

# LEGACY SQUARE PROJECT

## Initial Study and Mitigated Negative Declaration (IS/MND)



*CEQA Analysis Prepared for:*

**City of Santa Ana Planning Division**  
20 Civic Center Plaza, Ross Annex M-20  
Santa Ana, CA 92701

*Prepared by:*



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**January 2019**

Project No. 6095

**PROJECT INFORMATION SHEET**

- |  |  |
|--|--|
| <b>1. Project Title</b>                            | Legacy Square Project  |
| <b>2. CEQA Lead Agency</b>                         | <b>City of Santa Ana</b><br>20 Civic Center Plaza, Ross Annex M-20<br>Santa Ana, CA 92701<br>Pedro Gomez, Assistant Planner I<br>(714) 667-2790<br>pgomez@santa-ana.org  |
| <b>3. Project Applicant</b>                        | Alexa Washburn<br><b>National Community Renaissance of California</b><br>9421 Haven Avenue<br>Rancho Cucamonga, CA 91730   |
| <b>4. Project Location</b>                         | 609 North Spurgeon Street<br>Santa Ana, CA 92701   |
| <b>5. Assessor's Parcel Numbers</b>                | APN 398-236-03 and APN 398-236-04  |
| <b>6. Project Site General Plan Designation(s)</b> | Current: Urban Neighborhood  |
| <b>7. Project Site Zoning Designation(s)</b>       | Current: Transit Zoning Code- Specific<br>Development 84- Urban Neighborhood 2 (UN-2)  |
| <b>8. Surrounding Land Uses and Setting</b>        | To the north of the project site across Civic Center Boulevard is the French Park Neighborhood- a mix of one and two-story single-family homes, duplexes, and low density multifamily residential buildings. To the south are the Garden Court Apartments, an 84-unit development. Further south is the Fourth Street Market with a variety of restaurant and retail establishments. To the east is the Ebell Club of Santa Ana, Iglesia de Dios Pentecostal, and the Santa Ana Laundry Mat. The United States Post Office comprises the entire block west of the project site. Further west there are religious institutions, fast food, and medical offices. |
| <b>9. Description of Project</b>                   | The Legacy Square Project is located on an approximately 1.74-acre site. The site is currently developed with the Santa Ana United Methodist Church in the southeast corner of the site and the original church, which is no longer operational, located on the southwest corner of the site. The project site is bounded by Civic Center Drive East   |

to the north, Santa Ana Boulevard to the south, French Street to the east and North Spurgeon Street to the west.

The project proposes the development of a new commercial/residential mixed-use development consisting of 93 residential units, 7,767 square feet of flex mixed-use space, and a 2,576 square foot community center. The development will consist of a four-story building with two-story townhomes and flats/apartment units over ground-level parking. 92 units are proposed as affordable housing units. 33 units are Permanent Supportive Housing (PSH) units for those earning less than 30 percent of the area median income (AMI), five units will be for those of extremely low income (less than 30 percent of the AMI), six units will be for those of very low income (less than 40 percent of the AMI), 31 units will be for those of very low income (less than 50 percent of the AMI) and 17 units will be for those of low income (less than 60 percent of the AMI). One of the units will be a manager's units, for a total of 93 units. The project will require City and State Density Bonus Agreements allowing up to 54.7 units per acre. Refer to Section 3.0 of this document for additional information.

The project applicant is requesting the following discretionary actions, which are discussed in detail in **Section 3.0** of this document:

- Grading Plan approval
- Density Bonus Concessions because the project proposes affordable housing
- Site Plan approval and building permits.

**10. Other Public Agencies whose Approval is Required**

None

**11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code § 21080.3.1? If so, has consultation begun?**

Letters were sent by the City (the lead agency) via certified mail on December 26, 2018 and by email on December 21, 2018, to eight local Native American tribes asking if they wished to participate in AB 52 consultation concerning the Legacy Square Project in the City of Santa Ana. To date, the lead agency has received one request for consultation from a California Native American tribe in response to their notification of the project. This was from Chairman Andrew Salas of the Gabrieleño Band of Mission Indians – Kizh Nation,

in an email and letter dated December 31, 2018. The City will contact Mr. Salas promptly to coordinate a meeting. Additional letters were sent on January 2, 2019 by certified mail to seven additional tribes. All tribes have thirty days in which to reply and request consultation.

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## ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Term
AAQS	ambient air quality standards
AB 32	California Global Warming Solutions Act of 2006 (Assembly Bill 32)
AB 52	Assembly Bill 52
ACM	Asbestos-Containing Material
ADT	Average Daily Trips
ARB	California Air Resources Board
AIA	Airport Influence Area
Afy	Acre-feet per year
APE	Area of Potential Effect
APN	Assessor's Parcel Number
AR4	Fourth Assessment Report
ARB	Air Resources Board
ALUC	Airport Land Use Commission
AMI	Area Median Income
amsl	above mean sea level
AQMP	Air Quality Management Plan
BAU	business as usual
BMPs	Best Management Practices
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
Cal/EPA	California Environmental Protection Agency
Cal/OSHA	California Division of Occupational Safety and Health
CAO	Cleanup and Abatement Order
CGS	California Geological Survey
CALFIRE	California Department of Forestry and Fire Protection
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CAT	Climate Action Team
CBC	California Building Code
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDO(s)	Cease and Desist Order(s)
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
cfs	cubic feet per second
CGS	California Geological Survey
CH4	methane
CHRIS	California Historic Resources Inventory System
City	City of Santa Ana
CMA	Congestion Management Agency
CMP	Congestion Management Program
CMPHS	CMP Highway System



Acronym/Abbreviation	Term
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CO <sub>2</sub> e	carbon dioxide equivalent
CRC	California Residential Code
CWA	Clean Water Act
DAMP	Drainage Area Management Plan
dB	decibel
dBA	A-weighted decibel scale
DC	District Center
DPR	(California) Department of Parks and Recreation
DIF	Development Impact Fees
°F	degrees Fahrenheit
DOC	California Department of Conservation
DOSH	California Division of Safety and Health
DTSC	Department of Toxic Substances Control
DWR	Department of Water Resources
EI	Emissions Inventory
EIR	Environmental Impact Report
EMS	Emergency Medical Services
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
ESRL	Earth System Research Laboratory
FAR	floor area ratio
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FHSZ	Fire Hazard Severity Zones
FTA	Federal Transit Administration
GHG	greenhouse gases
GMI	Greenhouse Gas Management Institute
GPCD	gallons per capita per day
GPD	gallons per day
GWP	global warming potential
HABS	Historic American Building Survey
HCM	Highway Capacity Manual
HCP	Habitat Conservation Plan
HUD	Department of Housing and Urban Development
HVAC	heating, ventilation and air conditioning
ICU	Intersection Capacity Utilization
IPCC	Intergovernmental Panel on Climate Change
IS/MND	Initial Study/Mitigated Negative Declaration
ITE	Institute of Transportation Engineers
L <sub>90</sub>	noise level that is exceeded 90% of the time
L <sub>eq</sub>	equivalent noise level
LBP	Lead-Based Paint

Acronym/Abbreviation	Term
LID	Low Impact Development
$L_{max}$	root mean square maximum noise level
LOS	Level of Service
LR-7	Low Density Residential
LRA	Local Responsibility Area
LSTs	Localized Significance Thresholds
LUST	Leaking Underground Storage Tank
MBTA	Migratory Bird Treaty Act
MDA	Major Development Area
mgd	million gallons per day
MLD	Most Likely Descendant
MM(s)	mitigation measure(s)
MMRP	Mitigation Monitoring and Reporting Program
MMTCO <sub>2e</sub>	million metric tons of CO <sub>2e</sub>
MND	Mitigated Negative Declaration
MRZ	Mineral Resource Zone
MS4	Municipal Separate Storm Sewer permit
MSL	Mean Sea Level
MT	Metric tons
MWS	Modular Wetlands System
N <sub>2</sub> O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
National Core	National Community Renaissance
NASA	National Aeronautics and Space Administration
NCCP	Natural Communities Conservation Plan
ND	Negative Declaration
NEPA	National Environmental Policy Act
NO	nitric oxide
NO <sub>x</sub>	nitrogen oxides
NO <sub>2</sub>	nitrogen dioxide
NPDES	National Pollutant Discharge Elimination System
OCFA	Orange County fire Authority
OCSD	Orange County Sanitation District
OCTA	Orange County Transportation Agency
O <sub>3</sub>	Ozone
OPR	Governor's Office of Planning and Research
OSHA	Occupational Safety and Health Administration
PACM	Presumed Asbestos-Containing Material
PAO	Professional and Administrative Office
Pb	lead
PCB	polychlorinated biphenyl
PFCs	perfluorocarbons
PM	particulate matter
PM <sub>10</sub>	respirable particulate matter
PM <sub>2.5</sub>	fine particulate matter

Acronym/Abbreviation	Term
ppm	Parts per million
PPV	peak particle velocity
PSH	Permanent Supportive Housing
RCRA	Resource Conservation and Recovery Act
RMS	root mean square
ROG	Reactive organic gases
ROW	Right-of-way
RPS	Renewables Portfolio Standard
RWQCB	Regional Water Quality Control Board
§	section
SAPD	Santa Ana Police Department
SARB	Santa Ana River Basin
SARTC	Santa Ana Regional Transportation Center
SAUSD	Santa Ana Unified School District
SB	Senate Bill
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information Center
SD	Specific Development
SF <sub>6</sub>	sulfur hexafluoride
SIP	State Implementation Plan
SLF	Sacred Lands File
SMARA	Surface Mining and Reclamation Act
SO <sub>2</sub>	sulfur dioxide
SRRE	Source Reduction and Recycling Element
SRA	State Responsibility Area
SRAs	source receptor areas
STC	sound transmission class
STIP	Statewide Transportation Improvement Program
SUSMP	Standard Urban Stormwater Mitigation Plan
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TCRs	Tribal Cultural Resources
TIS	traffic impact study
TMP	Traffic Management Plan
TSDF	treatment, storage, and disposal facility
TSS	Total suspended solids
TZC	Transit Zoning Code
TZC EIR	Transit Zoning Code EIR
UN	Urban Neighborhood
UN-2	Urban Neighborhood 2 zoning designation
U.S.	United States
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
VdB	vibration decibels

❖ ACRONYMS AND ABBREVIATIONS ❖

Acronym/Abbreviation	Term
VELA	Vecindad Lacy en Accion
VOC	volatile organic compound
WQMP	Water Quality Management Plan

## **1.0 INTRODUCTION**

### **1.1 Proposed Project**

The City of Santa Ana (City) is processing a request to implement a series of discretionary actions that would ultimately allow for the development of the Santa Ana Legacy Square Project (hereby referred to as the “proposed project” or the “project”), a new commercial/residential mixed-use infill development on a previously developed site located at the northwest corner of the intersection of French Street and E. Santa Ana Boulevard in Santa Ana, California (APN 398-236-03 and APN 398-236-04).

#### **1.1.1 Project Components**

The proposed project would consist of: (1) demolition of existing structures on site; (2) construction of a commercial/residential mixed-use development consisting of 93 residential units (92 of which would be affordable units), 7,767 square feet of flexible non-residential space, a 2,576 square foot community center, 984 square foot of leasing/property management office space and public open space; (3) utilities improvements; and (4) site improvements, parking and landscaping. The project application is for City and State density bonus agreements.

#### **1.1.2 Estimated Construction Schedule**

Project construction is anticipated to begin in January 2020 and would last approximately 24 months, ending in January 2022.

### **1.2 Lead Agencies – Environmental Review Implementation**

The City of Santa Ana is the Lead Agency for the proposed project. Pursuant to the California Environmental Quality Act (CEQA) and its implementing regulations,<sup>1</sup> the Lead Agency has the principal responsibility for implementing and approving a project that may have a significant effect on the environment.

### **1.3 CEQA Overview**

#### **1.3.1 Purpose of CEQA**

All discretionary projects within California are required to undergo environmental review under CEQA. A Project is defined in CEQA Guidelines § 15378 as the whole of the action having the potential to result in a direct physical change or a reasonably foreseeable indirect change to the environment and is any of the following:

- An activity directly undertaken by any public agency including but not limited to public works construction and related activities, clearing or grading of land, improvements to existing public structures, enactment and amendment of zoning ordinances, and the adoption and amendment of local General Plans or elements.
- An activity undertaken by a person which is supported in whole or in part through public agency contracts, grants, subsidies, loans, or other forms of assistance from one or more public agencies.

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<sup>1</sup> Public Resources Code §§ 21000 - 21177 and California Code of Regulations Title 14, Division 6, Chapter 3.

- An activity involving the issuance to a person of a lease, permit, license, certificate, or other entitlement for use by one or more public agencies.

CEQA Guidelines § 15002 lists the basic purposes of CEQA as follows:

- Inform governmental decision makers and the public about the potential, significant environmental effects of proposed activities.
- Identify the ways that environmental damage can be avoided or significantly reduced.
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures (MMs) when the governmental agency finds the changes to be feasible.
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

### **1.3.2 Authority to Mitigate under CEQA**

CEQA establishes a duty for public agencies to avoid or minimize environmental damage where feasible. Under CEQA Guidelines § 15041 a Lead Agency for a project has authority to require feasible changes in any or all activities involved in the project in order to substantially lessen or avoid significant effects on the environment, consistent with applicable constitutional requirements such as the “nexus”<sup>2</sup> and “rough proportionality”<sup>3</sup> standards.

CEQA allows a Lead Agency to approve a project even though the project would cause a significant effect on the environment if the agency makes a fully informed and publicly disclosed decision that there is no feasible way to lessen or avoid the significant effect. In such cases, the Lead Agency must specifically identify expected benefits and other overriding considerations from the project that outweigh the policy of reducing or avoiding significant environmental impacts of the project.

### **1.4 Purpose of Initial Study**

The CEQA process begins with a public agency making a determination as to whether the project is subject to CEQA at all. If the project is exempt, the process does not need to proceed any farther. If the project is not exempt, the Lead Agency takes the second step and conducts an Initial Study to determine whether the project may have a significant effect on the environment.

The purposes of an Initial Study as listed in § 15063(c) of the CEQA Guidelines are to:

- Provide the Lead Agency with information necessary to decide if an Environmental Impact Report (EIR), Negative Declaration (ND), or Mitigated Negative Declaration (MND) should be prepared.
- Enable a Lead Agency to modify a project to mitigate adverse impacts before an EIR is prepared, thereby enabling the project to qualify for a ND or MND.
- Assist in the preparation of an EIR, if required, by focusing the EIR on adverse effects determined to be significant, identifying the adverse effects determined not to be significant, explaining the reasons for determining that potentially significant adverse effects would not

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2 A nexus (i.e., connection) must be established between the mitigation measure and a legitimate governmental interest.

3 The mitigation measure must be “roughly proportional” to the impacts of the Project.

be significant, and identifying whether a program EIR, or other process, can be used to analyze adverse environmental effects of the project.

- Facilitate an environmental assessment early during project design.
- Provide documentation in the ND or MND that a project would not have a significant effect on the environment.
- Eliminate unnecessary EIRs.
- Determine if a previously prepared EIR could be used for the Project.

In cases where no potentially significant impacts are identified, the Lead Agency may issue a ND, and no MMs would be needed. Where potentially significant impacts are identified, the Lead Agency may determine that MMs would adequately reduce these impacts to less than significant levels. The Lead Agency would then prepare a MND for the proposed project. If the Lead Agency determines that individual or cumulative effects of the proposed project would cause a significant adverse environmental effect that cannot be mitigated to less than significant levels, then the Lead Agency would require an EIR to further analyze these impacts.

## 1.5 Review and Comment by Other Agencies

Other public agencies are provided the opportunity to review and comment on the IS/MND. Each of these agencies is described briefly below.

- A Responsible Agency (14 CCR § 15381) is a public agency, other than the Lead Agency, that has discretionary approval power over the Project, such as permit issuance or plan approval authority.
- A Trustee Agency<sup>4</sup> (14 CCR § 15386) is a state agency having jurisdiction by law over natural resources affected by a project that are held in trust for the people of the State of California.
- Agencies with Jurisdiction by Law (14 CCR § 15366) are any public agencies who have authority (1) to grant a permit or other entitlement for use; (2) to provide funding for the project in question; or (3) to exercise authority over resources which may be affected by the project. Furthermore, a city or county will have jurisdiction by law with respect to a project when the city or county having primary jurisdiction over the area involved is: (1) the site of the project; (2) the area in which the major environmental effects will occur; and/or (3) the area in which reside those citizens most directly concerned by any such environmental effects.

## 1.6 Impact Terminology

The following terminology is used to describe the level of significance of potential impacts:

- A finding of ***no impact*** is appropriate if the analysis concludes that the project would not affect the particular environmental threshold in any way.
- An impact is considered ***less than significant*** if the analysis concludes that the project would cause no substantial adverse change to the environment and requires no mitigation.
- An impact is considered ***less than significant with mitigation incorporated*** if the analysis concludes that the project would cause no substantial adverse change to the environment

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4 The four Trustee Agencies in California listed in CEQA Guidelines § 15386 are California Department of Fish and Wildlife, State Lands Commission, State Department of Parks and Recreation, and University of California.

with the inclusion of environmental commitments, or other enforceable measures, that would be adopted by the lead agency.

- An impact is considered potentially significant if the analysis concludes that the project could have a substantial adverse effect on the environment.

An EIR is required if an impact is identified as *potentially significant*.

## 1.7 Organization of Initial Study

This document is organized to satisfy CEQA Guidelines § 15063(d), and includes the following sections:

- **Section 1.0 - Introduction**, which identifies the purpose and scope of the IS/MND.
- **Section 2.0 - Environmental Setting**, which describes location, existing site conditions, land uses, zoning designations, topography, and vegetation associated with the project site and surrounding.
- **Section 3.0 - Project Description**, which provides an overview of the project, a description of the proposed development, project phasing during construction, and discretionary actions for the approval of the project.
- **Section 4.0 - Environmental Checklist**, which presents checklist responses for each resource topic to identify and assess impacts associated with the proposed project, and proposes MMs, where needed, to render potential environmental impacts less than significant, where feasible.
- **Section 5.0 - References**, which includes a list of documents cited in the IS/MND.
- **Section 6.0 - List of Preparers**, which identifies the primary authors and technical experts that prepared the IS/MND.

Technical studies and other documents, which include supporting information or analyses used to prepare the IS/MND, are included in the following appendices:

- Appendix A Project Plans
- Appendix B Market Study
- Appendix C Geotechnical Study
- Appendix D Phase I Environmental Site Assessment
- Appendix E Infiltration Study
- Appendix F Preliminary Water Quality Management Plan
- Appendix G CalEEMod Inputs and Outputs
- Appendix H1 Trip Generation Assessment
- Appendix H2 Focused Traffic Study
- Appendix I Phase 1 Cultural Resources Inventory
- Appendix J Ambient Noise Sampling Data
- Appendix K Historic Resources Findings
- Appendix L Community Outreach
- Appendix M AB 52 Consultation



## **1.8 Findings from the Initial Study**

### **1.8.1 No Impact or Impacts Considered Less than Significant**

Based on IS findings, the project would have no impact or a less than significant impact on the following environmental categories listed from Appendix G of the CEQA Guidelines.

- Agriculture and Forestry Resources
- Air Quality
- Geology and Soils
- Greenhouse Gas Emissions
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Population and Housing
- Transportation and Traffic
- Utilities and Service Systems

### **1.8.2 Impacts Considered Less than Significant with Mitigation Measures**

Based on IS findings, the project would have a less than significant impact on the following environmental categories listed in Appendix G of the CEQA Guidelines when proposed MMs are implemented.

- Aesthetics
- Biological Resources
- Cultural Resources
- Hazards and Hazardous Materials
- Noise
- Public Services
- Recreation
- Tribal Cultural Resources
- Mandatory Findings of Significance

## 2.0 ENVIRONMENTAL SETTING

### 2.1 Project Location

The Santa Ana Legacy Project is located at 609 N Spurgeon Street, at the northwest corner of the intersection of French Street and E. Santa Ana Boulevard, on a currently developed site covering an area of approximately 1.7 acres. Refer to **Figure 2.1-1**, which shows the project's regional location. Local surface streets surrounding the site include: Civic Center Drive E. to the north; French Street to the east; E. Santa Ana Boulevard to the south; and N. Spurgeon Street to the west. See **Figure 2.1-2**, which shows the project's location.

### 2.2 Project Setting

The project site is comprised of two assessor's parcels including APNs 398-236-03 and 398-236-04. The project site is currently developed with the Santa Ana United Methodist Church. It is one contiguous parcel with two existing church buildings fronting Santa Ana Boulevard and a large surface parking lot.

The project site is adjacent to other developed parcels located to the north, south, east and west. Single and multi-family housing is located to the north, the Garden Court Apartments (multi-family housing) is located to the south. The Ebell Club (an event location and club), multi-family housing, and the Alcance Victoria Santa Ana Church are located to the east. The Spurgeon Station Post Office and associated parking lot are located to the west of the project site. A single-family home is located adjacent to the northwest corner of the project site.

The site is located on the United States Geological Survey, 7.5-Minute Series, Topographic Map, Orange Quadrangle, California. See **Figure 2.2-1**, Topographic Map of the site, and immediate half-mile radius around the site. Topography within the project site is relatively flat. The elevation of the site ranges between approximately 125 feet above mean sea level (amsl) on the southwestern portions to approximately 128 feet amsl on the northeastern portions. Surface drainage from the site appears to flow predominantly towards the southwest (NCROC, 2018). Photographs depicting the project site are provided in **Figure 2.2-2**.

#### 2.2.1 Land Use and Zoning

The land use designations and zoning of the project site and its immediate vicinity are listed in **Table 2.2-1**. The General Plan designation for the project site is Urban Neighborhood. This land use designation applies to primarily residential areas with pedestrian oriented commercial uses, schools and small parks.

The site is located in the Transit Zoning Code (TZC). The TZC (SD 84A and SD 84B) area consists of approximately 450 acres located in the northwest portion of the City of Santa Ana. Under the TZC, the project site has a zoning designation of Urban Neighborhood 2 (UN-2). This zone is applied to primarily residential areas intended to accommodate a variety of housing types, with some opportunities for live-work, as well as neighborhood-serving retail and dining (City of Santa Ana Transit Zoning Code EIR, 2010, p. 4.7-19).

**Figure 2.1-1  
REGIONAL LOCATION**



Scale 1:506,880



0 4 8 Miles

0 4 8 Kilometers

**Legend**

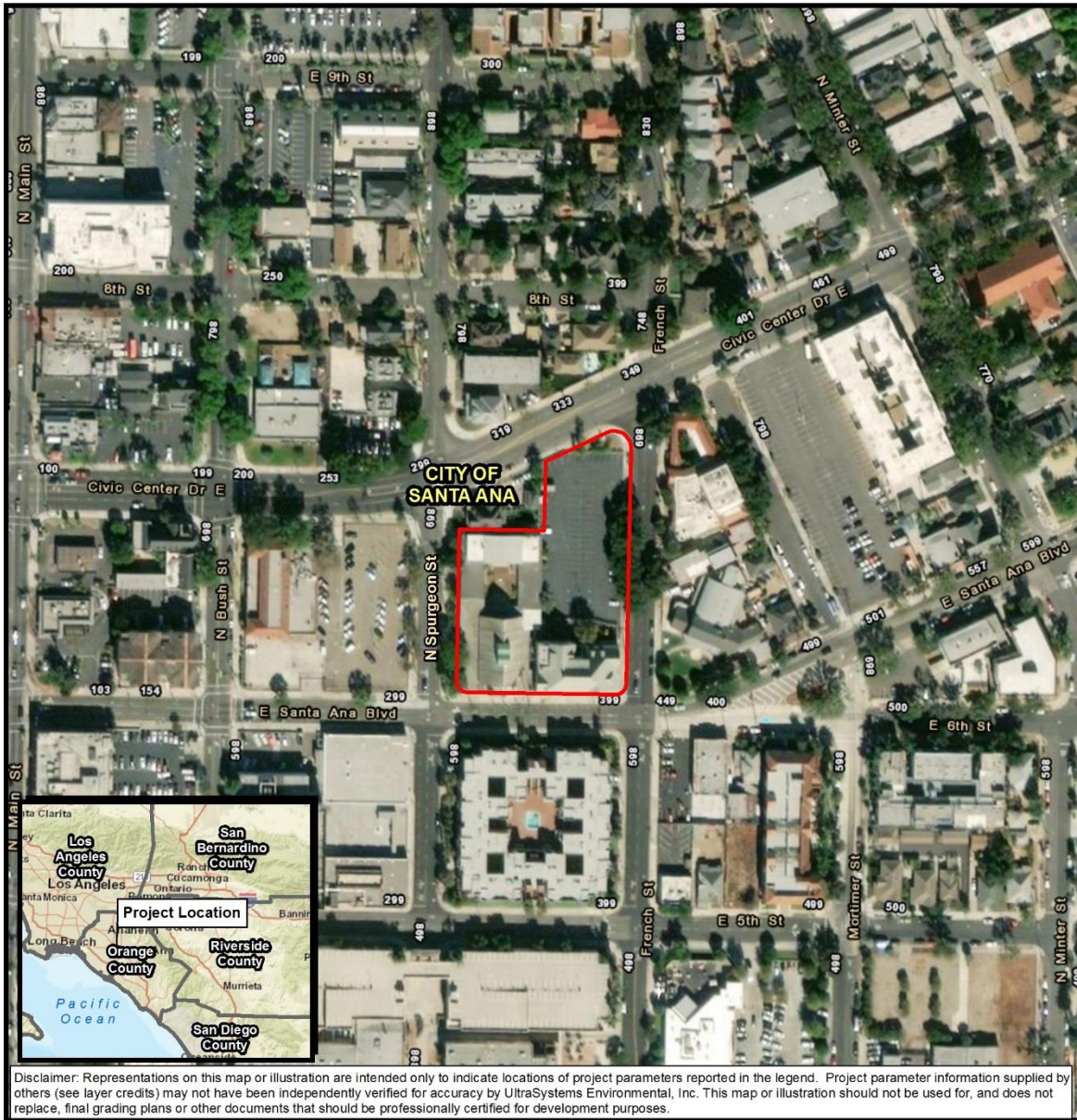
- Project Location
- County Boundary

**City of Santa Ana  
Legacy Square**

Regional Location

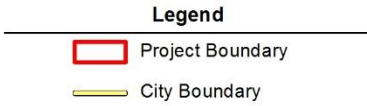
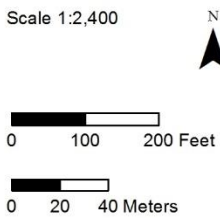


**Figure 2.1-2  
PROJECT LOCATION**



Path: J:\Projects\6095\_Santa\_Ana\_Legacy\_Square\MXD\6095\_Santa\_Ana\_Legacy\_Square\_2\_0\_Project\_Location\_2018\_12\_07.mxd  
 Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community. Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, County of Orange, 2017, UltraSystems Environmental, Inc., 2018

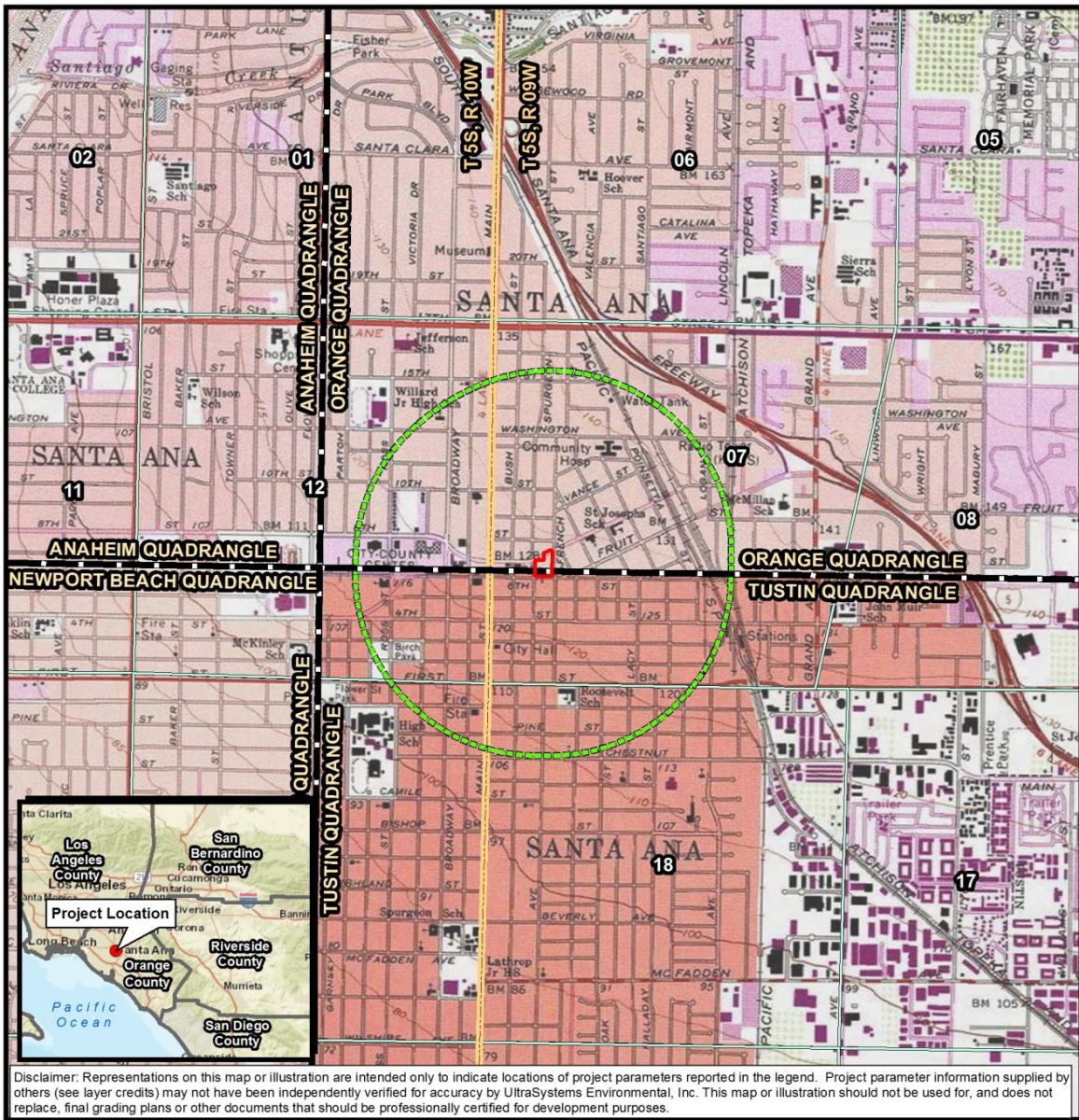
December 7, 2018



**City of Santa Ana  
Legacy Square**  
Project Location



**Figure 2.2-1  
TOPOGRAPHIC MAP**



Disclaimer: Representations on this map or illustration are intended only to indicate locations of project parameters reported in the legend. Project parameter information supplied by others (see layer credits) may not have been independently verified for accuracy by UltraSystems Environmental, Inc. This map or illustration should not be used for, and does not replace, final grading plans or other documents that should be professionally certified for development purposes.

