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2129 N. Main Street Hampton Hotel
Initial Study/Mitigated Negative Declaration
City of Santa Ana, Orange County, California

Prepared for:
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Report Date: November 10, 2017

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List of Exhibits

ACRONYMS AND ABBREVIATIONS

°C	degrees Celsius (Centigrade)
°F	degrees Fahrenheit
µg/m^3	micrograms per cubic meter
ARB	California Air Resources Board
ARB	California Air Resources Board
BIOS	Biogeographic and Information Observation System
CalEEMod	California Emissions Estimator model
CBC	California Building Code
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CGS	California Geologic Survey
CMP	Congestion Management Program
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	carbon monoxide
CWA	Federal Clean Water Act
DAMP	Drainage Area Management Plan
FEMA	Federal Emergency Management Area
FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
GIS	Geographic Information System
gpd	gallons per day
HCM	Highway Capacity Manual
HCP	Habitat Conservation Plan
ICU	Intersection Capacity Utilization
IPaC	Information, Planning, and Conservation System
ITE	Institute of Transportation Engineers
LOS	level of service
LSTs	localized significance thresholds
MBTA	Migratory Bird Treaty Act
MEP	maximum extent practicable
mph	miles per hour
MS4	Municipal Separate Storm Sewer System
NAAQS	National Ambient Air Quality Standards
NCCP	Natural Community Conservation Plan

NOI	Notice of Intent
NO_X	oxides of nitrogen
NPDES	National Pollution Discharge Elimination System
NWI	National Wetlands Inventory
OCWD	Orange County Water District
OHWM	ordinary high water mark
$PM_{2.5}$	particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less
RWQCB	Regional Water Quality Control Board
SANC	Santa Ana Municipal Code
SARWQCB	Santa Ana Regional Water Quality Control Board
SCAQMD	South Coast Air Quality Management District
SoCAB	South Coast Air Basin
SO_X	sulfur oxides
SRAs	Source Receptor Areas
SRRE	Source Reduction and Recycling
SWPPP	Storm Water Pollution Prevention Plan
TAC	toxic air contaminant
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UWMP	Urban Water Management Plan
VOC	volatile organic compounds
WDR	Waste Discharge Requirements
WQMP	Water Quality Management Plan

SECTION 1: INTRODUCTION

The purpose of this Initial Study/Mitigated Negative Declaration (IS/MND) is to identify any potential environmental impacts from implementation of the 2129 N. Main Street Hampton Hotel Project in the City of Santa Ana, California. Pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15367, the City of Santa Ana is the Lead Agency in the preparation of this IS/MND and any additional environmental documentation required for the project. The City has discretionary authority over the proposed project. The intended use of this document is to determine the level of environmental analysis required to comply with CEQA and to provide the basis for input from public agencies, organizations, and interested members of the public.

The remainder of this section provides a brief description of the project location and the characteristics of the project. Section 2 includes an environmental checklist giving an overview of the potential impacts that may result from project implementation. Section 3 elaborates on the information contained in the environmental checklist, along with justification for the responses provided in the environmental checklist.

1.1 - Project Location

The City of Santa Ana is located in Orange County, California. It is surrounded by the City of Orange to the north, the City of Tustin to the east, the City of Irvine to the southeast, the City of Costa Mesa to the south, the cities of Fountain Valley and Westminster to the west, and the City of Garden Grove to the northwest (see Exhibit 1).

The project site is located at 2129 North Main Street in the City of Santa Ana. The project site is a 1.92-acres, currently occupied by a parking lot, an office building, two (2) single-family dwellings and accessory structures near the corner of West Buffalo Avenue and North Main Street. The project site comprises 12 parcels designated by County of Orange Assessor Parcel Numbers (APNs) 003-113-41, 003-113-59, 003-113-61, 003-113-63, 003-113-73, 003-113-75, 003-113-78, 003-113-80, and four parcels numbered 003-113-81 (see Exhibit 2).

1.2 - Environmental Setting

The 1.92-acre site is flat and urban. It currently consists of a surface parking lot, an office building, single-family dwellings and accessory structures. The project site is bound by an Interstate 5 (I-5) freeway off-ramp to the north, the I-5 freeway to the east, multi-family residential uses to the south, and Main Street with commercial uses to the west.

1.2.1 - General Plan

As shown on Exhibit 3, the 1998 City of Santa Ana General Plan Land Use Map currently designates the project site District Center (DC). The DC land use designation includes the major activity areas in the City. Seven areas of the City, totaling 646.7 acres, are designated District Center. The intensity standard for the District Center designation ranges from a floor ratio of 1.0 to 5.0. District Centers are designed to serve as anchors to the City's commercial corridors, and to accommodate major

development activity. District Centers are to be developed with an urban character that includes a mixture of high-rise office, commercial, and residential uses, which provide shopping, business, cultural, education, recreation, entertainment, and housing opportunities. Residential developments within some District Centers are allowed at a density of up to 90 units per acre when developed as an integral component of a master planned mixed-use project.

1.2.2 - Zoning

As shown on Exhibit 4, the 2017 City of Santa Ana Zoning Map currently zones the project site as Community Commercial-Museum (C1-MD) and Professional (P). The C1-MD zoning permits a hotel with the approval and issuance of a Conditional Use Permit (CUP) consistent with Section 41-375.1 of the City of Santa Ana Zoning Ordinance. For consistency, the entire project site will be rezoned to Community Commercial (C-1).

1.3 - Project Description

The proposed project consists of removing the existing surface parking lot, an office building (2119 North Main Street), a single-family dwelling (2058 North Bush Street) and three accessory structures. A two-story historical building (2115 North Main Street) will remain in place for conversion to a restaurant, and a one-story historical building (2056 North Bush Street) will be relocated from Bush Street to Main Street within the project site for conversion to an establishment selling alcoholic beverages. The City alley will be realigned with egress onto Main Street and a portion will be vacated. The California Department of Transportation (Caltrans) is working with the City to complete the process of relinquishing the remaining City local streets per the Freeway Agreement. A 135-room hotel will be developed on the site as shown on Exhibit 5, consisting of three buildings: a hotel, a restaurant, a bar, and 128 space surface parking lot.

The six-story hotel would provide 135 rooms, with an associated fitness room, hotel lobby common area, office/management/engineering area, and laundry facilities.

1.3.1 - Site Access

Vehicular access to the proposed project will be provided via one full access, unsignalized driveway on North Main Street and one gated emergency vehicle access driveway at the terminus of the realigned Bush Street cul-de-sac. Both of these access locations currently exist. Surface parking would be provided on the south and east sides of the project site. An automated access gate is proposed at the Main Street driveway to allow for paid public parking and validated parking for hotel guests and employees.

1.4 - Required Discretionary Approvals

The proposed project would require the following discretionary approvals:

- City Approval of the Initial Study/Mitigated Negative Declaration
- Zone Change for six P-zoned parcels to C1-MD

- Conditional Use Permit (CUP) to allow a hotel, restaurant, and establishment selling alcoholic beverages for consumption on the premises within C1-MD zoning
- Variances for:
  - Off-street parking: A total of 178 car stalls are required; 128 car stalls and parking for 16 bikes are proposed.
  - Front yard setback: Required setback is 15 feet; proposed setbacks are varied along Main Street.
  - Wall height: four (4) feet maximum in the required front yard; seven (7) feet and six (6) inches is proposed
  - Wall signs: two (2) maximum; four (4) proposed.
- Certificate of Appropriateness from the Historic Resources Commission to: Relocate the one-story historical building at 2056 North Bush Street (Melton House) to Main Street and to make exterior modifications to convert the building to an ancillary establishment selling alcoholic beverages and to make exterior modifications to the existing historical structure at 2115 N. Main Street (MacFarlane House) to convert the building to a restaurant.

1.5 - Intended Uses of this Document

This IS/MND has been prepared to determine the appropriate scope and level of detail required in completing the environmental analysis for the proposed project. This document will also serve as a basis for soliciting comments and input from members of the public and public agencies regarding the proposed project. The Draft IS/MND will be circulated for a minimum of 30 days, during which period comments concerning the analysis contained in the IS/MND should be sent to:

Selena Kelaher, AICP
20 Civic Center Plaza
Santa Ana, CA, 92702
Phone: 714.667.2740
Email: skelaher@santa-ana.org

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Source: Census 2000 Data, The CaSIL, FCS GIS 2016.

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5 2.5 0 5 Miles

Exhibit 1
Regional Location Map

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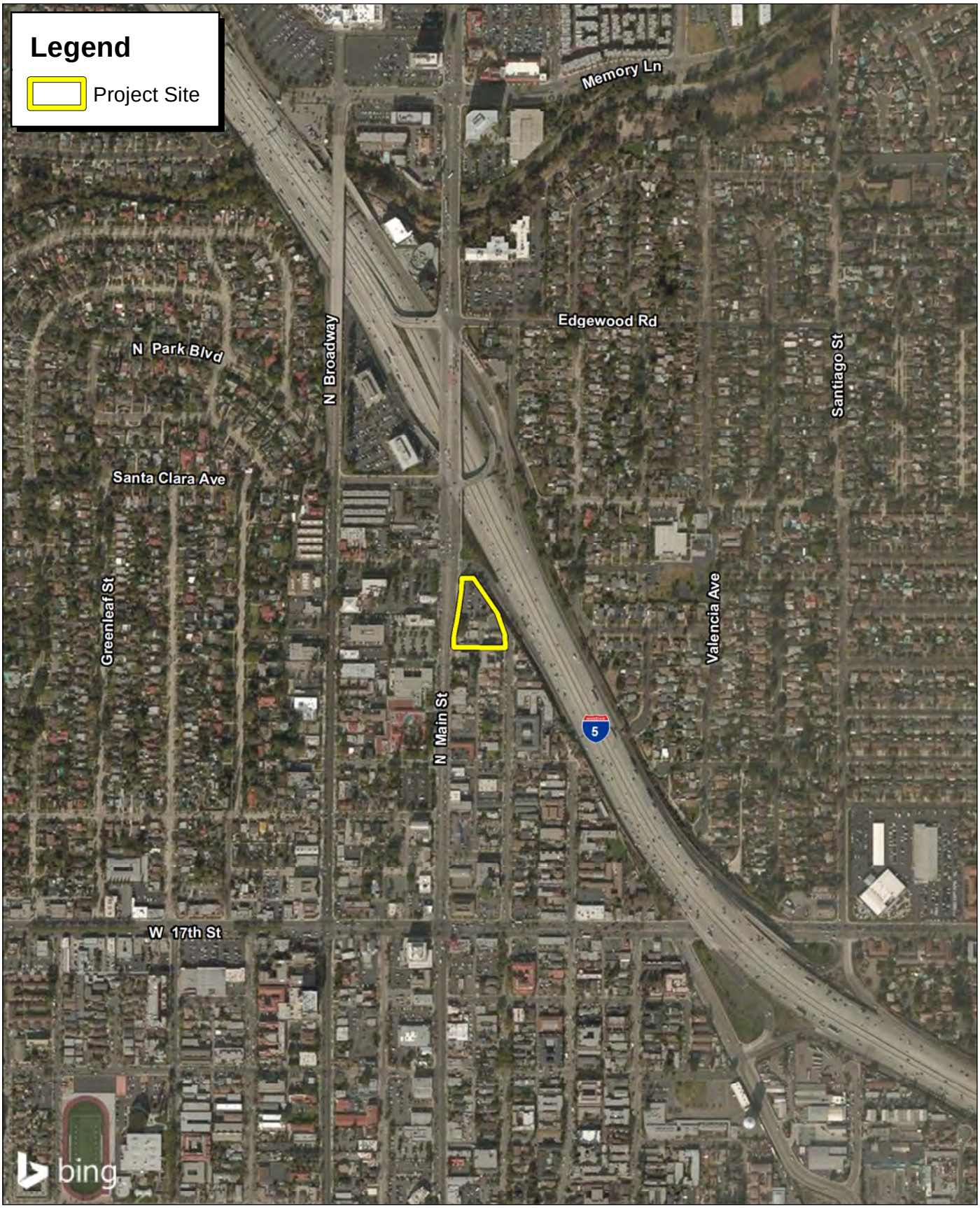

Source: ESRI Imagery

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750 375 0 750
Feet

Exhibit 2
Local Vicinity Map
Aerial Base

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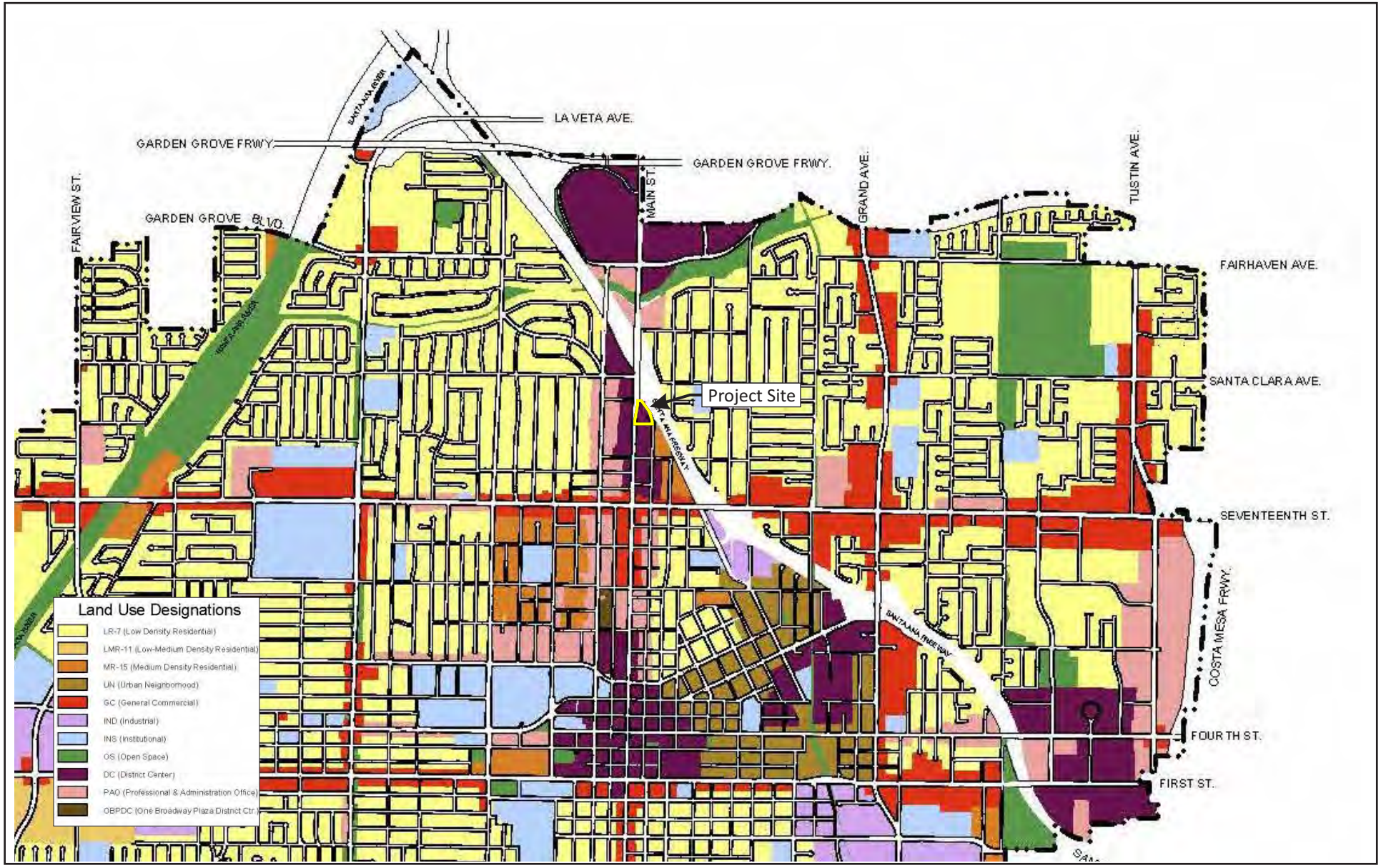

Source: City of Santa Ana, 2017

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Exhibit 3
City of Santa Ana General Plan Land Use Map

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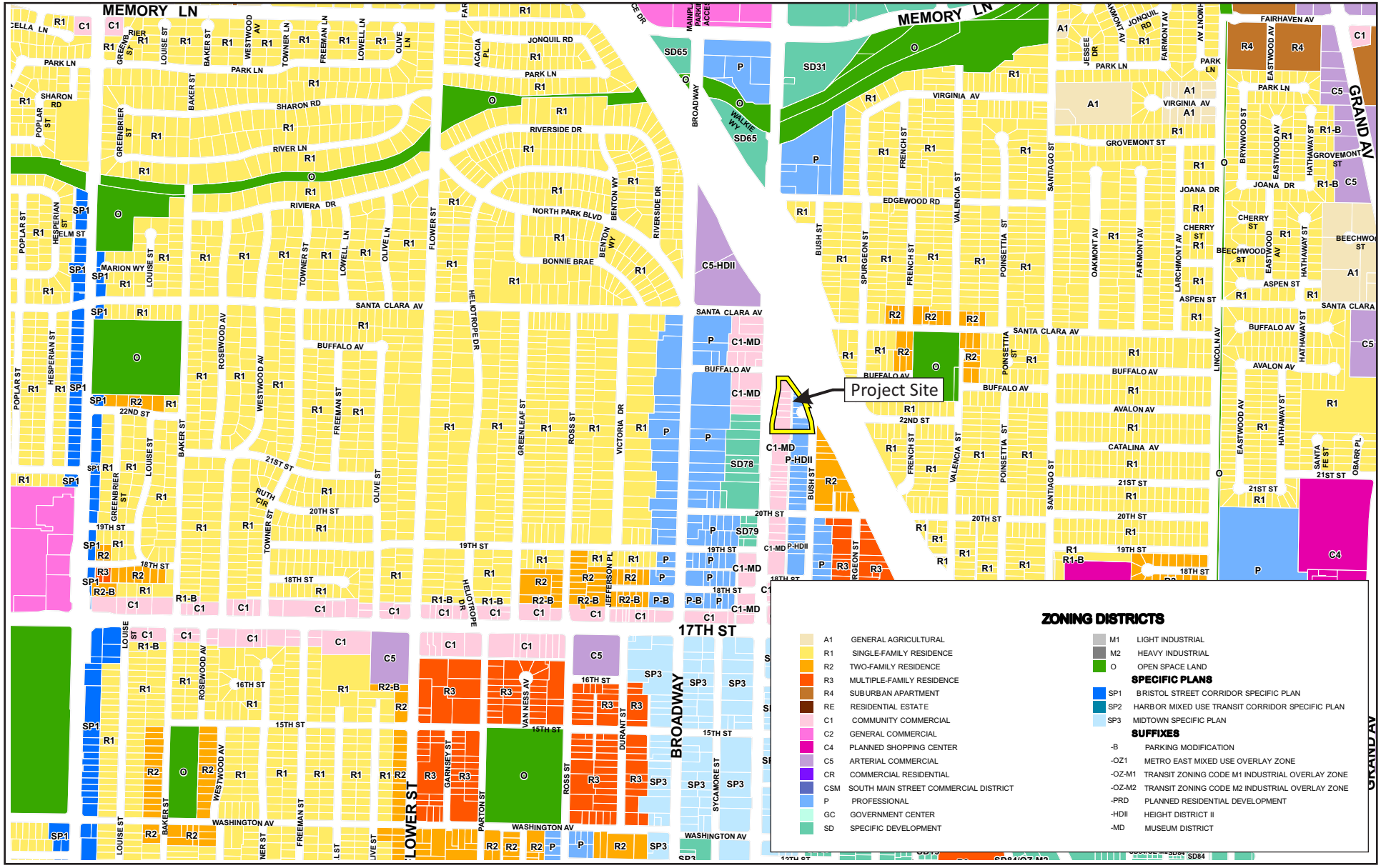

Source: City of Santa Ana, 2017

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Exhibit 4
City of Santa Ana Zoning Map

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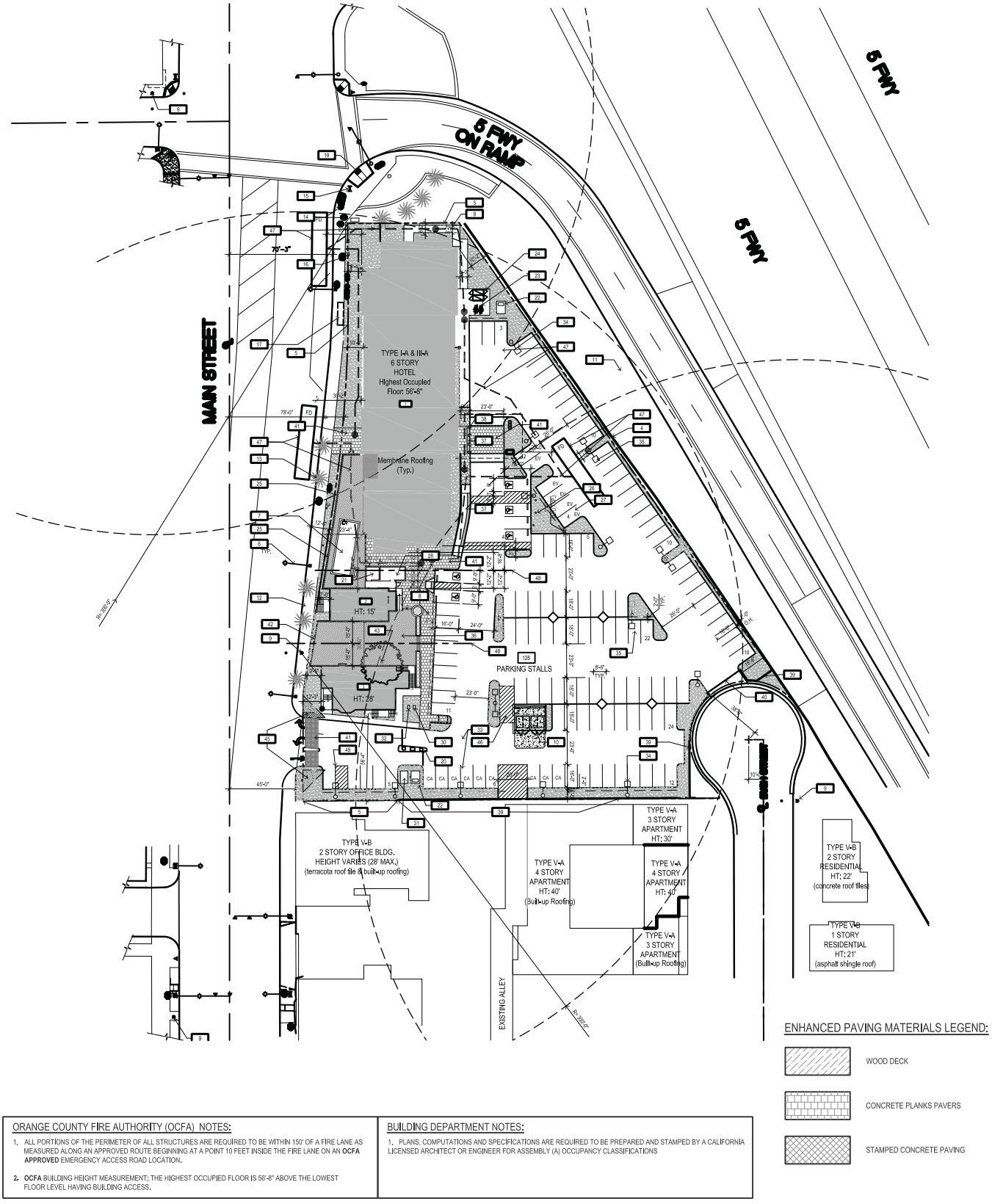

ORANGE COUNTY FIRE AUTHORITY (OCFA) NOTES:

1. ALL PORTIONS OF THE PERIMETER OF ALL STRUCTURES ARE REQUIRED TO BE WITHIN 150' OF A FIRE LANE AS MEASURED ALONG AN APPROVED ROUTE BEGINNING AT A POINT 10 FEET INSIDE THE FIRE LANE ON AN **OCFA APPROVED** EMERGENCY ACCESS ROAD LOCATION.
2. **OCFA** BUILDING HEIGHT MEASUREMENT; THE HIGHEST OCCUPIED FLOOR IS 56'-8" ABOVE THE LOWEST FLOOR LEVEL HAVING BUILDING ACCESS.

