two-story residences in the project area. Additionally, a number of small multi-family developments are located near the project site, including a two-story multi-family community adjacent to the site's northern boundary. As shown on Exhibits 2-5a, *Building Elevations – Building A*, through 2-5c, *Building Elevations – Building C*, the exterior building colors would include a variety of neutral earth tones (beiges, browns, grays, and greens), while the project's exterior building materials would include concrete roof tiles, metal roofing, painted wood, painted stucco, stone and brick veneer, panel siding, metal garage, metal and wood railings, and decorative light fixtures, among others. The proposed building materials, colors, and architectural features would be harmonious and complementary to existing development in the project area.
Goal 3: Preserve and improve the character and integrity of existing neighborhoods.	
Policy 3.1: Support development which provides a positive contribution to neighborhood character and identity.	Consistent. Refer to response to Policy 2.10. The project site is currently graded and vacant. Project development would enhance the visual character and identity of the existing lot and contribute towards a more established residential community with the surrounding single- and multi-family residences.
Policy 3.5: Encourage new development and/or additions to existing development that are compatible in scale, and consistent with the architectural style and character of the neighborhood.	Consistent. Refer to response to Policy 2.10.
Goal 5: Ensure that the impacts of development are mitigated.	
Policy 5.5: Encourage development which is compatible with, and supportive of surrounding land uses	Consistent. Refer to response to Policy 2.10.
Policy 5.7: Anticipate that the intensity of new development will not exceed available infrastructure capacity.	Consistent. As analyzed in Section 4.19, *Utilities and Service Systems*, project development would not exceed existing capacities associated with water, sewer, storm drain, or dry utility facilities.
Policy 5.11: Encourage development which does not generate obnoxious fumes, toxins, or hazardous materials.	Consistent. Section 4.3, *Air Quality*, concludes that the proposed residential development would not generate adverse odorous emissions or obnoxious fumes during construction or operational activities. Additionally, as analyzed in Section

Table 4.11-1 [cont'd]
General Plan Land Use Consistency Analysis

Relevant Policies	Project Consistency Analysis
	4.9, *Hazards and Hazardous Materials*, hazardous materials are not typically associated with residential uses. Compliance with applicable laws and regulations governing the use, storage, and transportation of hazardous materials would ensure that all potentially hazardous materials are used and handled in an appropriate manner and would minimize the potential for adverse impacts to occur.
Policy 5.12: Provide appropriate permanent measures to reduce stormwater pollutant loads in stormwater from a development site.	Consistent. The proposed project would install an on-site infiltration trench system under the central surface parking lot area. A crescent pipe screen would be installed to provide pre-treatment prior to stormwater conveyance to the proposed infiltration trench. Excess runoff that exceeds the infiltration trench capacity during the peak rainfall event would flow into a parkway culvert drain that outflows to the existing North Bewley Street gutter. Thus, the project would implement appropriate stormwater measures to reduce flow volumes.

Source: City of Santa Ana, *City of Santa Ana General Plan Land Use Element*, February 2, 1998.

Zoning Code Consistency

Development of townhomes in the City is regulated under Municipal Code Chapter 41, Division 6, *Townhouse Standards*. Table 4.11-2, *Townhouse Development Standards Consistency Analysis*, details the project's consistency with applicable townhouse development standards. As shown, the project would be consistent with applicable townhouse development standards.

Table 4.11-2
Townhouse Development Standards Consistency Analysis

Development Standard	Townhouse Requirement[1]	Proposed Project	Does Project Satisfy Requirement?
Minimum Lot Area	3,000 square feet per unit	35,719 square feet (30,000 square feet required)	Yes
Minimum Development Site Size	12,000 square feet with minimum street frontage of 100 feet	35,719 square feet with 120-foot street frontage	Yes
Maximum Building Height	Two stories (27 feet)	27 feet	Yes
Maximum Lot Coverage	50 percent	36.2 percent	Yes
Minimum Building Separation	20 feet	23 to 28 feet between each building	Yes
Minimum Private Open Space	250 square feet per unit, with a minimum of ten feet in each direction	Each unit would have a private backyard/patio (ranging in size from 250 to 1,000 square feet) and private balcony (ranging in size from 30 to 250 square feet).	Yes
Minimum Public Open Space	250 square feet per unit, with a minimum of 15 feet in each direction	2,500 square feet (2,500 square feet required)	Yes
Required Parking Spaces	2 residential spaces in a garage per unit; 2 guest spaces per unit	40 parking spaces (40 parking spaces required)	Yes

Table 4.11-2 [cont'd]
Townhouse Development Standards Consistency Analysis

Development Standard	Townhouse Requirement[1]	Proposed Project	Does Project Satisfy Requirement?
Minimum Storage Space	250 cubic feet per unit, with minimum dimensions of four feet by eight feet (can be provided in garage)	Each garage is 400 square feet and would have adequate storage space.	Yes
Minimum Setbacks			
Front Yard	20 feet	20 feet	Yes
Side Yard	10 feet	10 feet	Yes
Rear Yard	15 feet	15 feet	Yes
Landscape Standards			
Front Yard	One 24-inch box canopy tree; All trees double-staked; Six 5-gallon shrubs and ten one-gallon herbaceous perennials/shrubs as foundation planting; Turf or other dry climate ground cover; and Root barriers on all trees	Two 24-inch box southern live oak and four Brisbane box trees, shrubs, and groundcover are proposed along front yard; refer to Exhibit 2-6, *Conceptual Landscape Plan*. All trees would be planted with double-stakes and root barriers.	Yes
Project Perimeter Walls	Flowering vines secured to a decorate masonry wall or wood fence material; 5-gallon vines planted at 20-foot intervals; Shrubs, fruit trees, or ornamental trees may be substituted for flowering vines	Fern pines, dwarf magnolias, shrubs, creeping fig vines, and groundcover are proposed along the perimeter walls; refer to Exhibit 2-6.	Yes

Source: City of Santa Ana, *Santa Ana Municipal Code*, current through Supplement 21 and published 2007.

Additionally, the following discretionary actions are required by the City:

- *General Plan Amendment*. As stated above, a General Plan Amendment would be required to redesignate the site from LR-7 to MR-15 to allow the proposed density of 11.5 dwelling units per acre.

- *Tentative Tract Map*. A Tentative Tract Map would be required to subdivide the site into individual lots for condominium purposes to develop the ten-unit townhome community.

Based on the analysis above and upon approval of the requested entitlements, the proposed project would not conflict with applicable goals and policies in the General Plan or applicable regulations under the Zoning Code. As such, the project would result in less than significant impacts in this regard.

Mitigation Measures: No mitigation measures are required.

4.12 MINERAL RESOURCES

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

a) 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. According to the General Plan Land Use Element, there are no significant mineral aggregate resource areas designated within the City. Further, there are no current mineral extraction activities in Santa Ana. Thus, no impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

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

No Impact. Refer to Response 4.12(a).

Mitigation Measures: No mitigation measures are required.

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4.13 NOISE

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

Sound is mechanical energy transmitted by pressure waves in a compressible medium such as air and is characterized by both its amplitude and frequency (or pitch). The human ear does not hear all frequencies equally. In particular, the ear de-emphasizes low and very high frequencies. To better approximate the sensitivity of human hearing, the A-weighted decibel scale (dBA) has been developed. On this scale, the human range of hearing extends from approximately 3 dBA to around 140 dBA.