Path: J:\Projects\6095\_Santa\_Ana\_Legacy\_Square\MXD\6095\_Santa\_Ana\_Legacy\_Square\_4.5\_Topo\_2018\_12\_06.mxd  
 December 6, 2018  
 Service Layer Credits: Copyright © 2013 National Geographic Society, i-cubed, Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community; Teale Data Center GIS Solutions Group, 2003; CA Dept. of Conservation, March 2013; County of Orange, 2018; UltraSystems Environmental, Inc., 2018

**Scale 1:24,000**

0 1,000 2,000 Feet


0 250 500 Meters

**Legend**

- Project Boundary
- Half-Mile Radius
- Section Boundary
- Township Boundary

**City of Santa Ana  
Legacy Square**

Topographic Map  
Quadrangle: Orange



**Figure 2.2-2**  
**PROJECT SITE PHOTOGRAPHS**



Photo 1: View looking west towards the southeast corner of the project site.



Photo 2: View looking northwest at the parking lot.



Photo 3: View looking south at the parking lot with church buildings in the distance.



Photo 4: View of the church, looking east.

**Table 2.2-1  
SUMMARY OF LAND USE AND ZONING**

Location	General Plan	Zoning	Existing Use
Project Site	Urban Neighborhood	Urban Neighborhood 2 (UN-2)	Developed with two church buildings and a large surface parking lot
<b>Surrounding Areas</b>			
North	LR-7 (Low Density Residential) PAO (Professional and Administrative Office)	OZ (Industrial Overlay)	Single family and multi-family homes
East	UN (Urban Neighborhood)	UN-2 (Urban Neighborhood)	Ebell Club (an event location and club), multi-family housing, and the Alcance Victoria Santa Ana Church
West	DC (District Center)	UC (Public Facilities School)	Spurgeon Station Post Office
South	DC (District Center)	UC (Public Facilities School)	Garden Court Apartments (multi-family housing)

## 2.3 Existing Characteristics of the Site

### 2.3.1 Climate and Air Quality

The project site is located within the South Coast Air Basin (SCAB), a 6,600-square-mile area encompassing all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. A persistent high-pressure area that commonly resides over the eastern Pacific Ocean largely dominates regional meteorology. The distinctive climate of this area is determined primarily by its terrain and geographic location. Local climate is characterized by warm summers, mild winters, infrequent rainfall, moderate daytime onshore breezes, and moderate humidity. Ozone (O<sub>3</sub>) and pollutant concentrations tend to be lower along the coast, where the constant onshore breeze disperses pollutants toward the inland valley of the SCAB and adjacent deserts. However, as a whole, the SCAB fails to meet National Ambient Air Quality Standards (NAAQS) for O<sub>3</sub> and fine particulate matter (PM<sub>2.5</sub>), and is classified as a “nonattainment area” for those pollutants.

### 2.3.2 Geology and Soils

The project site is situated within the Peninsular Ranges Geomorphic Province of California. Regional fault maps of the Orange County area indicate the Newport Inglewood Fault trends in a roughly northwest-southeast direction immediately to the west and northwest of the site. According to the United States Department of Agriculture – Natural Resources Conservation Service, Web Soil Survey, soils beneath the site and vicinity mainly include soils of the Mocho loam series. These soils are well drained with low runoff and have moderately high to high permeability. No underground tanks or other sources of environmental contamination are located onsite (NCROC, 2018).

### 2.3.3 Hydrology

The City of Santa Ana (City) is located within the Santa Ana River Basin (SARB), a 2,800-square-mile area located roughly between Los Angeles and San Diego. The Transit Zoning Code (SD 84A and SD 84B) area is located within the San Diego Creek Watershed, which covers 112.2 square miles in central Orange County. It includes portions of the cities of Costa Mesa, Irvine, Laguna Woods, Lake Forest, Newport Beach, Orange, Santa Ana, and Tustin. The existing storm drain system adjacent to and serving the project is the San Diego Creek. Its main tributary, San Diego Creek, drains into Upper Newport Bay (City of Santa Ana Transit Zoning Code EIR, 2010, p. 4.6-1).

The project site is located in the Coastal Plain of Orange County Groundwater Basin (California Department of Water Resources [DWR] Basin ID 8-001). This groundwater basin is bound on the northwest and the north by the Los Angeles-Orange County line. The Whittier fault zone and consolidated rocks of the Puente Hills and Chino Hills form the northeast extent of the basin. Consolidated rocks of the Santa Ana Mountains form the western boundary, and the consolidated rocks of the Laguna Hills and San Joaquin Hills form the southern boundary. The Pacific Ocean is the southwest extent of the groundwater basin.

The project site is currently developed and 90 percent of the 1.75-acre site is impervious. Stormwater runoff generated on the project site is discharged as sheet flow into the adjacent streets (East Santa Ana Boulevard, French Street, and North Spurgeon Street) and enters the storm drain system via either of two inlets located at the corner of Santa Ana Boulevard and North Spurgeon Street (Fusco, 2018, p. 7).

### 2.3.4 Biology

According to the Transit Zoning Code EIR (TZC EIR), the project area has been fully developed, paved, or landscaped, and is also surrounded by development. It does not support any native plant communities or sensitive (including threatened and endangered) plant species. The vegetation within the TZC (SD 84A and SD 84B) area is characterized as urban ornamental. The existing trees onsite include oak trees along French and Spurgeon Streets, palm trees fronting Santa Ana Boulevard and Spurgeon Streets, an oak tree near the parking lot, and ornamental landscaping and trees within planters and setbacks throughout the site, including fan palms, birds of paradise, and other drought-tolerant plants (NCROC, 2018).

### 2.3.5 Public Services

The City is served by a full range of public services and utilities. Fire Services for the City of Santa Ana are provided by Orange County Fire Authority (OCFA). Ten fire stations are strategically located throughout the city, providing primary response for fire suppression and emergency medical services (OCFA, 2018). The Santa Ana Police Department provides police services in the City of Santa Ana and would provide law enforcement services to the project site. In addition to the Office of the Chief of Police, the SAPD is organized into five bureaus: the Administration Bureau, the Field Operations Bureau, the Investigations Bureau, the Jail Bureau, and the Technology & Support Bureau (City of Santa Ana Transit Zoning Code EIR, 2010, p. 4.10-6). The project is located within the boundaries of the Santa Ana Unified School District (SAUSD), which serves a 24-square-mile area and has a total of 60 schools, including 36 elementary schools, 9 intermediate schools, 7 high schools, and other specialized schools (SAUSD Quickfacts, 2018). The City of Santa Ana has approximately 400 acres of public park and recreation facilities (City of Santa Ana General Plan, Open Space, Parks and Recreation Element, 1982).



### 2.3.6 Utilities

The City of Santa Ana manages the water supply for the City including the project area. The primary sources of water supply for the City are imported water, local groundwater, and recycled water. The City's main sources of water include approximately 71 percent groundwater, 28 percent imported water, and one percent recycled water. Domestic water for the Transit Zoning Code (SD 84A and SD 84B) area is supplied by both groundwater and imported surface water sources (Transit Zoning Code EIR, 2010, p. 4.12-8).

Orange County Sanitation District (OCSD) owns and maintains the sewer system in the City of Santa Ana. The City's sewer collection system consists of approximately 450 miles of sewer mains and operates largely by gravity with discharges at several locations into gravity trunk sewers. All the OCSD sewers in the City collect and convey wastewater to the OCSD Treatment Plant Number 1 located just southwest of the City in Fountain Valley (RMC, 2016, p. ES-1). Under existing conditions, stormwater runoff generated on the project site generally sheet flows off of the site onto the adjacent streets.

Solid waste disposal services in the City of Santa Ana are provided by Waste Management of Orange County, a private company under contract with the City. Electrical service to the site is provided by Southern California Edison through a grid of transmission lines and related facilities. Natural gas is provided by Southern California Gas Company, which maintains a local system of transmission lines, distribution lines and supply regulation stations.

### 3.0 PROJECT DESCRIPTION

#### 3.1 Project Background

The City of Santa Ana (City) is processing a request to implement a series of discretionary actions that would ultimately allow for the development of a new commercial/residential mixed-use project. The City is the Lead Agency for the purposes of the CEQA.

The project is located at 609 N Spurgeon Street, at the northwest corner of the intersection of French Street and E. Santa Ana Boulevard. The project site is approximately 1.7 acres and is comprised of APNs 398-236-03 and 398-236-04. The project site is currently developed with the Santa Ana United Methodist Church. It is one contiguous parcel with two existing church buildings fronting Santa Ana Boulevard and a large surface parking lot located in the northeastern part of the site along French Street. The church currently operates out of the newer building located in the southwest corner of the site. The original church, built in 1928, is located on the southeast corner and is no longer operational. Neither of the church buildings located on the site is currently registered as historic in either the local, state or national register. In addition, the property is not located in the National Downtown Historic District. However, the property is located within two blocks of the boundary for the National Downtown Historic District.

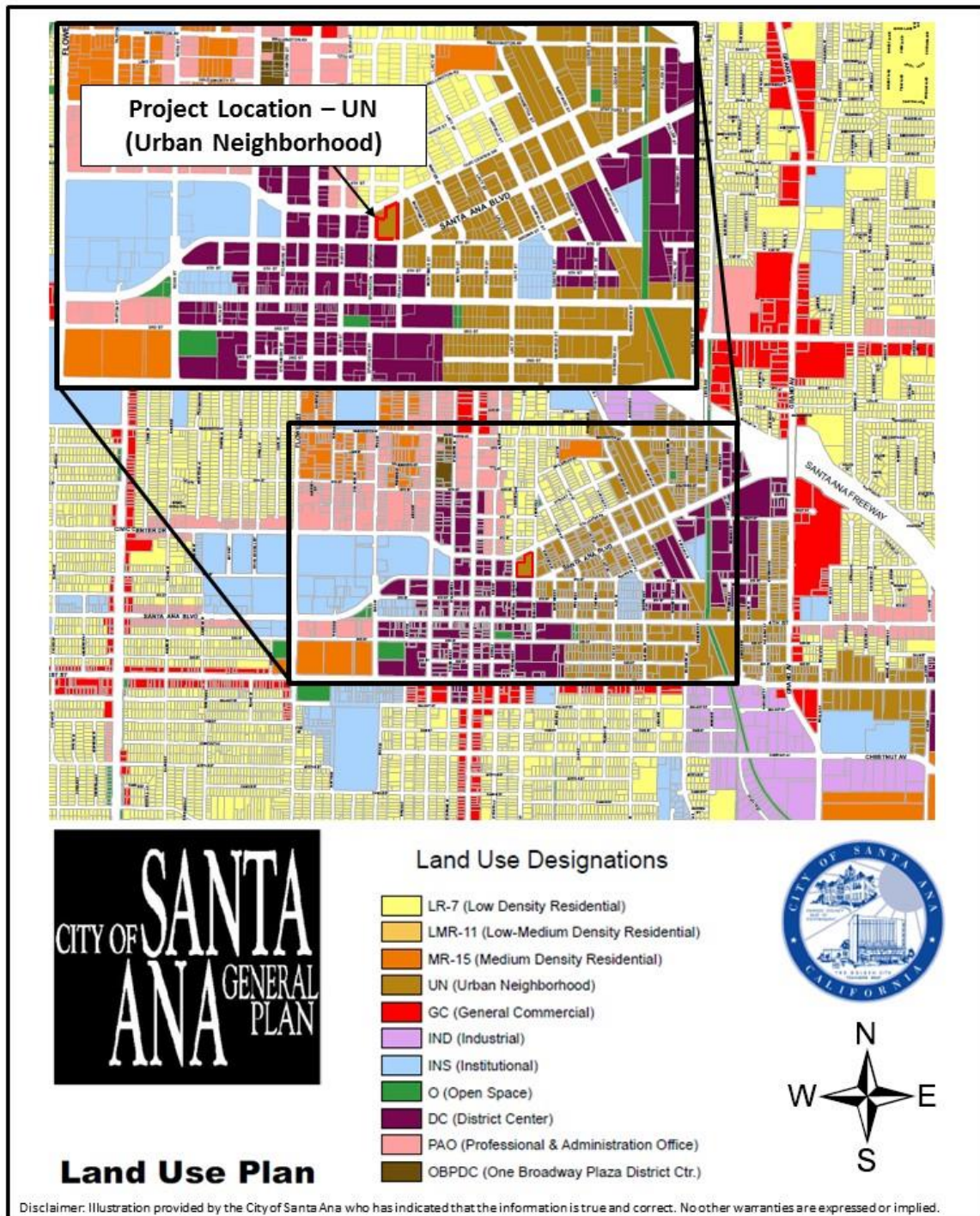
The project site is adjacent to other developed parcels located to the north, south, east and west. Single and multi-family housing is located to the north, the Garden Court Apartments (multi-family housing) is located to the south. The Ebell Club (an event location and club), multi-family housing, and the Alcance Victoria Santa Ana Church are located to the east. The Spurgeon Station Post Office and associated parking lot are located to the west of the project site.

The City's General Plan land use designation for the project site is Urban Neighborhood (Refer to **Figure 3.1-1**). This land use designation applies to primarily residential areas with pedestrian oriented commercial uses, schools and small parks. This designation allows for a mix of residential uses and housing types, such as mid to low rise multiple family, townhouses and single-family dwellings; with some opportunities for live-work, neighborhood serving retail and service, public spaces and use, and other amenities. Vertical or horizontal integration of uses is permitted based on zoning standards, with an emphasis on tying together the uses with pedestrian linkages and street frontages. Street connectivity is desirable, allowing for a high degree of walkability, transit options, and other forms of transportation including pedestrian and bicycle travel. The intensity standard for the Urban Neighborhood ranges from a floor area ratio (FAR) of 0.5 to 3.0; with residential density based on a combination of floor area ratio and zoning development standards (City of Santa Ana Current General Plan, Land Use Element, 1998, p. A-23). The Urban Neighborhood land use designation permits both residential and non-residential development (City of Santa Ana Current General Plan, Land Use Element, 1998 p. 15).

The project is located in what is referred to as the Transit Zoning Code (TZC). The TZC (SD 84A and SD 84B) area consists of approximately 450 acres located in the northwest portion of the City of Santa Ana. The TZC area is generally bounded to the north by Civic Center Drive, to the east by Grand Avenue and along I-5, to the west by Flower Street and to the south by First Street. The boundaries of the TZC, including the nine zoning districts that would be created through the adoption of the TZC, are depicted in **Figure 3.1-3** (City of Santa Ana Transit Zoning Code EIR, 2010, p. 4.7-1 and Figure 4.7-1). Under the TZC, the project site has a zoning designation of Urban Neighborhood 2 (UN-2) (refer to **Figures 3.1-2** and **3.1-3**).

This zone is applied to primarily residential areas intended to accommodate a variety of housing types, with some opportunities for live-work, as well as neighborhood-serving retail and dining (City of Santa Ana Transit Zoning Code EIR, 2010, p. 4.7-19). Additionally, the City's Zoning Map gives the project site a zoning designation of Specific Development 84, which specifies that the project falls within the Urban Neighborhood 2 (UN-2 zone). "This zone is applied to primarily residential areas intended to accommodate a variety of housing types, with some opportunities for live-work, neighborhood serving retail, and cafes. Appropriate building types include single dwellings, duplexes, triplexes and quadplexes, courtyard housing, rowhouses, and live work. In some areas, the more intense, hybrid court building type is allowed where additional intensity is warranted while maintaining compatibility with neighboring properties. The landscape is appropriate to a neighborhood, with shading street trees in parkway strips, and shallow-depth landscaped front yards separating buildings from sidewalks. Parking is on street, and in garages located away from street frontages" (City of Santa Ana Specific Development No. 84 Transit Zoning Code, 2010, pp. 2-1 and 2-2).

**Figure 3.1-1**  
**GENERAL PLAN DESIGNATION**

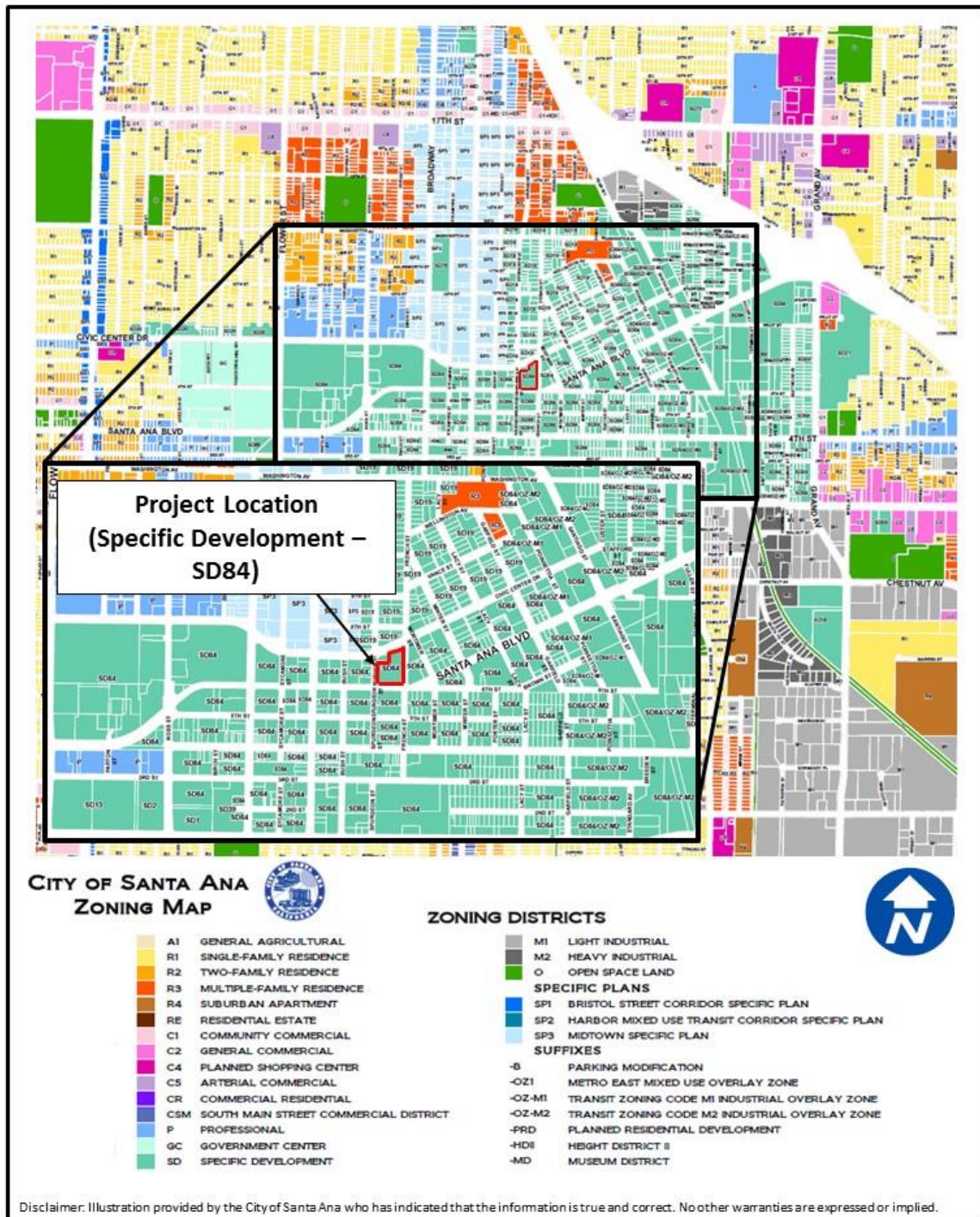


Sources: City of Santa Ana, November 2018



**City of Santa Ana**  
**Legacy Square**  
General Plan Land Use

**Figure 3.1-2  
ZONING DESIGNATION**



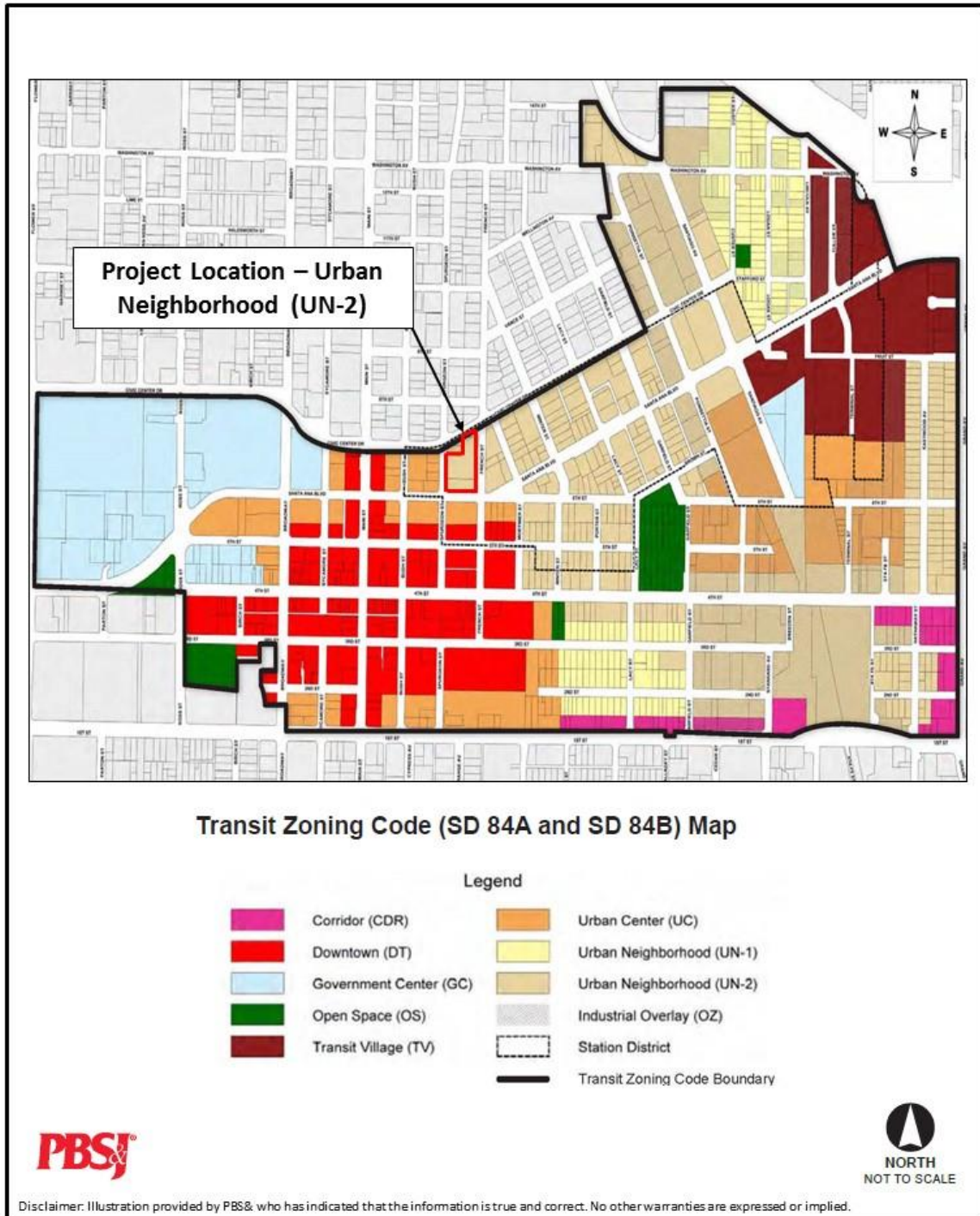
Sources: City of Santa Ana, January, 2017

**City of Santa Ana  
Legacy Square**



Zoning

**Figure 3.1-3**  
**TRANSIT ZONING CODE - ZONING DESIGNATION**



Sources: PBS&J, 2010.



**City of Santa Ana**  
**Legacy Square**

Transit Zoning Code

### 3.2 Community Outreach

Community engagement has played a critical role in shaping the proposed project. Since project initiation in February 2018, more than a dozen meetings and surveys have occurred. The project design and programming is the direct result of thorough outreach conducted to understand residents' needs and expectations on how the project can enhance the neighborhood. To achieve this National CORE, the project applicant, has held monthly meetings with the United Methodist Church congregation and United Methodist Church leadership to provide project updates and collect input on the design and amenities to serve the wider neighborhood. Meetings were held on July 19th, August 26th, September 23rd, October 28th, and December 2nd. These meetings were typically held mid-day at the project site, with food and childcare provided. A range of 30 to 50 residents and congregation members have typically attended the monthly meetings. As required by the City's Sunshine Ordinance, National CORE also held a public meeting on the evening of November 27, 2018. This meeting was publicly noticed in the OC Register, posted on the City's website, and invitation mailers were sent to all addresses within a 500-foot radius of the project site, as well as local community organizations. The meeting included a presentation on the project as well as a question and answer period to address concerns and collect feedback. Approximately 50 individuals attended the meeting. Concurrently, National CORE and the United Methodist Church have worked collaboratively regarding the coordination of relocation assistance and outreach to local non-profit organizations to better align and leverage resources. In the last six months, National CORE has had one-on-one meetings with half a dozen local organizations to discuss the project including, but not limited to: the Ebell Club, Vecindad Lacy en Accion (VELA), Kennedy Commission, Latino Health Access, Taller San Jose Health Builders, and the Santa Ana Unified School District. Refer to **Appendix K** for a detailed list of meeting held regarding the project.