BUILDING DEPARTMENT NOTES:

1. PLANS, COMPUTATIONS AND SPECIFICATIONS ARE REQUIRED TO BE PREPARED AND STAMPED BY A CALIFORNIA LICENSED ARCHITECT OR ENGINEER FOR ASSEMBLY (A) OCCUPANCY CLASSIFICATIONS

Source: Architects Orange, 2017

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Exhibit 5
Site Plan

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SECTION 2: ENVIRONMENTAL CHECKLIST AND ENVIRONMENTAL EVALUATION

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

Environmental Determination

On the basis of this initial evaluation:

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

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

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

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measure based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

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

Date: November 9, 2017 Signed: _____

Selena Kelaher, Associate Planner

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

Environmental Setting

According to the Santa Ana General Plan, scenic resources in the City of Santa Ana include views of the Santa Ana Mountains. Additional regional corridors in the City of Santa Ana include the Santa Ana River and Santiago Creek, which are part of the County Open Space network. The project is not located within the vicinity of the Santa Ana River or Santiago Creek. According to California's Scenic Highway Mapping System, there are no designated Scenic Highways within the vicinity of the project site. The project site is located in an urbanized area adjacent to the I-5 Freeway with high levels of existing light. The adjacent commercial, residential, and freeway uses generate light and glare along all sides of the project site.

Environmental Evaluation

Would the project:

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

Less than significant impact. The project site is located in an urbanized area of Santa Ana that supports a mix of development, including commercial, residential, and institutional land uses. The project proposes to develop a six-story hotel. The project is not located within the vicinity of the Santa Ana River or Santiago Creek. The implementation of the proposed hotel would not obstruct current views of the Santa Ana Mountains, and would not have a substantial adverse effect on scenic vistas within the area; therefore, impacts would be less than significant.

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

Less than significant impact with mitigation incorporated. According to the Scenic Corridor Element of the City's General Plan, as well as California's Scenic Highway Mapping System, there are no designated Scenic Highways in the City of Santa Ana. However, the project proposes the relocation, rehabilitation, and adaptive reuse of the one-story historical building (Melton House) at 2056 North Bush Street for conversion to an establishment selling alcoholic beverages for consumption on the premises and the rehabilitation and adaptive reuse of the two-story historical building (MacFarlane House) at 2115–2117 North Main Street, which will remain in place for conversion to a restaurant.

Designation of properties as historic in the City of Santa Ana criteria can include any one of the following:

- Buildings, structures or objects with distinguishing characteristics of an architectural style or period, that exemplify a particular architectural style or design features;
- Works of notable architects, builders, or designers whose style influenced architectural development;
- Rare buildings, structures, or objects or original designs;
- Buildings, structures, objects or sites of historical significance which include places:
  - Where important events occurred;
  - Associated with famous people, original settlers, renowned organizations and businesses;
  - Which were originally present when the city was founded; or
  - That served as important centers for political, social, economic, or cultural activity.
  - Sites of archaeological importance;

The Historical Resources Evaluation Report [HRER](Appendix A) notes that the Melton House and MacFarlane House are designated "contributive" properties by the Santa Ana Register of Historical Properties under the following criteria:

Melton House (Historic Resource #463)

> It embodies the distinguishing characteristics of an architectural building period associated with a specific period of development. The MacFarlane House has been categorized as 'Contributive' because, as an example of the Craftsman style, the building 'contributes to the overall character and history' of Santa Ana, 'is a good example of period architecture', and 'has not been substantially altered' [from its original design].
>
> This property continues to meet the criteria, and levels of integrity, to be considered a historical resource in the City of Santa Ana, and the State of California.

A Historic Property Preservation Agreements was recorded in May 2015 for the Melton House between the City of Santa Ana and the owner of the property, and is included in Appendix A of this report.

MacFarlane House (Historic Resource #122)

> The house is rectangular in plan and features a low-pitched, front-gabled roof with an attached, front-gabled porch centered on the façade. The gables, both of which are clipped, end in plain bargeboards and are vented with alternating wide and narrow vertical strips of wood. The porch features two Tuscan columns that support the porch beam. Fenestration on the [front] façade consists of two large, single sash windows spanned [at the top] by two rows of eight lights. Side elevation windows display a variety of configurations, including nine-over-one, and one-over-one double hung [wood frame] sash windows, framed in plain wood surrounds. In fair condition, the house appears substantially intact.
>
> This property continues to meet the criteria, and levels of integrity, to be considered a historical resource in the City of Santa Ana, and the State of California.

Additionally, a Historic Property Preservation Agreements was recorded in May 2015 for the MacFarlane House between the City of Santa Ana and the owner of the property, and is included in Appendix A of this report.

As mentioned above, the project proposes to move the Melton House from 2056 North Bush Street to a lot immediately north of 2115–2117 North Main Street. The relocation has the potential to cause the Melton House to lose aspects of historical integrity (such as location, setting, feeling, and association). However, MM CUL-1, MM CUL-2, and MM CUL-3 will mitigate the potential loss of historical integrity by ensuring that the relocation and new setting of the Melton House follows the Secretary of the Interior's Standards for Rehabilitation and that the current setting of the Melton House is documented for historical purposes. The project also proposes the rehabilitation and adaptive reuse of both the Melton House and the MacFarlane House. To avoid significant adverse effects to the historical properties, MM CUL-4 would ensure that the rehabilitation follows the Secretary of the Interior's Standards for Rehabilitation during the rehabilitation and adaptive reuse.

As such, impacts will be less than significant with mitigation incorporated**.**

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

Less than significant impact. The existing visual character of the area surrounding the project site includes commercial, and residential development. The project proposes to develop a six-story hotel, including 135 rooms, with an associated fitness room, hotel lobby common area, office/management/engineering area, and laundry facilities. Surface parking would be provided to the south and east of the three proposed buildings (hotel, restaurant, and bar). Vehicular access to the site will be provided via one full-access unsignalized driveway on North Main Street, and one emergency vehicle access unsignalized driveway at the terminus of the realigned Bush Street cul-de-

sac. The proposed project would remain consistent with the existing visual character of the site and its surroundings. Therefore, no impacts would occur.

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

Less than significant impact. The project site is located in an urbanized area with high levels of existing light. The adjacent commercial, residential, institutional, and roadway uses generate light and glare along all sides of the property. Existing sources of lighting in the immediate vicinity of the project include street lighting, and neighborhood homes and businesses. The project proposes to develop a six-story hotel, and would comply with all City code requirements related to the height and design of lighting fixtures to ensure that light spillage onto adjacent properties does not occur. Impacts related to light and glare would be less than significant.

Mitigation Measures

Implement MM CUL-1 to MM CUL-4.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
2. Agriculture and Forestry Resources *In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:*				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Environmental Setting

The California Department of Conservation Farmland Mapping and Monitoring Program (FMMP) was established by the State Legislature in 1982 to assess the location, quality, and quantity of agricultural lands and conversion of these lands over time. The FMMP has established five farmland categories:

- Prime Farmland (F) is farmland with the best combination of physical and chemical features able to sustain long-term agricultural production. This land must have been used for irrigated

agricultural production at some time during the last four years before the mapping date and have the ability to store moisture in soil well.

- Farmland of Statewide Importance (S) is similar to Prime Farmland but contains greater slopes and a lesser ability to store soil moisture.
- Unique Farmland (U) is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climate zones in California. This land must still have been cropped some time during four years prior to the mapping date.
- Farmland of Local Importance (L) is important to the local agricultural economy as determined by each county's board of supervisors and local advisory committee.
- Grazing Land (G) is land on which the existing vegetation is suited to the grazing livestock. This category was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities.

According to the Farmland Mapping and Monitoring Program (FMMP) Orange County Important Farmland 2014, the City of Santa Ana does not contain any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance parcels (DOC, 2012). No farmland or agricultural activity exists on or within the vicinity of the project site. The City of Santa Ana is designated Urban and Built-Up Land by the FMMP, which is defined as land that is occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately six structures to a 10-acre parcel.

The Williamson Act, codified in 1965 as the California Land Conservation Act, allows local governments to enter into contracts with private landowners, offering tax incentives in exchange for an agreement that the land will remain agricultural or related open space use only for a period of 10 years. Additionally, according to the Williamson Act map for Orange County FMMP, the project site is not under a Williamson Act contract and there are no Williamson Act lands in the vicinity.

Environmental Evaluation

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

Would the project:

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

No impact. There is currently no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) within the City of Santa Ana. Therefore, impacts related to Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) would not occur.

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

No impact. There is currently no land under the Williamson Act contract. According to the Santa Ana Zoning Map, the proposed project site is zoned Professional (P) and Community Commercial—Museum District (C1-MD); the proposed project would not conflict with existing zoning for agricultural use or a Williamson Act contract. Therefore, no impacts would occur.

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. CEQA requires the evaluation of forest and timber resources where those resources are present; however, the project site is located in an urban built-up area, and there is no forest or timberland within the vicinity. There would be no associated impact.

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

No impact. The project is located in an urban built-up area; there is no forest land within the vicinity of the project site. There would be no associated impact.

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. As mentioned above, there is no Farmland or forest land within the vicinity of the project site, which is located in an urban built-up area in the City of Santa Ana. The project therefore would not induce the conversion of Farmland to non-agricultural uses or the conversion of forest land to non-forest use. There would be no associated impacts.

Mitigation Measures

None.

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

Environmental Evaluation

The project site is located within the City of Santa Ana and the South Coast Air Basin (SoCAB), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The applicable air quality plan for the project site is the SCAQMD's 2016 Air Quality Management Plan (AQMP). The SCAQMD works directly with the Southern California Association of Governments (SCAG), local governments, and state and federal agencies to maintain and attain air quality standards.

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Therefore, Table 1 shows the SCAQMD's air quality significance thresholds for construction- and operational-related emissions that were applied in this assessment.

Table 1: SCAQMD Air Quality Significance Thresholds

Pollutant	Mass Daily Thresholds (pounds/day)	
	Construction	Operation
NO_X	100	55
VOC	75	55
PM_{10}	150	150
$PM_{2.5}$	55	55
SO_X	150	150
CO	550	550

Notes:
NO_X = oxides of nitrogen; VOC = volatile organic compounds
PM_{10} = particulate matter with an aerodynamic resistance diameter of 10 micrometers or less
$PM_{2.5}$ = particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less
SO_X = sulfur oxides ;CO = carbon monoxide
Source: From SCAQMD CEQA Air Quality Handbook (SCAQMD, 1993.)

Would the project:

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

Less than significant impact. The applicable air quality plan for the project site is the SCAQMD's 2016 AQMP. The 2016 AQMP, released in March 2017, is a regional blueprint for achieving air quality standards and healthful air. The 2016 AQMP continues to evaluate current integrated strategies and control measures in order to meet the National Ambient Air Quality Standards (NAAQS), as well as explore new and innovative methods to reach its goal of reducing air pollutant impacts. Some of these approaches include utilizing a strategy with fair-share reductions at the federal, state, and local levels. To evaluate whether or not a project conflicts with, or obstructs the implementation of the 2016 AQMP, the *SCAQMD CEQA Air Quality Handbook* states that there are two key indicators. The indicators identified by the criteria are discussed below.

1. Indicator: Whether the project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the air quality management plan.

Project applicability: This indicator is applicable and assessed below.

2. Indicator: According to Chapter 12 of the *SCAQMD CEQA Air Quality Handbook*, the purpose of the General Plan consistency findings is to determine whether a project is inconsistent with the growth assumptions incorporated into the air quality plan, and thus, whether it would interfere with the region's ability to comply with federal and California air quality standards.

Project applicability: This indicator is applicable and assessed below.

Considering the recommended criteria in the CEQA Handbook, this analysis uses the following criteria to address the indicators above and determine the project's significance:

- Step 1: Project's contribution to air quality violations (SCAQMD's first indicator);
- Step 2: Assumptions in AQMP (SCAQMD's second indicator); and
- Step 3: Compliance with applicable emission control measures in the AQMPs.

Step 1: Project's Construction to Air Quality Violations

According to the SCAQMD, the project is consistent with the AQMP if the project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP (SCAQMD AQMP 2017, page 12-3). As shown in Impact 3b) and Impact 3d) below, the project would not generate regional or localized construction or operational emissions that would exceed SCAQMD's thresholds of significance.

If a project's emissions do not exceed the SCAQMD regional thresholds for VOC, NO_X, CO, SO_X, PM_{10}, or $PM_{2.5}$, it follows that the project's emissions would not exceed the allowable limit for each project in order for the region to attain and maintain ambient air quality standards, which is the primary goal of air quality plans. As shown in Table 2 and Table 3 below, the project's construction and operational emissions would not exceed SCAQMD regional thresholds of significance on a daily basis. These thresholds are considered the allowable limit for a project not to contribute substantially to, or cause, an air quality violation. Therefore, the project would not result in a significant impact and would be consistent with the goals of the applicable AQMP. The project would result in a less than significant impact under this criterion.

Step 2: Assumptions in AQMP

According to Chapter 12 of the *SCAQMD CEQA Air Quality Handbook*, the purpose of the General Plan consistency finding is to determine whether a project is inconsistent with the growth assumptions incorporated into the air quality plan and thus, whether it would interfere with the region's ability to comply with federal and California air quality standards. In other words, if a project is consistent with the applicable General Plan land use designation, and if the General Plan was adopted prior to the applicable AQMP, then the growth and emissions projections for the project would be consistent with the growth and emissions projections assumed in the AQMP.

The General Plan designates the project site District Center (DC). The DC land use designation areas are designed to serve as anchors to the City's commercial corridors, and to accommodate major development activity. This designation allows a maximum floor area ratio (FAR) of 1.0 and allows a mixture of high-rise office, commercial, and residential uses which provide shopping, business, cultural, education, recreation, entertainment, and housing opportunities. The project is zoned Community Commercial Museum District (C1-MD) and Professional (P). The C1-MD zones allow for land uses such as retail and service uses, theaters, museums, and medical offices; hotel uses, recreational uses, and banquet facilities are allowable subject to a conditional use permit. P zones

allow for land uses such as professional, business and administrative offices where no merchandise is sold: medical offices, art galleries, and museums; convalescent hospitals, hospitals, and health clubs are allowable subject to a conditional use permit. The project proposes to construct a 135-room hotel and ancillary uses, which is allowable under the existing general plan designation. Although the hotel land use would not be permitted under the existing Professional zoning designation and would require a zone change, development of the project site is within the parameters envisioned by the General Plan's District Center Designation and is consistent with the General Plan. In addition, project construction and operational emissions would not exceed the applicable SCAQMD thresholds of significance. As such, the project would not exceed the growth or intensity of use assumptions within the AQMP. This impact would be less than significant.

Step 3: Control Measures

The proposed project would comply with all applicable rules and regulations of the AQMP, which includes but are not limited to, Rule 403 (Fugitive Dust), Rule 1108 (Cutback Asphalt), Rule 1113 (Architectural Coatings), and Rule 1186 (Street Sweepers).

Rule 403 governs emissions of fugitive dust during construction and operational activities. The rule requires that fugitive dust shall be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off-site. Compliance with this rule is achieved through application of standard Best Management Practices (BMPs). These BMPs include:

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

Rule 1108 governs the manufacturing, sale, and use of asphalt in the SCAQMD and limits the volatile organic compound (VOC) content in the asphalt. All asphalt used during construction activity shall comply with Rule 1108.

Rule 1113 governs the manufacturing, sale and use of architectural coatings in the SCAQMD and limits the VOC content of architectural coatings. All architectural coatings used during construction and operational activity shall comply with Rule 1113.

Rule 1186 limits the amount of particulate matter contained in the ambient air as a result of vehicular travel on paved and unpaved roads, and at livestock operations. The rule sets protocols and requirements on the use of certified street sweeping equipment on paved and unpaved roadway owned by federal, state, county, municipal or other governmental or quasi-governmental agencies.

The proposed project would comply with the applicable AQMP control measures. As such, this impact would be less than significant.

Considering the three criteria above, the proposed project would not conflict with or obstruct implementation of the applicable air quality plans, and, therefore, the impact would be less than significant.

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

Less than significant impact. This item addresses regional criteria air pollutant impacts. The nonattainment regional pollutants of concern in the SoCAB are ozone, particulate matter with aerodynamic diameter less than 10 microns (PM_{10}) and particulate matter with aerodynamic diameter less than 2.5 microns ($PM_{2.5}$). Ozone is a regional pollutant formed by photochemical reactions in the atmosphere and not directly emitted into the air. Ozone precursors, such as volatile organic compounds (VOC) and oxides of nitrogen (NO_X), react in the atmosphere in the presence of sunlight to form ozone. Therefore, the SCAQMD has developed thresholds of significance for VOC and NO_X to regulate the regional generation of ozone. This impact section includes analysis of, and significance determinations for, those pollutants as well as other SCAQMD thresholds of significance. The construction and operational emissions from the project were calculated using the California Emissions Estimator model (CalEEMod) Version 2016.3.1.

Construction Emissions

Construction emissions result from on- and off-site activities. On-site emissions principally consist of exhaust emission from the heavy-duty off-road construction equipment, on-site motor vehicle operation, and fugitive dust (mainly $PM_{2.5}$ and PM_{10}) from disturbed soil. Off-site emissions are caused by motor vehicle exhaust from delivery and haul truck vehicles, construction worker vehicles, and road dust (PM_{10} and $PM_{2.5}$). The majority of this fugitive dust would remain localized in the atmosphere around the project site. Project construction would start in January 2018 and would last for approximately 11 months. The emissions generated by construction equipment are based on the horsepower and load factors of the equipment. Detailed construction parameters, including

construction schedule and equipment assumptions are listed in Appendix B and are based on default information contained within the CalEEMod model.

Table 2 represents the maximum daily construction emissions.

Table 2: Maximum Daily Construction Emissions—Unmitigated

Activity	Mass Daily Emissions (pounds per day)					
	NO_X	VOC	CO	SO_X	PM_{10}	$PM_{2.5}$
Demolition-2018	29.0	2.7	16.7	0.0	3.1	1.7
Site Preparation-2018	20.8	1.9	8.4	0.0	3.3	2.1
Grading-2018	34.3	2.0	11.2	0.1	3.9	2.1
Building Construction-2018	20.5	3.0	17.1	0.0	1.9	1.3
Paving-2018	10.5	1.5	9.5	0.0	0.8	0.6
Architectural Coating-2018	2.1	45.3	2.3	0.0	0.3	0.2
Maximum Daily Emissions	34.3	45.3	17.1	0.1	3.9	2.1
SCAQMD Air Quality Significance Thresholds	100	75	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No

Notes:
NO_X = oxides of nitrogen; VOC = volatile organic compounds; CO = carbon monoxide; SO_X= sulfur oxides
PM_{10} = particulate matter with an aerodynamic resistance diameter of 10 micrometers or less
$PM_{2.5}$ = particulate matter with an aerodynamic resistance diameter of 2.5 micrometers
Credit for Rule 403 Fugitive Dust has been taken
Source of emissions: FCS 2017. For each source, the maximum emissions between summer and winter are shown. Emissions may vary slightly due to rounding.