Noise is generally defined as unwanted or excessive sound, which can vary in intensity by over one million times within the range of human hearing; therefore, a logarithmic scale, known as the decibel scale (dB), is used to quantify sound intensity. Noise can be generated by a number of sources, including mobile sources such as automobiles, trucks, and airplanes, and stationary sources such as construction sites, machinery, and industrial operations. Noise generated by mobile sources typically attenuates (is reduced) at a rate between 3 dBA and 4.5 dBA per doubling of distance. The rate depends on the ground surface and the number or type of objects between the noise source and the receiver. Hard and flat surfaces, such as concrete or asphalt, have an attenuation rate of 3 dBA per doubling of distance. Soft surfaces, such as uneven or vegetated terrain, have an attenuation rate of about 4.5 dBA per doubling of distance. Noise generated by stationary sources typically attenuates at a rate between 6 dBA and about 7.5 dBA per doubling of distance.

There are a number of metrics used to characterize community noise exposure, which fluctuate constantly over time. One such metric, the equivalent sound level (L_{eq}), represents a constant sound that, over the specified period, has the same sound energy as the time-varying sound. Noise exposure over a longer period of time is often evaluated based on the Day-Night Sound Level (L_{dn}). This is a measure of 24-hour noise levels that incorporates a 10-dBA penalty for sounds occurring between 10:00 p.m. and 7:00 a.m. The penalty is intended to reflect the increased human sensitivity to noises occurring during nighttime hours, particularly at times when people are sleeping and there are lower ambient noise conditions. Typical L_{dn} noise levels for light and medium density residential areas range from 55 dBA to 65 dBA.

REGULATORY FRAMEWORK

State

State Office of Planning and Research Noise Element Guidelines

The State Office of Planning and Research (OPR) Noise Element Guidelines include recommended exterior and interior noise level standards for local jurisdictions to identify and prevent the creation of incompatible land uses due to noise. The OPR Noise Element Guidelines contain a land use compatibility table that describes the compatibility of various land uses with a range of environmental noise levels in terms of the Community Noise Equivalent Level (CNEL). Table 4.13-1, *Land Use Compatibility for Community Noise Environments*, presents guidelines for determining acceptable and unacceptable community noise exposure limits for various land use categories. The guidelines also present adjustment factors that may be used to arrive at noise acceptability standards that reflect the noise control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution.

Table 4.13-1
Land Use Compatibility for Community Noise Environments

Land Use Category	Community Noise Exposure (L_{dn} or CNEL, dBA)			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential – Low Density, Single-Family, Duplex, Mobile Homes	50 – 60	55 – 70	70 – 75	75 – 85
Residential – Multiple Family	50 – 65	60 – 70	70 – 75	70 – 85
Transient Lodging – Motel, Hotels	50 – 65	60 – 70	70 – 80	80 – 85
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 – 70	60 – 70	70 – 80	80 – 85
Auditoriums, Concert Halls, Amphitheaters	NA	50 – 70	NA	65 – 85
Sports Arenas, Outdoor Spectator Sports	NA	50 – 75	NA	70 – 85
Playgrounds, Neighborhood Parks	50 – 70	NA	67.5 – 75	72.5 – 85
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 – 70	NA	70 – 80	80 – 85
Office Buildings, Business Commercial, Professional	50 – 70	67.5 – 77.5	75 – 85	NA
Industrial, Manufacturing, Utilities, Agriculture	50 – 75	70 – 80	75 – 85	NA

Notes: NA = Not Applicable; L_{dn} = Day/Night Average; CNEL = community noise equivalent level; dBA = A-weighted decibels

Normally Acceptable - Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Conditionally Acceptable - New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

Normally Unacceptable - New Construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Clearly Unacceptable – New construction or development should generally not be undertaken.

Source: State of California Governor's Office of Planning and Research, *General Plan Guidelines*, July 2017.

Caltrans Transportation and Construction Vibration Guidance Manual

The *Transportation and Construction Vibration Guidance Manual* prepared by the California Department of Transportation (Caltrans) identifies various vibration damage criteria for different building classes. As the nearest structures to project construction are residences, the architectural damage criterion for continuous vibrations at older residential structures of 0.3 inch-per-second peak particle velocity (PPV) is utilized.[1]

Local

City of Santa Ana General Plan

The General Plan Noise Element helps the City minimize noise problems in area's sensitive to noise due to development. The Noise Element focuses on remedial measures to deal with existing noise problems, the prevention of new noise problems through proper arrangement of noise sensitive land uses in relationship to circulation systems, and establishment of appropriate noise emission or insulation standards for the various land uses. Table 4.13-2, *Interior and Exterior Noise Standards*, shows the City's adopted noise standards and guidelines.

Table 4.13-2
Interior and Exterior Noise Standards

Categories	Land Use Categories	Interior[1]	Exterior[2]
Residential	Single-Family, duplex, multi-family	45[3]	65
Institutional	Hospital, school classroom/playgrounds	45	65
	Church, library	45	--
Open Space	Parks	--	65

Notes:
1. Interior areas include, but are not limited to, bedrooms, bathrooms, kitchens, living rooms, dining rooms, closets, corridors/hallways, private offices, and conference rooms.
2. Exterior areas include private yards of single-family homes, park picnic areas, school playgrounds, and common areas; private open space (e.g., atriums or balconies) shall be excluded form exterior areas provided sufficient common area is included within the project.
3. Interior noise level requirements contemplate a closed window condition. Mechanical ventilation system or other means of natural ventilation shall be provided per Chapter 12, Section 1305 of the Uniform Building Code.

Source: City of Santa Ana, *City of Santa Ana General Plan Noise Element,* adopted September 20, 1982 (reformatted January 2010).

The Noise Element of the General Plan includes the following goals and policies that are applicable to the proposed project.

Goal 1 Prevent significant increase in noise levels in the community and minimize the adverse effects of currently existing noise sources.

Objective 1.1 Prevent creation of new and additional sources of noise.
Objective 1.2 Reduce current noise levels to acceptable standards.

Policies:

- Require consideration of noise generation potential and susceptibility to noise impacts in the sitting, design and construction of new developments.
- Require mitigating site and building design features, traffic circulation alternatives, insulation, and other noise prevention measures of those new developments which generate high noise levels.

[1] California Department of Transportation, *Transportation and Construction Vibration Guidance Manual*, Table 19, September 2013.

- Sound insulate and/or buffer sensitive land uses such as housing from adverse noise impacts in noise-prone areas.
- Minimize noise generation in residential neighborhoods through control or elimination of truck traffic and through-traffic from these areas.

Santa Ana Municipal Code

Chapter 18 Article VI of the Municipal Code contains the City's noise control regulations. The following sections of the Municipal Code are applicable to the proposed project.

Section 18-311. – Designated Noise Zone.

The entire City of Santa Ana is hereby designated as "Noise Zone 1."

Section 18-312. – Exterior Noise Standards.

(a) The following noise standards, unless otherwise specifically indicated, shall apply to all residential property within a designated noise zone (refer to Table 4.13-3, *Exterior Noise Standards*)*:*

Table 4.13-3
Exterior Noise Standards

Noise Zone	Noise Level	Time Period
1	55 dB(A)	7:00 a.m. – 10:00 p.m.
	50 dB(A)	10:00 p.m. – 7:00 a.m.

Notes: dB(A)= A-weighted decibels

1. In the event the alleged offensive noise consists entirely of impact noise, simple tone noise, speech, music, or any combination thereof, each of the above noise levels shall be reduced by five (5) dB (A).

(b) It shall be unlawful for any person at any location within the City of Santa Ana to create any noise, or to allow the creation of any noise on property owned, leased, occupied, or otherwise controlled by such person, when the foregoing causes the noise level, when measured on any other residential property, to exceed:

1. The noise standard for a cumulative period of more than thirty (30) minutes in any hour; or

2. The noise standard plus five (5) dBA(A) for a cumulative period of more than fifteen (15) minutes in any hour: or

3. The noise standard plus ten (10) dB(A) for a cumulative period of more than five (5) minutes in any hour; or

4. The noise standard plus fifteen (15) dB(A) for a cumulative period of more than one minute in any hour; or

5. The noise standard plus twenty (20) dB(A) for any period of time.

(c) In the event the ambient noise level exceeds any of the first four (4) noise limit categories above, the cumulative period applicable to said category shall be increased to reflect said ambient noise level. In the

event the ambient noise level exceeds the fifth noise limit category, the maximum allowable noise level under said category shall be increased to reflect the maximum ambient noise level.