The City of Santa Ana City Council enacted the sunshine ordinance to ensure that they people of Santa Ana remain in control of the government that they have created (City of Santa Ana Sunshine Ordinance, 2018). In compliance with the city's requirements for the Sunshine Ordinance, the following materials were submitted by the applicant:

- Notification mailers (English and Spanish) mailed November 12th, 2018 to property owners and occupants within a 500' radius of the project site
- Proof of publication of announcement notice by Orange County Register
- List of property owners and residents within 500' radius of the project site, radius map, and certification by list preparer Susan Case Inc
- Sign in sheets from our Sunshine Ordinance community meeting held at 609 N. Spurgeon Street Santa Ana at 6:30p.m. on November 27, 2018. While the sign-in sheets show 34 attendees, we estimate total attendance over the course of the evening was closer to 45 people or more.
- Power point slide presentation shown at the meeting.
- Design boards in 24" by 36" format showing the site plans and renderings.
- Comment cards collected during the meeting.
- Meeting Minutes, with comments made at meeting, with applicant responses.

### 3.3 Project Overview

The project is being proposed by National Community Renaissance (National CORE) in partnership with Mercy House and the Santa Ana United Methodist Church. The applicant proposes to demolish both churches to construct a new commercial/residential mixed-use development consisting of 93 residential units, 7,767 square feet of flexible non-residential space and a 2,576-square-foot community center. The project also proposes a 984-square-foot leasing/property management office. The building has been designed with two-story town-home units fronting Spurgeon and French Streets, transitioning to a four-story courtyard style building in the center of the site. Ninety-two of the proposed 93 units would be affordable housing, with the exception of one exempt managers unit. Refer to **Table 3.3-1** below for details. The project proposes 30 one-bedroom units, 41 two-bedroom units, and 22 three-bedroom units. Seven of the two-bedroom units and seven of the three-bedroom units will be two-story townhomes accessible from the street. The remaining 79 units will be flats/typical apartment units located on the second, third, and fourth floors over ground level parking. The proposed project includes one building that is 121,639 square feet. The proposed new development would require City and State Density Bonus Agreements allowing up to 54.7 units per acre.

The estimated number of residents generated by the applicant for the proposed project is 241 persons (based on the Health and Safety Code 50052.5): 1 person/bedroom + 1 and 1 person for 1-bedroom Permanent Supportive Housing (PSH) units. Refer to **Table 3.3-1** below. **Table 3.3-2** below provides a summary of the project.

**Table 3.3-1**  
**ESTIMATED PROJECT POPULATION**

Number of Bedrooms	Bedrooms	Unit Count	Health and Safety Code per unit	Health and Safety Code Total
1 bedroom	1	30	1	30
2 bedrooms	2	41	3	123
3 bedrooms	3	21	4	84
3 bedrooms (manager's unit)	3	1	4	4
<b>TOTAL</b>	--	<b>93</b>	--	<b>241</b>

**Table 3.3-2** summarizes the proposed project features, **Table 3.3-4** provides project statistics, and **Figure 3.3-1** depicts the proposed project site plan.



**Table 3.3-2  
PROJECT SUMMARY**

<b>Proposed Uses/Features</b>	<b>Area (Square Feet)</b>
<b>93 residential units</b> Comprised of two-story townhomes and flats/apartment units. 92 of the 93 units would be affordable (with the exception of one exempt manager's unit), as detailed in <b>Table 3.3-3</b> below.	81,883
<b>Community center</b> The center will feature programs for residents that will also provide services to the neighborhood such as childcare and financial education.	2,576
<b>Leasing/property management office</b>	984
<b>Flexible non-residential space</b>	7,267
<b>Office uses</b> Office spaces for the United Methodist Church and other community-based organizations offering supportive services.	2,100
<b>102 parking spaces</b>	Not Applicable
<b>Open space</b>	29,297 square feet

Sources: National Community Core Renaissance, 2018. Project Description for 609 N. Spurgeon Street, Santa Ana, CA. Memorandum dated December 18, 2018, and project plans from SVA Architects dated 12/21/2018.

**Table 3.3-3  
PROJECT AFFORDABILITY UNIT MIX**

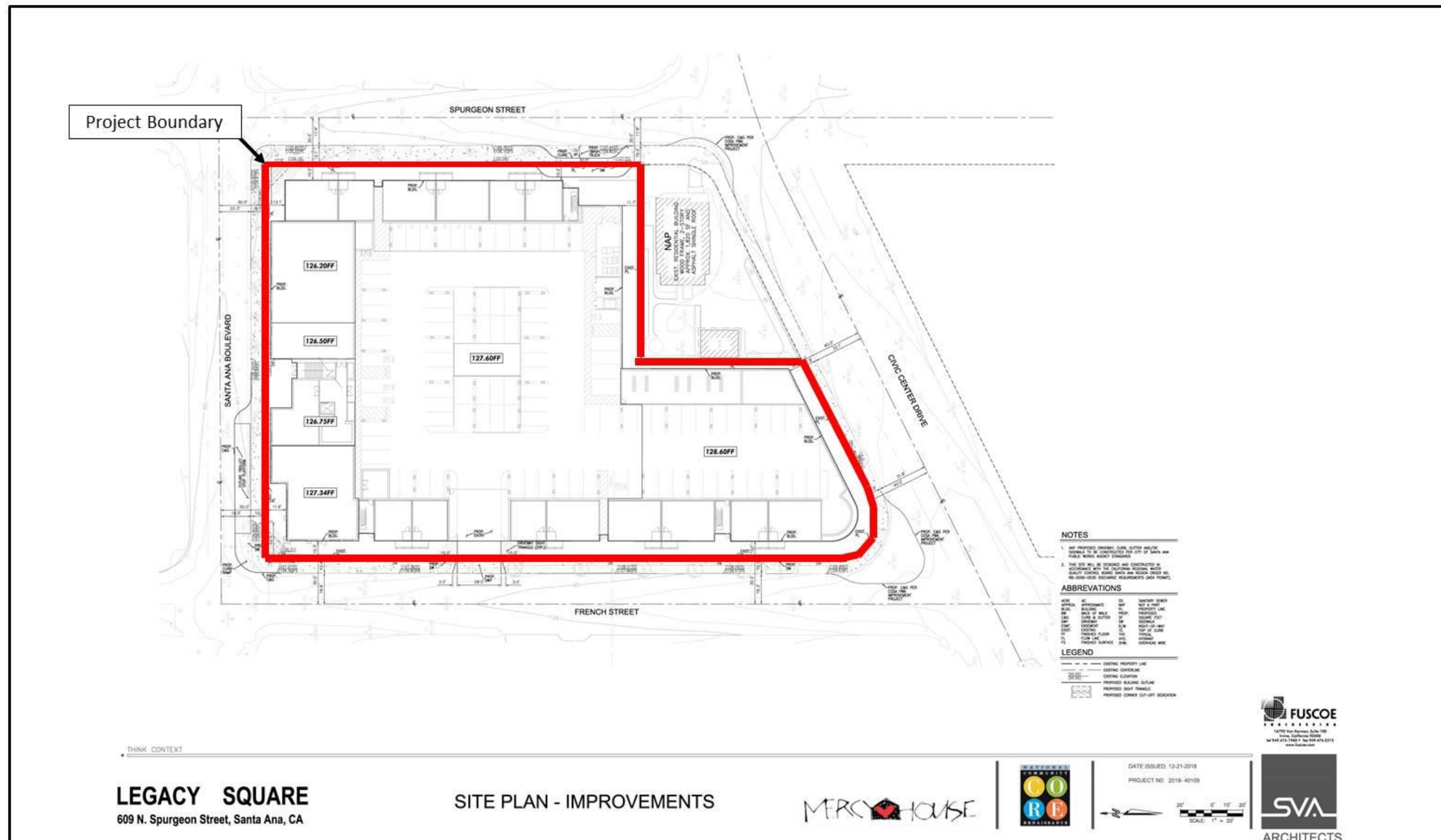
Income Limit Category	One Bedroom	Two Bedroom	Three Bedroom	Total Units
Permanent Supportive Housing (>30% AMI)	30	3		33
Extremely Low Income (>30% AMI)			5	5
Very Low Income (>40% AMI)		6		6
Very Low Income (>50% AMI)		20	11	31
Low Income (>60% AMI)		12	5	17
Exempt Managers unit			1	1
<b>Total Units</b>	<b>30</b>	<b>41</b>	<b>22</b>	<b>93</b>

**Table 3.3-4  
PROJECT STATISTICS**

Size of Property	Acres: 1.74	Square Feet: 75,794
Project Details	Required	Provided
Front Setback from Santa Ana Boulevard	10 feet	0 feet
Front Setback from Civic Center Drive	10 feet	10 feet
Side Setbacks		
Side Street (French)	5 feet for 2 stories	10 feet
Side Street (Spurgeon)	5 feet for 2 stories	10+ feet
Parking	132-219 spaces	102 spaces
Density (with State and City Bonuses)	54.7 dwelling units/acre	53.4 dwelling units/acre
Height- Courtyard	Maximum: 4 stories	4 stories

Source: National Community Core Renaissance, 2018. Project Description for 609 N. Spurgeon Street, Santa Ana, CA. Memorandum dated November 6, 2018.

**Figure 3.3-1  
PROPOSED SITE PLAN**



Disclaimer: Illustration provided by SVA Architects, who has indicated that the information is true and correct. No other warranties are expressed or implied.

Source: SVA Architects, 12/21/18



**City of Santa Ana**  
**Legacy Square**  
Site Plan Improvements

### 3.3.1 Proposed Project Features

#### 3.3.1.1 New Construction

The project would be constructed in one phase and is located on an approximately 1.74-acre site. The project includes development of one building with an area of 121,639 square feet. The building has been designed with two-story town-home units fronting Spurgeon and French Streets, transitioning to a four-story courtyard style building in the center of the site. The project proposes a total of 93 units on 1.74 acres, which results in a density of approximately 53.4 units per acre. The project is proposing to utilize both State and City Density Bonus provisions because the current land use allows for a base density of up to 30 dwelling units per acre. The proposed building height would not exceed 52 feet. Refer to **Appendix A** for project plans.

The project includes the development of a single residential building with 93 units surrounding an interior, landscaped courtyard. In total, the project proposes 81,883 square feet of habitable residential building are. There would be approximately 9,837 square feet of first floor takeoffs and 19,460 square feet of second floor takeoffs, totaling 29,297 square feet (0.67 acres) of open space on the project site. Developed at an overall density of 53.4 units per acre, there would be approximately 30 one-bedroom units, 41 two-bedroom units, and 22 three-bedroom units. Seven of the two-bedroom units and seven of the three-bedroom units would be two-story townhomes accessible from the street. The remaining 79 units would be flats/typical apartment units located on the 2nd, 3rd and 4th floors over ground level parking.

The building has been designed with the two-story townhome units on the exterior fronting Spurgeon and French Streets and transitioning to a four-story courtyard building in the center of the site. This provides a gradual transition from the surrounding lower density uses and visually breaks up the mass of the building. A 2,576-square-foot community center, 984-square-foot leasing/property management office and 7,267 square feet of flexible non-residential space would be located on the ground floor facing Santa Ana Boulevard activating the street frontage and interfacing with the proposed Santa Ana Streetcar platform to be located at the corner of Santa Ana Boulevard and French Street. Careful consideration for the character and scale of surrounding neighborhood was taken to ensure that the project architecture and massing blends in with the existing surrounding uses.

The project proposes the Main Street Modern architectural style fronting Santa Ana Boulevard and the Mission Revival architectural style fronting the other three streets to be complementary with the church and the surrounding neighborhoods. The project includes both wall and roof plane articulation, with an entry plaza and grand staircase from Santa Ana Boulevard and carries the design elements to each elevation, including the inner portions of the site. The maximum building height of the project is 52 feet for the buildings at the interior of the site. Trash enclosures would be provided at the northwest corner of the parking garage with pick-up accessible from Spurgeon Street.

The layout of the building creates several unique outdoor areas, including both passive and active spaces- a central landscaped courtyard, a tot lot, raised planters, drought-tolerant and native ground covers, breezeways and walkways for residents to access community spaces and the surrounding neighborhood.

As shown in **Figure 3.3-2** and **Figure 3.3-3**, the buildings would have concrete roof tiles, exterior plaster, brick veneer, and wood posts with metal railings. The buildings would have various colors of stucco and utilize accent shutters, and metal awnings. The project has been designed with the

Main Street Modern architectural style fronting Santa Ana Boulevard to complement the Orange County Streetcar design and activate the street frontage. The remainder of the project fronting French, Spurgeon and Civic Center are designed to reflect the Mission Revival architectural style, which is intended to complement the historic French Park neighborhood to the north and the existing blend of architectural styles found within the immediate area. The project proposes to use two architectural styles. Breaking up the building facade would ensure that the project is consistent with the intent of the TZC and does not result in any large unarticulated building facades.

The project would be designed and constructed in compliance with applicable City of Santa Ana codes, including but not limited to, the 2016 editions of the California Building Code (CBC), California Plumbing Code, California Mechanical Code, California Electrical Code, California Building Energy Efficiency Standards, and California Residential Codes (CRC).

### **3.3.1.2 Site Access, Circulation and Parking**

One vehicular entry point to the site is provided off French Street. The entry point is a 24-foot driveway providing direct access to the parking garage.

Within the TZC, the UN-2 zone requires two parking spaces per unit and one parking space per Permanent Special Need Unit plus an additional 0.25 spaces for guests. In addition, the UN-2 zone requires non-residential parking at a rate of one (1) parking space for every 300 square feet. Per the TZC, a total of 219 spaces are required for the project. Additionally, Section 41-2003, Affordable Housing Development Incentives, in the TZC allows for tandem parking not to exceed 30 percent of the required parking per residential unit. Assembly Bill 744 allows a developer that is proposing a project within half mile of a major transit stop that includes 100 percent affordable rental units to request that the jurisdiction reduce the minimum parking requirements for the development to 0.5 space per unit. As the project will be adjacent to a further Streetcar stop, the project qualifies for a reduction in parking. Per Assembly Bill 744, the project would be required to provide 132 parking spaces.

To accommodate residents, visitors, and staff a total of 102 parking stalls are proposed for a ratio of 1.1 spaces per unit. Of the 102 proposed parking spaces, there would be five accessible spaces (four regular and two reserved for larger vans). Six spaces are proposed for electric vehicles (five regular spaces and one reserved for a larger van). The project proposes 16 tandem parking spaces within the parking garage, which comprises 16 percent of the total spaces.

**Figure 3.3-2**  
**CONCEPTUAL ELEVATIONS: NORTH SPURGEON STREET AND EAST SANTA ANA BOULEVARD**



Disclaimer: Illustration provided by SVA Architects, who has indicated that the information is true and correct. No other warranties are expressed or implied.

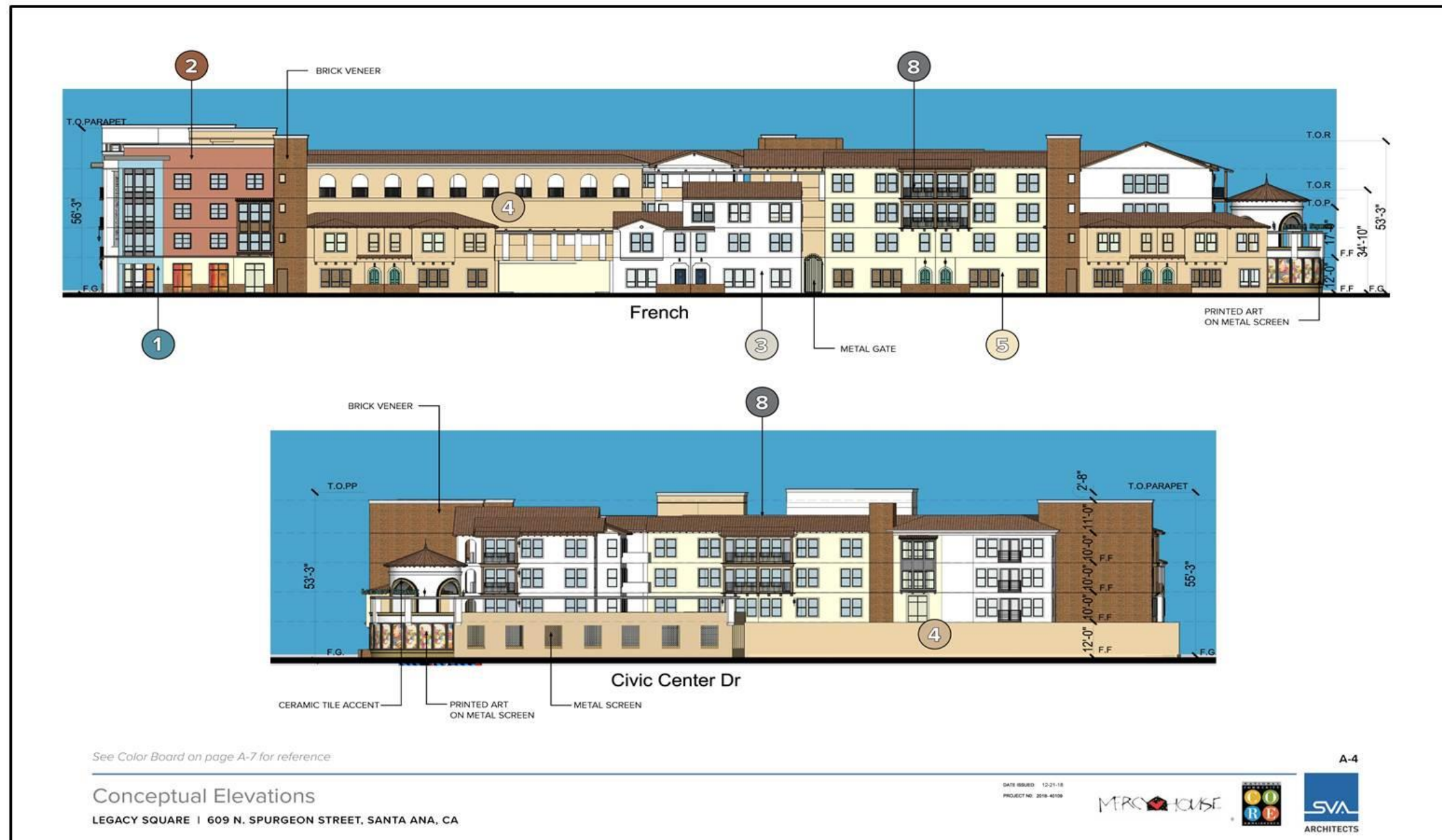
Source: SVA Architects, 12/21/18



City of Santa Ana  
 Legacy Square

Conceptual Elevations: N Spurgeon & E Santa Ana Blvd

**Figure 3.3-3**  
**CONCEPTUAL ELEVATIONS: FRENCH STREET AND CIVIC CENTER DRIVE**



Disclaimer: Illustration provided by SVA Architects, who has indicated that the information is true and correct. No other warranties are expressed or implied.

Source: SVA Architects, 12/21/18



**City of Santa Ana**  
**Legacy Square**

Conceptual Elevations: French St and Civic Center Dr

The project applicant is requesting a reduction in parking from the requirements of the TZC based on the demographic of residents who would live onsite, the location of the project along the Orange County Street Car route, access to existing bus routes, and the provision of alternative strategies to reduce vehicle trips, including bike program, car sharing and van pooling.

### 3.3.1.3 Exterior Lighting

The project proposes parking lot lighting for safety and wayfinding. Lighting for the project would comply with the requirements of the City's Municipal Code. Specifically, the project would be required to comply with the City of Santa Ana Municipal Code Section 8-210, Special residential building provisions, which apply to all residential dwellings and states:

“(l) All exterior doors shall be equipped with a lighting device which shall provide a minimum maintained one footcandle of light at ground level during hours of darkness...(n) All parking lots, carports, garages and parking structures of multiple-family dwelling complexes shall be equipped with lighting devices which will provide a minimum maintained one footcandle of light on the parking surface during hours of darkness. Subterranean parking lots shall maintain lighting 24 hours a day. Lighting devices shall be protected by vandal resistant covers. (o) All exterior required lighting devices shall be placed at a height which will fully illuminate an average adult.” (City of Santa Ana Municipal Code, 2018).

### 3.3.1.4 Landscaping

The Conceptual Landscape Plan proposes to preserve the following existing street trees, within the City's right-of-way: 12 Queen Palms, one Tulip and five California Live Oak trees. On Spurgeon Street, one small misshapen Oak tree is being proposed for removal. The existing finish grade on the project site is 18 inches to two feet higher than the street. Consequently, the existing trees onsite (two Camphor, three Magnolia, and one Ficus tree) in the two feet high raised planter will be evaluated and if possible, relocated to the North UMC campus due to the grade changing at the tree root ball. An existing unhealthy-looking Sycamore Tree is proposed to be removed from the project site. Refer to **Figure 3.3-4** below, which shows the conceptual landscape plan for the project.



**Figure 3.3-4**  
**CONCEPTUAL LANDSCAPE PLAN**



Disclaimer: Illustration provided by SVA Architects, who has indicated that the information is true and correct. No other warranties are expressed or implied.

Source: SVA Architects, 12/20/18



City of Santa Ana  
**Legacy Square**  
Conceptual Landscape Plan

### 3.3.2 Operational Characteristics

The project site would be occupied primarily with residential units, with residents coming and going during typical hours. There would be an onsite community center with programs for residents that would also provide services to the neighborhood such as childcare, financial education and other similar services. 2,100 square feet of office space is proposed for use by the United Methodist Church as well as other community-based organizations offering supportive services that are anticipated to operate Monday through Friday from approximately 8 a.m. to 5 p.m.

#### 3.3.2.1 Utilities

**Sanitary Sewer** - The site is served by an existing sanitary sewer network. New connections to existing sewer lines located near the project site would be installed. The City's sewer collection system consists of approximately 450 miles of sewer mains. The City's sewer system operates largely by gravity and discharges at several locations into gravity trunk sewers owned and maintained by the Orange County Sanitation District (OCSD). All the OCSD sewers in the City collect and convey wastewater to the OCSD Treatment Plant Number 1 located just southwest of the City in Fountain Valley (RMC, 2016, p. ES-1).

**Domestic Water** - New domestic water meters would be installed as required to meet the demands calculated by the plumber for the project and in compliance with the requirements of the City of Santa Ana Public Works Agency. Water would be provided by the City of Santa Ana<sup>5</sup> (Arcadis, 2016, p. 1-6).

**Dry Utilities** - It is anticipated that a new natural gas connection would be needed to serve the project. Natural gas service would be provided to the project site by the Southern California Gas Company. Southern California Edison would provide electricity to the project site (City of Santa Ana, Resident Services, 2018).

**Stormwater** - Stormwater would be captured by a series of roof and area drains in both the courtyard and the perimeter of the project site. No new catch basins or curb inlets would be installed within the public right of way. All runoff exiting the site would be tied in to existing City storm drain infrastructure on Santa Ana Boulevard.

**Cable Television** - It is anticipated that new cable television connections would be needed to serve the project. Local television providers include DirecTV, Spectrum and AT&T U-Verse. Residents of Santa Ana can access telephone and internet service from Spectrum or AT&T (City of Santa Ana, Resident Services, 2018).

### 3.4 Construction Schedule

The project would be constructed in one phase, beginning winter/January 2020 and ending winter/January 2022 (24 months). The project would underground two overhead utility poles, including wires, along Spurgeon Street and the project is proposing to install new underground service to the project site.

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5 The City's Water Utility provides water service within a 27-square mile service area. The service area includes the City of Santa Ana (Arcadis, 2016, p. 1-6).

The project phases would be as follows:

1. Demolition Phase: 3 Months
2. Grading Phase: 1 Month
3. Site Work Phase: 2 Months
4. Garage/Podium Phase: 6 Months
5. Vertical Phase: 12 Months

It is anticipated that for safety reasons, temporary barricades would be used to limit access to the site during project construction. Construction activities may include the following:

- Erect barricades for safety and security prior to construction activities.
- Maintain safe access for construction workers throughout construction.
- Site grading (during grading, soils are anticipated to be balanced onsite).
- New construction, as described below.

It is anticipated that the general contractor would utilize heavy equipment during grading (i.e., large excavators, standard backhoes, asphalt grinders, large loaders, standard skip loaders, large forklifts, etc.) (Washburn, 2018a). The types and number of pieces of equipment and length of use were estimated as part of the air quality impact analysis presented in **Section 4.3** of this document.

During demolition and grading, 10-12 construction employees would be onsite. During site work an estimated 5-10 employees would be onsite. During the site work there would be 5-10 employees, 40 employees would be used during the on-grade parking garage/podium phase and vertical construction would utilize 75 employees (Washburn, 2018a)

### **3.4.1 Grading**

The project is anticipated to move approximately 150,000 cubic feet of soil onsite. A grading plan for the project has been submitted for approval to the City of Santa Ana.

## **3.5 Discretionary Actions**

Approvals associated with this development are described below.

### **3.5.1 Density Bonus Agreements**

City and State Density Bonus Agreements are being sought allowing up to 54.7 units per acre because the project proposes affordable housing.

### **3.5.2 Grading Plan Approval**

The City will review and approve the grading plan for the project.

### 3.5.3 Site Plan Review and Building Permit Issuance

The City of Santa Ana will issue building permits for the project.

### 3.5.4 Other Permits and Approvals

Following the Lead Agency’s approval of the Initial Study/Mitigated Negative Declaration, the following permits and approvals (refer to **Table 3.5-1**) would be required prior to construction.

**Table 3.5-1  
PERMITS AND APPROVALS**

Agency	Permit or Approval
City of Santa Ana Building Safety Division	Site Plan review and approval, and Building Permit issuance
City of Santa Ana Planning Division	Grading Plan Approval
Orange County Fire Authority <sup>6</sup>	Building plan check and approval. Review for compliance with the 2016 California Fire Code, 2016 California Building Code, California Health & Safety Code and Santa Ana Municipal Code. Plans for fire detection and alarm systems, and automatic sprinklers.
City of Santa Ana Public Works Agency	Letter of authorization/consent for proposed improvements to provide water supply connection to new development.
Southern California Gas Company	Letter of authorization/consent for proposed improvements to provide natural gas connection to new development.
Southern California Edison	Letter of authorization/consent for proposed improvements to provide electrical connection to new development.
City of Santa Ana and State of California	City and State Density Bonus Agreements are needed to allow up to 54.7 units per acre.

<sup>6</sup> Fire Services for the City of Santa Ana are provided by Orange County Fire Authority (OCFA, 2018)

**4.0 ENVIRONMENTAL CHECKLIST**

**Environmental Factors Potentially Affected**

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” or as a “Potentially Significant Unless Mitigation Incorporated,” as indicated by the checklist on the following pages.