As shown in Table 2, the maximum daily construction emissions would not exceed the SCAQMD's thresholds of significance. Therefore, construction emissions would have a less than significant regional impact.

Operational Emissions

The pollutants of concern during operational activity include VOC, NO_X, PM_{10}, and $PM_{2.5}$. Operational emissions are generated by area, energy, and mobile sources. Area sources would include activities such as landscape maintenance, consumer product usage, and occasional application of architectural coatings. Energy sources would include electricity usage and natural gas combustion for space and water heating. Mobile sources would include vehicle trips associated with passenger cars and commercial trucks accessing the site.

Table 3 shows the project's daily operational emissions.

Table 3: Maximum Daily Operational Emissions—Unmitigated

Emissions Source	Pounds per Day[1]					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Area	1.7	0.0	0.0	0.0	0.0	0.0
Energy	0.1	0.9	0.0	0.0	0.1	0.1
Mobile	2.0	7.4	22.9	0.1	5.7	1.6
Total	3.7	8.2	23.0	0.1	5.8	1.6
SCAQMD Air Quality Significance Thresholds	*55*	55	550	150	150	55
Exceeds Significance Threshold?	No	No	No	No	No	No

Notes:
NO_X = nitrogen oxides; VOC = volatile organic compounds; CO = carbon monoxide
PM_{10} = particulate matter with an aerodynamic resistance diameter of 10 micrometers or less
$PM_{2.5}$ = particulate matter with an aerodynamic resistance diameter of 2.5 micrometers
[1] For each source, the maximum emissions between summer and winter are shown.
Source: CalEEMod and FirstCarbon Solutions, see Appendix B. Emissions may vary slightly due to rounding.

As shown in Table 3, the maximum daily operational emissions would not exceed the SCAQMD's thresholds of significance. Therefore, operational emissions would have a less than significant regional impact.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?

Less than significant impact.

As shown in Table 2 and Table 3, the project's regional construction and operational emissions would not exceed the SCAQMD's project-level thresholds of significance. The regional thresholds of significance represent the allowable amount of emissions each project can generate without generating a cumulatively considerable contribution to regional air quality impacts. If an area is nonattainment for a criteria air pollutant, then the background concentration of that pollutant has historically exceeded the ambient air quality standard. It follows that if a project exceeds the regional thresholds for that nonattainment pollutant, then it would result in a cumulatively considerable net increase of that pollutant and result in a significant cumulative impact.

As discussed above, the region is nonattainment for the federal and state ozone standards, the state PM_{10} standards, and the federal and state $PM_{2.5}$ standards. Therefore, a project that would not exceed the SCAQMD thresholds of significance on a project-level would also not result in a cumulatively considerable contribution to these regional air quality impacts. This impact would be less than significant on a cumulative basis.

d) Expose sensitive receptors to substantial pollutant concentrations?

Less than significant impact with mitigation incorporated.

This impact evaluates the potential for the project's construction and operational emissions to expose sensitive receptors to substantial pollutant concentrations. A sensitive receptor is a person in the population who is particularly susceptible to health effects due to exposure to an air contaminant.[1] For purposes of CEQA, the SCAQMD considers a sensitive receptor to be a location where a sensitive individual could remain for 24 hours, such as residences, hospitals, or convalescent facilities (SCAQMD 2008a). Commercial and industrial facilities are not included in the definition because employees do not typically remain on-site 24 hours. However, when assessing the impact of pollutants with 1-hour or 8-hour standards (such as NO_2 and CO), commercial and/or industrial facilities would be considered sensitive receptors. The nearest sensitive receptor along the project site would be the residential community that is located adjacent to the southern edge of the project site.

Localized Significance Threshold

The analysis was performed consistent with guidance from the SCAQMD Final Localized Significance Threshold Methodology (LST Methodology). The SCAQMD established localized significance thresholds (LSTs) in response to the SCAQMD Governing Board's Environmental Justice Initiative I-4. LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard.

These LSTs were developed based on the ambient concentrations of criteria pollutants for specific source receptor areas and distance to the nearest sensitive receptor. [2] LSTs address the fact that criteria pollutants such as CO, NO_X, PM_{10}—and $PM_{2.5}$ in particular—can have localized impacts at nearby sensitive receptors in addition to regional impacts. The SCAQMD has divided the Air Basin into 36 Source Receptor Areas (SRAs), which provide a general representation of the local meteorological, terrain, and air quality conditions within a particular geographical area. To facilitate the localized assessment process, the SCAQMD provides a series of look-up tables that contain LSTs in each SRA within the air basin. The project is located within the Central Orange County Source Receptor Area (SRA 17). As previously noted, the nearest sensitive receptor would be the residential community that is located adjacent to the southern edge of the project site. The LST Methodology states "it is possible that a project may have receptors closer than 25 meters. Projects with boundaries closer than 25 meters to the nearest receptor should use the LSTs for receptors located at 25 meters." As such, the LSTs for a site located in SRA 17, with a sensitive receptor distance of 25 meters is utilized in this analysis.

It should be noted that the LST Methodology only applies to on-site emissions and states that "off-site mobile emissions from the project should not be included in the emissions compared to LSTs."

[1] Guidance Document for Air Quality in Local Plans-Air Quality Issues Regarding Land Use. http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/chapter-2---air-quality-issues-regarding-land-use.pdf

[2] Localized Significance Thresholds. South Coast Air Quality Management District. http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds

Therefore, for purposes of the LST analysis, only on-site emissions were compared with the applicable LSTs.

Construction

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

1. The off-road equipment list (including type of equipment, horsepower, and hours of operation) assumed for the day of construction activity with maximum emissions;
2. The maximum number of acres disturbed on the peak day using the equipment list from above and the following table from the CalEEMod appendix;

Table 4: CalEEMod Maximum Acres Disturbed Equipment List

Activity	Equipment	Acres/8 hour day
Site Preparation/Grading	Crawler Tractors	0.5
	Graders	0.5
	Rubber Tired Dozers	0.5
	Scrapers	1
Source: CalEEMod 2016.3.1 Version User Guide.		

3. Any emission control devices added onto off-road equipment; and
4. Specific dust suppression techniques used on the day of construction activity with maximum emissions.

The LST look-up tables categorize the maximum disturbance area into 1-acre, 2-acres and 5-acre project sizes. According to Table 5 below, the Project is expected to disturb a maximum of 1.5 acres per day.

Table 5: Project Maximum Acres Disturbed

Activity	Equipment	Number	Operating hrs/day	Acres/8 hr day	Total Acres
Site Preparation	Tractors	1	8	0.5	0.5
	Graders	1	8	0.5	0.5
	Rubber Tired Dozers	1	7	0.5	0.4
	Scrapers	0	8	1	0.0

Table 5 (cont.): Project Maximum Acres Disturbed

Activity	Equipment	Number	Operating hrs/day	Acres/8 hr day	Total Acres
Grading	Tractors	1	7	0.5	0.4
	Graders	1	6	0.5	0.4
	Rubber Tired Dozers	1	6	0.5	0.4
	Scrapers	0	8	1	0.0
Maximum Number of Acres Disturbed per Day*					1.5

Note:
* Rounded up to the nearest tenth
Source: South Coast AQMD, Fact Sheet for Applying CalEEMod to Localized Significance Thresholds, 2011a.

It should be noted that, based on information provided by the project applicant, the actual impacted construction site is approximately 1.85 acres. Notwithstanding, utilizing LSTs for a 1.5-acre site would be a conservative approach as it assumes peak construction activity would be concentrated at a smaller area than a 1.85-acre site, and thus include thresholds that are more stringent. Therefore, on-site emissions from construction activities were compared with the LSTs for a 1.5-acre site in SRA 17 at a distance of 25 meters. The total on-site emissions represent the fugitive dust emissions that are generated during site preparation, grading and off-road diesel activity.

The localized construction analysis uses thresholds that represent the maximum project emissions that would not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard and thus not expose nearby receptors to substantial pollutant concentrations (SCAQMD 2008). If the project results in emissions that do not exceed the LSTs, it follows that those emissions would not cause or contribute to a local exceedance of the appropriate ambient air quality standard.

Table 6 shows the unmitigated maximum daily on-site construction emissions and applicable LSTs.

Table 6: Construction Localized Significance Analysis—Unmitigated

Activity	On-site Emissions (pounds per day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Demolition—2018	24.4	15.1	2.7	1.5
Site Preparation—2018	20.8	8.1	3.2	2.0
Grading-—2018	17.1	6.8	2.8	1.7
Building Construction—2018	17.4	13.9	1.1	1.0
Paving—2018	10.5	9.0	0.6	0.6
Architectural Coating—2018	2.0	1.9	0.2	0.2

Table 6 (cont.): Construction Localized Significance Analysis—Unmitigated

Activity	On-site Emissions (pounds per day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Maximum Daily On-Site Emissions	24.4	15.1	3.2	2.0
Localized Significance Threshold	98	600	5	3.5
Exceeds Threshold?	NO	NO	NO	NO

Notes:
NO_X = oxides of nitrogen; VOC = volatile organic compounds; CO = carbon monoxide; SO_X= sulfur oxides; PM_{10} = particulate matter with an aerodynamic resistance diameter of 10 micrometers or less; $PM_{2.5}$ = particulate matter with an aerodynamic resistance diameter of 2.5 micrometers.
Source of emissions: FCS 2017. For each source, the maximum emissions between summer and winter are shown. Emissions may vary slightly due to rounding.
Source of thresholds: South Coast Air Quality Management District 2009, for SRA 17, 25 meters, 1.5-acre site.

As shown in Table 6, the project would not exceed the LSTs for NO_X, CO, PM_{10}, and $PM_{2.5}$. Therefore, the project would not expose receptors to substantial criteria pollutant concentrations from construction activities. Impacts would be less than significant.

Operations

Similar to the construction analysis described above, the project's daily on-site operational emissions are compared to the applicable LSTs for a 1.5 acre site located in SRA 17, with a sensitive receptor distance of 25 meters.

As previously noted, the LST Methodology recommends that only on-site emissions are evaluated under the LSTs. As such, the applicable emission sources are the area, energy, and mobile source emissions operating on-site. For mobile source emissions, a trip length of 0.1 mile is representative of the distance a vehicle would travel on-site. As a conservative measure, 5 percent of the project mobile source emissions are included in this analysis, representing a weighted trip length of 0.33, which is higher than the recommended 0.1 mile trip length.

The project's maximum daily on-site operational emissions are shown in Table 7 below.

Table 7: Operational Localized Significance Analysis—Unmitigated

Emissions Source	Pounds per Day			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Area	0.0	0.0	0.0	0.0
Energy	0.9	0.0	0.1	0.1
Mobile	0.4	1.1	0.3	0.1
Total	1.2	1.2	0.4	0.1

Table 7 (cont.): Operational Localized Significance Analysis—Unmitigated

Emissions Source	Pounds per Day			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Localized Significance Threshold	98	600	1.5	1
Exceeds Significance Threshold?	No	No	No	No

Notes:
NO_X = nitrogen oxides; VOC = volatile organic compounds; CO = carbon monoxide
PM_{10} = particulate matter with an aerodynamic resistance diameter of 10 micrometers or less
$PM_{2.5}$ = particulate matter with an aerodynamic resistance diameter of 2.5 micrometers
Source of thresholds: South Coast Air Quality Management District 2009, for SRA 17, 25 meters, 1.5-acre site. Emissions may vary slightly due to rounding.
Source: CalEEMod and FirstCarbon Solutions, see Appendix B.

As shown in Table 7, on-site project operational-related emissions would not exceed the operational LSTs. Therefore, the project would not expose receptors to substantial criteria pollutant concentrations from operational-related activities. Impacts would be less than significant.

Toxic Air Contaminants

A toxic air contaminant, or TAC, is defined as an air pollutant that may cause or contribute to an increase in mortality or serious illness, or which may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations.

Some studies indicate that DPM poses the greatest health risk among the TACs listed above. A 10-year research program (ARB 1998) demonstrated that DPM from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to DPM poses a chronic health risk.

The dose to which receptors are exposed is the primary factor used to determine health risk and is a function of concentration and duration of exposure. According to the Office of Environmental Health Hazard Assessment, health risk assessments that determine the health risks associated with exposure of residential receptors to TAC emissions should be based on a 30-year exposure period, and health risk assessments that address the health risk associated with exposure of children to TAC emissions should be based on a 9-year exposure period. TAC exposure to children is of special concern because children typically metabolize more air per unit of body weight in comparison to adults, and they can be more sensitive to toxics during development. However, health risk assessments should be limited to the period/duration of activities associated with the emissions activity.

The construction period and potential exposure duration from construction activities would last approximately 11 months, which is approximately 3 percent of the total exposure time of 70 years for a health risk assessment prepared in accordance with guidance from the SCAQMD. The proposed project would not involve any highly intensive construction activities, and significant earthmoving activities are not anticipated that would require substantial construction equipment.

Therefore, based on the relatively short construction period and intermittent nature of construction emissions, short-term construction activities would not result in the exposure of sensitive receptors to levels that would result in a health hazard or exceed applicable standards. As a result, this impact would be less than significant.

Asbestos

Construction in areas of rock formations that contain naturally occurring asbestos could release asbestos into the air and pose a health hazard. A review of the map containing areas more likely to have rock formations containing naturally occurring asbestos in California indicated that there are no areas likely containing naturally occurring asbestos in the project vicinity.[3] In addition, demolition of existing buildings and structures could emit asbestos emissions depending on the materials used in the building. An asbestos survey conducted for 2119 North Main Street, in April 2017 by AQ Environmental Laboratories LLC (Appendix G), found two sources of asbestos at the site. MM HAZ-3 requires the structure to comply with applicable laws and regulations including California Air Resources Board's (ARB's) Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations to avoid releasing asbestos emissions during demolition, hauling, and disposal, as well as SCAQMD Rule 1403, Asbestos Emissions from Demolition/Renovation Activities. Compliance with ARB's Asbestos ATCM and SCAQMD Rule 1403 would ensure all necessary BMPs are implemented to minimize all asbestos emissions and avoid exposing receptors to substantial asbestos emissions. MM HAZ-3 will also require an asbestos survey for the site at 2058 North Bush Street; if asbestos is found, applicable laws and regulations will be followed. Asbestos exposure would be less than significant with implementation of MM HAZ-3.

Carbon Monoxide Hot Spot Analysis

Carbon monoxide (CO) "hot spot" thresholds ensure that emissions of CO associated with traffic impacts from a project in combination with CO emissions from existing and forecasted regional traffic do not exceed state or federal standards for CO at any traffic intersection impacted by the project.

The largest contributor of CO emissions during project operations is typically from motor vehicles. A CO hotspot represents a condition where high concentrations of CO may be produced by motor vehicles accessing a congested traffic intersection under heavy traffic volume conditions. The CO hotspot thresholds are represented by the most stringent state or federal CO ambient air quality standard:

- 8-hour CO standard: 9 ppm (state/federal)

It has long been recognized that CO exceedances are caused by vehicular emissions (EPA 2000), primarily when idling at intersections (SCAQMD 1993, SCAQMD 2003). Accordingly, vehicle emissions standards have become increasingly more stringent. Before the first vehicle emission regulations, cars in the 1950s were typically emitting about 87 grams of CO per mile (EPA).

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

Since the first regulation of CO emissions from vehicles (model year 1966) in California, vehicle emissions standards for CO applicable to light duty vehicles have decreased by 96 percent for automobiles, and new cold weather CO standards have been implemented, effective for the 1996 model year. Currently, the CO standard in California is a maximum of 3.4 grams/mile for passenger cars (with provisions for certain cars to emit even less) (ARB 2010). With the turnover of older vehicles, introduction of cleaner fuels and implementation of control technology on industrial facilities, CO concentrations in the SoCAB have steadily declined.

The analysis prepared for CO attainment in the SoCAB by the SCAQMD can be used to assist in evaluating the potential for CO exceedances in the SoCAB. CO attainment was thoroughly analyzed as part of the SCAQMD's 2003 Air Quality Management Plan (2003 AQMP) and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan) (SCAQMD 1992). As discussed in the 1992 CO Plan, peak CO concentrations in the SoCAB are due to unusual meteorological and topographical conditions, and not due to the impact of particular intersections. Considering the region's unique meteorological conditions and the increasingly stringent CO emissions standards, CO modeling was performed as part of 1992 CO Plan and subsequent plan updates and air quality management plans. In the 1992 CO Plan, a CO hot spot analysis was conducted for four busy intersections in Los Angeles at the peak morning and afternoon time periods. The intersections evaluated included Long Beach Boulevard and Imperial Highway (Lynwood); Wilshire Boulevard and Veteran Avenue (Westwood); Sunset Boulevard and Highland Avenue (Hollywood); and La Cienega Boulevard and Century Boulevard (Inglewood). These analyses did not predict a violation of CO standards. The busiest intersection evaluated was that at Wilshire Boulevard and Veteran Avenue, which had a daily traffic volume of approximately 100,000 vehicles per day.

The Traffic Impact Study prepared by RK Engineering Group, Inc. identified peak-hour traffic volumes for five intersections affected by the project. The report provided scenarios for current year and year 2018. The maximum peak-hour intersection volume for year 2018 would occur at the intersection of East 17th Street and North Main Street. The estimated cumulative traffic volume at this intersection is 6,040 vehicles per hour under PM peak conditions. Using a conservative factor of 10, the maximum daily traffic volume for this project is estimated to be 60,400 daily trips, which is well below the 100,000 vehicles per day evaluated in the CO hot spot analysis. Furthermore, this level of peak-hour trips is substantially less than the 44,000 vehicles per hour and 24,000 vehicles per hour CO hot spot screening levels of similar air districts (Bay Area Air Quality Management District and Sacramento Metropolitan Air Quality Management District, respectively). In addition, the project would not alter the existing roadway network and would not conflict with the applicable congestion management plan. Therefore, the project would not contribute to an exceedance of the screening levels for CO hotspots and would not substantially increase traffic volumes at affected intersections where vertical or horizontal mixing is substantially limited. Therefore, the project would not result in a significant impact with respect to CO hotspots.

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

Less than significant impact. Odors can cause a variety of responses. The impact of an odor often results from interacting factors such as frequency (how often), intensity (strength), duration (time), offensiveness (unpleasantness), location, and sensory perception.

Odor is typically a warning system that prevents animals and humans from consuming spoiled food or toxic materials. Odor-related symptoms reported in a number of studies include nervousness, headache, sleeplessness, fatigue, dizziness, nausea, loss of appetite, stomachache, sinus congestion, eye irritation, nose irritation, runny nose, sore throat, sough and asthma exacerbation (SCAQMD 2007).

The SCAQMD's role is to protect the public's health from air pollution by overseeing and enforcing regulations (SCAQMD 2007). The SCAQMD's resolution activity for odor compliance is mandated under California Health & Safety Code Section 41700, and falls under SCAQMD Rule 402. The Public Nuisance Regulation states: "A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property."

During construction, the various diesel-powered vehicles and equipment in use on-site would create localized odors. These odors would be temporary and would not likely be noticeable beyond the project's site boundaries. The potential for diesel odor impacts associated with construction activities at the project site is therefore less than significant. Land uses typically considered associated with odors include wastewater treatment facilities, waste-disposal facilities or agricultural operations, and these types of land uses are not located in the project's vicinity. The project does not contain land uses that would generate objectionable odors. During operation of the project, odors would primarily consist of vehicles traveling to and from the hotel, which would be nominal and would be dispersed throughout the local roadway network. These occurrences would not produce a significant amount of odors; therefore, operational and construction odor emissions would be less than significant.

Mitigation Measures

Implement MM HAZ-3.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
4. Biological Resources *Would the project:*				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Environmental Setting

An FCS biologist researched readily available information, including relevant literature, databases, agency web sites, various previously completed reports and management plans, Geographic Information System (GIS) data, maps, aerial imagery from public domain sources, and in-house records to (1) assess habitats, special-status plant and wildlife species, jurisdictional waters, critical habitats, and wildlife corridors that may occur in and near the project site, and (2) identify local or regional plans, policies, and regulations that may apply to the project. Plant and wildlife species protected by federal agencies, state agencies, and nonprofit resource organizations, such as the California Native Plant Society (CNPS), are collectively referred to as "special-status species" in this

report.[4] Some of these plant and wildlife species are afforded special legal or management protection because they are limited in population size, and typically have a limited geographic range and/or habitat. The following data sources were accessed.

- United States Geological Survey (USGS) 7.5-Minute Topographic Map *Orange* Quadrangle and current aerial imagery.
- California Natural Diversity Database (CNDDB) provided by the California Department of Fish and Wildlife (CDFW) (CDFW, 2017c).
- Information, Planning and Conservation (IPaC) provided by the United States Fish and Wildlife Service (USFWS) (USFWS, 2017b).
- Inventory of Rare and Endangered Plants of California provided by the CNPS (CNPS, 2017).
- National Wetlands Inventory (NWI) and Wetlands Mapper provided by the USFWS (USFWS, 2017c).
- Biogeographic Information and Observation System (BIOS) provided by CDFW (CDFW 2017a and 2017b).
- Critical Habitat Portal provided by the USFWS (USFWS, 2017a).