Section 18-313. – Interior Noise Standards.

(a) The following noise standards, unless otherwise specifically indicated, shall apply to all residential property within a designated noise zone (refer to Table 4.13-4, *Interior Noise Standards*)*:*

Table 4.13-4
Interior Noise Standards

Noise Zone	Noise Level	Time Period
1	55 dB(A)	7:00 a.m. – 10:00 p.m.
	45 dB(A)	10:00 p.m. – 7:00 a.m.

Notes: dB(A)= A-weighted decibels

1. In the event the alleged offensive noise consists entirely of impact noise, simple tone noise, speech, music, or any combination thereof, each of the above noise levels shall be reduced by five (5) dB (A).

(b) It shall be unlawful for any person at any location within the City of Santa Ana to create any noise, or to allow the creation of any noise on property owned, leased, occupied, or otherwise controlled by such person, when the foregoing causes the noise level, when measured within any other dwelling unit on any residential property, to exceed:

1. The interior noise standard for a cumulative period of more than five (5) minutes in any hour; or

2. The interior noise standard plus five (5) dB(A) for a cumulative period of more than one minute in any hour; or

3. The interior noise standard plus ten (10) dB(A) for any period of time.

(c) In the event the ambient noise level exceeds either of the first two (2) noise limit categories above, the cumulative period applicable to said category shall be increased to reflect said ambient noise level. In the event the ambient noise level exceeds the third noise limit category, the maximum allowable noise level under said category shall be increased to reflect the maximum ambient noise level.

Section 18-314. – Special Provisions.

The following activities shall be exempted from the provisions of this article:

(e) Noise sources associated with construction, repair, remodeling, or grading of any real property, provided said activities do not take place between the hours of 8:00 p.m. and 7:00 a.m. on weekdays, including Saturday, or any time on Sunday or a federal holiday.

EXISTING CONDITIONS

Stationary Sources

The project area is located within an urbanized area. The primary sources of stationary noise in the project vicinity are urban-related activities (i.e., mechanical equipment, commercial areas, parking areas, and pedestrians). The noise associated with these sources may represent a single-event noise occurrence, short-term, or long-term/continuous noise.

Mobile Sources

The majority of the existing noise in the project area is generated from vehicles traveling along North Bewley Street, West Washington Avenue, West 11th Street, and Harbor Boulevard. According to the General Plan, the 65 dBA CNEL traffic noise contour along Harbor Boulevard is within 50 to 100 feet of the right-of way.[2,3]

Noise Measurements

In order to quantify existing ambient noise levels in the vicinity of the project site, two noise measurements were taken on January 29, 2020; refer to Table 4.13-5, *Noise Measurements*. The noise measurement sites were representative of typical existing noise exposure within and immediately adjacent to the project site. Ten-minute measurements were taken, between 10:30 a.m. and 11:30 a.m. Short-term (L_{eq}) measurements are considered representative of the noise levels throughout the day.

Table 4.13-5
Noise Measurements

Site No.	Location	L_{eq} (dBA)	L_{min} (dBA)	L_{max} (dBA)	Peak (dBA)	Time
1	Along north Bewley Street, in-front of a gated two-way driveway at 1114 north Bewley Street.	54.7	44.1	72.8	93.2	10:41 a.m.
2	Along north Bewley Street, next to a driveway at 1210 Bewley Street.	56.1	44.7	71.1	96.8	11:02 a.m.
Notes: dBA = A-weighted decibels, L_{eq} = Equivalent Sound Level; L_{min} = Minimum Sound Level; L_{max} = Maximum Sound Level, Peak = Highest Instantaneous Sound Level						
Source: Michael Baker International, January 29, 2020.						

Meteorological conditions were sunny, cool temperatures, with light wind speeds (0 to 5 miles per hour). Noise monitoring equipment used for the ambient noise survey consisted of a Brüel & Kjær Hand-held Analyzer Type 2250 equipped with a Type 4189 pre-polarized microphone. The monitoring equipment complies with applicable requirements of the American National Standards Institute (ANSI) for sound level meters. The results of the field measurements are included in Appendix E, *Noise Analysis*.

2 City of Santa Ana, *City of Santa Ana General Plan: Noise Element*, Exhibit 5, Transportation Noise Sources.

3 The Community Noise Equivalent Level (CNEL) is a rating of community noise exposure to all sources of sound that differentiates between daytime, evening, and nighttime noise exposure. These adjustments are +5 dBA for the evening, 7:00 p.m. to 10:00 p.m., and +10 dBA for the night, 10:00 p.m. to 7:00 a.m.

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less Than Significant Impact. It is difficult to specify noise levels that are generally acceptable to everyone; noise that is considered a nuisance to one person may be unnoticed by another. Standards may be based on documented complaints in response to documented noise levels or based on studies of the ability of people to sleep, talk, or work under various noise conditions.

CONSTRUCTION

Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., grading, paving, building construction). Noise generated by construction equipment, including graders and concrete saws, can reach high levels. During construction, exterior noise levels could affect the residential neighborhoods in the vicinity of the project site. Specifically, project construction could occur as close as approximately ten feet from an existing residential structure to the south of the project site.

Construction of the proposed project would occur over approximately 13 months and would include grading, paving, building construction, and architectural coating. Groundborne noise and other types of construction-related noise impacts would typically occur during the grading construction phase and have the potential to create the highest levels of noise. As such, the grading phase represents the worst-case condition for short-term construction noise levels that may occur at the nearest noise-sensitive receptors.

Construction noise is difficult to quantify because of the many variables involved, including the specific equipment types, size of equipment used, percentage of time each piece is in operation, condition of each piece of equipment, and number of pieces that would operate on the site. Construction equipment produce maximum noise levels when equipment is operating under full power conditions (i.e., the equipment engine at maximum speed). However, equipment used on construction sites typically operates under less than full power conditions, or partial power. To more accurately characterize construction-period noise levels, the average (L_{eq}) noise level associated with each construction stage is calculated based on the quantity, type, and usage factors for each type of equipment that would be used during each construction stage. These noise levels are typically associated with multiple pieces of equipment simultaneously operating on part power. Project construction would involve the following construction phases: grading, building construction, paving and architectural coating. These construction phases would utilize typical construction equipment such as: graders, pavers, rollers, tractors/loaders/backhoes, dozers; refer to Appendix A, *Air Quality/GHG/Energy Analysis* for the complete list of modeled equipment.

The maximum sound level (L_{max}) construction noise levels from the typical construction equipment would vary from 77 dBA to 85 dBA at a distance of 50 feet.[4] Pursuant to the Municipal Code Section 18-314, construction activities may occur between the hours of 7:00 a.m. and 8:00 p.m. on weekdays and Saturdays, and is prohibited on Sundays or Federal holidays. These permitted hours of construction recognize that construction activities undertaken during daytime hours are a typical part of living in an urban environment and do not cause a significant disruption. Given the sporadic and variable nature of proposed project construction and the implementation of time limits specified in the Municipal Code, short-term construction noise impacts would be less than significant. Additionally, to further reduce the potential for noise impacts, best management practices to further reduce noise levels during construction would be implemented. These best management practices would include making sure that all construction equipment, fixed or mobile, are equipped with properly operating and maintained mufflers and other state-required noise attenuation devices. With the implementation of the best management practices and adherence to the City's limitation on the allowable hours of construction, short-term noise impacts would be less than significant.