- |  |   |  |
|--|---|--|
| <input checked="" type="checkbox"/> Aesthetics                         | <input type="checkbox"/> Agricultural and Forest Resources        | <input type="checkbox"/> Air Quality               |
| <input checked="" type="checkbox"/> Biological Resources               | <input checked="" type="checkbox"/> Cultural Resources            | <input type="checkbox"/> Geology / Soils           |
| <input type="checkbox"/> Greenhouse Gas Emissions                      | <input checked="" type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology / Water Quality |
| <input type="checkbox"/> Land Use / Planning                           | <input type="checkbox"/> Mineral Resources                        | <input checked="" type="checkbox"/> Noise          |
| <input type="checkbox"/> Population / Housing                          | <input checked="" type="checkbox"/> Public Services               | <input checked="" type="checkbox"/> Recreation     |
| <input type="checkbox"/> Transportation / Traffic                      | <input checked="" type="checkbox"/> Tribal Cultural Resources     | <input type="checkbox"/> Utilities/Service Systems |
| <input checked="" type="checkbox"/> Mandatory Findings of Significance |   |  |

**Determination (To Be Completed by the Lead Agency)**

On the basis of this initial evaluation:

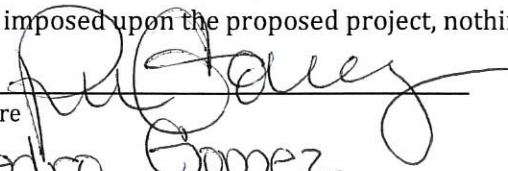
I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

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

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

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

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

Signature   
 Printed Name Pedro Gomez

Date 1/3/19  
 City of Santa Ana \_\_\_\_\_

## Evaluation of Environmental Impacts

- (1) A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors, as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- (2) All answers must take into account the whole action involved, including offsite as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- (3) Once the lead agency has determined that a particular physical impact may occur then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
- (4) “Negative Declaration: Less than Significant with Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less than Significant Impact.” The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to less than significant level.
- (5) Earlier analyses may be use where, pursuant to the tiering, Program EIR, or other CEQA process, an affect has been adequately analyzed in an earlier EIR or negative declaration. (See Section 15063(c)(3)(D) of the CEQA Guidelines. In this case, a brief discussion should identify the following:
  - (a) Earlier Analyses Used. Identify and state where the earlier analysis available for review.
  - (b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
  - (c) Mitigation Measures. For effects that are “Less than Significant with Mitigation Measures Incorporated,” describe the mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- (6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference

❖ SECTION 4.0 – ENVIRONMENTAL CHECKLIST ❖

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to the page or pages where the statement is substantiated. A source list should be attached and other sources used or individuals contacted should be cited in the discussion.

- (7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- (8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
- (9) The explanation of each issue should identify:
  - (a) The significance criteria or threshold, if any, used to evaluate each question; and
  - (b) The mitigation measure identified, if any, to reduce the impact to less than significant.

## 4.1 Aesthetics

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

A “visual environment” includes the built environment (development patterns, buildings, parking areas, and circulation elements) and natural environment (such as hills, vegetation, rock outcroppings, drainage pathways, and soils) features. Visual quality, viewer groups and sensitivity, duration, and visual resources characterize views. Visual quality refers to the general aesthetic quality of a view, such as vividness, intactness, and unity. Viewer groups identify who is most likely to experience the view. High-sensitivity land uses include residences, schools, playgrounds, religious institutions, and passive outdoor spaces such as parks, playgrounds, and recreation areas. Duration of a view is the amount of time that a particular view can be seen by a specific viewer group. Visual resources refer to unique views, and views identified in local plans, from scenic highways, or of specific unique structures or landscape features.

### a) Would the project have a substantial adverse effect on a scenic vista?

#### No Impact

Scenic vistas generally include extensive panoramic views of natural features, unusual terrain, or unique urban or historic features, for which the field of view can be wide and extend into the distance, and focal views that focus on a particular object, scene or feature of interest. The project site is located in the Transit Zoning Code (TZC) (SD 84A and SD 84B) area. The viewsheds associated with the TZC area are characterized by natural and man-made features. The Santa Ana Mountains are visible from the residential uses and streets, as well as commercial and office uses (City of Santa Ana Transit Zoning Code EIR, 2010, p. 4.1-2).

The project area is characterized by flat topography and urban development. There are no significant scenic views from public thoroughfares and open spaces in the vicinity of the project. Views of and within the project area are generally limited to immediately adjacent uses/structures. Views to the north, south, east, and west consist of adjacent developed uses of varying scale, including residential,



commercial, office, and public facility uses. Therefore, the project would have no impact on a scenic vista.

**b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?**

**No Impact**

The California Department of Transportation (Caltrans) provides information regarding officially designated or eligible state scenic highways, designated as part of the California Scenic Highway Program. According to Caltrans, there are no officially designated scenic highways within or adjacent to the project area, and no roadways near the project site are currently eligible for scenic highway designation (Caltrans, 2011). As shown in **Figure 4.1-1**, the closest officially designated state scenic highways are State Route 1 (Pacific Coast Highway) and State Route 91, both of which are located more than 10 miles away from the project site.

Within the TZC (SD 84A and SD 84B) area, the City of Santa Ana has designated First, Fourth, and Main Streets as both Major City Entries and Primary Street Corridors, with Seventeenth and Bristol Streets having both been designated as Secondary Street Corridors. The project is located two blocks north of Fourth Street and two blocks east of Main Street. However, due to the flat topography of the site, no views of buildings along those designated street corridors are available to and from the project site.

Therefore, the project would have no impacts on trees, rock outcroppings and historic buildings within a state scenic highway.

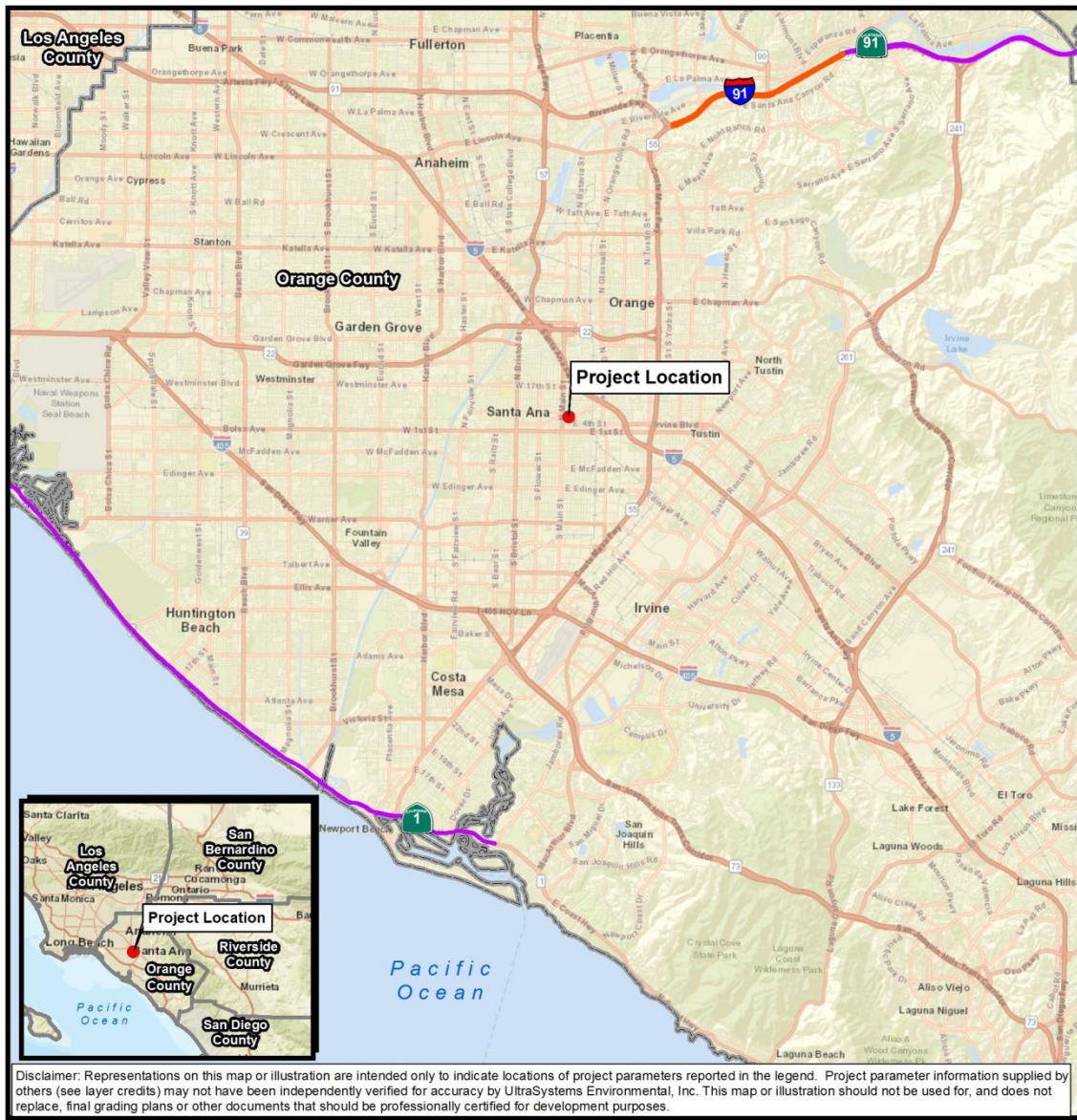
**c) Would the project substantially degrade the existing visual character or quality of the site and its surroundings?**

**Less than Significant Impact with Mitigation Incorporated**

The project site is located in an urban setting characterized by a mix of single-family and multi-family residential buildings, commercial, office and public facility developments. Views of the existing streetscape are characterized by low to medium height (one to four story) buildings, utilities infrastructure (including utility lines, poles and street lights) and minimal landscaping. Refer to **Table 4.1-1**, which describes the existing visual character in the vicinity of the project site, **Figure 4.1-2**, which includes photographs of development in the vicinity of the project site, and **Figure 2.2-2** in **Section 2.0** of this document, which includes photographs of the project site.

During project construction, there would be elements on the project site that are not compatible with the project vicinity. These features may include construction equipment (e.g., small cranes, pickup trucks), stockpiled materials, and construction-area barriers and fencing. Construction elements would be inconsistent with the visual character of the project vicinity. While these elements would be removed following construction, they would nonetheless result in a temporary impact. However, during project construction, work areas would be screened from public view through the use of temporary barriers. Therefore, short-term visual impacts during the construction phase would be less than significant.

**Figure 4.1-1**  
**STATE SCENIC HIGHWAYS AND NATIONAL BYWAYS**



Path: J:\Projects\6095\_Santa\_Ana\_Legacy\_Square\MXD\6095\_Santa\_Ana\_Legacy\_Square\_4.1\_Scenic\_Hwys\_2018\_12\_11.mxd  
 Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community, Caltrans, 2014; County of Orange, 2018; UltraSystems Environmental, Inc., 2018

December 11, 2018

Scale 1:190,080



0 1.5 3 Miles

0 2 4 Kilometers

**Legend**

- Project Location
- Officially Designated State Scenic Highway
- Eligible State Scenic Highway
- County Boundary

**City of Santa Ana  
Legacy Square**

Scenic Highways



**Table 4.1-1  
EXISTING VISUAL CHARACTER AND LAND USES IN THE PROJECT AREA**

Location	General Characteristics	Existing Lighting	Building Height and Design	Landscaping
Project Site	Developed with two church buildings and a large surface parking lot.	Exterior Lighting associated with the church buildings, parking lot lighting, street lighting.	One to four story buildings with tiled sloping roofs and white plastered exterior walls.	Mature trees and ornamental vegetation.
<b>Surrounding Areas</b>				
North	Single-family home adjacent to the northwest corner of the site, single-family residences and multi-family housing.	Exterior lighting associated with the residential developments and street lighting.	Single to three-story buildings with tiled sloping roofs and plastered exterior walls painted in varying colors.	Minimal landscaping including a few trees and ornamental vegetation.
East	The Ebell Club (an event location and club), multi-family housing, and a Church facility.	Exterior lighting associated with the residential and commercial developments, parking lot lighting and street lighting.	One- and two-story buildings with tiled sloping roofs and plastered exterior walls painted in varying colors.	Mature trees and ornamental vegetation.
West	A post office and a large surface parking lot.	Exterior lighting associated with the post office building, parking lot lighting and street lighting.	A two-story post office building with tiled sloping roof and plastered exterior walls.	A few trees and ornamental vegetation including bushes and shrubs.
South	Multi-family residential development, and commercial retail developments.	Exterior lighting associated with the residential and commercial developments, parking lot lighting and street lighting.	Four-story residential buildings with flat roofs and exterior plastered walls painted in white and brown colors.	A few trees and ornamental vegetation including bushes and shrubs.

Source: UltraSystems 2018 and Google Earth Pro 2018.

**Figure 4.1-2**  
**EXISTING VISUAL CHARACTER IN THE VICINITY OF THE PROJECT SITE**



Photo 1: Multi-family residential development to the west of the project site.



Photo 2: Single-family residential development to the north of the project site.



Photo 3: Ebell event management and Club facility to the east of the project site.



Photo 4: Multi-family residential development in the vicinity of the project site.

Implementation of the project would not degrade the existing visual character of the site. Under the proposed project, new buildings would be consistent with the general character of existing buildings in the surrounding neighborhood, in terms of architectural style, density, height, bulk, and setback.

The project includes development of one building with an area of 121,639 square feet. The project proposes a total of 93 units on 1.74 acres, which results in a density of approximately 53.4 units per acre. The proposed building has been designed with two-story townhome units fronting Spurgeon and French Streets, transitioning to a four-story courtyard style building in the center of the site. This provides a gradual transition from the surrounding lower density uses and visually breaks up the mass of the building. A community center, leasing/property management office and flexible non-residential space would be located on the ground floor facing Santa Ana Boulevard activating the street frontage and interfacing with the proposed Santa Ana Streetcar platform to be located at the corner of Santa Ana Boulevard and French Street. Careful consideration for the character and scale of surrounding neighborhood was taken to ensure that the project architecture and massing blends in with the existing surrounding uses. The buildings would have concrete roof tiles, exterior plaster, brick veneer, and wood posts with metal railings. The buildings would have various colors of stucco, and utilize accent shutters and metal awnings.

The project proposes to use two architectural styles: 1) Main Street Modern architectural style fronting Santa Ana Boulevard, and 2) the Mission Revival architectural style fronting the other three streets, which is intended to complement the historic French Park neighborhood to the north and the existing blend of architectural styles found within the immediate area. The breaking up of the building facade would ensure that the project is consistent with the intent of the TZC and does not result in any large unarticulated building facades. The project also includes both wall and roof plane articulation, with an entry plaza and grand staircase from Santa Ana Boulevard.

The layout of the proposed building would create several unique outdoor areas, including both passive and active spaces— a central landscaped courtyard, a tot lot, raised planters, drought-tolerant and native ground covers, breezeways and walkways for residents to access community spaces and the surrounding neighborhood.

The project would increase the density, scale, and height of development on the project site when compared to existing conditions. However, as discussed above, the project would not be out of character with the surrounding area, which contains a mix of land uses, primarily multi-family residential, at various scales of development, as detailed in **Table 4.1-1** above.

The project would improve an existing underutilized piece of land with well-designed buildings, commercial street frontage and landscaping, thereby, resulting in a beneficial change to existing site conditions and would not represent an adverse impact or degradation in the existing visual character of the site and its surroundings.

Shadow-sensitive uses include all residential uses and routinely usable outdoor spaces associated with recreational or institutional uses, commercial uses such as pedestrian-oriented outdoor spaces or restaurants with outdoor eating areas, nurseries, and existing solar collectors. These uses are considered sensitive because sunlight is important to function, physical comfort, or commerce. Shade-sensitive uses in the project vicinity are limited to the residential uses surrounding the project site in the north, south and east.

According to the TZC EIR, the current low- to mid-rise buildings within the TZC (SD 84A and SD 84B) area create limited shade and shadow patterns that are contained within a close proximity to each

low- to mid-rise building. Future development of new multi-story buildings in the Transit Zoning Code (SD 84A and SD 84B) area may create new sources of shading that could impact shadow-sensitive uses in the vicinities of the new development sites. For the purposes of analyzing shade/shadow impacts, a significant impact would occur when shadow-sensitive uses (residential structures, schools, churches, parks, etc.) would be shaded by a project-related structure for more than three hours between the hours of 9:00 a.m. and 3:00 p.m. Pacific Standard Time (PST) (between late October and early April), or for more than four hours between the hours of 9:00 a.m. and 5:00 p.m. PST (between early April and late October) (City of Santa Ana Transit Zoning Code EIR, 2010, p. 4.1-27).

The project would increase shade and shadows, both on and offsite, compared to existing conditions. Refer to **Figure 4.1-3**, which illustrates approximate shade and shadow from the project. The project site is oriented north to south. It should also be noted that, in general, shadows extend in a northwesterly to northeasterly clockwise direction as a day progresses (City of Santa Ana Transit Zoning Code EIR, 2010, p. 4.1-27).

During the summer months, shade and shadows created by the proposed new building would be contained within the boundary of the site and roadways adjacent to the project site, for most of the time during the day. A small portion of the shadow of the proposed building might be cast on the property of the single-family home located adjacent to the northwest corner of the project site, between 9:00 a.m. and 12:00 p.m. However, the shadows cast on the single-family home property would be limited to a very small portion of the open space along the edge of the property. Shadows cast by the project in the summer evenings around 5:00 p.m. would fall on portions of multi-family developments located immediately east of the project site. However, project generated shadows during the summer months are not expected to shade the multi-family buildings to the west for more than three hours. Therefore, impacts related to shade and shadows during summer months are anticipated to be less than significant.

During the winter months, shade and shadows created by the proposed new building would be contained within the boundary of the site and roadways adjacent to the project site, for most of the time during the day, with the exception of some shadows created towards the northwest, outside the project boundary. Shadows cast by the project in the winter morning, from 9:00 a.m. to 12:00 p.m., would fall on the adjacent single-family home located to the northwest of the project site. Shadows cast by the project in the winter afternoons around 3:00 p.m. would fall on portions of multi-family developments located immediately east of the project site. However, project-generated shadows during the winter months are not expected to shade the multi-family buildings for more than three hours. Therefore, impacts related to shade and shadows during winter months are anticipated to be less than significant. For the most part, the project would have a less than significant impact regarding shade and shadow on adjacent properties due to the limited amount of shade/shadow that would be cast on neighboring shadow-sensitive developments, and because the shade and shadow would be cast only during the times specified above, which is a small portion of the day. It is anticipated that the project-generated shadows would not shade the shadow-sensitive uses in the vicinity of the site for more than three hours during any time of the day throughout the year. The only exception is the single-family residence located adjacent to the site where the project would cast shadows during the winter morning hours. It should be noted that the shade and shadows shown in **Figure 4.1-3** constitute a preliminary analysis conducted for the purpose of this IS/MND, and represents a worst-case scenario. The actual shade and shadows cast by the proposed building may differ and may be less than the shadows shown in **Figure 4.1-3**. Implementation of mitigation measure 4.3-1 from the TZC EIR (provided below as mitigation measure **AES-1**) would require the

project applicant to conduct a further detailed shade and shadow study during final project design stage and make changes to the project design as necessary to minimize shadows falling on the single-family residence located adjacent to the project site. Implementation of mitigation measure **AES-1** would ensure that impacts associated with shade and shadows would be less than significant.

### **Mitigation Measure**

**MM AES – 1** For any proposed structure that would exceed four stories in height, applicants shall submit a site-specific shade/shadow report with renderings representing the level of shade/shadows associated with the proposed development at the following times: 9:00 a.m., 12:00 p.m., 3:00 p.m. PST for the both the winter and summer solstices. An additional rendering for the 5:00 p.m. PST time period shall be prepared for the summer solstice period. Typically, a variety of criteria are used to determine the significance of a shadow impact, including the following:

- Affected land use (criticality of direct sunlight for the use).
- Duration (hours per day in shadow).
- Time of day (critical time period for direct sunlight).
- Season (time of year use would be shadowed).
- Extent (percentage of use that would be shadowed).
- Preexisting condition (shadow condition due to existing buildings, landscaping, or other features).
- Type (solid or dappled shadow).

The report shall include any feasible design considerations that would reduce the extent of shadows cast by a proposed structure. The analysis and the project design plans shall be forwarded to the Planning and Building Agency for review and approval.

**d) Would the project 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 urban area, which is characterized by low to medium nighttime ambient light levels. Street lights, traffic on local streets and exterior lighting in surrounding developments are the primary sources of light that contribute to the ambient light levels in the project area. Light sensitive uses in the project vicinity are limited to surrounding residences.

The project proposes new exterior lighting throughout the site, including parking lot lighting, wall-mounted lighting, pole lighting, bollards and bullet lights. Installation of proposed exterior lighting would be necessary for safety and nighttime visibility throughout the proposed residential development. The new project lighting would be visible from the surrounding area. Therefore, the project's proposed exterior lighting is expected to contribute to ambient nighttime illumination in the project vicinity.

The project would comply with the requirements of California Building Code (CBC) that contains standards for outdoor lighting that are intended to reduce light pollution and glare by regulating light power and brightness, and shielding. Lighting for the project would also comply with the

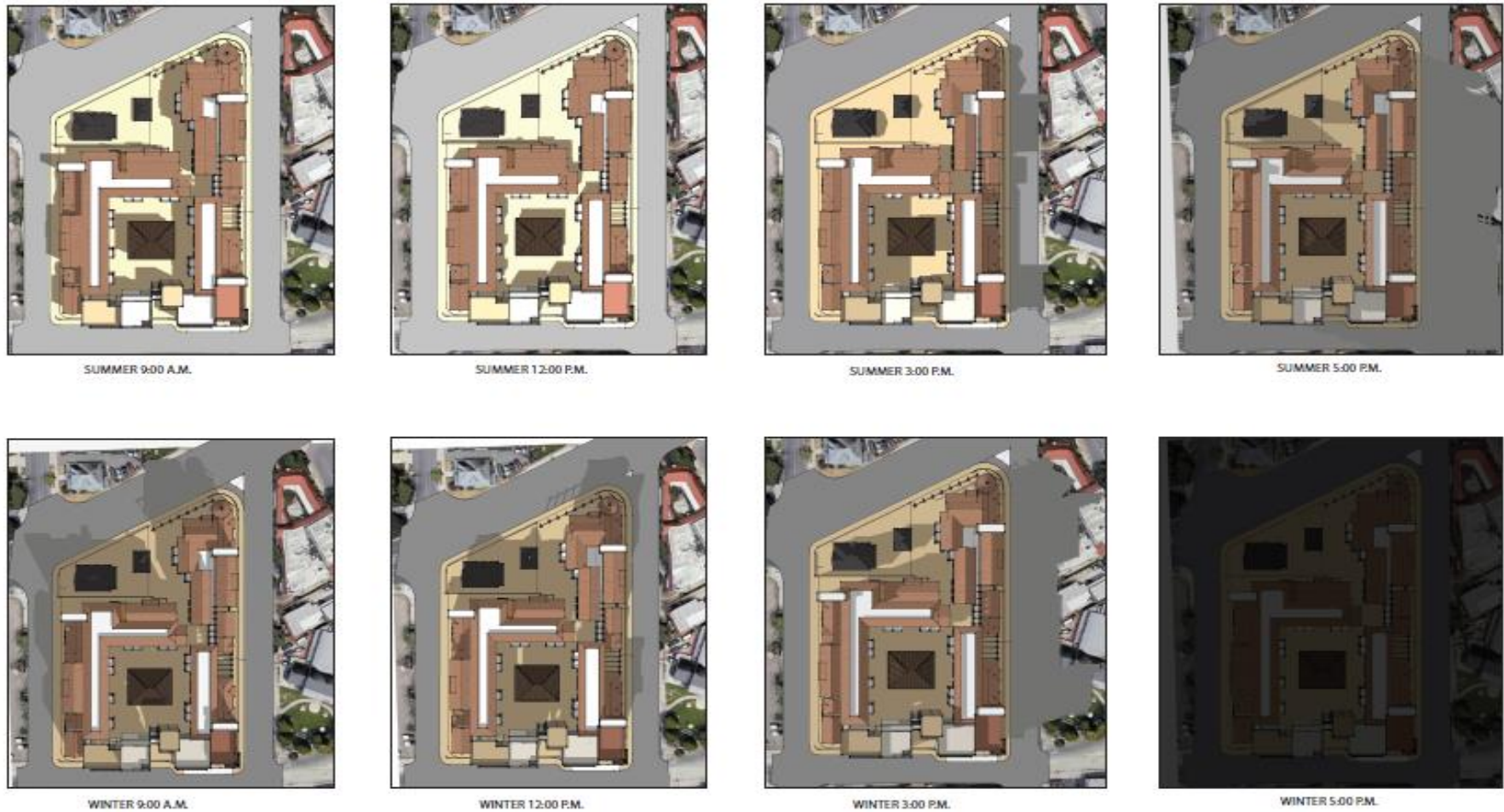
requirements of the City’s Municipal Code. Specifically, the project would be required to comply with the City of Santa Ana Municipal Code Section 8-210, Special residential building provisions, which apply to all residential dwellings and states:

“(l) All exterior doors shall be equipped with a lighting device which shall provide a minimum maintained one footcandle of light at ground level during hours of darkness...(n) All parking lots, carports, garages and parking structures of multiple-family dwelling complexes shall be equipped with lighting devices which will provide a minimum maintained one footcandle of light on the parking surface during hours of darkness. Subterranean parking lots shall maintain lighting 24 hours a day. Lighting devices shall be protected by vandal resistant covers. (o) All exterior required lighting devices shall be placed at a height which will fully illuminate an average adult.” (City of Santa Ana Municipal Code, 2018)

Outdoor lighting fixtures would be installed in accordance with applicable Santa Ana Municipal Code standards to ensure that the light does not illuminate nearby and adjacent properties and residences. Adherence to applicable City Municipal Codes would ensure that new sources of light or glare would not adversely affect day or nighttime views in the area. Therefore, impacts from a new source of substantial light or glare would be less than significant.



**Figure 4.1-3**  
**SHADE AND SHADOW ANALYSIS**



A-9

Shade/Shadow Report

LEGACY SQUARE | 609 N. SPURGEON STREET, SANTA ANA, CA

DATE: 1/18/19  
PROJECT: 19-001

MTRC HOUSE



## 4.2 Agriculture and Forestry Resources

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code § 12220(g)), timberland (as defined by Public Resources Codes § 4526), or timberland zoned Timberland Production (as defined by Government Code § 51104(g))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
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?				X

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

### No Impact

The California Department of Conservation (DOC) established the Farmland Mapping and Monitoring Program in 1982 to identify critical agricultural lands and track the conversion of these lands to other uses. The Farmland Mapping and Monitoring Program is a non-regulatory program and provides a consistent and impartial analysis of agricultural land use and land use changes throughout California. The project site and surrounding uses are designated by the FMMP as “Urban and Built-Up Land,” which means that no agricultural uses could potentially occupy the site (DOC, 2016). The project is located within an urbanized area, and all construction activities and onsite improvements would occur within the site. Therefore, no farmland would be converted to non-agricultural use and no impacts would occur.

- b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?**

**No Impact**

As detailed in the 2003/2004 Orange County Williamson Act Contract Land Map, the project site is not identified, and therefore does not contain land enrolled in a Williamson Act contract. The project site is developed with urban uses and there are no current agricultural operations existing in the vicinity of the site (Google Earth Pro, 2018). Therefore, the project would not conflict with existing zoning for agricultural use or a Williamson Act contract and no impacts would occur.

- c) Would the project (c) conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code § 12220(g)), timberland (as defined by Public Resources Codes § 4526), or timberland zoned Timberland Production (as defined by Government Code § 51104(g))?**

**No Impact**

The project site is located in a highly-urbanized setting. The site's existing zoning of "SD-84" (Specific Development) does not support the definitions provided by PRC § 42526 for timberland, PRC § 12220(g) for forestland, or California Government Code § 51104(g) for timberland zoned for production. PRC § 12220(g) defines forest land as "land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits." Since the project site is located in an urban setting, is developed, and is surrounded by residential and commercial land uses, project-related changes would not conflict with zoning for forest land or timberland, and no impacts would occur.

- d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?**

**No Impact**

The project site and surrounding land uses do not contain forest land. The project site is located on land zoned as "SD-84" (Specific Development). Therefore, project implementation would not result in the loss of forest land or conversion of forest land to non-forest use, and no impact would occur.