Field Survey

Following the literature review, FCS's biologist, Mr. Damien Edwards, conducted a reconnaissance-level biological survey on the project site on September 6, 2017. The survey included the following:

- Habitat assessment and plant community mapping
- General plant survey
- General wildlife survey
- Jurisdictional assessment
- Wildlife movement evaluation

The pedestrian survey was conducted on foot during the daylight hours and covered all accessible areas of the project site. The biologist characterized the existing habitat and search for the presence of sensitive plant communities, special-status plants and wildlife, jurisdictional areas, and potential wildlife corridors. The purpose of the survey was not to extensively search for every species occurring within the project site, but to ascertain general site conditions and identify potentially suitable habitat areas for various special-status plant and wildlife species.

Existing Conditions

The project site is located in a primarily developed portion of the City; it is completely developed and no longer supports natural plant communities or native soils. The project site contains no undeveloped natural open land capable of supporting natural vegetation or habitats. Natural

[4] Avian species protected by the Migratory Bird Treaty Act (MBTA) are not considered "special-status species."

topography such as slopes, canyons, mounds, gullies, draws, rivulets, terraces, channels, drainages, and other natural features are absent from the project site.

Land Cover Types

One land cover type was determined to be present within the project site as determined by the literature review and field survey:

- Developed lands and ornamental landscaping

Developed lands are non-vegetated features and describe areas occupied by man-made structures, paving and other impermeable surfaces that cannot support vegetation. On-site developed lands consist of a paved parking lot and driveway. These developed areas provide virtually no habitat for wildlife species. Landscaping (ornamental trees, shrubs, turf, etc.) associated with the developed lands are also included within this category. The paved parking lot and driveway provide virtually no habitat for wildlife species; however, birds could use the ornamental trees for foraging and nesting. Developed lands are not considered a sensitive plant community.

Special-Status Plants

No listed, sensitive, or rare plant species were observed within the project site during the field survey. In addition, the literature review and field survey determined that the project site lacks suitable habitats, soils, and/or other factors to support special-status plant species.

Special-Status Wildlife

No listed or sensitive wildlife species were observed within the project site during the field survey. In addition, the literature review and field survey concluded that the project site lacks suitable and adequate biological and physical features that are needed to support special-status wildlife species. The wildlife observed and/or detected within the project site during the field survey represents the diversity of wildlife in the surrounding areas and in urban built out areas.

Protected Trees

Public trees in Santa Ana are protected under Chapter 33 (*Streets, Sidewalks and Public Works*), Article VII (*Regulation of the Planting, Maintenance, and Removal of Trees*), Sections 33–181 of the Santa Ana Municipal Code (Santa Ana 2017). The City of Santa Ana is committed to the preservation, proper maintenance and continued growth of its urban forest. The purpose of Article VII, Section 33–181 is to establish policies, regulations, and standards necessary to ensure that the City will continue to realize the benefits provided by its urban forest. The article describes city policies and procedures that shall be utilized for the care of public trees (planting, maintenance, and removal) located on City property or within the City's right-of-way. Public trees include any and all trees owned by the City, including but not limited to median trees and street trees. The article states that a site plan review shall require the planting of street trees to coincide with the development, redevelopment, and renovating of any tract or parcel for site plan approval. The approved site plan shall show the approximate location, size, and species of all existing trees to be maintained, trees to be removed, and trees required for approval of the project.

The project site contains several landscape trees, and the existing palm trees will remain in place; however, none of these trees meet the definition of public trees or would otherwise fall under the provisions of Chapter 33 (Streets, Sidewalks and Public Works), Article VII (Regulation of the Planting, Maintenance, and Removal of Trees), Sections 33–181 of the Santa Ana Municipal Code. The City of Santa Ana does not have a native tree or native shrub protective ordinance and Chapter 33, Article VII, Sections 33–181 of the Santa Ana Municipal Code do not provide specific protection for trees on private property.

Jurisdictional Areas

The literature review determined that the project site does not contain NWI wetlands. The jurisdictional assessment determined that the project site does not contain hydrological features, wetlands, marshes, vernal pools, channels with a bed or bank, or evidence of an ordinary high water mark (OHWM); therefore, the project site does not contain federal or state wetlands, waters, or habitats that are potentially subject to the jurisdictional authority of the United States Army Corps of Engineers (USACE), the Regional Water Quality Control Board (RWQCB), or CDFW.

Critical Habitats

The literature review determined that the project site is not located within a designated or proposed critical habitat for listed plant or wildlife species.

Wildlife Corridors

The literature review determined that the project site is not located within a CDFW designated Essential Habitat Connectivity Area or a Natural Landscape Block. The field survey determined that the project site does not function as a wildlife movement corridor. The project site does not contain wildlife travel routes, such as a riparian strip, ridgeline, or drainage; or wildlife crossings, such as a tunnel, culvert, or underpass. In addition, the project site is not located adjacent to—nor does it connect—large blocks of habitat. The project site does not represent a wildlife movement corridor because the site is completely developed and is completely surrounded by other development, walls, and roadways. These permanent structures serve as significant barriers to wildlife movement through the project site and region.

Nursery Sites

The project site does not support resident or migratory fish species and no native wildlife nursery sites or rookeries were observed within the project site during the field survey.

Environmental Evaluation

Would the project:

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

Less than significant impact with mitigation incorporated. The project is not anticipated to have direct or indirect impacts on special-status plants or wildlife. Relative to the significance criterion,

the project is anticipated to have no 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 CDFW or USFWS.

Even though the project site is developed, it supports landscaped/ornamental trees and/or structures that could potentially provide cover, foraging, and nesting habitat for resident and migratory birds that have adapted to urban areas, such as rock pigeons (*Columba livia*) and mourning doves (*Zenaida macroura*). Mourning doves are protected by the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code (Sections 3503, 3503.5, and 3513), which render it unlawful to take native breeding birds, and their nests, eggs, and young. The project has the potential to result in direct impacts on breeding birds, if project activities occur during the breeding bird season and birds are nesting within the project site and/or immediate vicinity at that time. Temporary direct impacts on breeding birds could occur from increased noise, vibration, and dust during construction, which could adversely affect the breeding behavior of some birds, and lead to the loss (take) of eggs and chicks, or nest abandonment. Impacts on nesting birds would be considered significant. Implementation of MM BIO-1 would help to avoid, eliminate, or reduce direct impacts on breeding birds to less than significant levels.

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

No impact. Riparian habitats are those on, relating to, or near the banks of a river, stream, creek, spring, seep, pond, or lake. The project site is developed and completely dry: it does not support aquatic features, natural or man-made water bodies, wetlands, or jurisdictional areas necessary to support riparian vegetation. Sensitive plant communities (sensitive habitats) are communities that are of limited distribution statewide or within a county or region and are often vulnerable to environmental impacts of projects (CDFG 2009). No riparian habitat or other sensitive natural communities were observed on the project site; therefore, the project is not anticipated to have direct or indirect impacts on riparian habitats or other sensitive natural communities. Relative to the significance criterion, the project is anticipated to have no substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS.

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

No impact. The project site is developed and completely dry and does not support aquatic features, natural or man-made water bodies, wetlands, or jurisdictional areas; therefore, the project is not anticipated to have direct or indirect impacts on federally protected wetlands as defined by section 404 of the CWA. Relative to the significance criterion, the project is anticipated to have no substantial adverse effect on federally protected wetlands through direct removal, filling, hydrological interruption, or other means.

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

No impact. The project site does not contain and is not connected to an established wildlife corridor; therefore, the project is not anticipated to have direct or indirect impacts on wildlife corridors or wildlife movement. The project site does not support resident or migratory fish species or wildlife nursery sites; therefore, the project is not anticipated to have direct or indirect impacts on wildlife nursery sites. Relative to the significance criterion, the project is not anticipated to 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?

No impact. The project site contains several landscape trees on private property. These trees would be removed during project implementation; however, none of these trees meet the definition of public trees or would otherwise fall under the provisions of Chapter 33 (Streets, Sidewalks and Public Works), Article VII (Regulation of the Planting, Maintenance, and Removal of Trees), Sections 33–181 of the Santa Ana Municipal Code. The City of Santa Ana does not have a native tree or native shrub protective ordinance and Chapter 33, Article VII, Sections 33–181 of the Santa Ana Municipal Code does not provide specific protection for trees on private property. For these reasons, the project would not 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?

No impact. The project site is not located within the boundary of and does not contain undeveloped natural lands subject to an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional, or state HCP; therefore, the project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state Habitat Conservation Plan.

Mitigation Measures

MM BIO-1 Construction during Breeding Season and Pre-construction Breeding Bird Surveys

To ensure compliance with the Migratory Bird Treaty Act and the California Fish and Game Code, and to avoid and reduce direct and indirect impacts on migratory non-game breeding birds, and their nests, young, and eggs to less than significant levels, the following measures shall be implemented.

- Project activities that would remove or disturb potential nest sites shall be scheduled outside the breeding bird season, if feasible. The breeding bird nesting

season is typically from February 15 through September 15, but can vary slightly from year to year, usually depending on weather conditions. Removing all physical features that could potentially serve as nest sites outside of the breeding bird season will help to prevent birds from nesting within the project site during the breeding season and during construction activities.

- If project activities that would remove or disturb potential nest sites cannot be avoided during February 15 through September 15, a qualified biologist shall conduct a pre-construction clearance and nesting bird survey to search for all potential nesting areas, breeding birds, and active nests or nest sites within the limits of project disturbance up to seven days prior to mobilization, staging and other disturbances. The survey shall end no more than three days prior to vegetation, substrate, and structure removal and/or disturbance.
- If no breeding birds or active nests are observed during the pre-construction survey, or if they are observed and would not be disturbed, then project activities may begin and no further mitigation would be required.
- If an active bird nest is located during the pre-construction survey and potentially would be disturbed, a no-activity buffer zone shall be delineated on maps and marked (by flagging or other means) up to 500 feet for special-status avian species and raptors, or 75 feet for non-special status avian species. The limits of the buffer shall be demarcated so as to not provide a specific indicator of the location of the nest to predators or people. Materials used to demarcate the nests shall be removed as soon as work is complete or the fledglings have left the nest. The biologist shall determine the appropriate size of the buffer zone based on the type of activities planned near the nest and the bird species, because some bird species are more tolerant than others to noise and other disturbances. Buffer zones shall not be disturbed until a qualified biologist determines that the nest is inactive. Additionally, the area shall not be disturbed until either the young have fledged; the young are no longer being fed by the parents; the young have left the area; or the young would no longer be impacted by project activities.
- Birds or their active nests shall not be disturbed, captured, handled or moved. Inactive nests may be moved by a qualified biologist, if necessary, to avoid disturbance by project activities.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
5. Cultural and Tribal Cultural Resources *Would the project:*				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☒	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐
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:				
e) 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	☐	☐	☐	☒
f) 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.	☐	☐	☐	☒

Environmental Evaluation

Cultural Resources

Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

Less than significant impact with mitigation incorporated. An intensive-field survey was conducted of the project site and its Area of Potential Effects (Figure 3 of the Historical Resources Evaluation

Report [HRER]) on July 25 and September 7, 2017, by Principal Architectural Historian Pamela Daly, MSHP of Daly & Associates. The fieldwork consisted of inspecting and recording the four parcels with associated historic buildings and their associated features, and observing the overall interrelationship of the properties and the surrounding area (Figure 7 of the HRER). The resulting HRER provides an evaluation of the historical resources located within the project boundary (Appendix A).

The HRER focused on the following buildings proposed for relocation and/or rehabilitation, and demolition:

- 2056 North Bush Street (Melton House), proposed relocation and rehabilitation
- 2058 North Bush Street, proposed demolition
- 2115–2117 North Main Street (MacFarlane House), proposed rehabilitation
- 2119 North Bush Street, proposed demolition

Historical significance findings were based on the California Register of Historical Resources (CRHR) eligibility criteria for historic designation:

- Location
- Design
- Setting
- Materials
- Workmanship
- Feeling and association, within their historic context, including:
  - Identify the historic context represented by the property.
  - Determine how the theme of context is significant in local, state, or national history.
  - Determine if the property type represents the context.
  - Determine how the property illustrates an important aspect of the history.
  - Determine if the property retains the physical features necessary to convey its significance (historic integrity).

City of Santa Ana criteria for historic designation includes any one of the following:

- Buildings, structures or objects with distinguishing characteristics of an architectural style or period, that exemplify a particular architectural style or design features;
- Works of notable architects, builders, or designers whose style influenced architectural development;
- Rare buildings, structures, or objects or original designs;
- Buildings, structures, objects or sites of historical significance which include places:
  - Where important events occurred;
  - Associated with famous people, original settlers, renowned organizations and businesses;
  - Which were originally present when the city was founded; or
  - That served as important centers for political, social, economic, or cultural activity.

- Sites of archaeological importance;
- Buildings or structures that were connected with a business or use which was once common, but is now rare.

The findings concurred with previous evaluations that the two properties at 2056 North Bush Street (Melton House) and at 2115–2117 North Main Street (MacFarlane House) are considered significant historical resources and are eligible for listing in the CRHR. The properties at 2058 North Bush Street and 2119 North Bush Street were not eligible for either the CRHR or the City of Santa Ana due to not meeting either sets of criteria and are therefore recommended to be assigned the California Historical Resources Status Code of 6Z: Found ineligible for National Register, California Register, or Local designation through survey evaluation.

As mentioned above, the project proposes to move the Melton House from 2056 North Bush Street to a lot immediately north of 2115–2117 North Main Street. The relocation has the potential to cause the Melton House to lose aspects of historical integrity (such as location, setting, feeling, and association). However, MM CUL-1, MM CUL-2, and MM CUL-3 will mitigate the potential loss of historical integrity by ensuring that the relocation and new setting of the Melton House follows the Secretary of the Interior's Standards for Rehabilitation and that the current setting is documented for historical purposes. The project also proposes the rehabilitation and adaptive reuse of both the Melton House and the MacFarlane House. To avoid significant adverse effects to the historical properties, MM CUL-4 would ensure that the rehabilitation follows the Secretary of the Interior's Standards for Rehabilitation during the rehabilitation and adaptive reuse.

As such, impacts will be less than significant with mitigation incorporated**.**

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

Less than significant impact. A Cultural Resources records search for the project area was conducted on September 11, 2017. The search was conducted by staff at the California Historical Resources Information System (CHRIS), South Central Coastal Information Center (SCCIC) located at California State University, Fullerton. The search was conducted to identify all previously conducted cultural resources work as well as identify any previously recorded cultural resources within a 0.5-mile radius of the project area. The results of the records search show that five resources have been recorded within a 0.5-mile radius of the project site, but none are located on the project site. These five resources consist of historic period single-family residences. No prehistoric sites are recorded on or within the 0.5-mile records search radius. Additionally, at least 12 cultural resources studies have been conducted within a 0.5-mile radius of the project site, one of which included the entire project site. That investigation did not result in the recordation of any archaeological sites on the project site. The project would be subject to compliance with Standard Condition SC 2.5-1, which provides direction in the event archaeological resources are unearthed during project subsurface activities. Therefore, project implementation would result in a less than significant impact to archaeological resources.

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

Less than significant impact. A paleontological records search was conducted by staff at the Los Angeles County Museum of Natural History on September 20, 2017. The report indicates that surface sediments encountered beneath fill materials on the project site consist of younger terrestrial Quaternary Alluvium, derived primarily from the hills to the northeast of the project. These shallow sediments typically do not produce significant vertebrate fossils. However, older Quaternary sediments are present at depths of 8 feet or more and have yielded significant vertebrate fossils in the vicinity of the project. Therefore, development activities have the potential to encounter undiscovered paleontological resources and the project would be subject to compliance with Standard Condition SC 2.5-2, which provides direction in the event paleontological resources are unearthed during project subsurface activities. Therefore, project implementation would result in a less than significant impact involving the potential destruction of a paleontological resource.

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

Less than significant impact. As mentioned above, the past disturbance of the site makes the probability that construction of the project would impact any human remains very low, as it is developed with existing educational facility land uses. No human remains or cemeteries are known to exist within or near the project area. However, there is always the possibility that subsurface construction activities associated with the proposed project, such as trenching and grading, could potentially damage or destroy previously undiscovered human remains. In the event that human remains are encountered during earth removal or disturbance activities, California Health and Safety Code Section 7050.5 requires that all activities cease immediately and a qualified archaeologist and Native American monitor be contacted immediately. The Coroner would also be contacted pursuant to Sections 5097.98 and 5097.99 of the Public Resources Code relative to Native American remains. Should the Coroner determine the human remains to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission. The Native American Heritage Commission would then be required to contact the most likely descendant of the deceased Native American, who would then serve as consultant on how to proceed with the remains. Compliance with the established regulatory framework (California Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98), as required by Standard Condition SC 2.5-3, would reduce potential impacts involving disturbance of human remains to less than significant.

Tribal Cultural Resources

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

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

No Impact. A cultural resources records search for the project area was conducted on September 11, 2017. The search was conducted by staff at the California Historical Resources Information System (CHRIS), South Central Coastal Information Center (SCCIC) located at California State University, Fullerton. The search was conducted to identify all previously conducted cultural resources work as well as identify any previously recorded cultural resources within a 0.5-mile radius of the project area. The results of the records search show that five resources have been recorded within a 0.5-mile radius of the project site, but none are located on the project site. These five resources consist of historic period single-family residences. No prehistoric sites are recorded on or within the 0.5-mile records search radius. Additionally, at least 12 cultural resources studies have been conducted within a 0.5-mile radius of the project site, one of which included the entire project site. That investigation did not result in the recordation of any archaeological sites on the project site.

f) 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.

No Impact. A cultural resources records search for the project area was conducted on September 11, 2017. The search was conducted by staff at the California Historical Resources Information System (CHRIS), South Central Coastal Information Center (SCCIC) located at California State University, Fullerton. The search was conducted to identify all previously conducted cultural resources work as well as identify any previously recorded cultural resources within a 0.5-mile radius of the project area. The results of the records search show that five resources have been recorded within a 0.5-mile radius of the project site, but none are located on the project site. These five resources consist of historic-period single-family residences. No prehistoric sites are recorded on or within the 0.5-mile records search radius. Additionally, at least 12 cultural resources studies have been conducted within a 0.5-mile radius of the project site, one of which included the entire project site. That investigation did not result in the recordation of any archaeological sites on the project site.

Standard Conditions

SC 2.5-1 In the event that archaeological resources are encountered during grading and construction, all construction activities shall be temporarily halted or redirected to permit the sampling, identification, and evaluation of archaeological materials as determined by the City, who shall establish with a certified archaeologist, the appropriate procedures for exploration and/or salvage of the artifacts.

SC 2.5-2 In the event that paleontological resources are encountered during grading and construction operations, all construction activities shall be temporarily halted or

redirected to permit a qualified paleontologist to assess the find for significance and, if necessary, develop a paleontological resources impact mitigation plan (PRIMP) for the review and approval by the City prior to resuming excavation activities.

SC 2.5-3 If human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 24 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

Mitigation Measures

MM CUL-1 Melton House Move

The project proponents shall retain the services of a qualified architectural historian (as defined by the Secretary of the Interior's Professional Guidelines) with a minimum of 10 years' experience, or a qualified historic architect (as defined by the Secretary of the Interior's Professional Guidelines) to review and approve the proposed plans for the removal, and relocation of the Melton House under the guidelines presented in *Moving Historic Buildings* by John Obed Curtis, Technical Preservation Service Division, U.S. Department of Interior; 1979.

MM CUL-2 Melton House Documentation

The project proponents shall retain the services of a professional photographer to capture digital photographs of the interior and exterior of the Melton House, and the streetscapes of North Bush Street and North Main Street, to create a record of the building's current condition, the current cityscape setting/location/feeling of the area from which the building is being removed, and where it will be relocated. Photographs will be printed in color in 5-inch by 7-inch format, and a shot-sheet of the location of where the individual photographs were captured will be prepared. A minimum of three hard copies and three digital copies of the photographic record will be created, of which one copy shall be contributed to each of the following: the Orange County Archives, Orange County Historical Society, and City of Santa Ana Library—Local History Room.

MM CUL-3 Melton House Setting

Relocation of the Melton house will maintain the integrity and architectural significance of the resource through the use of the Secretary of Interior's Standards for Rehabilitation. Selection of a new site for the Melton House requires planning in advance of the move to create a setting as much like the original Bush Street setting as possible. The selection of a new setting shall comply with the Secretary of the Interior's Standards for Rehabilitation, including, but not limited to:

- A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.
- The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize a property will be avoided.
- Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.
- Changes to a property that have acquired historic significance in their own right will be retained and preserved.
- Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.
- Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.
- Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
- Archaeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
- New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.
- New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

MM CUL-4 Melton House and MacFarlane House Rehabilitation

Rehabilitation of each building shall comply with the Secretary of the Interior's Standards for Rehabilitation to preserve the aspects of integrity of each building so that each may continue to convey its historic significance, including, but not limited to:

- A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.
- The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize a property will be avoided.
- Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.
- Changes to a property that have acquired historic significance in their own right will be retained and preserved.
- Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.
- Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.
- Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
- Archaeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
- New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.
- New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

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

The following section is based on the information contained within the January 2017 Geotechnical Engineering Investigation, Soil Infiltration Study, and Phase I Environmental Site Assessment prepared for the proposed project by NorCal Engineering. The Geotechnical Engineering Investigation, Soil Infiltration Study, and Phase I Environmental Site Assessment are included as Appendix C.1, C.2, and C.3 of this report.