4 Federal Highway Administration, *Roadway Construction Noise Model (FHWA-HEP-05-054)*, January 2006.

OPERATIONS

Mobile Noise

Future development generated by the proposed project would result in additional traffic on adjacent roadways, thereby increasing vehicular noise in the vicinity of existing and proposed land uses. According to the *Highway Traffic Noise Analysis and Abatement Policy and Guidance*, a doubling of traffic volumes would result in a 3 dB increase in traffic noise levels, which is barely detectable by the human ear.[5] Based on the *1122 Bewley Street Townhomes Project Trip Generation Analysis* (Trip Generation Memo) prepared by Ganddini Group, Inc. (dated December 20, 2019), the proposed project is projected to generate approximately 73 average daily trips (ADT), which includes approximately 5 a.m. peak hour trips and approximately 6 p.m. peak hour trips. Per the General Plan Noise Element, ADT along Harbor Boulevard in the vicinity of the proposed project is approximately 20,000 to 30,000 vehicles per day. As such, the project's trip generation (approximately 73 ADT) would not double existing traffic volumes and an increase in traffic noise along local roadways would be imperceptible.[6] Therefore, project-related traffic noise would be less than significant.

Stationary Noise Impacts

Stationary noise sources associated with the project would include those typical of residential areas (e.g., mechanical equipment, dogs/pets, landscaping activities, weekly garbage collection, and cars parking). These noise sources are typically intermittent and short in duration and would be comparable to existing sources of noise experienced at surrounding residential uses. Further, all stationary noise activities would be required to comply with the City's Noise Ordinance and the California Building Code requirements pertaining to noise attenuation. As such, impacts from stationary sources would be less than significant.

Mechanical Equipment

The project would include heating, ventilation, and air conditioning (HVAC) units located at the exterior of the proposed townhome units on the ground level. HVAC units typically generate noise levels of approximately 52 dBA L_{eq} at 50 feet from the source.[7] The HVAC units would be located as close as approximately 30 feet from the nearest off-site residential properties to the north of the project site. HVAC noise levels at this distance would be approximately 56 dBA. However, an existing six-foot high concrete masonry unit block wall would break the line of sight between the HVAC unit and the sensitive receptor to the north. As a result, HVAC noise levels would be attenuated by approximately 8 dBA.[8] Thus, HVAC noise levels would be approximately 48 dBA at the nearest off-site sensitive receptor. Therefore, the City's exterior daytime (55 dBA) and nighttime (50 dBA) noise standards per Municipal Code Section 18-312 would not be exceeded as a result of HVAC stationary noise at the project site. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact With Mitigation Incorporated. Project construction can generate varying degrees of groundborne vibration, depending on the construction phase and equipment used. Operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the

5 U.S. Department of Transportation, *Highway Traffic Noise Analysis and Abatement Policy and Guidance*, updated August 24, 2017, https://www.fhwa.dot.gov/environMent/noise/regulations_and_guidance/polguide/polguide02.cfm, accessed February 27, 2019.

6 City of Santa Ana, *Santa Ana General Plan: Noise Element*, Exhibit 5, Transportation Noise Sources.

7 Berger, Elliott H., et al., *Noise Navigator Sound Level Database with Over 1700 Measurement Values*, July 6, 2010.

8 Federal Highway Administration, *Roadway Construction Noise Model User's Guide*, January 2006.

source. The effect on buildings located in the vicinity of the construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. Groundborne vibrations from construction activities rarely reach levels that damage structures.

The Caltrans *Transportation and Construction Vibration Manual* identifies various vibration damage criteria for different building classes. This evaluation uses the Caltrans architectural damage threshold for continuous vibrations at older residential structures of 0.3 inch-per-second peak particle velocity (PPV). As the nearest structures to project construction areas are residences, this threshold is considered appropriate. The types of construction vibration impact include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural.

The highest degree of groundborne vibration during project construction would be generated during the paving phase due to the operation of a vibratory roller. Based on Federal Transit Administration data, vibration velocities from vibratory roller operations are approximately 0.293 inch-per-second PPV at 20 feet from the source of activity.[9] As such, structures located greater than 20 feet from vibratory roller operations would not experience groundborne vibration above the 0.3 inch-per-second PPV significance threshold. All residential structures surrounding the project site are located further than 20 feet from vibratory roller operations with the exception of the residences approximately 16 feet to the north of the project boundary (Assessor's Parcel Number 938-700-52 through -67) and 18 feet south of the project boundary (APN 198-101-08). At this distance, vibration velocities from vibratory roller operations would be approximately 0.830 inch-per-second PPV and would exceed the Caltrans significance threshold. Therefore, groundborne vibration generated from vibratory roller construction activities are potentially significant. Mitigation Measure NOI-1 would be required to reduce vibration impacts. Implementation of Mitigation Measure NOI-1 would ensure the use of a static (non-vibratory) roller, as an alternative to vibratory rollers, within 20 feet of the northern and southern residences to ensure vibration levels do not exceed the 0.3 inch-per-second PPV significance threshold. With implementation of Mitigation Measure NOI-1, impacts would be reduced to less than significant levels.

Mitigation Measures:

NOI-1 Prior to issuance of a grading permit, the Applicant shall prepare a paving control plan to ensure that the paving construction phase does not result in damage to existing residences to the north and south of the site. The paving control plan shall be subject to the City of Santa Ana Planning and Building Agency's approval. To reduce groundborne vibration levels, the paving control plan shall stipulate that static (non-vibratory) rollers be used, as an alternative to vibratory rollers, within 20 feet of the northern and southern residences (Assessor's Parcel Number [APN] 938-700-52 through -67 and 198-101-08) located approximately 16 feet to the north and 18 feet to the south, respectively. Vibratory roller operations shall be prohibited within 20 feet of APN 938-700-52 through -67 and 198-101-08.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The nearest airport to the project site is the John Wayne Airport located approximately six miles to the southeast. The project site is not located within the John Wayne Airport noise contours.[10] Additionally, the project site is not located within the vicinity of a private airstrip or related facilities. Therefore, project implementation would not

9 Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, September 2018.

10 Orange County Airport Land Use Commission, *John Wayne Airport 2018 Annual 60-75 (5 dB intervals) CNEL Noise Contours*, 2018.

expose people residing or working in the project area to excessive noise levels associated with aircraft. No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

4.14 POPULATION AND HOUSING

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

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

Less Than Significant Impact. A project could induce population growth in an area either directly, through the development of new residences or businesses, or indirectly, through the extension of roads or other infrastructure. The proposed project would develop a ten-unit townhome community on a currently vacant site. Therefore, the project would result in direct growth in the City's population.

Based on the City's average household size of 4.42,[1] the project would introduce up to 44 new residents. Therefore, although nominal, the project would induce population growth in a local context. Conservatively assuming that all 44 new residents relocate from outside of the City, potential population growth associated with the project would represent only a 0.01 percent increase over the City's existing population of 337,716 persons.[2] Therefore, the project would not induce substantial unplanned population growth.

Potential population growth impacts are also assessed based on a project's consistency with adopted plans that have addressed growth management from a local and regional standpoint. The Southern California Association of Governments (SCAG) growth forecasts estimate the City's population to reach 343,100 persons by 2040, representing a total increase of 13,900 persons between 2012 and 2040.[3] The project's residential population (44 persons) represents 0.3 percent of the City's anticipated growth by 2040, and only 0.01 percent of the City's total projected 2040 population. SCAG's regional growth projections are based upon long-range development assumptions (i.e., General Plans) of the relevant jurisdiction.

Although the project would result in direct population growth, the proposed project would not induce substantial unplanned population growth exceeding existing conditions (0.01 percent increase) and/or regional 2040 populations projection for the City (0.01 percent). As a result, the project would result in less than significant impacts to population growth.

1 California Department of Finance, *Report E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011-2019 with 2010 Census Benchmark*, Sacramento, California, May 1, 2019.