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

**No Impact**

The project site is a developed property located within a highly-urbanized setting. The site is surrounded by residential and commercial uses. No existing farmland or forest land is located in the vicinity of the project. Therefore, implementation of the project would not result in changes to the environment, due to its location or nature, which could result in the conversion of farmland to non-agricultural use or conversion of forest land to non-forest use, and no impacts would occur.

### 4.3 Air Quality

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			X	
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			X	
d) Expose sensitive receptors to substantial pollutant concentrations?			X	
e) Create objectionable odors affecting a substantial number of people?			X	

#### 4.3.1 Pollutants of Concern

Criteria pollutants are air pollutants for which acceptable levels of exposure can be determined and an ambient air quality standard has been established by the U.S. Environmental Protection Agency (USEPA) and/or the California Air Resources Board (ARB). The criteria air pollutants of concern are nitrogen dioxide (NO<sub>2</sub>), carbon monoxide (CO), particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), sulfur dioxide (SO<sub>2</sub>), lead (Pb), and ozone, and their precursors. Since the Legacy Square project would not generate appreciable SO<sub>2</sub> or Pb emissions,<sup>7</sup> it is not necessary for the analysis to include those two pollutants. Presented below is a description of the air pollutants of concern and their known health effects.

The Legacy Square project is in the Orange County portion of the South Coast Air Basin (SCAB), for whose air pollution control the South Coast Air Quality Management District (SCAQMD) is substantially responsible. **Table 4.3-1** shows the attainment status of the SCAB for each criteria pollutant for both the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS). Presented below is a description of the air pollutants of concern and their known health effects.

<sup>7</sup> Sulfur dioxide emissions will be below 0.06 pound per day during construction and operations.

**Table 4.3-1  
FEDERAL AND STATE ATTAINMENT STATUS**

Pollutants	Federal Classification	State Classification
Ozone (O <sub>3</sub> )	Nonattainment (Extreme)	Nonattainment
Particulate Matter (PM <sub>10</sub> )	Maintenance (Serious)	Nonattainment
Fine Particulate Matter (PM <sub>2.5</sub> )	Nonattainment (Moderate)	Nonattainment
Carbon Monoxide (CO)	Maintenance (Serious)	Attainment
Nitrogen Dioxide (NO <sub>2</sub> )	Maintenance	Attainment
Sulfur Dioxide (SO <sub>2</sub> )	Attainment	Attainment
Sulfates	No Federal Standards	Attainment
Lead (Pb)		Attainment
Hydrogen Sulfide (H <sub>2</sub> S)		Attainment
Visibility Reducing Particles		Unclassified

Sources:

USEPA, 2018a, USEPA, 2018b, USEPA, 2018c, USEPA, 2018d, USEPA, 2018e.  
ARB, 2018b.

**Nitrogen oxides** (NO<sub>x</sub>) serve as integral participants in the process of photochemical smog production and are precursors for certain particulate compounds that are formed in the atmosphere and for ozone. A precursor is a directly emitted air contaminant that, when released into the atmosphere, forms, causes to be formed, or contributes to the formation of a secondary air contaminant for which an ambient air quality standard (AAQS) has been adopted, or whose presence in the atmosphere will contribute to the violation of one or more AAQs. When NO<sub>x</sub> and reactive organic gases (ROG) are released in the atmosphere, they can chemically react with one another in the presence of sunlight to form ozone. The two major forms of NO<sub>x</sub> are nitric oxide (NO) and NO<sub>2</sub>. NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. NO<sub>2</sub> is a reddish-brown pungent gas formed by the combination of NO and oxygen. NO<sub>2</sub> acts as an acute respiratory irritant and eye irritant and increases susceptibility to respiratory pathogens.

A review of the projected 2020 Emissions Inventory (EI) (ARB, 2018a) shows that 43 percent of the total NO<sub>x</sub> emissions in the Orange County portion of the SCAB are projected to come from onroad vehicles, primarily from heavy-duty diesel trucks and from light-duty autos and trucks, and another 41 percent come from other mobile sources, primarily from offroad construction equipment and ocean-going vessels.

**Carbon monoxide** (CO) is a colorless, odorless non-reactive pollutant produced by incomplete combustion of fossil fuels. CO is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. In urban areas, such as the project location, automobile exhaust accounts for most CO emissions. CO is a non-reactive air pollutant that dissipates relatively quickly; therefore, ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic. CO concentrations are influenced by local meteorological

conditions; primarily wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions, a typical situation at dusk in urban areas between November and February. The highest levels of CO typically occur during the colder months of the year when inversion conditions are more frequent. In terms of health, CO competes with oxygen, often replacing it in the blood, thus reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can be dizziness, fatigue, and impairment of central nervous system functions.

Per the 2020 projected EI, 36 percent of the total CO in the Orange County portion of the Basin comes from onroad motor vehicles, primarily light-duty autos and trucks. Other mobile sources (primarily construction equipment) would contribute another 58 percent.

**Particulate matter** (PM) consists of finely divided solids or liquids, such as soot, dust, aerosols, fumes and mists. Primary PM is emitted directly into the atmosphere from activities such as agricultural operations, industrial processes, construction and demolition activities, and entrainment of road dust into the air. Secondary PM is formed in the atmosphere from predominantly gaseous combustion by-product precursors, such as sulfur oxides, NO<sub>x</sub>, and ROG.

Particle size is a critical characteristic of PM that primarily determines the location of PM deposition along the respiratory system (and associated health effects) as well as the degradation of visibility through light scattering. In the United States, federal and state agencies have focused on two types of PM. PM<sub>10</sub> corresponds to the fraction of PM no greater than 10 micrometers in aerodynamic diameter and is commonly called respirable particulate matter, while PM<sub>2.5</sub> refers to the subset of PM<sub>10</sub> of aerodynamic diameter smaller than 2.5 micrometers, which is commonly called fine particulate matter.

PM<sub>10</sub> and PM<sub>2.5</sub> deposition in the lungs results in irritation that triggers a range of inflammation responses, such as mucus secretion and bronchoconstriction, and exacerbates pulmonary dysfunctions, such as asthma, emphysema, and chronic bronchitis. Sufficiently small particles may penetrate the bloodstream and impact functions such as blood coagulation, cardiac autonomic control, and mobilization of inflammatory cells from the bone marrow. Individuals susceptible to higher health risks from exposure to PM<sub>10</sub> airborne pollution include children, the elderly, smokers, and people of all ages with low pulmonary/cardiovascular function. For these individuals, adverse health effects of PM<sub>10</sub> pollution include coughing, wheezing, shortness of breath, phlegm, bronchitis, and aggravation of lung or heart disease, leading, for example, to increased risks of hospitalization and mortality from asthma attacks and heart attacks.

In the 2020 EI, the primary source of PM<sub>10</sub> emissions is from the category labeled Miscellaneous Processes, which accounts for 62% of the total PM<sub>10</sub>, primarily from paved road dust, construction and demolition activity, and cooking activity. Another 20% come from on-road motor vehicles. Since PM<sub>2.5</sub> is finer and results more from combustion processes, the primary sources of PM<sub>2.5</sub> are still from the Miscellaneous Processes category, which represents 48% of the total PM<sub>2.5</sub>, but come mostly from cooking, residential fuel combustion, and paved road dust.

**Reactive organic gases** (ROG) are defined as any compound of carbon, excluding CO, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions. It should be noted that there are no state or national ambient air quality standards for ROG because ROGs are not classified as criteria pollutants. They are regulated, however, because a reduction in ROG emissions reduces certain chemical reactions that contribute to the formation of ozone. ROGs are also transformed into organic aerosols in the

atmosphere, which contribute to higher PM<sub>10</sub> and lower visibility. The term “ROG” is used by the ARB for this air quality analysis and is defined the same as the federal term “volatile organic compound” (VOC).

Per the Orange County portion of the Basin’s estimated 2020 projected EI, almost 28% of the total ROG was contributed by solvent evaporation, primarily consumer products; another 19% will be contributed by onroad vehicles, predominantly light-duty cars, and trucks; and over 25% from other mobile sources, such as recreational boats and offroad recreational vehicles.

**Ozone** is a secondary pollutant produced through a series of photochemical reactions involving ROG and NO<sub>x</sub>. Ozone creation requires ROG and NO<sub>x</sub> to be available for approximately three hours in a stable atmosphere with strong sunlight. Because of the long reaction time, peak ozone concentrations frequently occur downwind of the sites where the precursor pollutants are emitted. Thus, ozone is considered a regional, rather than a local, pollutant. The health effects of ozone include eye and respiratory irritation, reduction of resistance to lung infection and possible aggravation of pulmonary conditions in persons with lung disease. Ozone is also damaging to vegetation and untreated rubber.

#### **4.3.2 Climate/Meteorology**

Air quality is affected by both the rate and location of pollutant emissions, and by meteorological conditions that influence movement and dispersal of pollutants. Atmospheric conditions such as wind speed, wind direction, and air temperature gradients, along with local topography, provide the link between air pollutant emissions and air quality.

The Legacy Square project site would be located wholly within the SCAB, which includes all of Orange County, as well as the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. The distinctive climate of the SCAB is determined by its terrain and geographical location. The SCAB is in a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean in the southwest quadrant with high mountains forming the remainder of the perimeter. The general region lies in the semi-permanent high-pressure zone of the eastern Pacific. Thus, the climate is mild, tempered by cool sea breezes. This usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds.

The annual average temperature varies little throughout the 6,600-square-mile SCAB, ranging from the low 60s to the high 80s. However, with a less pronounced oceanic influence, the inland portion shows greater variability in the annual minimum and maximum temperatures. The mean annual maximum and minimum temperatures in the project area—as determined from the nearest weather station in the City of Santa Ana (WRCC, 2018), which has a period of record from 1906 to 2016—are 75.8 degrees Fahrenheit (°F) and 52.0°F, respectively. The hottest month is August with an average maximum temperature of 84.7°F and the coldest month is January with an average minimum temperature of 43.1°F.

During the period of record, the average rainfall measured 13.69 inches, which occurs mostly during the winter and relatively infrequently during the summer. Monthly precipitation averages approximately 2.69 inches during the winter (December, January, and February), approximately 1.17 inches during the spring (March, April, and May), approximately 0.66 inch during the fall (September, October, and November), and approximately 0.05 inch during the summer (June, July, and August).

### 4.3.3 Local Air Quality

The SCAQMD has divided the SCAB into source receptor areas (SRAs), based on similar meteorological and topographical features. The project site is in SCAQMD's Central Orange County air monitoring area (SRA 17), which is served by three Monitoring Stations within seven miles of the project site:

- Costa Mesa, 6.4 miles southwest on Mesa Verde Drive in Costa Mesa, monitors ozone and NO<sub>2</sub>.
- Anaheim/Pampas, 6.9 miles northwest on Pampas Lane in Anaheim, monitors ozone, PM<sub>10</sub>, PM<sub>2.5</sub>, and NO<sub>2</sub>.
- Anaheim/W Vermont, a near-roadway site 5.5 miles northwest at 812 West Vermont Street in Anaheim, monitors NO<sub>2</sub>.

All stations in the SCAB ceased monitoring CO in 2012. The ambient air quality data in the project vicinity as recorded from 2015 through 2017 and applicable standards are shown in **Table 4.3-2**.

**Table 4.3-2**  
**AMBIENT AIR QUALITY MONITORING DATA**

Air Pollutant	Standard/Exceedance	2015	2016	2017
Ozone – Costa Mesa	Max. 1-hour Concentration (ppm)	<b>0.099</b>	0.090	0.088
	Max. 8-hour Concentration (ppm)	<b>0.079</b>	0.069	<b>0.080</b>
	# Days > Federal 8-hour Std. of 0.070 ppm	2	0	4
	# Days > California 1-hour Std. of 0.070 ppm	1	0	0
	# Days > California 8-hour Std. of 0.070 ppm	2	0	5
Ozone – Anaheim / Pampas	Max. 1-hour Concentration (ppm)	<b>0.100</b>	<b>0.103</b>	0.090
	Max. 8-hour Concentration (ppm)	<b>0.080</b>	<b>0.074</b>	<b>0.076</b>
	# Days > Federal 8-hour Std. of 0.070 ppm	1	4	4
	# Days > California 1-hour Std. of 0.070 ppm	1	2	0
	# Days > California 8-hour Std. of 0.070 ppm	1	4	4
PM <sub>10</sub> - Anaheim / Pampas	Max. 24-hour Concentration (µg/m <sup>3</sup> )	59.0	74.0	95.7
	Est. # Days > Fed. 24-hour Std. of 150 µg/m <sup>3</sup>	0	0	0
	State Annual Average (20 µg/m <sup>3</sup> )	<b>25.3</b>	<b>28.0</b>	<b>26.9</b>
PM <sub>2.5</sub> - Anaheim / Pampas	Max. 24-hour Concentration (µg/m <sup>3</sup> )	<b>45.8</b>	<b>44.4</b>	<b>53.9</b>
	# Days > Fed. 24-hour Std. of 35 µg/m <sup>3</sup>	3	1	7
	State Annual Average (12 µg/m <sup>3</sup> )	ND	9.4	ND
NO <sub>2</sub> – Costa Mesa	Max. 1-hour Concentration (ppm)	0.052	0.059	0.045
	State Annual Average (0.030 ppm)	0.011	0.010	ND
	# Days > California 1-hour Std. of 0.18 ppm	0	0	0
NO <sub>2</sub> – Anaheim / Pampas	Max. 1-hour Concentration (ppm)	0.059	0.064	0.081
	State Annual Average (0.030 ppm)	0.014	0.014	0.014
	# Days > California 1-hour Std. of 0.18 ppm	0	0	0
NO <sub>2</sub> – Anaheim / Vermont	Max. 1-hour Concentration (ppm)	0.070	0.075	0.086
	State Annual Average (0.030 ppm)	0.025	0.023	0.022
	# Days > California 1-hour Std. of 0.18 ppm	0	0	0

Source: ARB, 2018c.

ND - There was insufficient (or no) data available to determine the value.

**Bold** - exceedance



#### 4.3.4 Air Quality Management Plan (AQMP)

The SCAQMD is required to produce plans to show how air quality would be improved in the region. The California Clean Air Act (CCAA) requires that these plans be updated triennially to incorporate the most recent available technical information.<sup>8</sup> A multi-level partnership of governmental agencies at the federal, state, regional, and local levels implements the programs contained in these plans. Agencies involved include the EPA, ARB, local governments, Southern California Association of Governments (SCAG), and SCAQMD. The SCAQMD and the SCAG are responsible for formulating and implementing the Air Quality Management Plan (AQMP) for the SCAB. The SCAQMD updates its AQMP every three years.

The 2016 AQMP (SCAQMD, 2017) was adopted by the SCAQMD Board on March 3, 2017, submitted to the ARB and on March 10, 2017 was made part of the State Implementation Plan (SIP), which was submitted to the USEPA (ARB, 2017). It focuses largely on reducing NO<sub>x</sub> emissions as a means of attaining the 1979 1-hour ozone standard by 2022, the 1997 8-hour ozone standard by 2023, and the 2008 8-hour standard by 2031. The AQMP prescribes a variety of current and proposed new control measures, including a request to the USEPA for increased regulation of mobile source emissions. The NO<sub>x</sub> control measures would also help the Basin attain the 24-hour standard for PM<sub>2.5</sub>.

#### 4.3.5 Sensitive Receptors

Some people, such as individuals with respiratory illnesses or impaired lung function because of other illnesses, persons over 65 years of age, and children under 14, are particularly sensitive to certain pollutants. Facilities and structures where these sensitive people live or spend considerable amounts of time are known as sensitive receptors. For the purposes of a CEQA analysis, the SCAQMD considers a sensitive receptor to be a receptor such as a residence, hospital, or convalescent facility where it is possible that an individual could remain for 24 hours. Commercial and industrial facilities are not included in the definition of sensitive receptor, because employees typically are present for shorter periods of time, such as eight hours. Therefore, applying a 24-hour standard for PM<sub>10</sub> is appropriate not only because the averaging period for the state standard is 24 hours, but because the sensitive receptor would be present at the location for the full 24 hours.

The site is zoned as Transit Zoning Code (TZC) - Specific Development 84 (SD 84) - Urban Neighborhood 2 (UN-2). To the north of the Legacy Square project site, across Civic Center Drive East, is the French Park neighborhood - a mix of one- and two-story single-family homes, duplexes, and low density multifamily residential buildings. Across East Santa Ana Boulevard are the Garden Court Apartments, an 84-unit development that is four stories high. On the block directly east is the Ebell Club of Santa Ana and Iglesia de Dios Pentecostal church. The United States Post Office comprises the entire block to the west of the Legacy Square project site. The building is 1-2 stories in height.

The nearest sensitive receptor to the Legacy Square project site is a single-family residence in the northwest corner of the same city block. Additionally, five schools are within 0.5 mile of the Legacy Square project site as seen in **Table 4.3-3**.

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<sup>8</sup> CCAA of 1988.

**Table 4.3-3  
SCHOOLS WITHIN 0.5 MILE OF LEGACY SQUARE PROJECT SITE**

School	Address	Distance (miles)
Saint Joseph Catholic School	608 Civic Center Drive E	0.2
Orange County Educational Arts Academy	825 N Broadway	0.3
Orange County School of the Arts	1010 N Main Street	0.3
Garfield Elementary School	850 Brown Street	0.3
El Sol Science & Arts Academy	1010 N Broadway	0.4

#### 4.3.6 Standard Conditions and Uniform Codes

As discussed in the TZC EIR, all projects constructed in the SCAB are subject to Standard Conditions and Uniform Codes. Compliance with these provisions is mandatory and, as such, does not constitute mitigation under CEQA. Those conditions specific to air quality are included below:

- Adherence to SCAQMD Rule 403, which sets requirements for dust control associated with grading and construction activities.
- Adherence to SCAQMD Rules 431.1 and 431.2, which require the use of low sulfur fuel for stationary construction equipment.
- Adherence to SCAQMD Rule 1108, which sets limitations on ROG content in asphalt.
- Adherence to SCAQMD Rule 1113, which sets limitations on ROG content in architectural coatings.

During construction, the project would be subject to SCAQMD Rule 403 (fugitive dust). SCAQMD Rule 403 does not require a permit for construction activities, per se; rather, it sets forth general and specific requirements for all construction sites (as well as other fugitive dust sources) in the SCAB. The general requirement prohibits a person from causing or allowing emissions of fugitive dust from construction (or other fugitive dust source) such that the presence of such dust remains visible in the atmosphere beyond the property line of the emissions source. SCAQMD Rule 403 also prohibits construction activity from causing an incremental PM<sub>10</sub> concentration impact at the property line of more than 50 micrograms per cubic meter as determined through PM<sub>10</sub> high-volume sampling. The concentration standard and associated PM<sub>10</sub> sampling do not apply if specific measures identified in the rules are implemented and appropriately documented.

#### 4.3.7 Impact Analysis

##### a) **Would the project conflict with or obstruct implementation of the applicable air quality plan?**

##### **Less than significant**

The EIR for the TZC (SD 84A and SD 84B) determined that “long-term cumulative development pursuant to the adoption of the TZC would not conflict with or obstruct implementation of the Air Quality Management Plan.” (City of Santa Ana, 2010, p. 4.2-17) and that this impact would be

considered less than significant. However, since this conclusion was based on an outdated AQMP, the same criteria should be applied to the current 2016 AQMP, which also determines that projects that are considered to be consistent with the AQMP would not interfere with attainment, because this growth is included in the projections used to formulate the AQMP. Current population projections (SCAG, 2016) for the City of Santa Ana assumed a population increase of 13,900 residents (without the project) between the years 2012 and 2040. Given that the vast majority of the TZC (SD 84A and SD 84B) area is built out and not anticipated to increase in density, the units that could be constructed under the new standards would accommodate the projected new population growth in the City. The Legacy Square project does not change the conclusions in the EIR for the TZC (SD 84A and SD 84B) and remains less than significant.

**b) Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?**

**Less than Significant Impact**

The EIR for the TZC (SD 84A and SD 84B) determined that “construction activities conducted as part of the implementation of the TZC (SD 84A and SD 84B) could exceed SCAQMD thresholds” (City of Santa Ana, 2010, p. 4.2-30) and that this impact would be considered potentially significant. The TZC EIR included mitigations to be implemented to reduce these emissions but concluded that the resulting impact of the TZC, which takes into consideration the construction emissions generated from all the development proposed under the Legacy Square project, would be anticipated to be significant and unavoidable. The TZC EIR recognizes that when individual components of the TZC (SD 84A and SD 84B) are implemented, a project-specific air quality impact analyses would need to be completed to determine an independent significance level. A project may have a significant impact if project-related emissions would exceed federal, state, or regional standards or thresholds, or if project-related emissions would substantially contribute to an existing or projected air quality violation. To address potential impacts from construction and operational activities, the SCAQMD currently recommends that impacts from projects with daily mass emissions that exceed any of the thresholds outlined in **Table 4.3-4** be considered significant. The City defers to these thresholds for the evaluation of construction and operational air quality impacts.

**Table 4.3-4**  
**SCAQMD THRESHOLDS OF SIGNIFICANCE**

<b>Pollutant</b>	<b>Construction Thresholds (lbs/day)</b>	<b>Operational Thresholds (lbs/day)</b>
Volatile Organic Compounds (VOC)	75	55
Nitrogen Oxides (NO <sub>x</sub> )	100	55
Carbon Monoxide (CO)	550	550
Sulfur Oxides (SO <sub>x</sub> )	150	150
Particulate Matter (PM <sub>10</sub> )	150	150
Fine Particulate Matter (PM <sub>2.5</sub> )	55	55

**Note:** lbs = pounds.

**Source:** SCAQMD, 2018.

## Regional Construction Emissions

Construction activities for the Legacy Square project are anticipated to last 24 months and would begin in early January 2020 and end in late December 2021 (Washburn, 2018a). There would be five construction phases:

- Demolition.
- Grading.
- Site work.
- Garage/podium.
- Vertical construction.

There would be no overlap of construction activities among any of the phases. **Table 4.3-5** shows the Legacy Square project schedule used for the air quality, CHG emissions and noise analyses.

**Table 4.3-5**  
**CONSTRUCTION SCHEDULE**

Construction Phase	Start	End
Demolition	January 1, 2020	March 31, 2020
Grading	April 1, 2020	April 30, 2020
Site work	May 1, 2020	June 30, 2020
Garage/podium	July 1, 2020	December 29, 2020
Vertical construction	January 1, 2021	December 31, 2021

These construction activities would temporarily create emissions of dusts, fumes, equipment exhaust, and other air contaminants. Mobile sources (such as diesel-fueled equipment onsite and traveling to and from the project site) would primarily generate NO<sub>x</sub> emissions. The amount of emissions generated daily would vary, depending on the amount and types of construction activities occurring at the same time.

Estimated criteria pollutant emissions from the Legacy Square project's onsite and offsite project construction activities were calculated using the California Emissions Estimator Model (CalEEMod), Version 2016.3.2 (CAPCOA, 2017). CalEEMod is a planning tool for estimating emissions related to land use projects. Model-predicted Legacy Square project emissions are compared with applicable thresholds to assess regional air quality impacts. CalEEMod defaults were used for offroad construction equipment and onroad construction trips and direct and indirect operational emissions. The only modification to CalEEMod defaults is the specification of equipment types and construction schedule provided by the client.

Additionally, the EIR for the TZC (SD 84A and SD 84B) includes mitigation measures (City of Santa Ana, 2010, pp. 4.2-35 to 4.2-37) that directly relate to reducing construction emissions. These measures, listed below, will be incorporated in the project's design and construction. They have been renumbered for consistency with other sections of this Initial Study.

**MM AQ-1** The construction contractor shall ensure that no more than five acres per day are actively graded or developed.

- MM AQ-2** The construction contractor shall ensure that all active disturbed surfaces should be watered three times per day throughout the construction period.
- MM AQ-3** The construction contractor shall ensure that the mass grading, fine grading, and structure construction are conducted at separate time periods and do not overlap with one another.
- MM AQ-4** The construction contractor shall ensure that all haul roads are watered three times per day.
- MM AQ-5** The construction contractor shall ensure that all traffic on unpaved roads is reduced to 15 miles per hour or less.
- MM AQ-6** Project applicants shall require by contract specifications that all diesel-powered equipment used will be retrofitted with after-treatment products (e.g., engine catalysts) to the extent that they are readily available in the SCAB. Contract specifications shall be included in project construction documents, which shall be reviewed by the City of Santa Ana prior to issuance of a grading permit.
- MM AQ-7** Project applicants shall require by contract specifications that all heavy-duty diesel-powered equipment operating and refueling at the project site use low-NO<sub>x</sub> diesel fuel to the extent that it is readily available and cost effective (up to 125 percent of the cost of ARB diesel) in the SCAB (this does not apply to diesel-powered trucks traveling to and from the project site). Contract specifications shall be included in project construction documents, which shall be reviewed by the City of Santa Ana prior to issuance of a grading permit.
- MM AQ-8** Project applicants shall require by contract specifications that alternative fuel construction equipment (i.e., compressed natural gas, liquid petroleum gas, and unleaded gasoline) be utilized to the extent that the equipment is readily available and cost effective in the SCAB. Contract specifications shall be included in project construction documents, which shall be reviewed by the City of Santa Ana prior to issuance of a grading permit.
- MM AQ-9** Project applicants shall require by contract specifications that construction equipment engines be maintained in good condition and in proper tune per manufacturer's specification for the duration of construction. Contract specifications shall be included in project construction documents, which shall be reviewed by the City of Santa Ana prior to issuance of a grading permit.
- MM AQ-10** Project applicants shall require by contract specifications that construction operations rely on the electricity infrastructure surrounding the construction site rather than electrical generators powered by internal combustion engines to the extent feasible. Contract specifications shall be included in project construction documents, which shall be reviewed by the City of Santa Ana prior to issuance of a grading permit.
- MM AQ-11** As required by SCAQMD Rule 403 (Fugitive Dust), all construction activities that are capable of generating fugitive dust are required to implement dust control measures during each phase of project development to reduce the amount of particulate matter entrained in the ambient air. These measures include the following:
- Application of soil stabilizers to inactive construction areas.
  - Quick replacement of ground cover in disturbed areas.

- Watering of exposed surfaces three times daily.
- Watering of all unpaved haul roads three times daily.
- Covering all stock piles with tarp.
- Reduction of vehicle speed on unpaved roads.
- Post signs onsite limiting traffic to 15 miles per hour or less.
- Sweep streets adjacent to the project site at the end of the day if visible soil material is carried over to adjacent roads.
- Cover or have water applied to the exposed surface of all trucks hauling dirt, sand, soil, or other loose materials prior to leaving the site to prevent dust from impacting the surrounding areas.
- Install wheel washers where vehicles enter and exit unpaved roads onto paved roads to wash off trucks and any equipment leaving the site each trip.

**MM AQ-12** The developer shall require by contract specifications that construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than 30 minutes. Diesel-fueled commercial motor vehicles with gross vehicular weight ratings of greater than 10,000 pounds shall be turned off when not in use for more than five minutes. Contract specifications shall be included in the proposed project construction documents, which shall be approved by the City of Santa Ana.

**MM AQ-13** The developer shall require by contract specifications that construction parking be configured to minimize traffic interference during the construction period and, therefore, reduce idling of traffic. Contract specifications shall be included in the proposed project construction documents, which shall be approved by the City of Santa Ana.

**MM AQ-14** The developer shall require by contract specifications that temporary traffic controls are provided, such as a flag person, during all phases of construction to maintain smooth traffic flow. Contract specifications shall be included in the proposed project construction documents, which shall be approved by the City of Santa Ana.

**MM AQ-15** The developer shall require by contract specifications that construction activities that affect traffic flow on the arterial system be scheduled to off-peak hours (9:00 a.m. to 3:00 p.m.). Contract specifications shall be included in the proposed project construction documents, which shall be approved by the City of Santa Ana.