Environmental Evaluation

Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:

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

No impact. Seismically induced ground rupture is defined as the physical displacement of surface deposits in response to an earthquake's seismic waves. Ground rupture is most likely along active faults, and typically occurs during earthquakes of magnitude five or higher. Ground rupture only affects the area immediately adjacent to a fault (CA Department of Conservation).

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. The Act's main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The Act requires the State Geologist to establish regulatory zones, known as "Alquist-Priolo (AP) Earthquake Fault Zones," around the surface traces of active faults and to issue appropriate maps. If an active fault is found, a structure for human occupancy cannot be placed over the trace of the fault and must be set back from the fault (typically 50 feet).

Based on the "Fault Rupture Hazard Zones in California, Special Publication 42, Interim Revision 2007", published by the State of California Conservation Department and the geologic report prepared for the project, the site is not located within an identified Alquist-Priolo Earthquake Hazard Zone.

According to the City of Santa Ana's General Plan Land Use Element, there are no known fault traces located in the City of Santa Ana.

Furthermore, the January 2017 Geotechnical Engineering Investigation and the Soil Infiltration Study states that the proposed development lies outside any Alquist-Priolo Special Studies Zone and the potential for damage due to direct fault rupture is considered unlikely. The project would be required to follow seismic design parameters based upon the 2016 California Building Code (CBC). As such, impacts would be less than significant.

ii) Strong seismic ground shaking?

Less than significant impact. Seismic ground shaking is influenced by the proximity of the site to an earthquake fault, the intensity of the seismic event, and the underlying soil composition. Given that the site is not located on an earthquake fault, and the general soil composition in the area, the risk from ground shaking would be less than significant with the implementation of seismic design

requirements of the 2016 CBC, and recommendations of the January 2017 Geotechnical Engineering Investigation, which will be incorporated into the project design.

iii) Seismic-related ground failure, including liquefaction?

Less than significant impact. Liquefaction is a mode of ground failure that results from the generation of high water pressures during earthquake ground shaking, causing loss of shear strength. Liquefaction is typically a hazard where loose sandy soils exist below groundwater. The California Geologic Survey (CGS) has designated certain areas within Southern California as potential liquefaction hazard zones. These are areas considered at a risk of liquefaction-related ground failure during a seismic event, based upon mapped surficial deposits and the presence of a relatively shallow water table (USGS 2016).

According to the City of Santa Ana's General Plan Land Use Element, the areas of the City that are susceptible to liquefaction are in close proximity to the Santa Ana River. The project area is approximately 1.7 miles from the Santa Ana River and as such is classified as "very low" probability for liquefaction.

Furthermore, according to the January 2017 Geotechnical Engineering Investigation and the Soil Infiltration Study, the site lies outside of areas mapped as potentially liquefiable by the State of California Seismic Hazards Mapping Act. Thus, the design of the proposed construction in conformance with the latest Building Code provisions for earthquake design is expected to provide mitigation of ground shaking hazards that are typical to Southern California. As such, impacts regarding liquefaction would be less than significant.

iv) Landslides?

No impact. The project site is flat and is not in the vicinity of slopes that would be susceptible to landslides. According to the City of Santa Ana's General Plan Land Use Element, the potential for slope failure and landslides could occur near the banks of the Santa Ana River or Santiago Creek; however, these areas are approximately 1.7 and 1.4 miles west, respectively, of the project site. As such, there would be no impact.

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

No impact. The project site is urban and developed, with cement paving covering all soil and topsoil. According to the City of Santa Ana's General Plan Land Use Element, soil and topsoil erosion is associated mainly with soils along the Santa Ana River and Santiago Creek. The project is located approximately 1.7 miles from the Santa Ana River and 1.4 miles from Santiago Creek. As such, there would be no impact.

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. The following analysis is based on the City of Santa Ana's General Plan Land Use Element:

- Liquefaction or Collapse: The soil conditions at the site are not considered susceptible to liquefaction, according to Exhibit A-7 of the General Plan.
- Landslide: The site is not located within a designated area where previous occurrence of landslide movement, or local topographic, geological, geotechnical and subsurface water conditions occurred. The site is flat and is not in the vicinity of slopes that would be susceptible to landslides. Impacts from landslides would be less than significant.
- Lateral Spreading: As discussed in the response to liquefaction (see above) the site is not located in an identified liquefaction hazard area, is relatively flat, and is not in the vicinity of slopes that would be susceptible to liquefaction (slope areas that have sufficient height, slope ratio, and underlying geologic conditions that can result in liquefaction). Impacts from lateral spreading would be less than significant.
- Subsidence: According to the City of Santa Ana General Plan Land Use Element, the soils near the Santa Ana River may be subject to subsidence. The project is 1.7 miles from the Santa Ana River and Exhibit A-8 of the General Plan shows that the project site is outside of the subsidence boundary.

The January 2017 Geotechnical Engineering Investigation outlines considerations related to unstable soils, lateral spreading, subsidence, liquefaction or collapse, and these engineering considerations will be incorporated into the project design. Impacts would be less than significant.

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

Less than significant impact. The City of Santa Ana's General Plan Land Use Element describes the soils susceptible to expansion as the Omni and Thapto soils located in the south central section of the City south of Segerstrom Avenue. The boundary of this area is located 3.9 miles south of the project site.

The January 2017 Geotechnical Engineering Investigation outlines considerations relating to expansive soils, and these engineering considerations will be incorporated into the project design. Impacts would be less than significant.

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

No impact. The project does not propose the use of septic tanks. The project would connect to the City sanitary sewer system through existing lines for wastewater disposal. Therefore, no impacts to soils due to the use of septic systems are anticipated.

Mitigation Measures

None.

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

Environmental Evaluation

Would the project:

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

Less than significant impact. An assessment of greenhouse gas (GHG) emissions was prepared and the results indicated that project emissions would be less than significant.

On December 5, 2008, the SCAQMD Governing Board adopted several items, including an interim GHG significance threshold for stationary sources, rules, and plans where the SCAQMD is lead agency (SCAQMD permit threshold). However, this project is not a stationary source; thus, the stationary source GHG significance threshold is not applicable.

The SCAQMD has yet to adopt the interim significance thresholds for GHGs for local lead agency consideration (SCAQMD draft local agency threshold); however, the thresholds are supported by substantial evidence and are widely used by lead agencies within the SCAQMD. The current SCAQMD draft thresholds consist of the following tiered approach:

- Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA;
- Tier 2 consists of determining whether the project is consistent with a GHG reduction plan. If a project is consistent with a qualifying local GHG reduction plan, it does not have significant greenhouse gas emissions;
- Tier 3 consists of screening values, and the lead agency can choose either option #1 or option #2, but must be consistent with all projects within its jurisdiction. A project's construction emissions are averaged over 30 years and are added to a project's operational emissions. If a project's emissions are under one of the following screening thresholds, then the project is less than significant:

- Option #1—All residential or commercial land use types: 3,000 metric tons of carbon dioxide equivalents (MT CO_2e) per year and industrial land uses: 10,000 MT CO_2e, or
- Option #2—Based on land use type-residential: 3,500 MT CO_2e per year; commercial: 1,400 MT CO_2e per year; industrial: 10,000 MT CO_2e; or mixed use: 3,000 MT CO_2e per year

- Tier 4 has the following options:
  - Option 1: Reduce emissions from business as usual by a certain percentage; this percentage is currently undefined;
  - Option 2: Early implementation of applicable AB 32 Scoping Plan measures;
  - Option 3, 2020 target for service populations (SP), which includes residents and employees: 4.8 MT CO_2e/SP/year for projects and 6.6 MT CO_2e/SP/year for plans; 2035 target: 3.0 MT CO_2e/SP/year for projects and 4.1 MT CO_2e/SP/year for plans
- Tier 5 involves mitigation offsets to achieve target significance threshold.

Project Impact

To determine whether the project's GHG emissions would be significant, this analysis uses the SCAQMD draft local agency tiered threshold. The threshold is as follows:

- Tier 3: project GHG emissions compared with the threshold: 3,000 MT CO_2e per year threshold for all land uses (see analysis below).

Project-related GHG emissions would include emissions from direct and indirect sources. The project would result in direct and indirect emissions from construction activities, area sources, energy sources, water consumption, waste disposal, and mobile sources. Similar to the Air Quality analysis provided herein, the California Emission Estimator Model (CalEEMod) Version 2016.3.1 was used to estimate the project's GHG emissions. Sources for operational emissions include:

- **Motor Vehicles—**These emissions refer to GHG emissions contained in the exhaust from the cars and trucks that would travel to and from the project site;
- **Natural Gas—**These emissions refer to the GHG emissions that occur when natural gas is burned on the project site. Natural gas uses include heating water, space heating, dryers, stoves, or other uses;
- **Indirect Electricity—**These emissions refer to those generated by off-site power plants to supply electricity required for the project;
- **Water Transport—**These emissions refer to those generated by the electricity required to transport and treat the water to be used on the project site; and
- **Waste—**These emissions refer to the GHG emissions produced by decomposing waste generated by the project.

A summary of the estimated emissions that would result from construction activities is presented in Table 8. Pursuant to SCAQMD guidance, the total construction-related GHG emissions were

amortized over 30 years and added to the annual operational emissions. A summary of the project's annual operational emissions with amortized construction emissions is shown in Table 9.

Table 8: Construction Greenhouse Gas Emissions—Unmitigated

Construction Activity	MT CO_2e
Demolition-2017	35
Site Preparation-2017	2
Grading-2017	11
Building Construction-2017	307
Paving-2017	7
Architectural Coating-2017	0
Total	363
***Amortized over 30 years*[1]**	***12***

Note:
[1] Construction GHG emissions are amortized over the 30-year life of the project.
Source: CalEEMod Output (see Appendix B)

Table 9: Operational Greenhouse Gas Emissions—Unmitigated

Emissions Source	Emissions (MT CO_2e)
Area	0
Energy	434
Mobile	1,081
Waste	44
Water	25
Amortized Construction	12
Total Project Emissions	*1,583*
SCAQMD Threshold	**3,000**
Significant?	**No**

Note:
MT CO_2e = metric tons of carbon dioxide equivalent
Source of emissions: CalEEMod Output (see Appendix B).
Source of thresholds: SCAMD 2008c.

As shown in Table 9, the proposed project would generate 1,583 MT CO_2e per year, which would not exceed the SCAQMD's interim threshold of significance of 3,000 MT CO_2e. Therefore, the project would not result in significant impact with respect to GHG emissions.

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

Less than significant impact. The City of Santa Ana adopted a Climate Action Plan (CAP) in December 2015 with the goal of reducing carbon emissions and energy use for the community. The CAP includes reduction measures that would help the City achieve their emissions reduction goal of 15 percent below baseline 2008 year by 2020 and nearly reach their emissions reduction goal of 30 percent by 2035. These reduction measures address emissions in five sectors: transportation and land use, energy, solid waste, water, and wastewater. Project consistency with the applicable reduction measures specified in the CAP would demonstrate project consistency with the CAP. Project compliance with the applicable reduction measures of the CAP is shown in Table 10.

Table 10: Project Compliance with the City of Santa Ana Climate Action Plan

GHG Reduction Measure	Requirements	Project Compliance
Transportation and Land Use		
End-of-trip Facilities in New Projects	Placement of end-of-trip facilities (bike lockers, showers, changing rooms) that encourage cycling use, particularly for work.	**Complies.** The project proposes installation of bike racks and bike lockers to accommodate eight bicycles, which would encourage cycling use for visitors and employees.
Design Guidelines for External Bike/Pedestrian/Transit Connectivity	Provide for a minimum level of connectivity between projects and the external transportation network for travel modes other than automobiles.	**Complies.** The project provides walkways that will allow for pedestrian and cyclist access to the Main Street sidewalk and potential Class II bike lane.
Energy		
Title 24 Energy Efficiency Standards	Compliance with the Title 24 Energy Efficiency Standards	**Complies.** The project would comply with current Title 24 building energy efficiency standards, which include use of high efficiency lighting, roof and wall insulation, and energy saving elevator controls.
Solid Waste		
AB 341 Commercial and Multifamily Recycling	Requires recycling by businesses that generate four cubic yards or more of commercial solid waste per week and multifamily residential dwellings of five units or more.	**Complies.** The project would implement recycling and waste diversion policies consistent with City Ordinances.
Source: Santa Ana Climate Action Plan, December 2015		

As shown in Table 10, the project would comply with the applicable reduction measures of the CAP. Additionally, as previously shown in Table 9, the project would not exceed the applicable SCAQMD 3,000 MT CO_2e threshold of significance. Therefore, the project would be consistent with the

applicable local plans, policies, and regulations and would not conflict with the provisions of AB 32, the applicable air quality plan, or any other state or regional plan, policy or regulation of an agency adopted for the purpose of reducing GHG emissions.

Mitigation Measures

None.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
8. Hazards and Hazardous Materials *Would the project:*				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan 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 for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

Environmental Evaluation

Would the project:

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

Less than significant impact. The project site is located within an urbanized area of Santa Ana. The project site is surrounded by the I-5 Freeway (east and north), as well as North Main Street and residential uses (west and south). The project site currently contains a surface parking lot, office buildings, and mixed residential housing. The proposed project involves removing the existing uses and developing a 135-room hotel, restaurant, and establishment selling alcoholic beverages on the project site.

During the construction phase of the project, limited amounts of hazardous materials would be used, including standard construction materials (e.g., paints and solvents) and petroleum based products (e.g., vehicle fuel and degreasers). The project would be required to comply with all federal, state, and local standards and regulations while handling, storing, and disposing of these hazardous materials. Compliance with all federal, state, and local standards and regulations would ensure that project impacts related to the routine transport, use, and disposal of hazardous materials would be less than significant. Thus, impacts would be less than significant.

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

Less than significant impact with mitigation incorporated. As mentioned in Impact 8a, limited amounts of hazardous materials will be on-site, including standard construction materials (e.g., paints and solvents) and petroleum based products (e.g., vehicle fuel and degreasers) that could potentially be used during the construction and operation phase of the project. Based on the small quantities of hazardous materials to be used and transported on-site, no reasonably foreseeable upset or accident conditions involving release of hazardous materials into the environmental are expected. Therefore, impacts would be less than significant.

The Phase I Environmental Site Assessment completed for the site found that mitigation measures for potentially contaminated soil, asbestos-containing material, and lead-based paint will be requires, as outlined in MM HAZ-1 through MM HAZ-4. With implementation of mitigation, impacts would be less than significant.

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

Less than significant impact. The nearest school to the project site is Hoover Elementary School located approximately 0.2 mile east across the I-5 freeway. As described above, limited quantities of hazardous substances would be used during both construction and operation of the project; however, quantities of these materials would not be significant enough to pose a substantial risk to the school across the freeway. As such, impacts would be less than significant.

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

No impact. Research of the California Environmental Protection Agency's website determined that the project site is not located on any of the lists that constitute a Cortese List. No impact would occur.

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 for people residing or working in the project area?

No impact. The nearest airport is John Wayne Airport located approximately 6 miles south of the project site. According to the John Wayne Airport Land Use Plan (2008), the project site is not located within its planning area. Therefore, there would be no associated impacts.

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

No impact. The proposed project is not located within the vicinity of a private airstrip. Project implementation would not result in an airstrip-related safety hazard for people residing or working in the project area.

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

No impact. The proposed project does not possess characteristics that would physically impair or otherwise interfere with emergency response or evacuation in the project vicinity. No impacts would occur.

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

No impact. The site is surrounded by urban development on all sides. According to the California Department of Forestry and Fire Prevention, Fire Hazard Severity Zones Map, the project site is not located in a Very High Fire Hazard Severity Zone. Therefore, the project will not be exposed to risks from wildland fires.

Mitigation Measures

MM HAZ-1 Soil Management Plan

A soil management plan shall be implemented for the subject property prior to site redevelopment activities to address any possible residual soil contamination from the former on-site gasoline underground storage tank, piping, and pump dispenser historically located at 2115 North Main Street.

MM HAZ-2 Septic Systems Removal

If on-site septic systems are identified during redevelopment activities of the subject property, the septic systems shall be properly closed and removed following current regulatory procedures and guidelines.

MM HAZ-3 Asbestos-containing Materials Survey and Removal

The Asbestos-containing Materials Survey for the site at 2119 North Main Street (Appendix G) found two instances of asbestos. The removal of all asbestos-containing materials shall be done by properly licensed abatement contractors.

An Asbestos-containing Materials Survey shall be conducted for the site at 2058 North Bush Street prior to any renovation or construction activities. If asbestos is found, the removal of all asbestos-containing materials shall be done by properly licensed abatement contractors.

Removal of the structures will comply with applicable laws and regulations including California Air Resources Board's (ARB's) Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations to avoid releasing asbestos emissions during demolition, hauling, and disposal, as well as SCAQMD Rule 1403, Asbestos Emissions from Demolition/Renovation Activities. Compliance with ARB's Asbestos ATCM and SCAQMD Rule 1403 would ensure all necessary best management practices are implemented to minimize all asbestos emissions and avoid exposing receptors to substantial asbestos emissions.

MM HAZ-4 Lead-based Paint Survey and Removal

The Lead-based Paint Survey for the site at 2119 North Main Street (Appendix G) found multiple instances of lead-based paint. The removal of all lead-based paint shall be conducted in accordance with the recommendations of the report.

A Lead-based Paint Survey shall be conducted for the site at 2058 North Bush Street prior to any renovation or construction activities. If lead-based paint is found, the removal of all lead-based paint shall be done in accordance with the recommendations of the report.

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

Environmental Evaluation

Would the project:

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

Less than significant impact. Project-related impacts related to water quality can generally occur over several different periods:

- During demolition of existing uses, when risk of pollution exposure is present;
- During the earthwork and construction phase, when the potential for erosion, siltation, and sedimentation would be the greatest;
- Following construction, before the establishment of ground cover, when the erosion potential may remain relatively high; and
- After project completion, when impacts related to sedimentation would decrease markedly, but those associated with urban runoff would remain similar to existing conditions.

National Pollutant Discharge Elimination System

Under Section 402 of the Clean Water Act, the United States Environmental Protection Agency (EPA) has established regulations under the National Pollution Discharge Elimination System (NPDES) program to control direct stormwater discharges from construction activities disturbing one acre or more of land. In California, the 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 (RWQCBs) to preserve, protect, enhance, and restore water quality. The City is within the jurisdiction of the Santa Ana Regional Water Quality Control Board (SARWQCB).

Short-term Construction

Dischargers whose projects disturb 1 or more acres of soil (or whose projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres), are required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity Construction General Permit Order 2009-0009-DWQ. Construction activity subject to this permit includes clearing, grading, and disturbances to the ground, such as stockpiling or excavation, but it does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. To obtain coverage for discharges under the General Construction Permit, dischargers are required to electronically file the Permit Registration Documents, which include a Notice of Intent (NOI), a Storm Water Pollution Prevention Plan (SWPPP), and other compliance related documents required by the General Permit and mail the appropriate permit fee to the State Water Board. The Water Quality Management Plan completed by Net Development Co. in August 2017 (Appendix E) has been completed and will be submitted as part of the application.

Overall, the project's demolition and construction activities would be subject to compliance with NPDES requirements, which include obtaining coverage under the General Construction Permit by filing the Permit Registration Documents (i.e., an NOI, a SWPPP, or a Water Quality Management Plan [WQMP] among others), as well as the pertinent provisions of the Santa Ana Municipal Code (SAMC). Compliance with the NPDES and SAMC requirements would ensure that the project's construction-related impacts to water quality would be less than significant.

Long-term Operations

The Municipal Storm Water Permitting Program regulates stormwater discharges from municipal separate storm sewer (drain) systems (MS4s). Most of these permits are issued to a group of co-permittees encompassing an entire metropolitan area. The MS4 permits require the discharger to develop and implement a Storm Water Management Plan/Program with the goal of reducing the discharge of pollutants to the maximum extent practicable (MEP).[5] The management programs specify what BMPs will be used to address certain program areas. The program areas include public education and outreach, illicit discharge detection and elimination, construction and post-construction, and good housekeeping for municipal operations.

The Orange County Flood Control District, the County of Orange, and the City of Santa Ana, along with 51 other incorporated cities therein (Permittees), discharge pollutants from their MS4s. Stormwater and non-stormwater enter and are conveyed through the MS4s and are discharged to surface water bodies of the Orange Region. These discharges are regulated under countywide waste discharge requirements contained in Order No. R8-2009-0030 (as amended by Order No. R8-2010-0062), 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 Area wide Urban Storm Water Runoff Orange County, which was approved on May 19, 2011. Order No. R8-2009-0030, which serves as an NPDES permit, has expired but remains in effect until the SARWQCB adopts a new permit.

The Permit requires the development and implementation of a program addressing stormwater pollution issues in development planning for private projects. The primary objectives of the municipal stormwater program requirements are to (1) effectively prohibit non-stormwater discharges; and (2) reduce the discharge of pollutants from stormwater conveyance systems to the MEP statutory standard. The County Model WQMP was developed as part of the municipal stormwater program to address stormwater pollution from new development and redevelopment by the private sector. This WQMP contains a list of the minimum required BMPs that must be employed for a designated project. The Permittees are required to adopt the Program's requirements in their own water quality regulations. Developers must incorporate appropriate WQMP requirements into their project plans. Each Permittee must approve the project plan as part of their development plan approval process and prior to issuing grading and building Permits for projects covered by the model WQMP requirements.