2 Ibid.

3 Southern California Association of Governments, *2016-2040 RTP/SCS Final Growth Forecast by Jurisdiction*, https://www.scag.ca.gov/Documents/2016_2040RTPSCS_FinalGrowthForecastbyJurisdiction.pdf, accessed December 30, 2019.

Mitigation Measures: No mitigation measures are required.

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

No Impact. There are no existing residences on-site. As such, project implementation would not displace existing people or housing and instead, would provide a ten-unit townhome community. No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

4.15 PUBLIC SERVICES

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. 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:				
1) Fire protection?			✓	
2) Police protection?			✓	
3) Schools?			✓	
4) Parks?			✓	
5) Other public facilities?			✓	

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

1) Fire protection?

Less Than Significant Impact. The Orange County Fire Authority (OCFA) provides fire protection services to the City, including the project site. The closest fire station is Station #78, located approximately 0.7-mile to the southwest of the project site at 501 North Newhope Street.

Construction

Construction activities associated with the proposed project would create a temporary increase in demand for fire protection services at the project site. However, construction activities would be subject to compliance with applicable State and local regulations in place to reduce risk of construction-related fire, such as installation of temporary construction fencing to restrict site access and maintenance of a clean construction site. As such, a less than significant impact would occur in this regard.

Operation

The proposed ten-unit development would create an increased demand for fire protection services. However, due to the infill nature of the project, the nominal population increase of 44 persons would not result in the need for new or physically altered fire protection facilities; refer to Section 4.14, *Population and Housing*. The proposed project would be required to comply with OCFA requirements regarding emergency access, fire flow, fire protection standards, minimum fire lane widths, and other site design/building standards. In addition, the project would be subject to compliance with existing regulations specified in Municipal Code Chapter 14 Article I, *Fire Code*, which adopts by reference the California Fire Code. Following compliance with OCFA and Municipal Code requirements, the project's operational impacts to fire protection services would be less than significant, and the project would not result in the

need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts.

Mitigation Measures: No mitigation measures are required.

2) Police protection?

Less Than Significant Impact. The Santa Ana Police Department (SAPD) provides police protection services to Santa Ana. The SAPD headquarters is located approximately 2.1 miles to the east of the site at 60 Civic Center Plaza. Additionally, a police sub-station is located approximately 1.2 miles south of the site at 3750 West McFadden Avenue.

Construction

Construction activities associated with the proposed project would create a temporary increase in demand for police protection services at the project site. However, construction activities would be subject to compliance with Municipal Code Chapter 8 Article II, *Building Code*, which adopts by reference the California Building Code. Chapter 33, *Safeguards During Construction*, of the California Building Code includes emergency access requirements which would minimize site safety hazards and potential construction-related impacts to police services. Compliance with existing regulations would ensure less than significant impacts occur in this regard.

Operation

Development of the proposed project would generate an increase in demand for police protection services. However, due to the infill nature of the project, the nominal population increase of 44 persons would not result in the need for new or physically altered police protection facilities; refer to Section 4.14. As stated, the proposed project would be designed in compliance with Municipal Code Chapter 8 Article II, *Building Code*, which adopts by reference the California Building Code. Following compliance with State and local site safety requirements, the project's operational impacts to police services would be less than significant, and the project would not result in the need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts.

Mitigation Measures: No mitigation measures are required.

3) Schools?

Less Than Significant Impact. The project site is located within the boundaries of the Garden Grove Unified School District (GGUSD). The schools serving the project site include Thomas Pain Elementary School located at 15792 Ward Street; Doig Intermediate School located at 12752 Trask Avenue, and Santiago High School located at 12342 Trask Ave, all within the City of Garden Grove.[1]

The project involves the development of ten townhomes, which could generate additional students within the project area. Although the project would result in an increased demand for GGUSD school services, all new residential, commercial, and industrial construction projects are subject to GGUSD developer fees. Assembly Bill (AB) 2926 and Senate Bill (SB) 50 allow school districts to collect development impact fees. According to Section 65996 of the California Government Code, payment of statutory fees is considered full mitigation for new development projects. Thus, upon payment of required fees by the project Applicant consistent with existing GGUSD and State requirements, a less than significant impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

[1] Garden Grove Unified School District, *SchoolSite Locator*, http://apps.schoolsitelocator.com/?districtcode=89374, accessed January 16, 2020.

4) Parks?

Less Than Significant Impact. The City of Santa Ana Parks, Recreation and Community Services Agency currently operates and maintains 44 parks within the City. The nearest park to the project site is Cesar Chavez Campesino Park, located approximately 0.4-mile southeast of the project site at 3311 West 5th Street. Future residents associated with the proposed project would create an increased demand for park services. However, due to the infill nature of the project, the nominal population increase of 44 persons would not result in the need for new or physically altered park facilities, the construction of which could cause significant environmental impacts. Thus, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

5) Other public facilities?

Less Than Significant Impact. Other public facilities that could potentially be impacted by the proposed project include library services. The Santa Ana Public Library (SAPL) system currently serves the City including the project site. The closest library is the Newhope Library, located approximately 0.84-mile southwest of the project site at 122 North Newhope Street. The Main Library is located approximately 2.5 miles southeast of the project site at 26 Civic Center Plaza. Due to the infill nature of the project, the nominal population increase of 44 persons is not anticipated to result in a significant impact on SAPL's services. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

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4.16 RECREATION

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

a) 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 stated in Response 4.15(a)(4), the proposed project would not result in a substantial increase in demand on existing parks or other recreational facilities and would not result in the physical deterioration of these facilities. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

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?

Less Than Significant Impact. As discussed in Section 2.4, *Project Characteristics*, the project would provide a 2,500-square foot central public open space area consisting of a grass play area and picnic shelter with associated amenities (e.g., table, benches, and barbecue). Additionally, pedestrian access to each building on-site would be provided via a meandering pedestrian walkway along the northern project boundary. For each townhome units, private open space (backyard, patio, and/or balconies) would be provided. The project's potential environmental impacts for construction of the aforementioned recreational amenities are analyzed throughout this Initial Study. Compliance with applicable laws, ordinances, and regulations would ensure that the project's impacts are reduced to a less than significant level in this regard.

Mitigation Measures: No mitigation measures are required.

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4.17 TRANSPORTATION

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?			✓	
b. Conflict or be inconsistent with CEQA Guidelines Section 15064.3(b) and/or the thresholds of significance set forth in Section 5.09, *Determining the Significance of Transportation Impacts*, Table 1, of the City of Santa Ana's Local CEQA Guidelines?				✓
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			✓	
d. Result in inadequate emergency access?			✓	

This section is primarily based upon the *1122 Bewley Street Townhomes Project Trip Generation Analysis* (Trip Generation Memo) prepared by Ganddini Group, Inc. (dated December 20, 2019); refer to Appendix F, *Trip Generation Memo*.

a) Conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less Than Significant Impact. The project site is located near a variety of existing transportation facilities. Bus stops are located along Harbor Boulevard to the west of the project site and are served by transit routes provided by the Orange County Transportation Authority. Bicycle lanes and pedestrian sidewalks are also provided along Harbor Boulevard. Pedestrian sidewalks are provided along all major roadways in the project area, including North Bewley Street, West Washington Avenue and West 11th Street.

No changes to transit, bicycle, or pedestrian facilities are proposed as part of the project. Therefore, project development would not conflict with any program plan, ordinance, or policy addressing the circulation system in the project area. Impacts to roadway capacities are analyzed under Response 4.17(b). A less than significant impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3(b) and/or the thresholds of significance set forth in Section 5.09, Determining the Significance of Transportation Impacts, Table 1, of the City of Santa Ana's Local CEQA Guidelines?