**MM AQ-16** Upon issuance of building or grading permits, whichever is issued earliest, notification shall be mailed to owners and occupants of all developed land uses within 0.25 mile of any project within the TZC (SD 84A and SD 84B) boundaries greater than four stories in height or 25,000 square feet in area providing a schedule for major construction activities that will occur through the duration of the construction period. In addition, the notification will include the identification and contact number for a community liaison and designated construction manager that would be available onsite to monitor construction activities. The construction manager shall be responsible for complying with all project requirements related to PM<sub>10</sub> generation. The construction manager will be located at the onsite construction office during construction hours for the duration of all construction activities. Contact information for the community liaison and construction manager will be located at the construction office, City Hall, the police department, and a sign onsite.

- MM AQ-17** The developer shall require by contract specifications that the architectural coating (paint and primer) products used would have a VOC rating of 125 grams per liter or less. Contract specifications shall be included in the proposed project construction documents, which shall be reviewed and approved by the City of Santa Ana.
- MM AQ-18** The developer shall require by contract specifications that materials that do not require painting be used during construction to the extent feasible. Contract specifications shall be included in the proposed project construction documents, which shall be reviewed and approved by the City of Santa Ana.
- MM AQ-19** The developer shall require by contract specifications that pre-painted construction materials be used to the extent feasible. Contract specifications shall be included in the proposed project construction documents, which shall be reviewed and approved by the City of Santa Ana.

As shown in **Table 4.3-6**, construction emissions would not exceed SCAQMD regional thresholds. Therefore, the Legacy Square project's short-term regional air quality impacts would be less than significant. Refer to **Appendix G** of this document for air quality calculations.

**Table 4.3-6**  
**MAXIMUM DAILY REGIONAL CONSTRUCTION EMISSIONS**

Construction Activity	Maximum Emissions (pounds/day)				
	ROG	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
Maximum Emissions, 2020	4.0	32.7	33.3	4.9	3.1
Maximum Emissions, 2021	1.8	15.0	15.8	1.6	0.9
<i>SCAQMD Significance Thresholds</i>	<i>75</i>	<i>100</i>	<i>550</i>	<i>150</i>	<i>55</i>
<b>Significant? (Yes or No)</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Source: Calculated by UltraSystems with CalEEMod (Version 2016.3.2).

### Regional Operational Emissions

The Legacy Square project comprises 93 residential units, 7,767 square feet of flex mixed-use space, and a 2,576-square-foot community center. Operational emissions generated by area sources, motor vehicles and energy demand would result from normal day-to-day activities of the project. CalEEMod 2016.3.2 was used to estimate these emissions. Trip rates were adjusted to match data supplied by the Traffic Impact Study (KOA, 2018). The results of these calculations are presented in **Table 4.3-7**. As seen in the table, for each criteria pollutant, operational emissions would be below the pollutant's SCAQMD significance threshold. Therefore, operational criteria pollutant emissions would be less than significant.

**Table 4.3-7  
MAXIMUM DAILY PROJECT OPERATIONAL EMISSIONS**

Emission Source	Pollutant (pounds/day)				
	ROG	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
Area Source Emissions	2.44	0.09	7.68	0.04	0.04
Energy Source Emissions	0.03	0.29	0.13	0.02	0.02
Mobile Source Emissions	1.06	4.39	14.53	5.23	1.43
Total Operational Emissions	<b>3.5</b>	<b>4.8</b>	<b>22.3</b>	<b>5.3</b>	<b>1.5</b>
<i>SCAQMD Significance Thresholds</i>	<i>55</i>	<i>55</i>	<i>550</i>	<i>150</i>	<i>55</i>
<b>Significant? (Yes or No)</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Source: Calculated by UltraSystems with CalEEMod (Version 2016.3.2).

- c) **Would the project 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**

Because the SCAB is currently in nonattainment for ozone and PM<sub>2.5</sub>, related projects may exceed an air quality standard or contribute to an existing or projected air quality exceedance. The SCAQMD neither recommends quantified analyses of construction and/or operational emissions from multiple development projects nor provides methodologies or thresholds of significance to be used to assess the cumulative emissions generated by multiple cumulative projects. Instead, the District recommends that a project's potential contribution to cumulative impacts be assessed by utilizing the same significance criteria as those for project-specific impacts. Furthermore, the SCAQMD states that if an individual development project generates less-than-significant construction or operational emissions impacts, then the development project would not contribute to a cumulatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment.

As discussed above, the mass daily construction and operational emissions generated by the Legacy Square project would not exceed any of the SCAQMD's significance thresholds. Also, as discussed below, localized emissions generated by the Legacy Square project would not exceed the SCAQMD's Localized Significance Thresholds (LSTs). Therefore, the Legacy Square project would not contribute a cumulatively considerable increase in emissions for the pollutants which the SCAB is in nonattainment. Thus, cumulative air quality impacts associated with the Legacy Square project would be less than significant.



- d) **Would the project expose sensitive receptors to substantial pollutant concentrations?**

#### Less than Significant Impact

Construction of the Legacy Square project would generate short-term and intermittent emissions. Following SCAQMD guidance (SCAQMD, 2008), only onsite construction emissions were considered in the localized significance analysis. The residence immediately north of the Legacy Square project site is the nearest sensitive receptor (less than 5 meters away).<sup>9</sup> LSTs for projects in Source Receptor Area 17 (Central Orange County) were obtained from tables in Appendix C of the SCAQMD's *Final Localized Significance Threshold Methodology* (Chico and Koizumi, 2003). **Table 4.3-8** shows the results of the localized significance analysis for the Legacy Square project.

Localized short-term air quality impacts from construction of the Legacy Square project would be less than significant.

**Table 4.3-8**  
**RESULTS OF LOCALIZED SIGNIFICANCE ANALYSIS**

Nearest Sensitive Receptor	Maximum Onsite Emissions (pounds/day)			
	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
Maximum daily emissions	29.7	18.4	4.8	3.0
SCAQMD LST for 2 acres @ 25 meters	115	715	6	4
<b>Significant (Yes or No)</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

The EIR for the TZC (SD 84A and SD 84B) conducted the simplified CALINE4 screening procedure for 18 intersections evaluated in the traffic report to predict future CO concentrations. Table 4.2-6 of the TZC EIR (City of Santa Ana, 2010, p. 4.2-26) shows that future CO concentrations near those intersections would not exceed the national or state 1-hour standards or the national or state 8-hour standards when the TZC (SD 84A and SD 84B) reaches full buildout. Thus, no impact related to the exposure to substantial pollutant concentrations of CO to sensitive receptors located near these intersections is anticipated.

- e) **Would the project create objectionable odors affecting a substantial number of people?**

#### Less than Significant Impact

A project-related significant adverse effect could occur if construction or operation of the proposed project would result in generation of odors that would be perceptible in adjacent sensitive areas. According to the SCAQMD *CEQA Air Quality Handbook*, land uses and industrial operations that are

<sup>9</sup> According to SCAQMD guidance, a receptor closer than 25 meters to the source may be assumed to be 25 meters away (Chico and Koizumi, 2003, p. 3-3).

associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies and fiberglass molding. Potential sources that may emit odors during construction activities include equipment exhaust. Odors from these sources would be localized and generally confined to the immediate area surrounding the Legacy Square project. The Legacy Square project would use typical construction techniques, and the odors would be typical of most construction sites and temporary in nature.

However, other potential operational airborne odors could result from cooking activities associated with the new residential units and possible restaurants.<sup>10</sup> These odors would be similar to existing residential and restaurant uses in the vicinity and would be confined to the immediate vicinity of the Legacy Square project. Restaurants are also typically required to have ventilation systems that avoid substantial adverse odor impacts. The other potential source of odors would be new trash receptacles at the Legacy Square project. The following mitigation measure from the TZC EIR (City of Santa Ana, 2010, p. 4.2-24) shall be implemented:

**MM AQ-20** Trash receptacles within the TZC (SD 84A and SD 84B) area will be required to have lids that enable convenient collection and loading and will be emptied on a regular basis, in compliance with City of Santa Ana regulations for the collection of solid waste.

Implementation of mitigation measure **AQ-20** would ensure the Legacy Square project would not create substantial objectionable odors and this impact would remain less than significant.

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<sup>10</sup> Cafes are an acceptable use in area zoned UN-2; they were assumed to be a possible component of the 7,767 square feet of flex mixed-use space.

**4.4 Biological Resources**

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		X		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?				X
c) Have a substantial adverse effect on federally protected wetlands as defined by § 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?				X
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native nursery sites?				X
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
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?				X

**a) Could the project have a substantial adverse impact, 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 with Mitigation Incorporated

The project site is located in a highly-urbanized area, which provides low habitat value for special-status plant and wildlife species. No special-status plants or wildlife<sup>11</sup> were observed within the project site. Additionally, as detailed in the Transit Zoning Code EIR (TZC EIR), no endangered, rare, threatened, or special-status plant species (or associated habitats) or wildlife species designated by the United States Fish and Wildlife Service, California Department of Fish and Game, or California Native Plant Society are known to occur or expected to occur within the Transit Zoning Code area (City of Santa Ana Transit Zoning Code EIR, 2010, p. 4.3-15). For this reason, no direct or indirect impacts on special-status plant or wildlife species would occur as a result of project activities.

Many non-native decorative plants are found in the project area such as Blue Fingers (*Senecio serpens*), Alba rose (*Rosa alba*), Morea Iris (*Dietes iridioides*), Plumeria (*Plumeria* var.), African Boxwood (*Myrsine africana*), Red Banana Tree (*Ensete Ventricosum*), Wax Leaf Privet (*Ligustrum japonicum*), and Mock Orange (*Pittosporum tobira*).

Birds are protected by the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code, which render it unlawful to take native breeding birds, and their nests, eggs, and young. Indirect 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. As detailed in the TZC EIR, migratory avian species that may use portions of the Transit Zoning Code area for nesting during the breeding season are protected under the MBTA. Construction-related activities that may include, but are not necessarily limited to, building demolition and/or relocation, grading, materials laydown, access and infrastructure improvements, and building construction, could result in the disturbance of nesting migratory species covered under the MBTA (City of Santa Ana Transit Zoning Code EIR, 2010, p. 4.3-16). Implementation of mitigation measure 4.3-1 from the TZC EIR (provided below as mitigation measure **BIO-1**) would reduce this potentially significant impact to a less than significant level by ensuring that surveys for MBTA species are performed during the appropriate time of year and, if necessary, construction buffer zones are established to protect nesting MBTA species (City of Santa Ana Transit Zoning Code EIR, 2010, p. 4.3-17).

### Mitigation Measure

**MM BIO-1** To ensure that avian species of concern, protected migratory species, or raptors species are not injured or disturbed by construction in the vicinity of nesting habitat, the project applicant shall implement the following measures:

1. Tree removal shall be restricted to the period between August 30 and February 15, to the extent feasible, to avoid the breeding season of any migratory species that could be using the area, and to discourage nesting in the vicinity of an upcoming construction area. If it is not feasible to remove trees outside this window, then, prior to the beginning of mass grading, including grading for major infrastructure improvements, during the period between February 15 and August 30, all trees within 250 feet of any grading or earthmoving activity shall be surveyed for active nests by a qualified biologist no more than 30 days prior to disturbance. If active nests are found, and the site is within 250 feet of potential construction activity, a temporary fence shall be erected, where appropriate, around the tree(s) at a distance

<sup>11</sup> Special-status species include candidate and sensitive species.

of up to 250 feet, depending on the species, from the edge of the canopy, to prevent construction disturbance and intrusions on the nest area. The appropriate buffer shall be determined in consultation with the City of Santa Ana Park Naturalist or a designee.

2. No construction vehicles shall be permitted within restricted areas (i.e., protection zones), unless directly related to the management or protection of the legally protected species.

3. If a legally protected species nest is located in a tree designated for removal, the removal shall be deferred until after August 30, or until the adults and young of the year are no longer dependent on the nest site as determined by a qualified biologist.

### **Level of Significance After Mitigation**

With the implementation of mitigation measure **BIO-1** above, the project would result in less than significant impacts to nesting and migratory bird species.

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

### **No Impact**

The project site is vegetated with mostly non-native grasses and dominated by non-native tumbleweed (*Salsola tragus*) and other weedy species. Both the literature review and results of the reconnaissance-level field survey indicate that riparian habitat or other sensitive natural communities do not exist on or adjacent to the project site. The TZC EIR states that all areas within the zone are either developed or disturbed containing no riparian habitat (City of Santa Ana Transit Zoning Code EIR, 2010, p. 4.3-15). For this reason, no direct or indirect impacts to riparian habitat or other sensitive natural communities are anticipated as a result of the project.

- c) Have a substantial adverse effect on federally protected wetlands as defined by § 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**

According to the site visit by a staff biologist as well as information provided in the TZC EIR, no wetlands occur in or adjacent to the project site (City of Santa Ana Transit Zoning Code EIR, 2010, p. 4.3-15). For this reason, no direct or indirect impacts to federally-protected wetlands as defined by Section 404 of the Clean Water Act are anticipated through direct removal, filling, hydrological interruption, or other means, as a result of project activities, and therefore, no impacts would occur.

- d) Could the project interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?**

**No Impact**

The project site and surrounding areas do not support resident or migratory fish species or wildlife nursery sites. According to the findings of the transit zoning code- reconnaissance-level survey, no established resident or migratory wildlife corridors occur on the project site or in the surrounding areas (City of Santa Ana Transit Zoning Code EIR, 2010, p. 4.3-15). As a result, the project would not interfere substantially with or impede: (1) the movement of any resident or migratory fish or wildlife species; (2) established resident or migratory wildlife corridors; or (3) the use of wildlife nursery sites. Therefore, there would be no impact in this regard.

- e) Could the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?**

**No Impact**

The City of Santa Ana recognizes that it is located in an urban setting, and has tailored the goals of its conservation element accordingly. To obtain its goals, the City has established objectives that focus on the preservation of open space and cultural resources, and protecting the public's health and welfare. In addition, future development under the TZC Code (SD 84A and SD84B) would be required to adhere to the City's existing tree ordinance (Chapter 33, Article VII). Implementation of the project would not conflict with any local policies or ordinances protecting biological resources (City of Santa Ana Transit Zoning Code EIR, 2010, p. 4.3-16). The City's conservation element encourages entablement of mixed-use areas and the overall visual enhancement of the City, both of which will occur within the TZC (84A and SD84B) area. Therefore, there would be no impact in this regard.

- f) Could the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional, or state habitat conservation plan?**

**No Impact**

The project site is not located in a Habitat Conservation Plan (HCP), Natural Communities Conservation Plan (NCCP), or other approved HCP area (City of Santa Ana Transit Zoning Code EIR, 2010, p. 4.3-15). For this reason, the project would not conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state HCP and therefore, no impacts would occur.

## 4.5 Cultural Resources

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

Information from the Cultural Resources Report, dated December 28, 2018 (see **Appendix I**), prepared for the Santa Ana – Legacy Development project by UltraSystems has been included within this section.

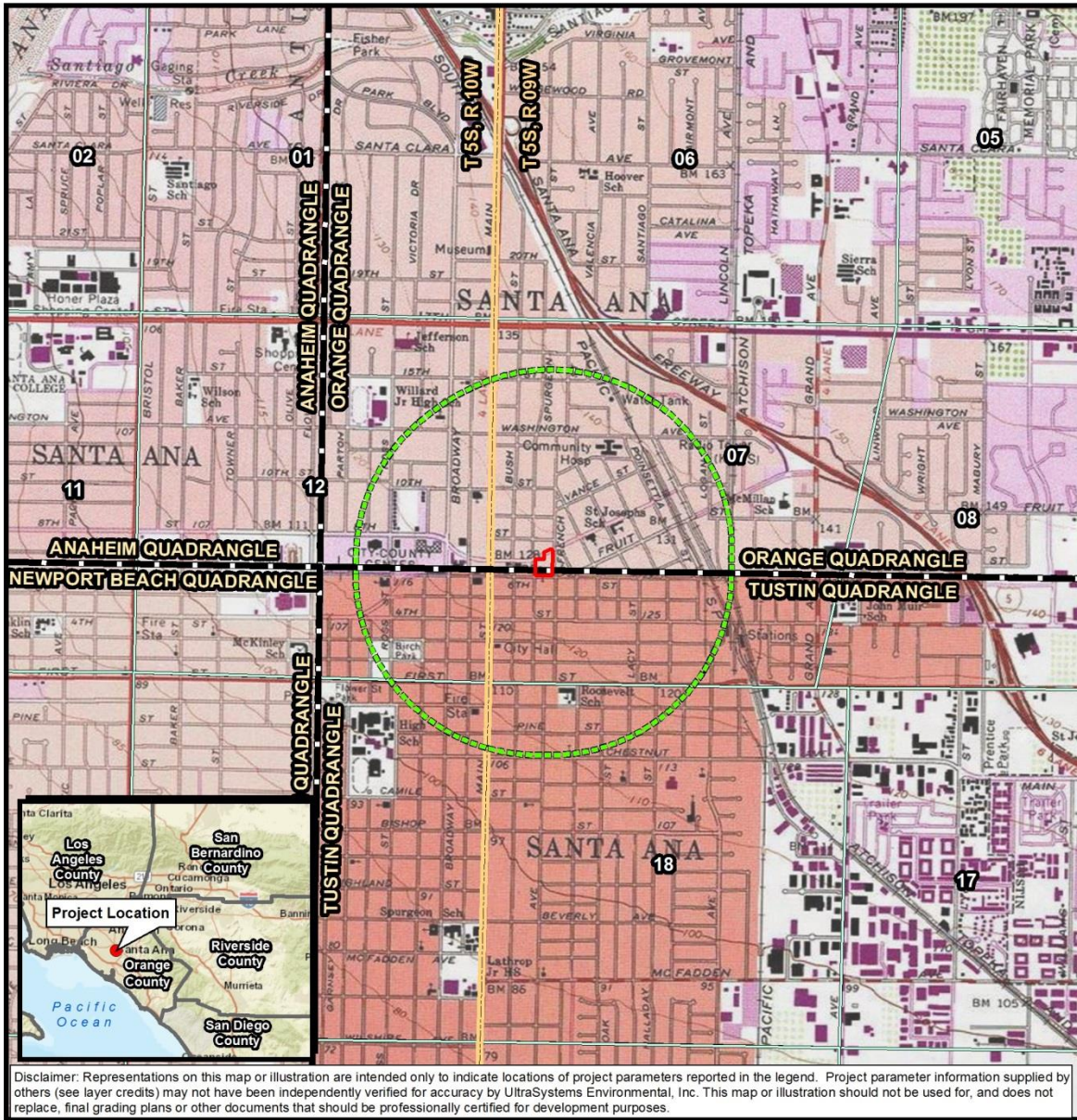
### 4.5.1 Methodology

A cultural resources inventory was conducted for the Legacy Square project site (**Figure 4.5-1**) that included a California Historic Resources Inventory System (CHRIS) records and literature search at the South Central Coastal Information Center (SCCIC) located at California State University, Fullerton. Additionally, a request was made to the Native American Heritage Commission (NAHC) to conduct a search of their Sacred Lands File (SLF) for potential traditional cultural properties as well as to provide a list of local Native American tribes and tribal representatives to contact. Finally, a pedestrian survey of the project site was completed. The SCCIC records search was conducted on December 10, 2018. The NAHC request was made on December 7, 2018, and a reply was received on December 18, 2018; letters were sent to the listed tribes on December 19, 2018; follow-up telephone calls will be conducted following conclusion of the 30-day response period on January 18, 2019. The pedestrian field survey was conducted on December 10, 2018.

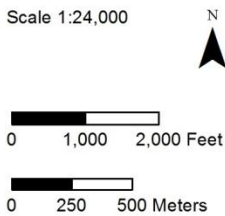
### 4.5.2 Existing Conditions

Based on the cultural resources records search, it was determined that no cultural resources have been previously recorded within the project site boundary. Within the half-mile buffer zone around the project site, there have been 88 previously recorded historic-era cultural resources, and no pre-historic resources. **Table 4.1-1** in **Appendix I** of this document summarizes these resources.

**Figure 4.5-1  
TOPOGRAPHIC MAP**



Path: J:\Projects\6095\_Santa\_Ana\_Legacy\_Square\MXD\6095\_Santa\_Ana\_Legacy\_Square\_4\_5\_Topo\_2018\_12\_06.mxd  
 Service Layer Credits: Copyright: © 2013 National Geographic Society, i-cubed, Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community, Teale Data Center GIS Solutions Group, 2003; CA Dept. of Conservation, March 2013; County of Orange, 2018; UltraSystems Environmental, Inc., 2018



**Legend**

- Project Boundary
- Half-Mile Radius
- Section Boundary
- Township Boundary

**City of Santa Ana  
Legacy Square**

Topographic Map  
 Quadrangle: Orange





The premier historic feature in the vicinity of the project site is First United Methodist Church, built in 1966, which is located within the project parcel (see **Sections 2.2.3.3** and **4.1.1** in **Appendix I**).

The history of the Santa Ana First United Methodist Church can be traced to 1873, when traveling preacher Will A. Knighten organized local Methodists into the First Episcopal Methodist Church of Santa Ana. The growth of Santa Ana and the congregation resulted in property being acquired for a new church, and a Gothic Revival-style edifice was completed in 1900; this building stood until the construction of the current Sanctuary and Anderson Court Complex in 1964-1966. Later a school was envisioned, and by June 1928 grading had commenced to the east of the church. The building was in operation by 1929 and included a dining hall, classrooms for Sunday School, nursery and day care schools, a wedding chapel, and a social hall that was later put to use as a gymnasium (Tang, 2019:2).

By 1953 more than 2,000 people attended church services, and to accommodate this and further growth, the church acquired adjoining properties to the north to expand the parking lot, which was underway by 1957. The new church sanctuary and V.J. Anderson Court followed shortly afterwards, with Anderson Court being completed in 1964 while the sanctuary, which seats up to 570 people, was consecrated in 1966 where the original 1900 church had once stood. The architectural firm that designed the project was Smith, Powell, and Morgridge of Los Angeles. The buildings remain essentially intact today, with City building records noting only a few minor changes. After nearly 90 years of service, the Educational Building was declared unfit for use by City inspectors about three years ago and was closed. The 1966 complex continued to function; however, a final service in the sanctuary is planned for December 30, 2018 (Tang, 2019:3).

The available Sanborn maps identify the site with a single property present at the project site in 1895. In 1906, a church was present along with seven single-family residences. The current educational facilities were built here in 1929. In 1949, an additional building of the First United Methodist Church appeared. In 1963, the church classrooms were present on the map as well as the large parking area. In 1969, the last residence that was on the property was no longer present on the map and in its place is the church parking lot. The project site currently consists of a church structure with auxiliary structures and a paved parking area.

In an earlier study by HRG (2006) for the City of Santa Ana Transit Zone Code EIR, the 1966 sanctuary (church) was identified as potentially eligible for local historic designation (as “Contributive” element to the Downtown Area of the City). HRG recommended that the property be repaired, the character-defining features replaced, and that the property be utilized as Adaptive Reuse as retail and/or office space.

Within the half-mile buffer zone of the project site are three historic districts (refer to **Section 4.1.1** and **Table 4.1-1** in **Appendix I**). Directly to the southwest of the project site is the Downtown Santa Ana Historic District (30-160415) (Thomas, 1983). This District contains 99 buildings that make up the old commercial core of Santa Ana. These commercial buildings are a mix of two-story to six-story structures with lower-level retail space and upper-level residences. These were constructed between 1877 and 1934. Although these are a mix of architectural styles, the majority reflect the 1920’s Spanish colonial revival style.

Directly northeast of the project site is the Lower French Park District (30-176806). This District contains a mix of modest Transitional and Bungalow style single- and multi-family residences constructed between 1900 and 1925. This District consists of modest homes that were originally owned by working class residents (Les, 1980a).

Directly north of the project site is the French Park Historic District (30-160790) (Marsh, 1998). This residential neighborhood consists of Neoclassical and Colonial Revival homes that were constructed between 1890 and 1920. The District is composed of historically interdependent residences which have seen few alterations and exhibit the special character associated with the district's time and place in history.

To the northeast at the edge of the one-half mile radius stands the Logan Barrio (30-160412) comprised of four blocks of modest single-family residences that were constructed starting in 1895 (Les, 1980b). These residences were occupied largely by laborers who worked in such occupations as railroad laborer, oil well pumper, blacksmith, wood choppers and farm workers.

### 4.5.3 Impact Analysis

#### a) Would the project cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?

##### Less Than Significant Impact with Mitigation Incorporated

A historical resource is defined in § 15064.5(a)(3) of the *CEQA Guidelines* as any object, building, structure, site, area, place, record, or manuscript determined to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California. Historical resources are further defined as being associated with significant events, important persons, or distinctive characteristics of a type, period or method of construction; representing the work of an important creative individual; or possessing high artistic values. Resources listed in or determined eligible for the California Register, included in a local register, or identified as significant in a historic resource survey are also considered as historical resources under CEQA.

Similarly, the National Register criteria (contained in 36 CFR 60.4) are used to evaluate resources when complying with Section 106 of the National Historic Preservation Act. Specifically, the National Register criteria state that eligible resources comprise districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and that (a) are associated with events that have made a significant contribution to the broad patterns of our history; or (b) that are associated with the lives of persons significant in our past; or (c) that embody the distinctive characteristics of a type, period, or method of construction, or that possess high artistic values, or that represent a significant distinguishable entity whose components may lack individual distinction; or (d) that have yielded or may be likely to yield, information important to history or prehistory.

A substantial adverse change in the significance of a historical resource, as a result of a project or development, is considered a significant impact on the environment. Substantial adverse change is defined as physical demolition, relocation, or alteration of a resource or its immediate surroundings such that the significance of the historical resource would be materially impaired. Direct impacts are those that cause substantial adverse physical change to a historic property. Indirect impacts are those that cause substantial adverse change to the immediate surroundings of a historic property, such that the significance of a historical resource would be materially impaired.

Tang (2019:4-5) found that: Two existing buildings of the First United Methodist Church of Santa Ana, namely the Sanctuary and Anderson Court Complex and the Educational Building, were constructed in 1964-1966 and 1928-1929, respectively, on and near the site of the original circa 1900

church. Since their construction, these buildings have been nearly continuously occupied and used for their original purposes. Both buildings remain relatively intact and had few alterations today, especially on the exterior, and thus retain excellent integrity in relation to their periods of origin.

The history of these buildings is related to the early to mid-20th century community development in the City of Santa Ana. As two of the many surviving buildings of similar vintages in the city, however, they do not demonstrate a unique, important, or particularly close association with this event, nor are they known to be closely associated with any other important events or established themes in local history. Over the decades the buildings have hosted numerous church leaders and members, many of them esteemed in the congregation and the community at large, but this study has uncovered no evidence that any of them has attained, through their association with the buildings, a level of historic significance that would meet the California Register criteria.

In terms of architectural, engineering, or aesthetic qualities, neither building is known to be an important example of any architectural style, property type, period, region, or method of construction, nor are they known to embody the work of architects, designers, or builders who have achieved historic distinction in their field. As a building of relatively plain vernacular design, the Educational Building does not display a high level of artistic or aesthetic value, nor does it hold the potential for any important data for the study of national, state, or local history. Similarly, while the Sanctuary and Anderson Court Complex is a good example of its easily recognizable Mid-Century Modern design, it does not occupy a distinguished position in the Modernist movement in architecture, nor does it otherwise exhibit an extraordinary artistic merit.

In light of these findings, the existing buildings of the First United Methodist Church of Santa Ana at 609 North Spurgeon Street do not appear to meet any of the criteria for listing in the California Register of Historical Resources, either individually or collectively. At this time, neither of the buildings bear any historic designation of the national or state level, nor are they officially listed in the Santa Ana Register of Historic Properties. However, during a 2006 cultural resources reconnaissance adopted as a part of the Santa Ana Renaissance Specific Plan, the Educational Building, as a long-time fixture in the downtown landscape, was found to be a property of local historical interest under the category of “contributive” (HRG, 2006:26), one of three historic designations provided by Santa Ana Municipal Code §30-2.2(3), the other two being “landmark” and “key.” As a property identified in a local survey, the Educational Building therefore qualifies as a “presumptive historical resource” under CEQA guidelines.