The project would be undertaken in accordance with the Orange County Drainage Area Management Plan (DAMP); refer to SAMC Section 18-156: Control of urban runoff. Prior to issuance of a grading

[5] MEP is the performance standard specified in Section 402(p) of the Clean Water Act.

or building permit for the project, applicable city agencies would review the project plans and impose terms, conditions, and requirements on the project, as needed. Additionally, the project would be subject to compliance Chapter 19, Article IV—Water Pollution of the SAMC, which addresses compliance with the 2003 DAMP.

Overall, the project would be subject to compliance with the Orange County DAMP, which includes preparation of a WQMP that specifies the proposed BMPs (Appendix E). Compliance with NPDES, DAMP, and SAMC requirements would ensure that the long-term, project-related impacts to water quality would be less than significant.

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

Less than significant impact. According to the City of Santa Ana 2010 Urban Water Management Plan (UWMP), the City receives water from the Lower Santa Ana River Groundwater basin, which is managed by the Orange County Water District (OCWD), and from imported water from Metropolitan Water District of Southern California. Groundwater is pumped from 20 active wells throughout the City. As discussed under Impact 17d), the City anticipates having adequate water supplies through the year 2035. The project is consistent with its underlying General Plan designation of District Center, and, therefore, its water usage was accounted for in the City's current UWMP.

The project site sits over the Orange County Ground Water Basin. A 2017 Geotechnical Engineering Investigation report by NorCal Engineering (Appendix C.1) for the project notes that groundwater was not encountered at the maximum explored depth of 51.5 feet. The project applicant will install on-site rainwater retention/infiltration systems, in accordance with recommendations from the 2017 Soil Infiltration Study prepared for the project by NorCal Engineering. The project would not interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level, since project implementation would be equal to current permeable surface area of the site. Project implementation would therefore result in a less than significant impact to groundwater supplies.

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

Less than significant impact. The City's stormwater collection system includes catch basins, drainage basins, pumping stations, and force mains. As part of the project, construction activities such as demolition, grading, paving, and site improvements may result in loose sediment, which can be picked up by surface water or wind into nearby storm drains and into waterways.

The proposed project would not alter the course of a stream or river, as Santiago Creek is located 0.41 mile north of the project area. The project applicant will install on-site-rainwater retention/ infiltration systems in conjunction with the construction of a new hotel structure in order to retain drainage patterns. Recommendations from the Geotechnical Engineering Investigation report, such

as designing pavement and slopes to ensure adequate drainage away from the structures, also will be incorporated in the design and construction of the project. As such, impacts related to the alteration of existing drainage patterns in the area that could result in substantial erosion or siltation on- or off-site would be less than significant.

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

Less than significant impact. The City's stormwater collection system includes catch basins, drainage basins, pumping stations, and force mains. As part of the project, construction activities such as demolition, grading, paving, and site improvements may result in loose sediment that can be picked up by surface water or wind into nearby storm drains and into waterways.

The proposed project would not alter the existing drainage pattern of the site, and would not alter the path of a stream or river, as Santiago Creek is located 0.41 mile north of the project area, and the Santa Ana River is approximately 1.35 miles northwest of the project area. The project applicant will install on-site rainwater retention/infiltration systems in conjunction with the construction of a new hotel structure in order to retain drainage patterns. Recommendations from the Geotechnical Engineering Investigation report will also be incorporated in the design and construction of the project, such as designing pavement and slopes to ensure adequate drainage away from the structures. As such, impacts related to the alteration of existing drainage patterns in the area that could result in flooding on- or off-site would be less than significant.

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

Less than significant impact. The project would be served by the City's stormwater drainage system. Construction activities such as demolition, grading, and paving could introduce additional pollutants and sediment into water runoff and flow into nearby storm drains. As part of the project, a preliminary WQMP has been prepared in compliance with the NPDES requirements of the Clean Water Act. The WQMP contains proposed BMPs such as including site design techniques that store, infiltrate, evapotranspire, bio-filter, or detain runoff close to its source. Projects that comply with NPDES requirements would not result in a significant impact related to changes in the quantity, rate, or quality of stormwater runoff from the site. Finally, continuous use and operation of the site would not create or contribute runoff water that would exceed the capacity of existing stormwater drains on the project site with implementation of BMPs. Therefore, impacts would be less than significant.

f) Otherwise substantially degrade water quality?

Less than significant impact. Refer to Impacts 9a), 9b), and 9c). Project development will not otherwise substantially degrade water quality. In addition, the project applicant has prepared a WQMP required for this project (Appendix E), which provides non-structural and structural BMP and related requirements to be utilized to reduce water quality impacts. Therefore, impacts would be less than significant.

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

No impact. The General Plan notes that the Santa Ana River is a major drainage channel that flows through the City in a northeast-to-southwest direction, and is located approximately 1.35 miles northwest of the project site. The General Plan notes that during severe storms, overflows of the Santa Ana River could result in flooding. The Santiago Creek is the main tributary to the Santa Ana River, and is located approximately 0.41 mile north of the project site. Flood hazard areas identified on the Flood Insurance Rate Map (FIRM) are identified as a Special Flood Hazard Area, which is defined as the area that will be inundated by the flood event having a 1 percent chance of being equaled or exceeded in any given year. The 1-percent-annual-chance flood is also referred to as the base flood or 100-year flood.

The project site is in Zone X (shaded), pursuant to Federal Emergency Management Agency (FEMA) FIRM, Map No. 06059C0163J. Zone X (shaded) is an area of minimal flood hazard. It includes the areas located outside the Special Flood Hazard Area and higher than the elevation of the 0.2-percent-annual-chance (or 500-year) flood. Exhibit A-9: Flood Hazards, in the City of Santa Ana General Plan, also shows that the project site is located within a 500-year flood zone, which coincides with information from the FIRM map noted above. No permanent housing would be planned or otherwise constructed. Therefore, there would be no impacts associated with placing housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary, FIRM, or other flood hazard delineation map.

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

No impact. As previously addressed in Impact 9g), the project site is not located within the 100-year floodplain. Therefore, no impacts associated with placing structures within a 100-year flood hazard area would occur.

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

Less than significant impact. As stated above, the proposed project would not be located within the 100-year floodplain. According to Orange County General Plan's Figure IX-9: Prado Dam and Santiago Reservoir Inundation Areas, the proposed project is located within the radius of the Santiago Reservoir's Inundation Area. The reservoir is subject to both federal and state laws addressing dam safety and is periodically inspected to ensure that it is adequately maintained and that any identified deficiencies are corrected. Regular inspections and required maintenance of the reservoir substantially reduce the potential for catastrophic failure. The proposed project would be subject to applicable articles set forth in Chapter 7—Floodplain Management Regulations of the Santa Ana Municipal Code, such as Section 7.15(b), which requires certification from a registered civil engineer or architect that the nonresidential flood proofed building meets the flood proofing criteria in subsection 7-17(c)(2). With regular inspections and maintenance of the reservoir, along with requirements set forth in the Santa Ana Municipal Code, impacts related to exposure of people

to a significant risk of loss, injury or death from flooding, including flooding as a result of the failure of a levee or dam would be less than significant.

j) Inundation by seiche, tsunami, or mudflow?

No impact. A seiche is an earthquake or slide-induced wave that can be generated in an enclosed body of water. There is no enclosed body of water in the project vicinity.

A tsunami is a sea wave generated by an earthquake, landslide, volcanic eruption, or even a large meteor hitting the ocean. An event such as an earthquake creates a large displacement of water resulting in a rise or mounding at the ocean surface that moves away from this center as a sea wave. Tsunamis generally affect coastal communities and low-lying (low-elevation) river valleys in the vicinity of the coast. Buildings closest to the ocean and near sea level are most at jeopardy. According to the California Geological Survey Orange County Tsunami Inundation Maps, the project site is not located within a tsunami inundation area.

Potential risk from mudflow (e.g., mudslide, debris flow) does not exist within the project area, as steep slopes are not located on or in proximity of the project site.

Therefore, project implementation would not expose people or structures to potential hazards from inundation by seiche, tsunami, or mudflow. No impact would occur.

Mitigation Measures

None.

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

Environmental Evaluation

Would the project:

a) Physically divide an established community?

Less than significant impact. The physical division of an established community typically refers to the construction of a linear feature, such as an interstate highway or railroad tracks, or removal of a means of access, such as a local bridge that would impact mobility within an existing community of between a community and outlying area. The project does not involve any such features, and would not remove any means of access or impact mobility. The California Department of Transportation (Caltrans) is currently working with the City to complete the process of relinquishing the remaining local city streets in accordance with the 1989 Freeway Agreement for the widened segments of I-5 within the City of Santa Ana. The City alley will be realigned with egress onto Main Street and a portion will be vacated. Furthermore, the project will utilize the existing access location at North Main Street. The terminus of the realigned Bush Street cul-de-sac will be gated for emergency vehicle access only. No streets or sidewalks would be permanently closed as a result of the development of the project.

The project vicinity is built out with a variety of uses and the I-5 freeway. The proposed project will not involve changes to any circulation facilities in the surrounding community. The nature of the project land use would be consistent with the surrounding uses. The project would not introduce land uses inconsistent with development in the local area or affect existing land use relationships. As such, the project would not physically divide an established community and impacts would be less than significant.

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

Less than significant impact. The City of Santa Ana General Plan and Zoning Ordinance defines the permitted land uses and the corresponding development standards within the City. The General Plan designation that is applicable to the project site is District Center—Museum District and the applicable Zoning designation is split between six parcels along North Main Street designated Community Commercial—Museum District and the remaining six parcels designated Professional. The adjacent parcels have the same General Plan and Zoning designations as the project site. According to the City of Santa Ana Zoning Code, a hotel, restaurant, and establishment selling alcoholic beverages are permitted in the Community Commercial—Museum District zoning designation with a CUP. For consistency, the entire project site will be rezoned to Community Commercial (C-1). In addition, the project will require variances for front yard setbacks, wall heights, signs and off-street parking. With approval of the requested Zone Change, the project would not conflict with any applicable land use plan.

The proposed project is not subject to an adopted specific plan. Finally, the project site is not located within a designated Coastal Zone as identified by the California Coastal Commission.

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

No impact. The project site is located in an existing urbanized area. No natural or native habitats are found within the site or within the adjacent parcels. In addition, there are no areas within the immediate vicinity that are subject to habitat conservation plans. As a result, no impacts are anticipated.

Mitigation Measures

None.

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

Environmental Evaluation

Would the project:

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

No impact. According to the City's Land Use Element of the General Plan, there are no mineral resource zones within the City. The closest regionally significant resources are north of the City, found along the Santa Ana River within the cities of Orange and Anaheim. Santa Ana is a highly urbanized city and does not have any active mining operations within city limits. The project site is currently developed land and the implementation of the project would not result in the loss of availability of a known mineral resource, thus no impacts would occur.

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

No impact. As stated above, the City's Land Use Element of the General Plan does not identify any mineral resource zones within the City. The project site is zoned as Community Commercial—Museum District and Professional by the City of Santa Ana Zoning Ordinance. The project site is not a site that contains mineral resources that are locally important to the area; thus, no impacts would occur.

Mitigation Measures

None.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
12. Noise *Would the project result in:*				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Environmental Evaluation

This noise impact analysis is based on the Acoustical Study prepared by RK Engineering Group, Inc., prepared in 2017 and attached to this document as Appendix F.

Characteristics of Noise

Noise is defined as unwanted sound. Sound levels are usually measured and expressed in decibels (dB), with 0 dB corresponding roughly to the threshold of hearing. Most of the sounds that we hear in the environment do not consist of a single frequency, but rather a broad band of frequencies, with each frequency differing in sound level. The intensities of each frequency add together to generate a sound. Noise is typically generated by transportation, specific land uses, and ongoing human activity.

The standard unit of measurement of the loudness of sound is the decibel (dB). The 0 point on the dB scale is based on the lowest sound level that the healthy, unimpaired human ear can detect.

Changes of 3 dB or less are only perceptible in laboratory environments. A change of 3 dB is the lowest change that can be perceptible to the human ear in outdoor environments, while a change of 5 dBA is considered to be the minimum readily perceptible change to the human ear in outdoor environments.

Since the human ear is not equally sensitive to sound at all frequencies, the A-weighted decibel scale (dBA) was derived to relate noise to the sensitivity of humans, and gives greater weight to the frequencies of sound to which the human ear is most sensitive. The A-weighted sound level is the basis for a number of various sound level metrics, including the day/night sound level (L_{dn}) and the Community Noise Equivalent Level (CNEL), both of which represent how humans are more sensitive to sound at night. In addition, the equivalent continuous sound level (L_{eq}) is the average sound energy of time-varying noise over a sample period and the L_{max} is the maximum instantaneous noise level occurring over a sample period.

Existing Ambient Noise Levels

Ambient noise measurements were conducted at various locations on the project site. Noise measurement data indicate that traffic noise propagating from the I-5 Freeway is the primary source of noise impacting the project site and surrounding area.

Noise monitoring locations were selected based on the distance of the proposed building façade to adjacent I-5 Freeway and/or adjacent land uses. Noise monitoring location 1 (ST-1) is located near the center of the project site and ST-2 is located along the center of the southern property line. Both noise monitoring locations represent existing noise levels within the area.

Noise measurements were recorded during daytime hours. Measurements occurred between the hours of 2:00 p.m. and 3:00 p.m., on April 10, 2017. Noise measurements were conducted in 10-minute intervals during the indicated time schedule. During the monitoring process, the sky was clear, the temperature was 75 degrees Fahrenheit, and the wind was less than 1 mile per hour in the morning.

Noise measurement data indicates that the existing site experiences noise ranging from 61.0 to 62.2 dBA L_{eq} during daytime hours. As anticipated, the project site and the surrounding area experiences noise as a result of existing pass-by traffic along local roadways and I-5 Freeway. Noise levels vary depending on distance from the centerline of the roadway, time of day and traffic speeds.

Regulatory Framework

The project site is located in the City of Santa Ana and this analysis was performed using the City's noise regulations. The City of Santa Ana addresses noise in its policies and regulations of the Noise Element of its General Plan (1982) and in the City's Code of Ordinances (2017). These policies and regulations are summarized below.

General Plan

The City of Santa Ana has established its own policies for land use compatibility and interior noise levels. The City's interior and exterior noise standards for receiving land uses are shown in Table 11.

The City does not specifically outline the allowable interior or exterior levels for hotel land uses; however, the allowable exterior and interior noise levels for all other new land uses are limited to 65 dBA CNEL and 45 dBA CNEL, respectively.

The City of Santa Ana's General Plan contains goals, objectives and policies that address noise. The following are the goals, objectives, and policies established by the City of Santa Ana's General Plan and applicable to the proposed project:

Goal 1

Prevent significant increases in noise levels in the community and minimize the adverse effects of currently-existing noise sources.

Objectives

- 1.1 Prevent creation of new and additional sources of noise.
- 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.
- Sound insulate and/or buffer sensitive land uses such as housing from adverse noise impacts in noise-prone areas.

Table 11: Interior and Exterior Noise Standards

Categories	Land Use Categories	Interior[a]	Exterior[b]
Residential	Single-family, duplex, multi-family	45[c]	65
Institutional	Hospital, school classroom/playgrounds	45	65
	Church, library	45	—
Open Space	Parks	—	65

Notes:
[a] Interior areas include but are not limited to bedrooms, bathrooms, kitchens, living rooms, dining rooms, closets, corridors/hallways, private offices, and conference rooms.
[b] Exterior areas shall mean private yards of single-family homes, park picnic areas, school playgrounds, common areas, private open space, such as atriums on balconies, shall be excluded form exterior areas provided sufficient common area is included within the project.
[c] Interior noise level requirements contemplate a closed window condition. Mechanical ventilation system or other means of natural ventilation shall be provided in accordance with Chapter 12, Section 1305 of the Uniform Building Code.
Source: City of Santa Ana. 1987. City of Santa Ana General Plan. Noise Element. September 20.

Code of Ordinances

Section 18-314 of the City's noise ordinance addresses construction noise. According to this ordinance, noise sources associated with construction, repair, remodeling, or grading of any real property are exempt from the City's noise performance standards 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.

Would the project result in:

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

Construction Noise Impacts

Less than significant impact. The degree of construction noise will vary depending on the phase of construction and type of construction activity. The closest receptors to the project site include: existing residential dwellings to the south.

Construction noise is considered a short-term impact and would be considered significant if construction activities are undertaken outside the allowable time as described by the City's Municipal Code (Section 18-314). Construction noise levels will vary significantly by size and topographical features of the active construction zone, duration of the workday, and types of equipment employed. Typical operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by a few minutes at lower idling speeds. Although the single event exposure may result in higher intermittent annoyance noise levels, the effect in the long-term ambient noise levels would be small when averaged over a longer time period. Noise levels will be loudest during the grading or excavating of soil.

The project is expected to comply with the construction noise requirements, including compliance with the City's stated permissible hours for construction activity. In addition, the project equipment is expected to utilize proper mufflers and shrouds and avoid unnecessary revving of motors. Implementation of MM NOI-1, requiring the project to comply with the permissible hours of construction and with standard noise reduction BMPs would reduce this impact to less than significant.

Traffic Noise Impacts

Less than significant impact with mitigation incorporated. Traffic noise from vehicular traffic was projected using a version of the FHWA Traffic Noise Prediction Model (FHWA-RD-77-108). The FHWA model arrives at the predicted noise level through a series of adjustments to the key input parameters. Local roadway traffic data, traffic volumes, and percentages were obtained through the Caltrans 2015 AADT truck traffic volumes along the I-5 Freeway.

Traffic noise along the I-5 Freeway will be the main source of noise impacting the project site and the surrounding area. The modeled traffic noise levels will range from 64.8 dBA to 80.6 dBA CNEL along the modeled roadway segments in the project vicinity. The project site has an existing 12-foot

Caltrans freeway sound wall that will help attenuate noise to the first floor hotel uses. Uses on the second floor and above will be potentially exposed to levels reaching up to 80.5 dBA.

The interior noise level is the difference between the projected exterior noise level at the structure's facade and the noise reduction provided by the structure itself. Typical building construction will provide a conservative 12 dBA noise level reduction with a "windows open" condition and a very conservative 20 dBA noise level reduction with "windows closed." The interior noise levels were calculated by subtracting the building shell design from the estimated exterior noise level.

The future interior noise level was calculated for the sensitive receptor locations using a typical "windows open" and "windows closed" condition. A "windows open" condition assumes 12 dBA of noise attenuation from the exterior noise level. A "windows closed" condition assumes 20 dBA of noise attenuation from the exterior noise level. Table 12 indicates the interior noise levels for floors 1-6. The interior noise level will range from 52.8 to 68.6 dBA CNEL with the windows open and 45.0 to 60.6 with the windows closed. In order to the meet the 45 dBA CNEL interior limit, upgraded windows with STC ratings of 32 or higher for the first floor for rooms facing the I-5 Freeway are required, and windows with STC ratings of 39 or higher are required for second through sixth floor rooms facing the I-5 Freeway. With the proper installation of STC rated windows, the interior noise levels would meet the City's interior noise standard.

Table 12: Future Interior Noise Impacts

Floor	Noise Impacts at First Floor Building Façade	Interior Noise Reduction Required to Meet Interior Noise Standard of 45 dBA CNEL	First Floor Interior Noise Level with Standard California Construction Windows (STC > 25)		Required STC Rating to Meet Interior Noise Level
			"Windows Open"	"Windows Closed"[2]	
1st Floor	64.8	19.8	52.8	45.0	32
2nd Floor	77.2	32.2	65.2	45.0	39
3rd Floor	80.5	35.5	68.5	45.0	39
4th Floor	80.5	35.5	68.5	45.0	39
5th Floor	80.5	35.5	68.5	45.0	39
6th Floor	80.4	35.4	68.4	45.0	39
Source: RK Engineering Group, Inc., Acoustical Study, April 17, 2017.					

To meet the City's interior 45 dBA CNEL standard a "windows closed" condition is required, and upgraded windows are required for the project. Implementation of MM NOI-2 would reduce this impact to less than significant.

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

Less than significant impact. Groundborne vibrations consist of rapidly fluctuating motions within the ground that have an average motion of zero. Vibrating objects in contact with the ground

radiate vibration waves through various soil and rock strata to the foundations of nearby buildings. In extreme cases, excessive groundborne vibration has the potential to cause structural damage to buildings. Common sources of groundborne vibration include construction activities such as blasting, pile driving, and operating heavy earthmoving equipment.

A significant impact would occur for the proposed hotel land use development if structures in the project vicinity would be exposed to groundborne vibration levels in excess of 0.2 inch per second peak particle velocity (PPV).

Vibratory impacts associated with construction are anticipated to be below any threshold of architectural damage (0.2 to 0.5 PPV). At a distance of 50 feet, a bulldozer would yield a worst-case 0.015 PPV vibration impact, which is slightly within the threshold of perception but below any risk of architectural damage.

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

Less than significant impact. A significant impact may occur if the project were to result in a substantial permanent increase in ambient noise levels above existing ambient noise levels without the project. Based on the ambient noise measurement results, the existing ambient noise levels on the project site range up to 62.2 dBA L_{eq}. The addition of new mechanical ventilation and the increase in existing traffic volumes are not expected to significantly increase existing ambient noise levels. Therefore, no substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project is expected to occur.