No Impact. The proposed project would involve developing a ten-unit townhome community. As detailed in Table 4.17-1, *Project Trip Generation*, the project is forecast to generate approximately 73 average daily trips, including 5 a.m. peak hour trips and 6 p.m. peak hour trips.

Table 4.17-1
Project Trip Generation

Land Use	Source/ Quantity	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	
Trip Generation Rates								
Multi-Family Housing (Low-Rise)	ITE 220	23%	77%	0.46	63%	37%	0.56	7.32
Project Trips Generated								
Multi-Family Housing (Low-Rise)	10 DU	1	4	5	4	2	6	73
Notes: ITE = Institute of Transportation Engineers, *Trip Generation Manual*, 10th Edition, 2017; DU = dwelling units								
Source: Ganddini Group Inc., *1122 Bewley Street Townhomes Project Trip Generation Analysis*, December 20, 2019; refer to Appendix F.								

Section 2.1 of the *City of Santa Ana Traffic Impact Study Guidelines* (dated September 2019) and Table 1, *VMT Impact Thresholds*, of the *City of Santa Ana Local CEQA Guidelines* (dated June 2019) state that projects that generate less than 110 net daily trips do not require Vehicle Miles Traveled (VMT) analysis. Therefore, the project would not conflict or be inconsistent with the thresholds of significance set forth in Section 5.09, *Determining the Significance of Transportation Impacts*, Table 1, of the *City of Santa Ana Local CEQA Guidelines*. No impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

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

Less Than Significant Impact. The project does not propose changes to the City's circulation system, such as sharp curves or dangerous intersections, and would not introduce incompatible uses to area roadways (e.g., farm equipment or trucking facilities). The existing dirt driveway in the southeast corner of the site would be improved and provide vehicular and pedestrian access from North Bewley Street; refer to Exhibit 2-3, *Conceptual Site Plan*. Internal drive aisles would also be constructed to provide vehicular access to each townhome unit and the central parking lot. The proposed site access and internal circulation improvements would not result in hazardous traffic conditions and would be subject to the City's traffic engineer and Orange County Fire Authority (OCFA) review and approval for compliance with applicable design and safety standards. Thus, impacts related to hazards due to geometric design features or incompatible uses would be less than significant.

Mitigation Measures: No mitigation measures are required.

d) Result in inadequate emergency access?

Less Than Significant Impact. As detailed above in Response 4.17(c), the existing dirt driveway in the southeast corner of the site would be improved and provide vehicular and pedestrian access from North Bewley Street. The primary driveway and internal drive aisles would be constructed and designed to meet the City and OCFA's design and fire safety standards, including those related to fire truck turn radii and fire lane width requirements. As a result, project implementation would not result in inadequate emergency access. Impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

4.18 TRIBAL CULTURAL RESOURCES

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

As of July 1, 2015, California Assembly Bill 52 (AB 52) was enacted and expanded CEQA by establishing a formal consultation process for California tribes within the CEQA process. The bill specifies that any project may affect or cause a substantial adverse change in the significance of a tribal cultural resource would require a lead agency to "begin consultation with a California Native American tribe that is traditional and culturally affiliated with the geographic area of the proposed project." Section 21074 of AB 52 also defines a new category of resources under CEQA called "tribal cultural resources." Tribal cultural resources are defined as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and is either listed on or eligible for the California Register of Historical Resources (CRHR) or a local historic register, or if the lead agency chooses to treat the resource as a tribal cultural resource.

On February 19, 2016, the California Natural Resources Agency proposed to adopt and amend regulations as part of AB 52 implementing Title 14, Division 6, Chapter 3 of the California Code of Regulations, CEQA Guidelines, to include consideration of impacts to tribal cultural resources pursuant to Government Code Section 11346.6. On September 27, 2016, the California Office of Administrative Law approved the amendments to Appendix G of the CEQA Guidelines, and these amendments are addressed within this Initial Study.

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

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

No Impact. According to Appendix B, *Cultural Resources Assessment*, no historic resources listed or eligible for listing in a State or local register of historic resources are located within the project site. Thus, no impacts related to historic tribal cultural resources defined in Public Resources Code Section 5020.1(k) would occur in this regard.

Mitigation Measures: No mitigation measures are required.

2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less Than Significant With Mitigation Incorporated. In compliance with AB 52, the City distributed letters notifying each tribe that requested to be on the City's list for the purposes of AB 52 of the opportunity to consult with the City regarding the proposed project; refer to Appendix G, *AB 52 Documentation*. The letters were distributed by certified mail on February 10, 2020. The tribes had 30 days to respond to the City's request for consultation. The Gabrieleno Band of Mission Indians - Kizh Nation requested consultation on February 12, 2020. The City consulted with the tribe on March 17, 2020 and concluded consultation with the agreement that Mitigation Measure TCR-1 be included in the Initial Study. Mitigation Measure TCR-1 would require the project applicant/developer to retain a qualified Native American Monitor to be present on-site during initial site clearing and construction to ensure potential project impacts on previously undiscovered tribal cultural resources are reduced to less than significant levels. As such, project impacts in this regard would be less than significant with mitigation incorporated.

Mitigation Measures:

TCR-1 Prior to the issuance of any permits for initial site clearing (such as pavement removal, grubbing, tree removals) or issuance of permits allowing ground disturbing activities that cause excavation to depths greater than artificial fill (including boring, grading, excavation, drilling, potholing or auguring, and trenching), the City of Santa Ana shall ensure that the project applicant/developer retain qualified Native American Monitor(s). The Monitor(s) shall be approved by the tribal representatives of the Gabrieleno Band of Mission Indians – Kizh Nation and be present on-site during initial site clearing and construction that involves ground disturbing activities that cause excavation to depths greater than artificial fill.

The Monitor(s) shall conduct a Native American Indian Sensitivity Training for construction personnel. The training session shall include a handout and focus on how to identify Native American resources encountered during earthmoving activities and the procedures followed if resources are discovered. The Native American Monitor(s) shall complete monitoring logs on a daily basis, providing descriptions of the daily activities, including construction activities, locations, soil, and any cultural materials identified. The on-site monitoring shall end when grading and excavation activities of native soil (i.e., previously undisturbed) are completed, or when the tribal representatives and monitor have indicated that the site has a low potential for tribal cultural resources, whichever occurs first.

In the event that tribal cultural resources are inadvertently discovered during ground disturbing activities, work must be halted within 50 feet of the find until it can be evaluated by a qualified archaeologist in cooperation with the Native American Monitor(s) to determine if the potential resource meets the CEQA definition of

historical (State CEQA Guidelines 15064.5(a)) and/or unique resource (Public Resources Code 21083.2(g)). Construction activities can continue in other areas. If the find is considered an "archeological resource" the archaeologist, in cooperation with Native American Monitor(s) shall pursue either protection in place or recovery, salvage and treatment of the deposits. Recovery, salvage, and treatment protocols shall be developed in accordance with applicable provisions of Public Resource Code Section 21083.2 and State CEQA Guidelines 15064.5 and 15126.4. If a tribal cultural resource cannot be preserved in place or left in an undisturbed state, recovery, salvage, and treatment shall be required at the project applicant's expense. All recovered and salvaged resources shall be prepared to the point of identification and permanent preservation in an established accredited professional repository.

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4.19 UTILITIES AND SERVICE SYSTEMS

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

a) Require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less Than Significant Impact.

Water

Water services are currently provided to the project site by the City of Santa Ana Public Works Agency Water Resources Division. The proposed project would construct private water lines on-site to connect to the City's existing water facilities in North Bewley Street. Payment of standard water connection fees, ongoing user fees, and development impact fees under Municipal Code Section 39-2, *Water and Sewer Systems Development Impact Fees*, would ensure that the project's impacts on existing water facilities are adequately offset. Additionally, all private water lines are required to be designed and constructed in accordance with the latest edition of the Standard Specifications for Public Works Construction, the American Water Works Association Standards, and the California Waterworks Standards per Municipal Code Section 39-3, *Water and Sewer Systems Design Standards*. Given that the recently demolished residence and structures on-site were previously served by the City's Water Resources Division, it is not anticipated that project implementation would require construction of new or expanded water facilities that could result in significant environmental effects. A less than significant impact would occur in this regard.