Based on the recommendations of the 2006 study, the City of Santa Ana has determined the Educational Building to be a “historical resource” for CEQA-compliance purposes and requiring proper mitigation of potential impacts from the proposed Legacy Square project. Although nearly four decades younger, the Sanctuary and Anderson Court Complex has also reached the commonly recognized 50-year age threshold for potential “historical resources,” and the two buildings are integral parts of the same religious establishment that has occupied this location for more than a century. As such, the Sanctuary and Anderson Complex should also be considered a component of the “historical resource.”

The following mitigation measures are recommended to reduce potential impacts to a less than significant level. To mitigate potential impacts of future redevelopment on the Educational Building and other historic buildings in the vicinity, the City of Santa Ana Transit Zoning Code (SD 84A and SD 84B) EIR has required “written and photographic recordation of the resource in accordance with the level of Historic American Building Survey (HABS) documentation that is appropriate to the significance (local, state, national) of the resource” (TZC EIR, MM4.4-3, p 4.4-26). This is as follows:

## Mitigation Measures

**MM CUL-1** Prior to development activities that would demolish or otherwise physically affect buildings or structures 50 years old or older or affect their historic setting, the project applicant shall retain a cultural resource professional who meets the Secretary of the Interior’s Professional Qualifications Standards for Architectural History to determine if the project would cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the CEQA Guidelines. The investigation shall include, as determined appropriate by the cultural resource professional and the City of Santa Ana, the appropriate archival research, including, if necessary, an updated records search of the South Central Coastal Information Center (SCCIC) of the California Historical Resources Information System (CHRIS) and a pedestrian survey of the proposed development area to determine if any significant historic-period resources would be adversely affected by the proposed development. The results of the investigation shall be documented in a technical report or memorandum that identifies and evaluates any historical resources within the development area and includes recommendations and methods for eliminating or reducing impacts on historical resources. The technical report or memorandum shall be submitted to the City Santa Ana for approval. As determined necessary by the City, environmental documentation (e.g., CEQA documentation) prepared for future development within the project site shall reference or incorporate the findings and recommendations of the technical report or memorandum. The project applicant shall be responsible for implementing methods for eliminating or reducing impacts on historical resources identified in the technical report or memorandum. Such methods could include, but not be limited to, written and photographic recordation of the resource in accordance with the level of HABS documentation that is appropriate to the significance (local, state, national) of the resource.

The historical resource study of the church by Tang (2019) is designed to fulfill the mitigation requirement for the Educational Building as well as the Sanctuary and Anderson Court Complex. Fieldwork needed for the written and photographic recordation of the existing buildings of the First United Methodist Church has been completed. The remaining work for the mitigation program will include additional historical research, consultation with the Santa Ana Historical Preservation Society, compilation of detailed architectural descriptions, processing of photographs and building plans, and completion of the final report and standard record forms (“DPR forms”), none of which will require further access to the buildings themselves. The planned work involving the buildings should be able to proceed if all other compliance issues have been resolved. These steps are as follows:

Prior to demolition or mothballing activities, the project applicant and the City of Santa Ana Planning and Building Department (Department) shall retain a professional architectural photographer and a historian or architectural historian who meets the SOI’s Professional Qualifications Standards to prepare a HABS-like documentation for the historical resources slated for demolition.

The HABS-like package will document in photographs and descriptive and historic narrative the historical resources slated for demolition. Documentation prepared for the package will draw upon primary- and secondary-source research and available

studies previously prepared for the project. Measured drawings shall not be required for the project.

- The specifications for the HABS-like package are as follows:

**Photographs:** Photographic documentation will focus on the historical resources/features slated for demolition, with overview and context photographs for the campus and adjacent setting. Photographs will be taken of interior and exterior features of the buildings using a professional-quality single lens reflex digital camera with a minimum resolution of 10 megapixels. Photographs will include context views, elevations/exteriors, architectural details, overall interiors, and interior details (if warranted). Digital photographs will be printed in black and white on archival film paper and also provided in electronic format.

**Descriptive and Historic Narrative:** The historian or architectural historian will prepare descriptive and historic narrative of the historical resources/features slated for demolition. Physical descriptions will detail each resource, elevation by elevation, with accompanying photographs, and information on how the resource fits within the broader campus during its period of significance. The historic narrative will include available information on the campus design, history, architect/contractor/designer as appropriate, area history, and historic context. In addition, the narrative will include a methodology section specifying the name of researcher, date of research, and sources/archives visited, as well as a bibliography. Within the written history, statements shall be footnoted as to their sources, where appropriate.

**Historic Documentation Package Submittal:** The draft package will be assembled by the historian or architectural historian and submitted to the City of Santa Ana Planning and Building Department for review and comment. After final approval, one hard-copy set of the package will be prepared as follows: Photographs will be individually labeled and stored in individual acid-free sleeves. The remaining components of the historic documentation package (site map, photo index, historic narrative, and additional data) will be printed on archival bond, acid-free paper.

Upon completion of the descriptive and historic narrative, all materials will be compiled in electronic format and presented to the Department for review and approval. Upon approval, one hard-copy version of the historic documentation package will be prepared and submitted to the Department. The historian or architectural historian shall offer a hardcopy package and compiled, electronic version of the final package to the South Central Coastal Information Center at California State University Fullerton, the Orange County Public Library – Santa Ana Main Branch, and the City of Santa Ana Historic Resources Commission, to make available to researchers.

### Level of Significance After Mitigation

With the implementation of mitigation measure **CUL-1** above, and included as MM 4.4-3 in the Transit Zoning Code EIR, potential project impacts on historical resources would be less than significant.

#### **b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?**

#### **Less than Significant Impact with Mitigation Incorporated**

An archaeological resource is defined in § 15064.5(c) of the CEQA Guidelines as a site, area or place determined to be historically significant as defined in § 15064(a) of the CEQA Guidelines, or as a unique archaeological resource defined in § 21083.2 of the Public Resources Code as an artifact, object, or site that contains information needed to answer important scientific research questions of public interest or that has a special and particular quality such as being the oldest or best example of its type, or that is directly associated with a scientifically-recognized important prehistoric or historic event or person. The past agricultural use on the project site and level elevation relative to adjacent roads suggests that ground here has been minimally disturbed, with the native surface soil remaining. It is unlikely that undisturbed unique archeological resources exist on the project site as determined by the cultural resources investigation conducted by UltraSystems which included a CHRIS records search of the project site and buffer zone, a search of the SLF by the NAHC, and pedestrian field survey.

The cultural resources records search conducted at the SCCIC determined that there are no known prehistoric cultural resource sites or isolates recorded within the half-mile radius buffer area around the project footprint and areas of direct and indirect impacts. The result of the pedestrian survey was negative for both prehistoric and historic sites and isolates on the project site.

According to records at the SCCIC, there have been no previous cultural resources surveys that included a portion of the project area, with 31 surveys within or intersecting the half-mile radius project buffer but not within the project footprint and areas of direct and indirect impacts (refer to **Table 4.5-2 in Appendix I**). As noted above, none of these surveys recorded prehistoric or historic cultural resources within the project boundary.

A NAHC SLF search was conducted on and within a half-mile buffer around the project site. The NAHC letter of December 18, 2018 indicated that no records exist documenting the presence of traditional cultural properties within this area. Six representatives of five Native American tribes were contacted requesting a reply if they have knowledge of cultural resources in the area that they wished to share and asking if they had any questions or concerns regarding the project. These tribes included:

- Gabrieleno Band of Mission Indians – Kizh Nation
- Gabrieleno/Tongva San Gabriel Band of Mission Indians
- Gabrielino Tongva Indians of California Tribal Council
- Gabrielino/Tongva Nation
- Gabrielino-Tongva Tribe

As of the preparation of this Cultural Resources section of the IS/MND for the project, there have been no responses from any of the five tribes and the thirty-day period for conducting follow-up telephone calls has not concluded. After the tribal outreach has been conducted the tribes' responses and any recommendation(s) the tribes have will be included in the final IS/MND. The result of the

pedestrian survey was negative for both prehistoric and historic sites and isolates on the project site. Based on the results of the records search and the onsite field survey, it is unlikely that cultural resources or tribal resources would be adversely affected by construction of the project. However, grading activities associated with development of the project would cause new subsurface disturbance and may result in the unanticipated discovery of unique historic and/or prehistoric archeological resources. In the event of an unanticipated discovery, implementation of mitigation measures **CUL-2** through **CUL-4** described below would ensure that impacts on archeological resources would be less than significant.

### **Mitigation Measure**

**MM CUL-2** If historical archaeological resources are discovered during construction prior to development activities that would demolish or otherwise physically affect buildings or structures 50 years old or older or affect their historic setting, the project applicant shall retain a cultural resources professional who meets the Secretary of the Interior’s Professional Qualifications Standards for Architectural History to determine if the project would cause a substantial adverse change in the significance of a historic resource as defined in § 15064.5 of the CEQA guidelines. The investigation shall include, as determined appropriate by the cultural resource professional and the City of Santa Ana, the appropriate archival research, including, if necessary, an updated records search of the SCCIC of the CHRIS and a pedestrian survey of the proposed development area to determine if any significant historic-period resources would be adversely affected by the proposed development. The results of the investigation shall be documented in a technical report or memorandum that identifies and evaluates any historic resources within the development area and includes recommendations and methods for eliminating or reducing impacts on historic resources. The technical report or memorandum shall be submitted to the City of Santa Ana for approval. As determined necessary by the City, environmental documentation (e.g., CEQA documentation) prepared for the future development within the project site shall reference or incorporate the findings and recommendations of the technical report or memorandum. The project applicant shall be responsible for implementing methods for eliminating or reducing impacts on historical resources identified in the technical report or memorandum. Such methods could include, but not be limited to, written and photographic recordation of the resource in accordance with the level of Historic American Building Survey (HABS) documentation that is appropriate to the significance (local, state, national) of the resource.

**MM CUL-3** If historical archaeological resources are discovered during construction activities, the contractor will halt construction activities in the immediate area and notify the City. The City’s on-call qualified historical archaeologist will be notified and afforded the necessary time to recover, analyze, and curate the find(s). The qualified historical archaeologist will recommend the extent of archaeological monitoring necessary to ensure the protection of any other resources that may be in the area and afforded the necessary time and funds to recover, analyze, and curate the find(s). Construction activities may continue on other parts of the building site while evaluation and treatment of historical archaeological resources takes place.

**MM CUL-4** If evidence of an archaeological site or other suspected historical resource as defined by CEQA Guidelines § 15064.5, including darkened soil representing past human activity (“midden”), that could conceal material remains (e.g., worked stone, fired clay vessels, faunal bone, hearths, storage pits, or burials) are discovered during any project-related earth-disturbing activities, all earth-disturbing activities within 100 feet of the find shall be halted until the City of Santa Ana shall be notified. The project applicant shall retain an archaeologist who meets the Secretary of the Interior’s Professional Qualifications Standards for Archaeology to assess the significance of the find. Impacts on any significant resources shall be mitigated to a less-than-significant level through data recovery or other methods determined adequate by the archaeologist and that are consistent with the Secretary of the Interior’s Standards for Archaeological Documentation. Any identified cultural resources shall be recorded on the appropriate DPR 523 (A-L) form and filed with the SCCIC. Construction activities may continue on other parts of the project site while evaluation and treatment of prehistoric archaeological resources takes place.

### **Level of Significance After Mitigation**

With implementation of Mitigation Measures **MM CUL-2** through **MM CUL-4** above, the Legacy Square project would result in less than significant impacts to archeological resources.

**c) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?**

### **Less than Significant Impact with Mitigation Incorporated**

Although no paleontological sites have been documented within the project area, Pleistocene vertebrate fossils have been found in alluvial deposits in the vicinity. The project site rests on Young Alluvial Fan Deposits (Qyf/sa) dating to the Holocene and Late Pleistocene geologic periods (Morton and Miller, 2006). This alluvium would have come from the San Bernardino Mountains via the Santa Ana River and from the western Santa Ana Mountains via Santiago Creek, bringing fossils from these outlying areas. Therefore, excavations that extend into the Pleistocene Alluvium have a potential of containing fossil vertebrate specimens. Project implementation could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature and result in a potentially significant impact.

Grading activities associated with development of the project would cause new subsurface disturbance and could result in the unanticipated discovery of unique paleontological resources. In the event of an unexpected disturbance, implementation of mitigation measure **CUL-5** below would ensure that potential impacts on paleontological resources or unique geological features would be less than significant.

### **Mitigation Measure**

**MM CUL-5** Should paleontological resources (i.e., fossil remains) be identified during project construction activities, the construction foreman shall cease construction within 100 feet of the find until a qualified paleontological professional can provide an evaluation. Mitigation of resource impacts shall be implemented and funded by the project applicant and shall be conducted as follows:



- Identify and evaluate paleontological resources by field survey where impacts are considered high;
- Assess effects of identified site;
- Consult with the institutional/academic paleontologists conducting research investigations within the geologic formations that are being impacted;
- Obtain comments from the researchers; and
- Comply with researcher’s recommendations to address any significant adverse effects where determined by the City to be feasible.

In considering any suggested mitigation proposed by the consulting paleontologist, the City of Santa Ana staff shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, applicable policies and land use assumptions, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the project site while mitigation for paleontological resources is carried out.

### **Level of Significance After Mitigation**

With implementation of Mitigation Measure **MM CUL-5** above, the Legacy Square project would result in less than significant impacts to paleontological resources or unique geologic features.

#### **d) Would the project disturb any human remains, including those interred outside of formal cemeteries?**

#### **Less than Significant Impact with Mitigation Incorporated**

As previously discussed in **Section 4.5.b)** above, the project would be built on relatively undisturbed land, within fallow agricultural land that has not been previously graded. No human remains have been previously identified or recorded onsite. It is unlikely that undisturbed unique archeological resources exist on the project site.

The project proposes grading activities for the implementation of infrastructure that includes water, sewer, and utility lines. Grading activities associated with development of the project would cause new subsurface disturbance and could result in the unanticipated discovery of unknown human remains, including those interred outside of formal cemeteries. In the unlikely event of an unexpected discovery, implementation of mitigation measure **CUL-6** would ensure that impacts related to the accidental discovery of human remains would be less than significant.

California Health and Safety Code § 7050.5 specifies the procedures to follow during the unlikely discovery of human remains. CEQA § 15064.5 describes determining the significance of impacts on archeological and historical resources. California Public Resources Code § 5097.98 stipulates the notification process during the discovery of Native American human remains, descendants, disposition of human remains, and associated grave goods. Therefore, with adherence to applicable codes and regulations protecting cultural resources and implementation of mitigation measure **CUL-6**, potential impacts related to the discovery of unknown human remains would be less than significant.

### **Mitigation Measure**

**MM CUL-6** If human remains are encountered during excavations associated with this project, all work will stop within a 30-foot radius of the discovery and the Orange County Coroner will be notified (§ 5097.98 of the Public Resources Code). The Coroner will determine whether the remains are recent human origin or older Native American ancestry. If the coroner, with the aid of the supervising archaeologist, determines that the remains are prehistoric, they will contact the NAHC. The NAHC will be responsible for designating the Most Likely Descendant (MLD). The MLD (either an individual or sometimes a committee) will be responsible for the ultimate disposition of the remains, as required by § 7050.5 of the California Health and Safety Code. The MLD will make recommendations within 24 hours of their notification by the NAHC. These recommendations may include scientific removal and nondestructive analysis of human remains and items associated with Native American burials (§ 7050.5 of the Health and Safety Code).

### **Level of Significance After Mitigation**

With implementation of Mitigation Measure **MM CUL-6** above, the Legacy Square project would result in less than significant impacts to human remains.

**4.6 Geology and Soils**

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
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.				X
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?				X
b) Result in substantial soil erosion or the loss of topsoil?			X	
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?			X	
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?			X	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X

**a) Would the project 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**

The Alquist-Priolo Zones Special Studies Act defines active faults as those that have experienced surface displacement or movement during the last 11,000 years. The project site is not located within a designated Alquist-Priolo Earthquake Fault Zone. As described in the Preliminary Geotechnical Investigation for the project, no active faults are known to traverse the project site and the potential for ground ruptures due to an earthquake are considered to be very low (Albus-Keefe & Associates, Inc., 2018 p. 7). As shown in **Figure 4.6-1**, the nearest quaternary fault is the San Joaquin Hills thrust that is approximately four miles to the southwest of the project site (United States Geologic Survey, 2018). In addition, the Alquist-Priolo Fault Zone nearest to the project site is the Newport-Inglewood-Rose Canyon Fault Zone (DOC, 2018b.), which is located approximately nine miles southwest of the project site (refer to **Figure 4.6-2**). For these reasons, the project site will not expose people or structures to potential substantial adverse effects from rupture of a known earthquake fault that is delineated on an Alquist-Priolo Earthquake Fault Zoning Map, and no impact would occur.

#### **ii) Strong seismic ground shaking?**

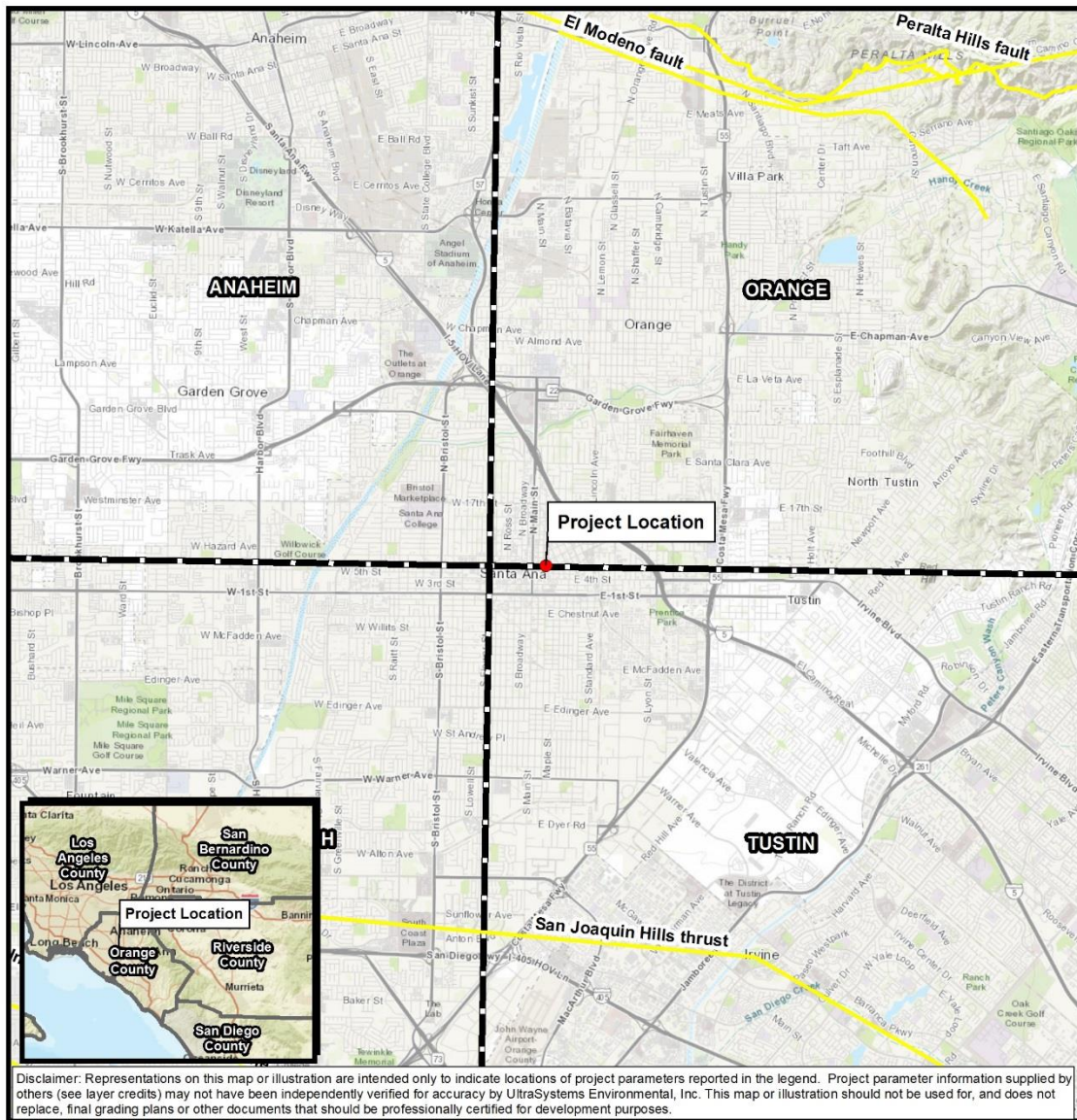
### **Less than Significant Impact**

The project is located within a seismically active region of Southern California, susceptible to collapse of structures, buckling of walls, and damage to foundations from strong seismic ground shaking. As described in the previous response, the closest Alquist-Priolo Fault Zone is the Newport-Inglewood-Rose Canyon Fault Zone located approximately nine miles southwest of the project site.

The project would be constructed in accordance with the applicable California Building Code (CBC) adopted by the legislature and used throughout the state (California Code of Regulations, 2016). In addition, the CBC is included in the City's Municipal Code (City of Santa Ana Municipal Code, 2018) and provides minimum standards to protect property and for public welfare by regulating the design and construction of excavations, foundations, building frames, retaining walls, and other building elements to mitigate the effects of seismic shaking and adverse soil conditions. The CBC contains provisions for earthquake safety based on factors including occupancy type, the types of soil and rock onsite, and the strength of ground motion with specified probability of occurring at the site.

Although the project site is susceptible to occasional moderate/high ground shaking from seismically active fault zones in the Southern California region, design and construction in accordance with the CBC would address issues related to potential seismic ground shaking at the site. For these reasons, impacts from strong seismic ground shaking would be less than significant.

**Figure 4.6-1  
REGIONALLY ACTIVE FAULTS**



Path: J:\Projects\6095\_Santa\_Ana\_Legacy\_Square\MXD\6095\_Santa\_Ana\_Legacy\_Square\_4.6\_Active\_Faults\_2018\_12\_21.mxd  
 Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community. Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community; U.S./California Geological Survey, 2018; UltraSystems Environmental, Inc., 2018

December 21, 2018

Scale 1:95,040

N

0 0.75 1.5 Miles

0 0.75 1.5 Kilometers

- Legend**
- Project Location
  - Quaternary Fault
  - USGS Quadrangle Boundary

**City of Santa Ana  
Legacy Square**  
Regionally Active Faults



**Figure 4.6-2**  
**ALQUIST PRIOLO FAULT ZONES**



Disclaimer: Representations on this map or illustration are intended only to indicate locations of project parameters reported in the legend. Project parameter information supplied by others (see layer credits) may not have been independently verified for accuracy by UltraSystems Environmental, Inc. This map or illustration should not be used for, and does not replace, final grading plans or other documents that should be professionally certified for development purposes.

Path: J:\Projects\6095\_Santa\_Ana\_Legacy\_Square\MXD\6095\_Santa\_Ana\_Legacy\_Square\_4.6\_Alquist\_Priolo\_2018\_12\_21.mxd  
 Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community. Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community; U.S./California Geological Survey 2018; UltraSystems Environmental, Inc., 2018

December 21, 2018

Scale 1:190,080

**Legend**

- Project Location
- Active Fault Trace
- Earthquake Fault Zone
- USGS Quadrangle Boundary

**City of Santa Ana**  
**Legacy Square**

Alquist Priolo Earthquake  
Fault Zones

UltraSystems  
environmental • water • planning

**iii) Seismic-related ground failure, including liquefaction?**

**Less than Significant Impact**

General types of ground failures that might occur as a consequence of severe ground shaking typically include landslides, ground subsidence, ground lurching and shallow ground rupture. The probability of occurrence of each type of ground failure depends on the severity of the earthquake, distance from the faults, topography, subsoils and relatively shallow groundwater tables (approximately 50 feet or less below ground surface), in addition to other factors.

Liquefaction typically occurs when saturated or partially saturated soils behave like a liquid, as a result of losses in strength and stiffness in response to an applied stress caused by earthquake shaking or other sudden change in stress conditions. As presented in the Preliminary Geotechnical Report for the project, no groundwater was encountered during the geotechnical investigation to a depth of 51.5 feet below the existing ground surface (Albus-Keefe & Associates, Inc., 2018, p. 7). Additionally, as shown in **Figure 4.6-3**, the project site is not located within or adjacent to a liquefaction zone. Furthermore, compliance with federal, state, and local regulations would minimize the risks associated with the potential risk from liquification. Therefore, there would be a less than significant impact in this regard.

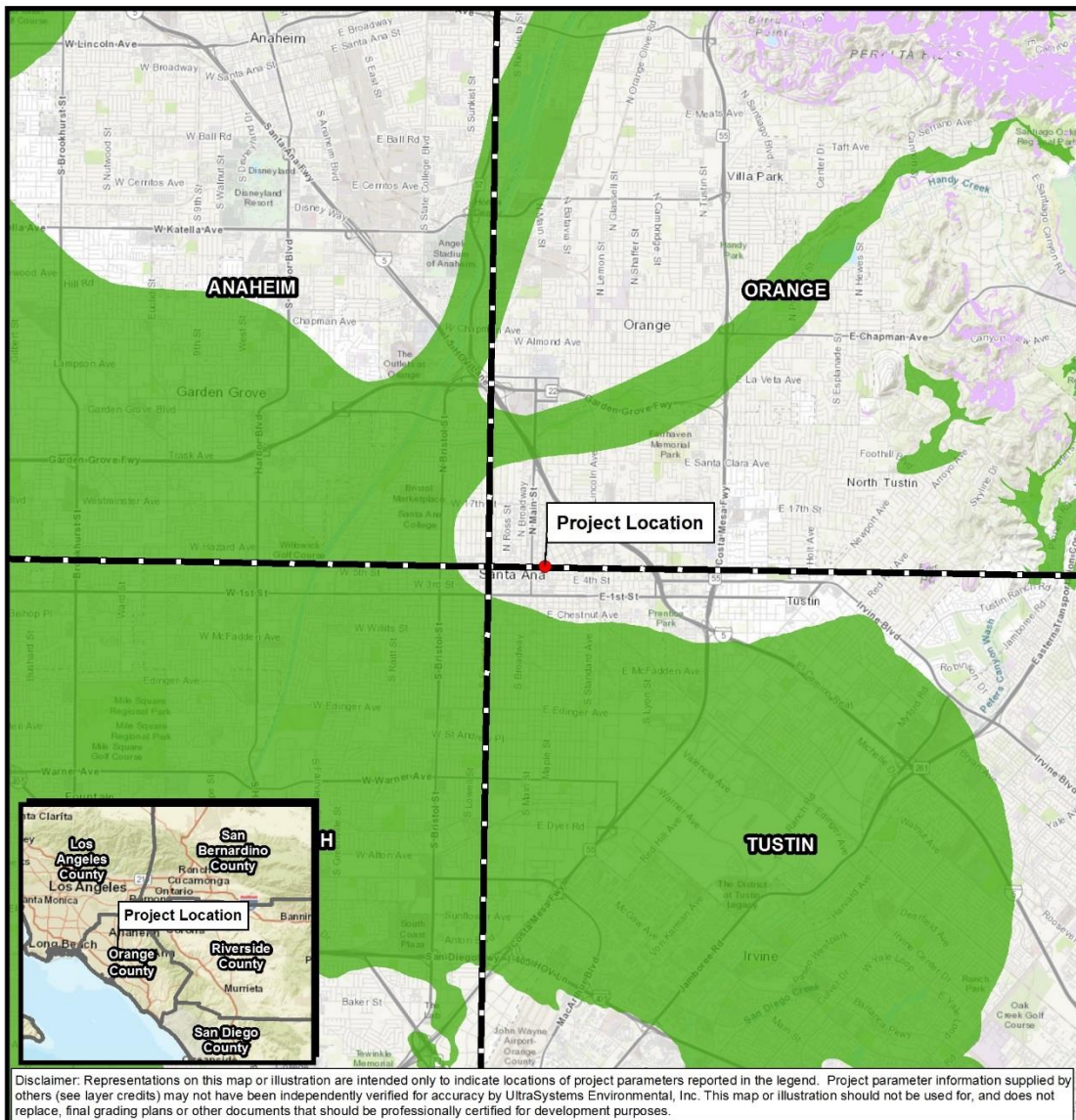
**iv) Landslides?**

**No Impact**

Landslides occur when the stability of the slope changes from a stable to an unstable condition. A change in the stability of a slope can be caused by a number of factors, acting together or alone. Natural causes of landslides include groundwater (pore water) pressure acting to destabilize the slope, loss of vegetative structure, erosion of the toe of a slope by rivers or ocean waves, weakening of a slope through saturation by snow melt or heavy rains, earthquakes adding loads to barely stable slope, earthquake-caused liquefaction destabilizing slopes, and volcanic eruptions.