Stationary Noise Impacts

Less than significant impact with mitigation incorporated. New stationary noise sources associated with implementation of the project would include new mechanical equipment, such as heating, ventilation, and air conditioning (HVAC) systems. The potential outdoor to indoor noise level associated with various types of HVAC systems typically associated with these types of projects has been evaluated. Specifically, this analysis evaluated the following HVAC systems: Packaged Terminal Air Conditioner—(PTAC, Vertica l Terminal Air Conditioner—(VTAC), and Variable Refrigerant Flow—(VRF).

The calculated noise level at the facade of the hotel is anticipated to reach up to 80.5 dBA CNEL. According to the City's interior noise requirements, interior noise levels must not exceed 45 dBA CNEL. Therefore, to meet the City's interior noise requirement, the facade of the building must achieve a minimum of 35.5 dBA of noise reduction.

The weakest acoustical point of any building envelope design typically occurs at the windows, doors and any penetrations through walls/roof. Any HVAC system that is incorporated into the building facade has the potential to have acoustical weak points, allowing noise to penetrate through the building envelope.

Because of the high noise levels that will be experienced at the facade of hotel, a VRF system is recommended. The VRF system will not expose patrons to freeway noise since the system utilizes shafts to feed air to the room. In addition, by using the VRF system, the building facade will not be acoustically compromised. RK recommends that any VRF system be installed on neoprene isolators (at minimum); however, spring isolators are preferable to avoid potential HVAC equipment noise transfer through the roof assembly. Therefore, implementation of MM NOI-3 would be required to reduce noise impacts from operation of mechanical ventilation equipment to meet the City's interior noise level standards.

The project would generate approximately 1,103 vehicle trips. According to the City's General Plan Circulation Element, Main Street is classified as an arterial roadway capable of handling traffic volumes of 30,000 ADTs at a level of service C. An increase of 1,103 trips along a roadway with 30,000 ADT would nominally increase the noise by approximately 0.1 dBA CNEL; therefore, the project's traffic noise impact to the existing condition would be considered less than significant. It takes a change of 3 dBA or more for the human ear to hear any audible difference in the sound level. It takes a doubling of traffic volumes (30,000 + 30,000 = 60,000) to increase the noise level by 3 dBA. Therefore, traffic volumes along the subject roadways would have to more than double to have a 3 dBA change in noise level.

Traffic volumes are not expected to double along any of the modeled roadway segments. Therefore, traffic noise impacts associated with future traffic volumes are expected to be less than significant.

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

Less than significant impact. Construction noise impacts were analyzed in the discussion of Impact 12a). Although there would be a relatively high single-event noise exposure potential causing intermittent noise nuisance, the effect on hourly or daily ambient noise levels would be small. Short-term construction impacts on sensitive receptors in the project vicinity are expected to be less than significant as long as construction activities take place within the permissible hours of construction outlined in the City's municipal code. Additionally, implementation of MM NOI-1 requiring standard construction noise reduction measures (including required use of approved mufflers on equipment) is 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 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 6 miles south of the project site. Because of the distance from the airport runways, the project site is located outside of the 65-dBA CNEL noise contours of this airport.

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

No impact. The project site is not located within the vicinity of a private airstrip. Therefore, no impacts associated with private airstrip noise would occur.

Mitigation Measures

MM NOI-1 Construction operations must adhere to the City's Noise Ordinance (Section 18-314). The following mitigation measures are required:

- Construction shall not occur during the hours of 8:00 p.m. and 7:00 a.m.
- Stationary construction noise sources such as generators or pumps should be located at least 100 feet from sensitive land uses, or as feasible.
- Construction staging areas should be located as far from noise sensitive land uses as feasible.
- During construction, the contractor shall ensure all construction equipment is equipped with appropriate noise attenuating devices.
- Idling equipment shall be turned off when not in use.
- Equipment shall be maintained so that vehicles and their loads are secured from rattling and banging.

MM NOI-2 The project site will require a "windows closed" condition and STC-32 to STC-39 (or higher) windows (as indicated in Table 12). To ensure proper sound isolation, the following is required:

- The project shall require up to 36 dBA of exterior-to-interior noise reduction for the building shell design. STC ratings are provided to achieve the desired target range.
- A mechanical ventilation system (as detailed further in MM NOI-3) shall be installed to allow windows to remain closed at the patron's option (as the interior noise standards would not be met with open windows).

MM NOI-3 To prevent sleep disturbance to patrons of the hotel from operation of proposed exterior HVAC systems and to not expose patrons to freeway noise that could result from ventilation access openings in the façade, the following is required:

- A VRF or similar HVAC system shall be installed so that the building facade will not be acoustically compromised. A VRF or similar system shall be installed on neoprene isolators, at minimum; however, spring isolators are preferable to avoid potential HVAC equipment noise transfer through the roof assembly. This measure would ensure that noise impacts from operation of mechanical ventilation equipment are reduced to meet the City's interior noise level standards.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
13. Population and Housing *Would the project:*				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☒	☐
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☒	☐

Environmental Evaluation

Would the project:

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

No impact. The proposed project would build a 135-room hotel, restaurant, and bar on-site. The project site currently contains a surface parking lot, an office building, single-family dwellings and three accessory structures. No permanent housing, businesses, or extensions of roads or other infrastructure are proposed in the project, such that there is no anticipated population growth either directly or indirectly.

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

Less than significant impact. The project site currently contains a surface parking lot, an office building, and three accessory structures. The proposed project will result in the loss of two dwelling units; the single-family dwelling at 2058 N. Bush Street will be demolished and the single-family dwelling at 2056 N. Bush Street will be relocated and a converted from residential to commercial. The loss of two dwelling units within the City of Santa Ana is not substantial and does not necessitate the construction of replacement housing. As such, there would be a less than significant impact.

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

Less than significant impact. The project site currently contains a surface parking lot, an office building, and three accessory structures. The residents of the two single-family dwellings on Bush Street will be displaced. The loss of two dwelling units within the City of Santa Ana is not substantial and does not necessitate the construction of replacement housing. As such, there would be a less than significant impact. As such, there would be a less than significant impact.

Mitigation Measures

None.

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

The Orange County Fire Authority (OCFA) provides fire protection services to the City of Santa Ana. OCFA provides both fire protection and emergency medical response services to the City of Santa Ana. The OCFA operates 10 stations throughout Santa Ana, and has access to an additional 61 stations in its service area. Each station covers a service radius of approximately 1.5 miles throughout the City of Santa Ana. The first Fire unit response goal is less than 5 minutes. The closest fire station to the project site is Orange County Fire Authority Station #71, located approximately 1 mile to the southwest.

The Santa Ana Police Department (SAPD) provides police protection to the City of Santa Ana. According to the Santa Ana General Plan Public Safety Element, the City's central police station is located in Civic Center approximately 1.8 miles southwest of the project site.

The City of Santa Ana is included within the jurisdiction of four school districts: Santa Ana Unified, Garden Grove Unified, Tustin Unified, and Orange Unified. SAUSD accounts for over 90 percent of school resources in the City.

The City of Santa Ana contains a city library system consisting of a central library in Civic Center Plaza and a Newhope Branch Library.

According to the Santa Ana General Plan Open Space, Parks, and Recreation Element, the City has about 400 acres of public park and recreation facilities distributed throughout the City. Approximately 2 acres of open space exist for each 1,000 residents.

Environmental Evaluation

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to

maintain acceptable service ratios, response times or other performance objectives for any of the public services:

a) Fire protection?

Less than significant impact. The OCFA serves the City of Santa Ana and there are ten fire stations within the City. The two closest stations are Station #71—located approximately 1 mile to the southwest of the project at 1029 W 17th Street, and Station #70—located approximately 1.4 miles from the project site to the east at 2301 N. Old Grand Avenue. The proposed project is a 135-room hotel, restaurant, and bar. The project would not result in a population increase. It is not anticipated that the OCFA response times to the project site or surrounding vicinity will be affected. The project's design would be subject to compliance with the requirements in the California Building Standards Commission 2016 California Fire Code. The project plans would be reviewed and approved by the Santa Ana Building & Safety Division and the OCFA, which would ensure adequate emergency access, fire hydrant availability, and compliance with all applicable codes and standards. Compliance with the City's permit process and Santa Ana Municipal Code requirements would ensure that project implementation would result in a less than significant impact to fire protection services.

b) Police protection?

Less than significant impact. The SAPD provides police services to the project area. The main SAPD building is located approximately 1.7 miles southwest from the project site at 60 Civic Center Plaza. The proposed project would not require the construction of new SAPD facilities or expansion of existing facilities to accommodate the project. Project implementation is not anticipated to increase SAPD response times to the project site or surrounding vicinity. In addition, the project plans would be reviewed and approved by the Santa Ana Building & Safety Division and Police Department, which would ensure that adequate safety and crime prevention measures are provided. Compliance with the City's discretionary review process would ensure that project implementation would result in a less than significant impact to police services.

c) Schools?

No impact. The schools that serve the project area are Santiago Elementary School, located at 2212 N. Baker Street, Frances E. Willard Intermediate located at 1342 N. Ross Street, and Santa Ana High School located at 520 W. Walnut Street. However, the proposed project is for the construction of a 135-room hotel, restaurant, and establishment selling alcoholic beverages. It is not anticipated that the project would increase the population or demand for school services in the City; therefore, no impacts would occur.

d) Parks?

No impact. According to the City's General Plan Open Space, Parks and Recreation Element, Santa Ana has approximately 400 acres of public park and recreation facilities and the City strives to maintain approximately 2 acres of open space for each 1,000 residents. Currently, the City operates 38 parks and recreational facilities within the City as well as playgrounds at several schools. As

stated above, the proposed project is for the construction of a 135-room hotel, restaurant, and bar. The implementation of the project would not increase population or demand for park services in the City; therefore, no impact would occur.

e) Other public facilities?

No impact. The City operates two libraries. The Main Library is located at 26 Civic Center Plaza, and the Newhope Library is located at 122 N. Newhope Street. The population would not increase because of the proposed project, and, therefore, no impacts would occur.

Mitigation Measures

None.

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

Environmental Evaluation

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

No impact. According to the City's General Plan Open Space, Parks and Recreation Element, Santa Ana has approximately 400 acres of public park and recreation facilities and the City strives to maintain approximately 2 acres of open space for each 1,000 residents. Currently, the City operates 38 parks and recreational facilities within the City as well as playgrounds at several schools. As stated above, the proposed project is for the construction of a 135-room hotel, restaurant, and establishment selling alcoholic beverages. The implementation of the project would not 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?

No impact. The proposed project is for the construction of a 135-room hotel, restaurant, and bar. There are no plans to construct recreational facilities for the project; thus, no impacts would occur.

Mitigation Measures

None.

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

Environmental Setting

A Traffic Impact Analysis (TIA) was prepared for the project by RK Engineering Group, Inc. dated September 5, 2017 and is included in this IS/MND as Appendix D.

The traffic analysis evaluates the existing weekday peak-hour operating conditions at five key study intersections within the project vicinity, estimates the trip generation potential of the proposed project, and superimposes the project-related traffic volumes on the circulation system as it currently exists. In addition, the analysis forecasts future weekday operating conditions (based on approved and reasonably foreseeable cumulative projects) with and without the proposed project, and, if necessary, identifies appropriate intersection improvements/mitigation measures. The weekday peak hours evaluated consist of one hour between 7:00 a.m. to 9:00 a.m. (referred to as

the AM peak hour) and one hour between 4:00 p.m. to 6:00 p.m. (referred to as the PM peak hour). The traffic report is intended to satisfy the traffic impact requirements of the City of Santa Ana and be consistent with the most current Congestion Management Program (CMP) for Orange County.

This traffic report analyzes existing and future weekday peak-hour traffic conditions for a future (Year 2018) traffic setting upon completion of the proposed project. Peak hour traffic forecasts for the Year 2018 have been projected by increasing existing traffic volumes by an annual growth rate of 1 percent per year and adding traffic volumes generated by cumulative projects known to the City of Santa Ana, the City of Orange, and RK Engineering at the time the study was prepared.

Study Area Intersections

Table 13 lists the five key study intersections evaluated in the report in accordance with the scope of work approved by the City of Santa Ana.

Table 13: Study Area Intersections

Study Intersection			Jurisdiction
No.	North-South Street	East-West Street	
1	Main Street	Edgewood Road—I-5 HOV Ramps	Santa Ana/Caltrans
2	Main Street	Santa Clara Avenue/I-5 NB Ramps	Santa Ana/Caltrans
3	Main Street	Buffalo Avenue/I-5 SB On-Ramp	Santa Ana/Caltrans
4	Main Street	17th Street	Santa Ana
5	Main Street	Project Access 1	Santa Ana

Notes:
HOV = high-occupancy vehicle; NB = northbound

Project Description

The proposed project is located at 2129 North Main Street and is bound by North Main Street on the west, the I-5 Southbound On-Ramp/Buffalo Avenue to the north, and the I-5 Freeway to the east, in the City of Santa Ana. The project would consist of constructing a 135-room hotel on an existing public parking lot. The project is projected for completion by Year 2018 and has been analyzed in one complete phase.

Site Access

Vehicular access to the site will be provided via one full access unsignalized driveway on North Main Street and one full access unsignalized driveway for emergency use only at the terminus of the realigned Bush Street cul-de-sac. Both of these access locations currently exist. The proposed project is planned to implement gated entry with a ticket dispenser at the project site access on Main Street.

City of Santa Ana LOS and Significance Criteria

The City of Santa Ana target for peak-hour intersection operation is level of service (LOS) D or better. For intersections located within areas of the City designated Major Development Areas, LOS E or better is considered acceptable.

Table 14 summarizes the City of Santa Ana performance criteria for each of the five study intersections.

Table 14: Study Intersection Performance Criteria

Study Intersection			Performance Criteria
No.	North-South Street	East-West Street	
1	Main Street	Edgewood Road—I-5 HOV Ramps	LOS D or better
2	Main Street	Santa Clara Avenue/I-5 NB Ramps	LOS E or better
3	Main Street	Buffalo Avenue/I-5 SB On-Ramp	LOS E or better
4	Main Street	17th Street	LOS D or better
5	Main Street	Project Access 1	LOS D or better

The City of Santa Ana has established the following thresholds of significance to determine whether the addition of project-generated trips results in a significant impact, and thus requires mitigation:

- A significant impact occurs at a study intersection if the addition of project generated trips causes the intersection to change from an acceptable LOS to deficient LOS.

LOS Methodology

The methodology used to assess the operation of the signalized study area intersections within the jurisdiction of City of Santa Ana is Intersection Capacity Utilization (ICU). Study area intersections that are stop sign controlled have been analyzed using the Highway Capacity Manual methodology. Additionally, signalized study area intersections that are in shared jurisdiction of the City of Santa Ana and Caltrans have been analyzed using the Highway Capacity Manual methodology as well as the ICU methodology.

Existing Conditions

Existing AM and PM peak-hour operating conditions for the five key study intersections were evaluated using the Intersection Capacity Utilization (ICU) methodology and/or Highway Capacity Manual methodology.

Table 15 summarizes the existing peak-hour service level calculations for the five study area intersections based on existing traffic volumes and current street geometry. Review of Table 15 indicates that all of the five key study intersections currently operate at an acceptable level of service during the AM and PM peak hours.

Table 15: Existing Peak Hour LOS

Study Intersection	Acceptable LOS	Existing Conditions			
		AM Peak Hour		PM Peak Hour	
		V/C—LOS	Delay—LOS	V/C—LOS	Delay—LOS
1. Main St/Edgewood Rd—I-5 HOV Ramps	D	0.640—B	40.1—D	0.624—B	41.1—D
2. Main St/Santa Clara Ave—I-5 NB Ramps	E	0.706—C	61.2—E	0.729—C	27.9—C
3. Main St/Buffalo Ave—I-5 SB On-Ramp	E	0.608—B	20.1—C	0.717—C	30.9—C
4. Main St/17th St	D	0.759—C	N/A	0.720—C	N/A

Notes:
V/C = volume-to-capacity ratio utilizing ICU methodology
Delay reported in seconds utilizing HCM methodology
HOV = high-occupancy vehicle; NB = Northbound; SB = Southbound; N/A = Not applicable

Project Trip Generation

Trip generation represents the amount of traffic that is attracted and produced by a development. The trip generation for the project is based upon the specific land uses that have been planned for the development. The project will consist of constructing a 135-room hotel.

Trip generation rates for the proposed project are shown in Table 16 and are based on the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition, 2012. This publication provides a comprehensive evaluation of trip generation rates for a variety of land uses.

Table 16: ITE Trip Generation Rates for Proposed Project

Land Use	Units	ITE Code	AM			PM			Daily
			In	Out	Total	In	Out	Total	
Hotel	Rooms	310	0.31	0.22	0.53	0.31	0.29	0.60	8.17

Source: Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition, 2012.

Utilizing the ITE trip generation rates shown in Table 16, Table 17 summarizes the daily and peak-hour trip generation for the proposed project.

Table 17: Daily and Peak Hour Trip Generation Summary of Proposed Project

Land Use	AM Peak Hour Trips			PM Peak Hour Trips			Daily Trips
	In	Out	Total	In	Out	Total	
135-room Hotel	42	29	71	41	40	81	1,103

As shown in Table 17, based on ITE trip generation rates, the proposed project is forecast to generate approximately 1,103 daily trips, which include approximately 71 AM peak-hour trips and 81 PM peak-hour trips.

Project Trip Distribution and Assignment

Trip distribution represents the directional orientation of traffic to and from the project site. Trip distribution is heavily influenced by the geographical location of the site, the location of residential, employment, and recreational opportunities, and the proximity to the regional freeway system. The directional orientation of traffic was determined by evaluating existing and proposed land uses, and highways within the community.

Trip distribution patterns for this study have been based upon near-term conditions from those highway facilities that are either in place or will be contemplated over the next few years, which represents the completion and occupancy for the proposed development.

The project trip distribution assumptions were provided to City of Santa Ana staff for review and approval prior to preparation of the traffic study.

Existing Plus Project Traffic Conditions

Existing Plus Project peak-hour intersection turning movement volumes were obtained by adding project trip assignment to existing traffic volumes. Table 18 summarizes Existing Plus Project Conditions AM peak-hour and PM peak-hour LOS of the study intersections.

Table 18: Existing Plus Project Conditions AM and PM Peak Hour Study Intersection LOS

Study Intersection	Acceptable LOS	Existing Plus Conditions				
		AM Peak Hour		PM Peak Hour		Significant Impact?
		V/C—LOS	Delay—LOS	V/C—LOS	Delay—LOS	
1. Main St/Edgewood Rd—I-5 HOV Ramps	D	0.641—B	39.7—D	0.625—B	41.0—D	No
2. Main St/Santa Clara Ave—I-5 NB Ramps	E	0.713—C	60.6—E	0.740—C	28.3—C	No
3. Main St/Buffalo Ave—I-5 SB On-Ramp	E	0.613—B	20.2—C	0.766—C	33.2—C	No
4. Main St/17th St	D	0.759—C	N/A	0.722—C	N/A	No
5. Main St/Project Site Access	D	N/A	13.9—B	N/A	17.6—C	No

Notes:
V/C = volume-to-capacity ratio utilizing ICU methodology
Delay reported in seconds utilizing HCM methodology
HOV = high-occupancy vehicle; NB = Northbound; SB = Southbound; N/A = Not applicable

As shown in Table 18, all study intersections are forecast to continue to operate at an acceptable LOS for Existing Plus Project Conditions.

As also shown in Table 18, based on agency-established thresholds of significance, the proposed project is forecast not to result in a significant traffic impact at the study intersections for Existing Plus Project Conditions.

Project Completion (Year 2018) Without Project Conditions Traffic Conditions

Project Completion (Year 2018) Without Project Conditions traffic volumes include existing traffic volumes on surrounding roadways, traffic associated with cumulative projects, and areawide growth. Table 19 summarizes Project Completion Year (2018) Without Project Conditions AM peak-hour and PM peak-hour LOS of the study intersections.

Table 19: Project Completion Year (2018) Without Project Conditions AM and PM Peak Hour Study Intersection LOS

Study Intersection	Acceptable LOS	Project Completion Year (2018) Without Project Conditions			
		AM Peak Hour		PM Peak Hour	
		V/C—LOS	Delay—LOS	V/C—LOS	Delay—LOS
1. Main St/Edgewood Rd—I-5 HOV Ramps	D	0.653-B	40.9-D	0.686-B	43.4-D
2. Main St/Santa Clara Ave—I-5 NB Ramps	E	0.771-C	64.4-E	0.766-C	28.9-C
3. Main St/Buffalo Ave—I-5 SB On-Ramp	E	0.649—B	20.7—C	0.772—C	32.9—C
4. Main St/17th St	D	0.865—D	N/A	0.804—D	N/A

Notes:
V/C = volume-to-capacity ratio utilizing ICU methodology
Delay reported in seconds utilizing HCM methodology;
HOV = high-occupancy vehicle; NB = Northbound; SB = Southbound; N/A = Not applicable

As shown in Table 19, all study intersections are forecast to continue to operate at an acceptable LOS for Project Completion Year (2018) Without Project Conditions.

Project Completion (Year 2018) With Project Conditions Traffic Conditions

Project traffic has been added to background traffic volumes on surrounding roadways, traffic from cumulative projects, and area-wide growth to derive Project Completion (Year 2018) With Project Conditions traffic volumes. Table 20 summarizes Project Completion Year (2018) With Project Conditions AM peak-hour and PM peak-hour LOS of the study intersections.