Wastewater

Wastewater generated from the project site is collected by the City's local wastewater collection system and is then conveyed to the Orange County Sanitation Districts (OCSD) trunk mainlines for conveyance and treatment. OCSD is responsible for safely collecting, treating, and disposing of wastewater generated by users in its service area, which

encompasses an approximately 479 square mile area with a population of approximately 2.5 million people. Wastewater generated at the project site is treated by OCSD at plants in Fountain Valley (OCSD Reclamation Plant No. 1) or Huntington Beach (OCSD Reclamation Plant No. 2). OCSD Reclamation Plant No. 1 has a capacity of 204 million gallons per day (mgd) for primary treatment and 182 mgd for secondary treatment. OCSD Reclamation Plant No. 2 has a capacity of 168 mgd for primary treatment and 150 mgd for secondary treatment. OCSD Reclamation Plant No. 1 and OCSD Reclamation Plant No. 2 collectively treated 188 mgd in 2017.[1]

Based on OCSD generation rates, project implementation would generate approximately 2,060 gallons per day (gpd) of wastewater (based on 206 gpd per equivalent dwelling unit).[2] Given the remaining capacity available at OCSD Reclamation Plant No. 1 and Reclamation Plant No. 2, sufficient capacity exists to serve the project and new wastewater treatment facilities or expansion of existing facilities would not be necessary. Adequate capacity exists to serve the project in addition to OCSD's existing commitments. Notwithstanding, the project would be required to pay standard OCSD wastewater connection fees and ongoing user fees to ensure that sufficient wastewater treatment capacity is available. Additionally, sewer development impact fees would be required per Municipal Code Section 39-2, *Water and Sewer Systems Development Impact Fees*. Payment of these fees would fund improvements and upgrades to surrounding sewer lines and OCSD facilities, as needed, and would offset the project's increase in demand for wastewater collection services. Following compliance with relevant laws, ordinances, and regulations, it is not anticipated that project implementation would require construction of new or the expansion of existing wastewater facilities that would result in a significant environmental effect. Impacts would be less than significant in this regard.

Stormwater

The proposed project would install on-site catch basins, a junction structure with a crescent pipe screen for pretreatment, and an infiltration trench sized to capture the project's design capture volume; refer to Section 4.10, *Hydrology and Water Quality*. Excess runoff during the peak rainfall event that exceeds the infiltration trench capacity would flow into an overflow pipe to outflow into the existing street gutter along North Bewley Street, which would eventually flow into the East Garden Grove Wintersburg Channel, and ultimately to the Pacific Ocean.

The project's potential environmental effects for construction of the abovementioned stormwater drainage improvements are analyzed in this Initial Study. Construction of the new storm drain improvements would be subject to compliance with all applicable local, State, and Federal laws, ordinances, and regulations. Compliance with relevant laws, ordinances, and regulations would ensure the project's impacts associated with the proposed storm drain improvements are reduced to less than significant levels.

Dry Utilities

Natural gas, electricity, and telecommunication services are provided to the project site by the Southern California Gas Company, Southern California Edison, and Spectrum, respectively. The project would involve constructing new private on-site dry utility lines associated with such services. Payment of standard utility connection fees and ongoing user fees would be required to ensure these utility services would be able to accommodate the proposed development. The project's potential environmental impacts for construction in this regard are analyzed throughout this Initial Study. Construction of the project's dry utilities would also be subject to compliance with all applicable local, State, and Federal laws, ordinances, and regulations throughout this Initial Study. As such, project impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

1 Carollo Engineers, *Orange County Sanitation District Cost of Service Study Report*, page 1-2, December 2017.
2 Carollo Engineers, *Orange County Sanitation District Cost of Service Rate Study and Financial Analysis*, Appendix 1, Use Codes and Rate Schedule, December 2017.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

Less Than Significant Impact. Based on the *City of Santa Ana 2015 Urban Water Management Plan* (UWMP), Table 4.19-1, *City of Santa Ana Total Water Demand Projections*, details the City's anticipated total water demand projections from 2015 through 2040.

Table 4.19-1
City of Santa Ana Total Water Demand Projections

	2015	2020	2025	2030	2035	2040
Potable and Raw Water Demand	36,655	36,678	39,397	39,669	39,658	39,716
Recycled Water Demand	352	320	320	320	320	320
Total Water Demand	**37,007**	**36,998**	**39,717**	**39,989**	**39,978**	**40,036**
Notes: Units are in acre-feet.						
Source: Arcadis, *City of Santa Ana 2015 Urban Water Management Plan*, June 2016.						

The City relies on a combination of imported water, local groundwater, and recycled water to meet its water needs. The City's main sources of water supply are groundwater from the Orange County Groundwater Basin (71 percent), imported water (28 percent), and recycled water (one percent). According to the UWMP, the City is able to meet projected demands during normal, dry, and multiple dry years through 2040; refer to Tables 4.19-2, *Normal Year Supply and Demand Comparison*, through 4.19-4, *Multiple Dry Year Supply and Demand Comparison*.

Table 4.19-2
Normal Year Supply and Demand Comparison

	2020	2025	2030	2035	2040
Supply Totals	36,998	39,717	39,989	39,978	40,036
Demand Totals	36,998	39,717	39,989	39,978	40,036
Difference	0	0	0	0	0
Notes: Units are in acre-feet.					
Source: Arcadis, *City of Santa Ana 2015 Urban Water Management Plan*, June 2016.					

Table 4.19-3
Single Dry Year Supply and Demand Comparison

	2020	2025	2030	2035	2040
Supply Totals	39,218	42,100	42,388	42,377	42,438
Demand Totals	39,218	42,100	42,388	42,377	42,438
Difference	0	0	0	0	0
Notes: Units are in acre-feet.					
Source: Arcadis, *City of Santa Ana 2015 Urban Water Management Plan*, June 2016.					

Table 4.19-4
Multiple Dry Year Supply and Demand Comparison

		2020	2025	2030	2035	2040
First Year	Supply Totals	39,218	42,100	42,388	42,377	42,438
	Demand Totals	39,218	42,100	42,388	42,377	42,438
	Difference	0	0	0	0	0
Second Year	Supply Totals	39,218	42,100	42,388	42,377	42,438
	Demand Totals	39,218	42,100	42,388	42,377	42,438
	Difference	0	0	0	0	0
Third Year	Supply Totals	39,218	42,100	42,388	42,377	42,438
	Demand Totals	39,218	42,100	42,388	42,377	42,438
	Difference	0	0	0	0	0
Notes: Units are in acre-feet.						
Source: Arcadis, *City of Santa Ana 2015 Urban Water Management Plan*, June 2016.						

Based on the project's Air Quality and Greenhouse Gas modeling, the project would result in a water demand of approximately 3,041 gpd (1.11 million gallons per year), or 3.4 acre-feet per year; refer to Appendix A. The project's estimated water demand of 3.4 acre-feet per year would represent less than one percent of the City's total water demand of 36,998 acre-feet for 2020 and 40,036 acre-feet for 2040. Additionally, the project would be required to comply with water efficiency standards in the 2019 California Building Energy Efficiency Standards and 2019 California Green Building Standards Code. Thus, project implementation would result in a less than significant impact in this regard.

Mitigation Measures: No mitigation measures are required.

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

Less Than Significant Impact. The proposed project would result in the generation of wastewater beyond existing conditions; refer to Response 4.19(a). However, there is substantial remaining capacity for wastewater treatment at OCSD's two treatment plants to serve the project's projected demand. The project would generate approximately 2,060 gpd, which represents a negligible amount of OCSD's combined 184 mgd remaining capacity for primary treatment at the two treatment plants. Following compliance with relevant laws, ordinances, and regulations, it is not anticipated that the project's wastewater treatment demand, in addition to OCSD's existing commitments, would exceed capacity. A less than significant impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less Than Significant Impact. Waste Management provides residential waste collection for the City, including the project site. Based on 2018 data, the most recent year available, Waste Management disposed over 99 percent of the City's solid waste at one of the ten landfills listed in Table 4.19-5, *Primary Landfills Serving the City*.[3]

[3] California Department of Resources Recycling and Recovery, *Jurisdiction Disposal By Facility, Disposal During 2018 for Santa Ana*, https://www2.calrecycle.ca.gov/LGCentral/DisposalReporting/Destination/DisposalByFacility, accessed January 3, 2020.

Table 4.19-5
Primary Landfills Serving the City

Landfill/Location	Maximum Daily Throughput (tons per day)	Remaining Capacity (cubic yards)	Anticipated Closure Date
Antelope Valley Public Landfill 1200 West City Ranch Road, Palmdale, CA 93551	5,548	17,911,225	4/1/2044
Azusa Land Reclamation Co. Landfill 1211 West Gladstone Street, Azusa, CA 91702	8,000	51,512,201	1/1/2045
Chiquita Canyon Sanitary Landfill 29201 Henry Mayo Drive, Castaic, CA 91384	12,000	60,408,000	1/1/2047
El Sobrante Landfill 10910 Dawson Canyon Road, Corona, CA 91719	16,054	143,977,170	1/1/2051
Frank R. Bowerman Sanitary Landfill 11002 Bee Canyon Access Road, Irvine, CA 92618	11,500	205,000,000	12/31/2053
McKittrick Waste Treatment Site 56533 Highway 58, McKittrick, CA 93251	3,500	769,790	12/31/2059
Mid-Valley Sanitary Landfill 2390 North Alder Avenue, Rialto, CA 92377	7,500	61,219,377	4/1/2033
Olinda Alpha Landfill 1942 North Valencia Avenue, Brea, CA 92823	8,000	34,200,000	12/31/2021
Prima Deshecha Landfill 32250 Avenida La Pata, San Juan Capistrano, CA 92675	4,000	134,300,000	12/31/2102
Simi Valley Landfill and Recycling Center 2801 Madera Road, Simi Valley, CA 93065	9,250	88,300,000	1/31/2052

Source: California Department of Resources Recycling and Recovery, *SWIS Facility/Site Search*, https://www2.calrecycle.ca.gov/SWFacilities/Directory, accessed January 3, 2020.

Construction

Project construction is not anticipated to generate significant quantities of solid waste with the potential to affect the capacity of regional landfills. Further, all construction activities would be subject to conformance with relevant Federal, State, and local requirements related to solid waste disposal. Specifically, the project would be required to demonstrate compliance with the California Integrated Waste Management Act of 1989 (AB 939), which requires all California cities to "reduce, recycle, and re-use solid waste generated in the State to the maximum extent feasible." AB 939 requires that at least 50 percent of waste produced is recycled, reduced, or composted. The project would also be required to demonstrate compliance with the 2019 Green Building Code, which includes design and construction measures that act to reduce construction-related waste through material conservation and other construction-related efficiency measures. Compliance with these regulations would ensure the project's construction-related solid waste impacts would be less than significant.

Operation

Based on a multi-family residential solid waste generation rate of 4 pounds per household per day,[4] the proposed project would generate approximately 40 pounds of solid waste per day (or 0.02 tons per day). The project's nominal solid waste generation represents less than one percent of the total maximum daily permitted throughput capacities identified in Table 4.19-5. As such, the project is not anticipated to generate solid waste in excess of State or local

[4] California Department of Resources Recycling and Recovery, *Estimated Solid Waste Generation Rates*, https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates, accessed February 26, 2020.

standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. Impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

e) Comply with Federal, State, and local management and reduction statutes and regulations related to solid waste?

Less Than Significant Impact. Refer to Response 4.19(d) above. The proposed project would comply with all Federal, State, and local statutes and regulations related to solid waste, including the California Integrated Waste Management Act and City recycling programs. Specifically, the project would be subject to AB 939, which requires that at least 50 percent of waste produced is recycled, reduced, or composted. On a local level, the project would be subject to compliance with Municipal Code Chapter 16 Article II, *Solid Waste Collection Regulations*. As such, less than significant impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

4.20 WILDFIRE

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

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. According to the California Department of Forestry and Fire's *Orange County Very High Fire Hazard Severity Zones in LRA Map*, the City is not located in or near a State responsibility area nor is the City designated as a very high fire hazard severity zone.[1] No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

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

No Impact. Refer to Response 4.20(a).

Mitigation Measures: No mitigation measures are required.

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

No Impact. Refer to Response 4.20(a).

Mitigation Measures: No mitigation measures are required.

[1] California Department of Forestry and Fire Protection, *Orange County Very High Fire Hazard Severity Zones in LRA Map*, October 2011.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Impact. Refer to Response 4.20(a).

Mitigation Measures: No mitigation measures are required.

4.21 MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		✓		
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are 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?		✓		

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less Than Significant Impact With Mitigation Incorporated. As concluded in Section 4.4, *Biological Resources*, the project site is disturbed and is located within an urbanized area of the City. No sensitive plant and animal species occur on-site. Thus, the project would have no impacts on sensitive plant or animal species. Additionally, as indicated in Section 4.5, *Cultural Resources*, and Section 4.18, *Tribal Cultural Resources*, no historic, archaeological, or tribal cultural resources occur on-site. Should previously undiscovered cultural or tribal cultural resources be uncovered during project ground-disturbing activities, implementation of Mitigation Measures CUL-1 and TCR-1 would reduce the project's potential effects to less than significant levels. Overall, the project would not potentially 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)?

Less Than Significant Impact With Mitigation Incorporated. A significant impact may occur if a proposed project, in conjunction with related projects, would result in impacts that are less than significant when viewed separately, but would be significant when viewed together. As concluded in Sections 4.1 through 4.20, the proposed project would

not result in any significant and unavoidable impacts with implementation of project mitigation measures. Implementation of mitigation measures at the project-level would reduce the potential for the incremental effects of the proposed project to be considerable when viewed in connection with the effects of past projects, current projects, or probable future projects.

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

Less Than Significant Impact With Mitigation Incorporated. Previous sections of this Initial Study reviewed the proposed project's potential impacts related to aesthetics, air quality, noise, hazards and hazardous materials, traffic, and other issues. As concluded in these previous discussions, the proposed project would not have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly, following conformance with the existing regulatory framework and mitigation measures. Further, as a residential development, project features would be designed to meet the needs of humans and are not anticipated to result in direct or indirect adverse effects. Impacts would be less than significant in this regard.

4.22 REFERENCES

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4.23 REPORT PREPARATION PERSONNEL

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5.0 CONSULTANT RECOMMENDATION

Based on the information and environmental analysis contained in the Initial Study/Environmental Checklist, we recommend that the City of Santa Ana prepare a mitigated negative declaration for the Bewley Street Townhomes Project. We find that the proposed project could have a significant effect on a number of environmental issues, but that mitigation measures have been identified that reduce such impacts to a less than significant level. We recommend that the second category be selected for the City of Santa Ana's determination (see Section 6.0, *Lead Agency Determination*).

May 5, 2020
Date

Frances Yau, AICP, Project Manager
Michael Baker International

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

I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required. ☐

Signature: _____

Title: Assistant Planner I

Printed Name: Jerry C. Guevara

Agency: City of Santa Ana

Date: May 5, 2020

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