Table 20: Project Completion Year (2018) With Project Conditions AM and PM Peak Hour Study Intersection LOS

Study Intersection	Acceptable LOS	Project Completion Year (2018) With Project Conditions				
		AM Peak Hour		PM Peak Hour		Significant Impact?
		V/C—LOS	Delay—LOS	V/C—LOS	Delay—LOS	
1. Main St/Edgewood Rd—I-5 HOV Ramps	D	0.654—B	39.9—D	0.688—B	44.4—D	No
2. Main St/Santa Clara Ave—I-5 NB Ramps	E	0.782—C	66.7—E	0.777—C	29.5—C	No
3. Main St/Buffalo Ave—I-5 SB On-Ramp	E	0.654—B	21.0—C	0.779—C	33.6—C	No
4. Main St/17th St	D	0.865—D	N/A	0.806—D	N/A	No
5. Main St/Project Site Access	D	N/A	14.8—B	N/A	21.2—C	No

Notes:
V/C = volume-to-capacity ratio utilizing ICU methodology
Delay reported in seconds utilizing HCM methodology
HOV = high-occupancy vehicle; NB = Northbound; SB = Southbound; N/A = Not applicable

As shown in Table 20, all study intersections are forecast to continue to operate at an acceptable LOS for Project Completion Year (2018) With Project Conditions.

As also shown in Table 20, based on agency-established thresholds of significance, the proposed project is forecast to not result in a significant traffic impact at the study intersections for Project Completion Year (2018) With Project Conditions.

Queueing Analysis

As requested by City staff during the scoping agreement, to determine if adequate intersection spacing is provided between the project site access on Main Street and Buffalo Avenue to accommodate turning movements in and out of the project site without spill back, a Highway Capacity Manual 95th percentile vehicular queuing analysis has been prepared for the following movements:

- Main Street/Buffalo Avenue—I-5 SB On-Ramp: northbound Main Street through/right-turn movement;
- Main Street/Project Site Access: southbound Main Street left-turn movement;
- Main Street/Project Site Access: westbound project site access left-turn movement;
- Main Street/Project Site Access: westbound project site access left-turn movement; and
- Main Street/Project Site Access: westbound project site access right-turn movement.

Left-in access to the project site from southbound Main Street is currently accommodated via a two-way-left-turn lane.

The vehicular queue analysis has been prepared for the following analysis scenarios, which include the proposed project:

- Existing Plus Project Conditions
- Project Completion Year (2018) With Project Conditions

Table 21 summarizes the results of the HCM 95th percentile vehicular queueing analysis.

Table 21: HCM 95th Percentile Vehicular Queueing Analysis Summary

Analysis Scenario/Movement	AM Peak Hour		PM Peak Hour		Available Storage (feet)	Adequate Storage Provided?
	Peak Hour Volume	95th Percentile Vehicular Queue (feet)	Peak Hour Volume	95th Percentile Vehicular Queue (feet)		
Existing Plus Project Conditions						
Main Street/Buffalo Avenue—I-5 SB On-Ramp: Northbound Main Street through/right-turn movement	1,074	319	1,422	527	375	***No***
Main Street/Project Site Access: Southbound Main Street left-turn movement	38	5	37	8	375	Yes
Main Street/Project Site Access: Westbound project site access left-turn movement	3	1	4	2	100	Yes
Main Street/Project Site Access: Westbound project site access right-turn movement	26	5	36	9	100	Yes
Project Completion (Year 2018) With Project Conditions						
Main Street/Buffalo Avenue—I-5 SB On-Ramp: Northbound Main Street through/right-turn movement	1,169	354	1,660	538	375	***No***
Main Street/Project Site Access: Southbound Main Street left-turn movement	38	6	37	10	375	Yes
Main Street/Project Site Access: Westbound project site access left-turn movement	3	1	4	3	100	Yes
Main Street/Project Site Access: Westbound project site access right-turn movement.	26	5	36	12	100	Yes

As shown in Table 21, adequate storage capacity is forecast to be provided for all of the evaluated movements with the exception of the northbound Main Street movement at the Main Street/Buffalo Avenue—I-5 SB On-Ramp intersection.

The identified queue spill back is due to the high volume of existing and future traffic traveling on northbound Main Street and the identified deficiency is not a direct result of the proposed project.

Based on the analysis, the northbound queue at this location spills back beyond the project site driveway. The project will be required to participate in any approved transportation or development impact fees required by the City of Santa Ana.

Environmental Evaluation

Would the project:

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

Less than significant impact. As stated above, the project is not anticipated to result in a significant impact on the study area intersections under existing and future traffic conditions, based on the City of Santa Ana Significance Criteria. As such, the project would comply with the City's standards. Although queue spill back occurs at the northbound Main Street movement at the Main Street/ Buffalo Avenue—I-5 SB On-Ramp intersection, this is an existing deficiency that would occur even without the project. The project's contribution to this existing impact would be 9 vehicles during the AM peak hour and 12 vehicles during the PM peak hour. The project would not conflict with any applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system. Thus, the project would result in less than significant impacts on traffic/circulation and the surrounding roadway network, and no mitigation is required.

Please refer to the discussion in Impact 16f) for a discussion of pedestrian and bicycle paths, and mass transit.

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

No impact. The purpose of the CMP is to develop a coordinated approach to managing and decreasing traffic congestion by linking the various transportation, land use, and air quality planning programs throughout the County, consistent with that of the SCAG. The CMP requires review of substantial individual projects, which might on their own impact the CMP transportation system. Specifically, the CMP Traffic Impact Analysis measures impacts of a project on the CMP Highway System. The project site is not located in the vicinity of a CMP intersection. The closest CMP intersections are the I-5 Southbound Ramps at 1st Street located approximately 1.9 miles southeast

of the project site. As such, the project would not impact any congestion management measures or standards and therefore would have no impact.

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

No impact. The nearest airports to the project site are John Wayne Airport located approximately 5.5 miles south of the project site, and Fullerton Municipal Airport located approximately 9.8 miles northwest of the project site. The project site is located outside the most commonly used take-off and landing patterns of the airport. No impact would occur.

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

Less than significant impact. As previously noted, the proposed project is planned to implement a gated entry with ticket dispenser at the project site access on Main Street. Based on the latest site plan, the gate arm is planned to be placed approximately 90 feet from the edge of Main Street.

RK Engineering has conducted an analysis of gate queueing/stacking to determine if adequate space is planned to be provided between the gate arm and the edge of Main Street to avoid vehicles backing up onto Main Street as they are waiting to enter the site.

The analysis is based on the intensity of the inbound traffic which is a factor of the arrival rate of vehicles at the entry location and also the service rate at which the vehicles are served by the gate system while entering the project site.

The Crommelin methodology has been utilized to determine the appropriate stacking capacity at the project entry location. The methodology utilizes the arrival rate of vehicles and the service rate at which arriving vehicles are processed to determine the traffic intensity and resulting vehicular queues building up behind the gate. The methodology calculates the number of vehicles waiting in the queue behind the one vehicle that is being served at the gate. The traffic intensity is calculated by dividing the average arrival rate by the average service rate.

As previously shown in Table 21, during the peak hour, the proposed project is forecast to generate approximately 42 inbound trips in the AM peak hour and 41 inbound trips in the PM peak hour.

Based on the Crommelin methodology, a typical gated entry with ticket dispenser system has a design service rate of 305 to 520 vehicles per hour, depending on the angle of approach of the driveway. A gated entry with easy direct approach has a design service rate of 520 vehicles per hour, whereas an entry with a sharp angle approach has a design service rate of 305 vehicles per hour. Even though the project driveway has a relatively easy and direct driveway approach, this analysis conservatively utilizes a design service rate of 305 vehicles per hour.

Assuming an arrival rate of 42 vehicles per hour and a service rate of 305 vehicles per hour (traffic intensity of 0.14), the 99-percentile required stacking capacity at the project gated access is forecast to be fewer than two vehicles (rounded up to two vehicles) when accounting for the one vehicle in

front of the queue that is being served at the gate. Utilizing the industry-standard vehicle length of 25 feet for the purposes of vehicular queueing analysis, this is equivalent to a queue of 50 feet.

Since the gate arm is planned to be place approximately 90 feet from the edge of Main Street, adequate stacking capacity is forecast to be provided for the gated project access on Main Street. Sight distance at the project access points will be reviewed at the time of construction in accordance with the City of Santa Ana standards. As is the case for any roadway design, the City of Santa Ana will periodically review traffic operations in the vicinity of the site once the project is constructed to assure that the traffic operations are satisfactory. Impacts would be less than significant.

e) Result in inadequate emergency access?

Less than significant impact with mitigation incorporated. Vehicular access to the site will continue to be provided via one existing full access unsignalized driveway on North Main Street and one existing full access unsignalized driveway for emergency use only at the terminus of the realigned Bush Street cul-de-sac. Both of these access locations currently exist. Implementation of MMs TRANS-1 and TRANS-2 will ensure that the project's impact on emergency access would be less than significant.

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

Less than significant impact. The Orange County Transit Authority (OCTA) currently provides public transit services within the City of Santa Ana. OCTA Routes 53, 53x, and 83 currently run along Main Street directly in front of the project site. OCTA Routes 60, 453, and 560 also operate in the vicinity of the project site. The Main-Buffalo bus stop is located directly in front of the project site on Main Street and provides shelter and seating.

The project would not alter any sidewalks or bike lanes. Existing pedestrian facilities, such as sidewalks, are currently provided along Main Street, including along the west Project frontage.

There are generally no existing designated bicycle facilities within the study area. However, there is a future planned Class II bike lane on 17th Street. The proposed project would not alter or remove any pedestrian or bicycle facility within vicinity of the project site. Impacts would be less than significant.

Mitigation Measures

MM TRANS-1 The project shall construct the on-site circulation system per the detailed site plan and continue to provide one full access driveway onto North Main Street as well as one full access driveway onto Bush Street (emergency only access).

MM TRANS-2 The project shall complete any remaining half-section street improvements for Main Street adjacent to the project site.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
17. Utilities and Service Systems *Would the project:*				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

Environmental Setting

According to the Santa Ana General Plan Land Use Element, domestic water services in the City of Santa Ana are mainly provided by the City of Santa Ana Public Works Agency. Two small water companies serve a portion of the City through groundwater wells. On average, the Santa Ana Water Department delivers 43 million gallons of water daily to some 48,000 customers. This service is provided through 20 groundwater wells, 444 miles of water mains, and eight storage tanks or reservoirs with a combined capacity of 45 million gallons. Santa Ana is a member city of the Metropolitan Water District (MWD), which receives water from the State Water project emanating from sources of the Sierra Nevada mountain range, and the Colorado River via Lake Havasu. Santa Ana pumps approximately 70 percent of its water supply from wells, and purchases 30 percent of its supply from MWD. The City's wells can provide a maximum of 71 million gallons per day (mgd), and MWD can provide 65 mgd. Approximately 500 miles of local sewer lines are maintained by the City

of Santa Ana, with sewer trunks owned and maintained by the Orange County Sanitation District (OCSD). The OCSD's Green Acres Project allows for the reuse of reclaimed wastewater for industrial and landscape irrigation uses. Waste Management provides solid waste collection services to the City of Santa Ana. Solid waste is transported by truck to the Sunset Environmental Service Transfer Station in Irvine and the CVT Transfer Station in Anaheim. The City of Santa Ana has adopted a Source Reduction and Recycling Element (SRRE) in 1992. The SRRE outlines the City's commitment to a 25 percent solid waste reduction by 1995 and a 50 percent reduction by 2000. This plan calls for recycling, composting, special waste disposal, and education and public information programs.

Environmental Evaluation

Would the project:

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

Less than significant impact. The SARWQCB issued an NPDES permit, which includes the City as a Permittee. The NPDES permit implements federal and state law governing point source discharges (a municipal or industrial discharge at a specific location or pipe) and nonpoint source discharges (diffuse runoff of water from adjacent land uses) to surface waters of the United States.

The project is also subject to comply with on-site sewer cleaning requirements. Regular cleaning is a requirement under the State of California, State Water Resources Control Board Order No. 2006-0003, and Statewide General Waste Discharge Requirements (WDR) for Wastewater Collection Agencies, adopted on May 2, 2006.

Wastewater from the project would mainly consist of effluent typical of commercial hotel uses and residential apartment units. The hotel would contain small quantities of household hazardous materials such as cleaning solvents, but these quantities would not be sufficient to exceed treatment requirements. Additionally, the project would be required to comply with all applicable regulations and standards, including the NPDES permit requirements and RWQCB standards. Therefore, impacts would be less than significant.

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

Less than significant impact. The proposed project would result in the construction of a hotel, bar, and restaurant. The increase in wastewater generation would result in an incremental increase in the demand for wastewater conveyance and treatment facilities. The project's wastewater would be carried off-site through connections with existing sewer system lines surrounding the project site. As wastewater generation rates are not listed in the City of Santa Ana's UWMP, wastewater generation rates from the City of Los Angeles' CEQA Threshold Guidelines were used to estimate the projected wastewater generated by the proposed project. The proposed project is anticipated to generate a net increase of approximately 23,820.5 gallons per day (gpd) of wastewater over existing uses. This net increase represents approximately .0004 percent of the 24 million gpd remaining capacity at the

OCSD's Reclamation Plant No. 2. Therefore, the OCSD has adequate remaining capacity to serve the proposed project. Impacts related to wastewater treatment capacity would be less than significant.

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

Less than significant impact. As mentioned above, the City of Santa Ana currently has sewage facilities available to serve the proposed project. The project would not require or result in the construction of new stormwater drainage facilities or the expansion of existing facilities. Impacts would be less than significant.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Less than significant impact. As shown in Table 22, the project would result in increased water usage beyond what currently exists on the project site. However, according to its 2010 UWMP, the City of Santa Ana anticipates that it can provide adequate water supplies for the City through the year 2035. The project is consistent with the General Plan designation of District Center for the site; thus, water usage consistent with this designation was accounted for within the 2010 UWMP. Further, the project would be required to comply with applicable water conservation ordinances and regulations. Therefore, the proposed project would not require new or expanded entitlements. Project impacts related to water supplies would be less than significant.

Table 22: Existing and Projected Estimated Water Demand

Land Use	Size	Consumption Rate[a]	Total (gallons/day)
Existing Uses			
Auto Parking	5,549 sq ft	20 gallons/1,000 sq ft/day	110.98
Office Buildings	4,000 sq ft	150 gallons/1,000 sq ft/day	600
Subtotal			***710.98***
Proposed Project			
Hotel	135 rooms	156 gallons/rooms/day	21,060
Commercial Uses	10,035 sq ft	96 gallons/1,000 sq ft/day	963.36
Bar	2,627 sq ft	600 gallons/1,000 sq ft/day	1,576.2
Restaurant	922 sq ft	360 gallons/1,000 sq ft/day	331.92
Subtotal			***23,931.48***
Total Net Water Consumption (Project minus Existing Uses)			**23,220.5**

Notes:
[a] L.A. CEQA Threshold Guide 2006, Exhibit M.2-22. Water consumption is assumed to be 120% of wastewater.
sq ft = square feet

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

Less than significant impact. As discussed above, wastewater generated by the proposed project would be conveyed to existing OCSD operated sewer lines. The proposed project is anticipated to generate a net increase of approximately 23,220.5 gpd of wastewater over existing uses. This net increase represents approximately 0.0004 percent of the 24 mgd remaining capacity at the OCSD's Reclamation Plant No. 2. Therefore, the OCSD has adequate remaining capacity to serve the proposed project. Impacts related to wastewater treatment capacity would be less than significant.

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

Less than significant impact. Waste Management has contracted with the City to provide solid waste collection services to the City of Santa Ana. Solid waste is transported by truck to the Sunset Environmental Service Transfer Station in Irvine and the CVT Transfer Station in Anaheim, with final transfer to the Frank R. Bowerman Landfill in Irvine. The Frank R. Bowerman Landfill has a total remaining capacity of 205 million cubic yards for solid waste and an allowance of 11,500 tons throughput per day. Using estimated solid waste generation rates provided by CalRecycle,[6] the proposed project is projected to generate approximately 557.745 pounds, or 0.28 ton of solid waste daily at full buildout. The project would not result in a significant increase in solid waste generated on-site, as there will only be an incremental increase in solid waste that would be transported off-site. Waste Management will service the site via the gate at the existing alley, pick-up the bins at the two on-site trash enclosures and exit onto Main Street. Less than significant impacts would occur.

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

Less than significant impact. In 1989, the Legislature adopted the California Integrated Waste Management Act of 1989 (AB 939), in order to "reduce, recycle, and re-use solid waste generated in the state to the maximum extent feasible." AB 939 established a waste management hierarchy: Source Reduction, Recycling, Composting, Transformation, and Disposal. The law also required that each county prepare a new Integrated Waste Management Plan and each city prepare an SRRE by July 1, 1991. The SRRE is required to identify how each jurisdiction will meet the mandatory state waste diversion goal of 50 percent by the year 2000. The Act mandated that California's 450 jurisdictions (cities, counties, and regional waste management compacts) implement waste management programs aimed at a 25 percent diversion rate by 1995 and a 50 percent diversion rate by 2000. If the 50 percent goal was not met by the end of 2000, the jurisdiction was required to submit a petition for a goal extension to CalRecycle.

Senate Bill (SB) 2202 made a number of changes to the municipal solid waste diversion requirements under the Integrated Waste Management Act. These changes included a revision to the statutory requirement for 50 percent diversion of solid waste to clarify that local governments shall continue to divert 50 percent of all solid waste on and after January 1, 2000.

[6] CalRecyle Waste Generation Rate. https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates.

SB 1016 introduced a per capita disposal measurement system that measures the 50 percent diversion requirement using a disposal measurement equivalent. The bill repealed the SWRCB's 2-year process, requiring instead that the board make a finding whether each jurisdiction was in compliance with the act's diversion requirements for calendar year 2006 and to determine compliance for the 2007 calendar year and beyond, based on the jurisdiction's change in its per capita disposal rate. The board is required to review a jurisdiction's compliance with those diversion requirements in accordance with a specified schedule, which is conditioned upon the board finding that the jurisdiction complies with those requirements or has implemented its source reduction and recycling element and household hazardous waste element. The bill requires the board to issue an order of compliance if the board finds that the jurisdiction has failed to make a good faith effort to implement its source reduction and recycling element or its household hazardous waste element, pursuant to a specified procedure.

The per capita disposal rate is a jurisdiction-specific index, which is used as one of several "factors" in determining a jurisdiction's compliance with the intent of AB 939, and allows CalRecycle and jurisdictions to set their primary focus on successful implementation of diversion programs. Meeting the disposal rate targets is not necessarily an indication of compliance. CalRecycle reports that Santa Ana's Disposal Rate Targets for Reporting Year 2011 are 4.8 pounds per day per resident and 11.3 pounds per day per employee.

The proposed project is expected to be serviced by Waste Management. Any changes in locations for trash carts and bulky pickup, sufficient clearance, and appropriate routing for trucks would be coordinated by the City and Waste Management.

Participation in the City's recycling programs during project construction and operation, including CalRecycle's requirements, would ensure that the project would not conflict with federal, state, and local statutes and regulations related to solid waste. Furthermore, the project would meet or exceed standards set forth in CALGreen as well as Title 24. Less than significant impacts would occur. Refer also to the discussion in Impact 17f).

Mitigation Measures

None.

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

Environmental Evaluation

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

Less than significant impact with mitigation incorporated. With implementation of MM BIO-1, and MM CUL-1 to MM CUL-4, the proposed project would not substantially degrade the quality of the environment, substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory.

MM BIO-1 and MM CUL-1 to MM CUL-4 would protect the potential biological integrity of the site from potential construction impacts, compile a record for California historical sites on the project site, and ensure that the historical integrity of important examples of major periods of California history are preserved.

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. The project would result in potentially significant project-level impacts related to biological resources, cultural resources, hazards and hazardous materials, noise and transportation (design hazards). However, MMs BIO-1, CUL-1 to CUL-4, HAZ-1 to HAZ-4, NOI-1 to NOI-3, and TRANS-1 and TRANS-2 shall be implemented as part of the project. The mitigation measures will, amongst other things, remove potential hazardous material release from past projects, reduce noise impacts from the proposed project, and reduce transportation impacts to the surrounding area. The mitigation measures will reduce each impact to a level of less than significant.

All other impacts of the project were determined either to have no impact or to be less than significant without the need for mitigation. Cumulatively, the project would not result in any significant impacts that would substantially combine with impacts of other current or probable future impacts. Therefore, the project, in conjunction with other future development projects, would not result in any cumulatively considerable impacts.

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/Mitigated Negative Declaration reviewed the project's potential impacts related to biological resources, cultural resources, hazards and hazardous materials, and noise, among other environmental issue areas. As concluded in these previous discussions, the project would result in less than significant impacts with implementation of MMs BIO-1, CUL-1 to CUL-4, HAZ-1 to HAZ-4, NOI-1 to NOI-3, and TRANS-1 and TRANS-2. Therefore, with implementation of the specified mitigation and standard BMPs and conditions of approval, the project would cause less than significant adverse effects on human beings.

Mitigation Measures

Implement MMs BIO-1, CUL-1 to CUL-4, HAZ-1 to HAZ-4, NOI-1 to NOI-3, and TRANS-1 and TRANS-2.

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