Topography within the project site is relatively flat. The project is approximately 130 feet above mean sea level (Google Earth Pro, 2018). According to **Figure 4.6-3**, the project site is not located within or adjacent to an earthquake-induced landslide zone. Additionally, the project site is located in a flat, developed urban area that does not contain steep slopes or hills. Moreover, the Preliminary Geotechnical Investigation indicates that the project will not adversely impact the stability of adjoining properties if construction is performed in accordance with the recommendations presented in the report (Albus-Keefe & Associates, Inc., 2018, p. 7). Therefore, the probability of slope stability hazards affecting the site is considered very low and no impacts are anticipated.

**Figure 4.6-3**  
**LANDSLIDES AND LIQUEFACTION**



Path: J:\Projects\6095\_Santa\_Ana\_Legacy\_Square\MXD\6095\_Santa\_Ana\_Legacy\_Square\_4\_6\_Landslide\_Liquefaction\_2018\_12\_21.mxd  
 Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), Swisstopo, © OpenStreetMap contributors, and the GIS User Community. Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community; California Geological Survey, 1998-1999; UltraSystems Environmental, Inc., 2018  
 December 21, 2018

Scale 1:95,040

N

0 0.75 1.5 Miles

0 0.75 1.5 Kilometers

- Legend**
- Project Location
  - Liquefaction Zones
  - Earthquake-Induced Landslide Zones
  - USGS Quadrangle Boundary

**City of Santa Ana**  
**Legacy Square**  
Landslides and Liquefaction





**b) Would the project result in substantial soil erosion or the loss of topsoil?**

**Less Than Significant Impact**

Under current conditions the vast majority of the project site is covered by impervious surfaces including pavement and buildings. The project site also contains small areas of landscaping including: walnut trees, oak trees, tulip trees, palm trees and rose bushes. The project would be developed with a mix of impervious surfaces such as concrete and pavement. In addition, the project proposes the development of grass and landscaped areas, including landscaping along the site boundary, thus reducing the potential for soil erosion. Moreover, the project would adopt construction BMPs in accordance with the County of Orange Drainage Management Plan (DAMP). The DAMP requires construction site to implement control practices that address soil erosion/sedimentation to avoid and minimize the transport of soil or contaminants offsite (DAMP, Section 8.0, 2003). For these reasons, the project would have less than significant impacts related to soil erosion or loss of topsoil.

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

**Less than Significant Impact**

Impacts related to liquefaction and landslides are discussed above in Section 4.6.a above. Lateral spreading is the downslope movement of surface sediment due to liquefaction in a subsurface layer. The downslope movement is due to gravity and earthquake shaking combined. Lateral spreading of the ground surface during a seismic activity usually occurs along the weak shear zones within a liquefiable soil layer and has been observed to generally take place toward a free face (i.e., retaining wall, slope, or channel) and to lesser extent on ground surfaces with a very gentle slope.

The soil on the project site is designated Mocho loam, 0 to 2 percent slopes, warm MAAT, MLRA 19 (United States Department of Agriculture, 2018). Mocho loams are formed on alluvial fans from alluvium derived from sedimentary rock at slopes of 0 to 2 percent. These soils are well drained with low runoff and have moderately high permeability (EEI Engineering Solutions, 2018 p.12). Geotechnical borings onsite concluded that near-surface soils onsite generally possess low expansion potential with minimal subsidence of 0.05 feet (Albus-Keefe & Associates, Inc., 2018, p. 8). Furthermore, as described in previous responses, the site possesses low probability of landslides and liquefaction. Additionally, the project would be constructed in accordance with the requirements of the City of Santa Ana, CBC, and the Occupational Safety and Health Administration, which are designed to assure safe construction and include building foundation requirements appropriate to site conditions. Therefore, impacts in this regard would be less than significant.

**d) Would the project 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**

Expansive soils shrink and swell with changes in soil moisture. Soil moisture may change from landscape irrigation, rainfall, and utility leakage. The soil collected during the geotechnical investigation is described as a sandy clay with an expansion index of 27 and a low expansion potential. Additional testing for soil expansion will subsequently take place during grading and prior to foundation work for confirmation of the given conditions (Albus-Keefe & Associates, Inc, 2018,

Appendix B, Table B). Furthermore, as described in Section 4.6.c above, the soils onsite have a very low expansion potential. Therefore, the project would have a less than significant impact regarding expansive soils on site.

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

**No Impact**

The project site is currently connected to the City of Santa Ana’s sewer system, and the project would also connect to existing sewers. Therefore, the project would not use septic tanks or alternative wastewater disposal systems. For this reason, no impacts associated with septic tanks or alternative waste water disposal systems would occur.

## 4.7 Greenhouse Gas Emissions

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

### 4.7.1 Background Information on Greenhouse Gas Emissions

Life on earth depends on energy coming from the sun. About half the light reaching Earth's atmosphere passes through the air and clouds to the surface, where it is absorbed and then radiated upward in the form of infrared heat. About 90% of this heat is then absorbed by carbon dioxide (CO<sub>2</sub>) and other greenhouse gases (GHG) and radiated back toward the surface, which is warmed to a life-supporting average of 59 degrees Fahrenheit (°F) (NASA, 2018).

Human activities are changing the natural greenhouse. Over the last century, the burning of fossil fuels such as coal and oil has increased the concentration of atmospheric CO<sub>2</sub>. This happens because the coal or oil burning process combines carbon in the fuel with oxygen in the air to make CO<sub>2</sub>. To a lesser extent, the clearing of land for agriculture, industry, and other human activities has increased concentrations of GHGs (NASA, 2018).

GHGs are defined under the California Global Warming Solutions Act of 2006 (AB 32) as CO<sub>2</sub>, methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons, perfluorocarbons (PFCs) and sulfur hexafluoride (SF<sub>6</sub>). Associated with each GHG species is a “global warming potential” (GWP), which is a value used to compare the abilities of different GHGs to trap heat in the atmosphere. GWPs are based on the heat-absorbing ability of each gas relative to that of CO<sub>2</sub>, as well as the decay rate of each gas (the amount removed from the atmosphere over a given number of years). The GWPs of CH<sub>4</sub> and N<sub>2</sub>O are 25 and 298, respectively (GMI, 2018). “Carbon dioxide equivalent” (CO<sub>2</sub>e) emissions are calculated by weighting each GHG compound’s emissions by its GWP and then summing the products. HFCs, PFCs, and SF<sub>6</sub> are not emitted in significant amounts by Legacy Square project sources, so they are not discussed further.

**Carbon Dioxide (CO<sub>2</sub>).** Carbon dioxide is a colorless, odorless gas consisting of molecules made up of two oxygen atoms and one carbon atom. CO<sub>2</sub> is produced when an organic carbon compound (such as wood) or fossilized organic matter (such as coal, oil, or natural gas) is burned in the presence of oxygen. Since the industrial revolution began in the mid-1700s, industrial activities have increased in scale and distribution. Prior to the industrial revolution, CO<sub>2</sub> concentrations were stable at a range of 275 to 285 ppm (IPCC, 2007a). The National Oceanic and Atmospheric Administration’s Earth System Research Laboratory indicates that global concentration of CO<sub>2</sub> was 403.96 ppm in

October 2017 (ESRL, 2018). These concentrations of CO<sub>2</sub> exceed by far the natural range over the last 650,000 years (180 to 300 ppm) as determined from ice cores.

**Methane (CH<sub>4</sub>).** Methane is a colorless, odorless non-toxic gas consisting of molecules made up of four hydrogen atoms and one carbon atom. CH<sub>4</sub> is combustible, and is the main constituent of natural gas, a fossil fuel. CH<sub>4</sub> is released when organic matter decomposes in low oxygen environments. Natural sources include wetlands, swamps and marshes, termites, and oceans. Anthropogenic sources include the mining of fossil fuels and transportation of natural gas, digestive processes in ruminant animals such as cattle, rice paddies, and the buried waste in landfills. Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of CH<sub>4</sub>. Other anthropogenic sources include fossil-fuel combustion and biomass burning.

**Nitrous Oxide (N<sub>2</sub>O).** Nitrous oxide is a colorless, non-flammable gas with a sweetish odor, commonly known as "laughing gas," and sometimes used as an anaesthetic. N<sub>2</sub>O is naturally produced in the oceans and in rainforests. Manmade sources of N<sub>2</sub>O include the use of fertilizers in agriculture, nylon and nitric acid production, cars with catalytic converters and the burning of organic matter. Concentrations of N<sub>2</sub>O also began to rise at the beginning of the industrial revolution.

#### 4.7.2 Regulatory Setting

GHGs are regulated at the national, state, and air basin level; each agency has a different degree of control. The U. S. Environmental Protection Agency (USEPA) regulates at the national level; the California Air Resources Board (ARB) regulates at the state level; and the South Coast Air Quality Management District (SCAQMD) regulates at the air basin level in the Legacy Square project area.

##### 4.7.2.1 Federal Regulations

The USEPA collects several types of GHG emissions data. These data help policy makers, businesses, and the USEPA track GHG emissions trends and identify opportunities for reducing emissions and increasing efficiency. The USEPA has been maintaining a national inventory of GHG emissions since 1990 and in 2009 established mandatory reporting of GHG emissions from large GHG emissions sources.

Previous USEPA efforts documented through historical website material reflecting the USEPA website as it existed on January 19, 2017 (USEPA, 2017a) include regulatory initiatives such as mobile source GHG emission standards and the Clean Power Plan; partnering with the private sector through voluntary energy and climate programs; and reducing USEPA's carbon footprint with the federal GHG requirements and USEPA's Strategic Sustainability Performance Plan. The current administration has a different strategy in relation to climate change and is taking the USEPA in a new direction (USEPA, 2017b). Executive Order (EO) on Energy Independence (White House, 2017) specifically addresses revisions in the Clean Power Plan and standards of performance for GHGs for new stationary sources; CH<sub>4</sub> standards for the oil and gas sector; and light-duty vehicle GHG standards.

### 4.7.2.2 State Regulations

#### Executive Order S 3-05

On June 1, 2005, the governor issued EO S 3-05, which set the following GHG emission reduction targets:

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

To meet these targets, the Climate Action Team (CAT)<sup>12</sup> prepared a report to the Governor in 2006 that contains recommendations and strategies to help ensure that the targets in EO S-3-05 are met.

#### Assembly Bill 32 (AB 32)

In 2006, the California State Legislature enacted the California Global Warming Solutions Act of 2006, also known as AB 32. AB 32 focuses on reducing GHG emissions in California. GHGs, as defined under AB 32, include CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, and SF<sub>6</sub>. AB 32 requires that GHGs emitted in California be reduced to 1990 levels by the year 2020. The ARB is the state agency charged with monitoring and regulating sources of emissions of GHGs that cause global warming. AB 32 also requires that by January 1, 2008, the ARB must determine what the statewide GHG emissions level was in 1990, and it must approve a statewide GHG emissions limit, so it may be applied to the 2020 benchmark. The ARB approved a 1990 GHG emissions level of 427 million metric tons of CO<sub>2</sub>e (MMTCO<sub>2</sub>e), on December 6, 2007 in its Staff Report. Therefore, in 2020, emissions in California are required to be at or below 427 MMTCO<sub>2</sub>e.

Under the “business as usual or (BAU)” scenario established in 2008, statewide emissions were increasing at a rate of approximately one percent per year as noted below. It was estimated that the 2020 estimated BAU of 596 MMTCO<sub>2</sub>e would have required a 28% reduction to reach the 1990 level of 427 MMTCO<sub>2</sub>e.

#### Climate Change Scoping Plan

The Scoping Plan released by the ARB in 2008 (ARB, 2008) outlined the state’s strategy to achieve the AB 32 goals. This Scoping Plan, developed by ARB in coordination with the CAT, proposed a comprehensive set of actions designed to reduce overall GHG emissions in California, improve the environment, reduce dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health. It was adopted by ARB at its December 2008 meeting. According to the Scoping Plan, the 2020 target of 427 MMTCO<sub>2</sub>e requires the reduction of 169 MMTCO<sub>2</sub>e, or approximately 28.3%, from the state’s projected 2020 BAU emissions level of 596 MMTCO<sub>2</sub>e.

In August 2011, the Scoping Plan was re-approved by the Board and includes the Final Supplement to the Scoping Plan Functional Equivalent Document (ARB, 2011). This document includes expanded analysis of project alternatives and updates the 2020 emission projections by considering updated

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12 The Climate Action Team (CAT) members are state agency secretaries and the heads of agencies, boards, and departments, led by the Secretary of the California Environmental Protection Agency (Cal/EPA). They coordinate statewide efforts to implement global warming emission reduction programs and the state’s Climate Adaptation Strategy.

economic forecasts. The updated 2020 BAU estimate of 507 MMTCO<sub>2e</sub> yielded that only a 16% reduction below the estimated new BAU levels would be necessary to return to 1990 levels by 2020. The 2011 Scoping Plan expands the list of nine Early Action Measures into a list of 39 Recommended Actions contained in Appendices C and E of the Plan.

In May 2014, ARB developed, in collaboration with the CAT, the First Update to California’s Climate Change Scoping Plan (Update) (ARB, 2014), which shows that California is on track to meet the near-term 2020 GHG limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32. In accordance with the United Nations Framework Convention on Climate Change, ARB has mostly transitioned to the use of the Intergovernmental Panel on Climate Change’s (IPCC’s) Fourth Assessment Report (AR4)’s 100-year GWP (IPCC, 2007b) in its climate change programs. ARB recalculated the 1990 GHG emissions level with the AR4 GWPs to be 431 MMTCO<sub>2e</sub>; therefore the 2020 GHG emissions limit established in response to AB 32 is now slightly higher than the 427 MMTCO<sub>2e</sub> in the initial Scoping Plan.

In November 2017, ARB published the 2017 Scoping Plan (ARB, 2017) which builds upon the former Scoping Plan and Update by outlining priorities and recommendations for the state to achieve its target of a 40% reduction in GHGs by 2030, compared to 1990 levels. The major elements of the framework proposed are enhancement of the Renewables Portfolio Standard (RPS) and the Low Carbon Fuel Standard; a Mobile Source Strategy, Sustainable Freight Action Plan, Short-Lived Climate Pollutant Reduction Strategy, Sustainable Communities Strategies, and a Post-2020 Cap-and-Trade Program; a 20% reduction in GHG emissions from the refinery sector; and an Integrated Natural and Working Lands Action Plan.

### **Renewables Portfolio Standard (Scoping Action E-3)**

The California Energy Commission estimates that in 2000 about 12% of California’s retail electric load was met with renewable resources. Renewable energy includes (but is not limited to) wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas. California’s current RPS is intended to increase that share to 33% by 2020. Increased use of renewables will decrease California’s reliance on fossil fuels, thus reducing emissions of GHGs from the electricity sector. Most recently, Governor Brown signed into legislation Senate Bill (SB) 350 in October 2015, which requires retail sellers and publicly-owned utilities to procure 50% of their electricity from eligible renewable energy resources by 2030.

### **Senate Bill 375 (SB 375)**

SB 375 was signed by the governor on September 30, 2008. According to SB 375, the transportation sector is the largest contributor of GHG emissions and is responsible for over 40% of the GHG emissions in California, with automobiles and light trucks alone contributing almost 30%. SB 375 indicates that GHGs from automobiles and light trucks can be reduced by new vehicle technology. However, significant reductions from changed land use patterns and improved transportation also are necessary. SB 375 states, “Without improved land use and transportation policy, California will not be able to achieve the goals of AB 32.” SB 375 does the following: (1) requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing GHG emissions, (2) aligns planning for transportation and housing, and (3) creates specified incentives for the implementation of the strategies.

## Executive Order B-30-15

On April 29, 2015, the governor issued EO B-30-15, which added an interim target of GHG emissions reductions to help ensure that the state meets its 80% reduction by 2050, as set in EO S-3-05. The interim target is reducing GHG emissions by 40% by 2030. It also directs state agencies to update the Scoping Plan, update the Adaptation Strategy every three years, and take climate change into account in agency planning and investment strategies. Additionally, it requires the state’s Five-Year Infrastructure Plan to take current and future climate change impacts into account in all infrastructure projects.

### 4.7.2.3 Local Regulations

The City of Santa Ana adopted a climate action plan (CAP) in 2015 (City of Santa Ana, 2015) to show its commitment to improving quality of life by reducing carbon pollution and energy use, both from its own operations and from the community. On a community scale, the City had several initiatives that were already underway, which includes the Transit Zoning Code (TZC). The CAP includes a 2008 baseline and 2020 and 2035 projected GHG emission inventories, emission reduction goals, and emission reduction measures to reduce emissions. The community-wide reduction goal of the CAP was 15% below the baseline year 2008 by 2020, and 30% below the baseline year 2008 by 2035. For municipal operations, the emissions reduction goal was 30% by 2020 and 40% by 2035. Emission reduction measures were developed to address emissions in five sectors:

- Transportation and Land Use
- Energy
- Solid Waste
- Water
- Wastewater

As discussed in the CAP (City of Santa Ana, 2015), the community-wide inventory was constructed using the “Local Government Significant Influence” frame, which includes those emission sources and activities that the City government has significant ability to influence through regulation, incentives, or other measures. **Table 4.7-1** shows the results of the 2008 Community-wide Inventory, which also demonstrated that the City had a per-capita emissions level of 5.5 MTCO<sub>2e</sub>. The CAP also projected that the community-wide GHG emissions would show a 5% increase in 2020 and an 11% increase in 2035.

**Table 4.7-1**  
**2008 COMMUNITY-WIDE GREENHOUSE GAS INVENTORY**

Sector	MTCO <sub>2e</sub>	% of Total CO <sub>2e</sub>
Transportation and Land Use	943,033	48%
Commercial / Industrial Energy Use	565,681	29%
Residential Energy Use	249,834	13%

Sector	MTCO <sub>2e</sub>	% of Total CO <sub>2e</sub>
Solid Waste Generation	55,193	3%
Water	36,231	2%
Wastewater	30,223	1%
Other	79,236	4%
<b>Total</b>	<b>1,959,431</b>	<b>100%</b>

The CAP also constructed a GHG inventory that showed the City's municipal operations generated 32,410 MTCO<sub>2e</sub>, which represented approximately 1.8% of total community-wide GHG emissions.

### 4.7.3 Impact Thresholds

The following thresholds of significance are based on criteria in Appendix G of the State CEQA Guidelines. A project has the potential to create a significant environmental impact if it would:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing emissions of GHG.

### 4.7.4 Impact Analysis

#### 4.7.4.1 Methodology

The EIR for the Transit Zoning Code (SD 84A and SD 84B) did not include a separate section for greenhouse gas (GHG) emissions because the document predates the official mandatory inclusion of the GHG emissions impact determinations (questions **a** and **b** below) into the CEQA Appendix G checklist. Therefore, short-term construction GHG emissions and long-term operational GHG emissions were assessed using California Environmental Emissions Estimator Model (CalEEMod) Version 2016.3.2 (CAPCOA, 2017). This analysis focused upon emissions of CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O. HFCs, PFCs, and SF<sub>6</sub>, which are emitted in negligible quantities by Legacy Square project sources, so they are not discussed further.

#### a) **Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?**

#### **Less than Significant Impact**

California has enacted several pieces of legislation that relate to GHG emissions and climate change, much of which set aggressive goals for GHG reductions within the state. Per Senate Bill 97, the California Natural Resources Agency adopted amendments to the CEQA Guidelines, which address the specific obligations of public agencies when analyzing GHG emissions under CEQA to determine a project's effects on the environment. However, neither a threshold of significance nor any specific mitigations are included or provided in these CEQA Guideline amendments.



### GHG Significance Threshold

Neither the City of Santa Ana, the SCAQMD, nor the State CEQA Guidelines Amendments has adopted quantitative thresholds of significance for addressing a project's GHG emissions. Nonetheless, § 15064.4 of the CEQA Guidelines serves to assist lead agencies in determining the significance of the impacts of GHGs. As required in § 15064.4 of the CEQA Guidelines, this analysis includes an impact determination based on the following: (1) an estimate of the amount of GHG emissions resulting from the Legacy Square project; (2) a qualitative analysis or performance based standards; (3) a quantification of the extent to which the Legacy Square project increases GHG emissions as compared to the existing environmental setting; and (4) the extent to which the Legacy Square project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

SCAQMD's guidance uses a tiered approach rather than a single numerical emissions threshold. If a project's GHG emissions "fail" the non-significance of a given tier, then one goes to the next one.

The threshold selected for this analysis is Tier 3, which establishes a screening significance threshold level to determine significance using a 90% emission capture rate. For Tier 3, the SCAQMD estimated that at a threshold of approximately 3,000 metric tons CO<sub>2</sub>e per year emissions would capture 90% of the GHG emissions from new residential or commercial projects. Thus, this analysis uses 3,000 MTCO<sub>2</sub>e per year as the significance threshold under the first impact criterion in **Section 4.7.3**.

### Construction GHG Emissions

Construction is an episodic, temporary source of GHG emissions. Emissions are generally associated with the operation of construction equipment and the disposal of construction waste. To be consistent with the guidance from the SCAQMD for calculating criteria pollutants from construction activities, only GHG emissions from onsite construction activities and offsite hauling and construction worker commuting are considered as project-generated. As explained by the California Air Pollution Control Officers Association (CAPCOA) in its 2008 white paper (CAPCOA, 2008), the information needed to characterize GHG emissions from manufacture, transport, and end-of-life of construction materials would be speculative at the CEQA analysis level. CEQA does not require an evaluation of speculative impacts (*CEQA Guidelines* § 15145). Therefore, the construction analysis does not consider such GHG emissions, but does consider non-speculative onsite construction activities, and offsite hauling and construction worker trips. All GHG emissions are identified on an annual basis.

Estimated criteria pollutant emissions from the Legacy Square project's onsite and offsite project construction activities were calculated using CalEEMod, Version 2016.3.2, which was described in **Section 4.3.6**. The results of this analysis are presented in **Table 4.7-2**. The greatest annual increase in GHG emissions from Legacy Square project construction activities would be 502 metric tons in 2020 and 447 metric tons in 2021 for a total construction GHG emissions of 949 metric tons. Consistent with SCAQMD recommendations and to ensure that construction emissions are assessed in a quantitative sense, construction GHG emissions have been amortized over a 30-year period. The amortized value, **31.6 MTCO<sub>2</sub>e**, has been added to the Legacy Square project's annual operational GHG emissions. (See below.) Modeling results are in **Appendix G**.

**Table 4.7-2  
PROJECT CONSTRUCTION-RELATED GHG EMISSIONS**

Year	Annual Emissions (MT)			
	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
2020	499.6	0.1112	0	502.4
2021	445.1	0.0738	0	446.9
<b>Total</b>	<b>945</b>	<b>0.185</b>	<b>0</b>	<b>949</b>

### Operational GHG Emissions

For a reasonable maximum emissions case, it was assumed that GHG emissions from the Legacy Square project site are currently zero. Operational GHG emissions calculated by CalEEMod are shown in **Table 4.7-3**. Total annual unmitigated emissions from the Legacy Square project would be 1,216 MTCO<sub>2</sub>e per year. Energy production and mobile sources account for about 91% of these emissions.<sup>13</sup>

**Table 4.7-3  
PROJECT OPERATIONAL GHG EMISSIONS**

Emissions Source	Estimated Project Generated CO <sub>2</sub> e Emissions (Metric Tons per Year)
Area Sources	1.60
Energy Demand (Electricity & Natural Gas)	221.77
Mobile (Motor Vehicles)	875.23
Solid Waste Generation	25.89
Water Demand	59.87
Construction Emissions <sup>a</sup>	31.63
<b>Total</b>	<b>1,216</b>

<sup>a</sup> Total construction GHG emissions were amortized over 30 years and added to those resulting from the operation of the project.

Additionally, the EIR for the Transit Zoning Code (SD 84A and SD 84B) includes mitigation measures (City of Santa Ana, 2010, pp. 4.2-35 to 37) that directly relate to reduction in GHG emissions. Measures applicable to the Legacy Square project include the following:

**MM GHG-1** Prior to issuance of a building permit, the applicant shall demonstrate that the design of the proposed buildings or structures exceeds current Title 24 requirements (Title 24, Part 6 of the California Code of Regulations; The Energy Commission

<sup>13</sup> Calculations are provided in **Appendix G**.

adopted the 2008 Standards on April 23, 2008, and the Building Standards Commission approved them for publication on September 11, 2008. The 2008 Residential Compliance Manual was adopted by the Commission on December 17, 2008, and the 2008 Non-residential Compliance Manual was adopted January 14, 2009. Energy Efficiency Standards for Residential and Non-Residential Buildings, as amended November 1, 2005; Cool Roof Coatings performance standards as amended September 11, 2006) by a minimum of 20 percent, subject to review by the County Building Official. Documentation of compliance with this measure shall be provided to the Planning Department and Building Official for review and approval prior to issuance of the permit. Installation of the identified design features or equipment will be confirmed by the County Building Official prior to certificate of occupancy. Any combination of the following design features may be used to fulfill this mitigation provided that the total increase in efficiency meets or exceeds 20 percent:

- Increase in insulation such that heat transfer and thermal bridging is minimized.
- Limit air leakage through the structure or within the heating and cooling distribution system to minimize energy consumption.
- Incorporate dual-paned or other energy efficient windows.
- Incorporate energy efficient space heating and cooling equipment.
- Incorporate energy efficient light fixtures.
- Incorporate energy efficient appliances.
- Incorporate energy efficient domestic hot water systems.
- Incorporate solar panels into the electrical system.
- Incorporate cool roofs/light-colored roofing.
- Other measures that will increase the energy efficiency of building envelope in a manner that when combined with the other options listed above exceeds current Title 24 Standards (Title 24, Part 6 of the California Code of Regulations; Energy Efficiency Standards for Residential and Non-Residential Buildings, as amended November 1, 2005; Cool Roof Coatings performance standards (as amended September 11, 2006) by a minimum of 20 percent.

**MM GHG-2** Prior to issuance of a building permit, the applicant shall provide a landscape plan for the project that includes shade trees around main buildings, particularly along southern elevations where practical, and will not interfere with loading dock locations or other operational constraints. Documentation of compliance with this measure shall be provided to the City Building Official for review and approval.

**MM GHG-3** Prior to issuance of a building permit, the applicant shall demonstrate that the proposed building or structure designs incorporate exterior storage areas for recyclables and green waste and adequate recycling containers located in public areas. Documentation of compliance with this measure shall be provided to the City Building Official for review and approval. Installation of the identified design features or equipment will be confirmed by the City Building Official prior to issuance of certificate of occupancy.

- MM GHG-4** The applicant shall provide education and publicity about reducing waste and available recycling services to future tenants. The education and publicity materials shall be provided to the City for review and approval by the Planning Department.
- MM GHG-5** All showerheads, lavatory faucets, and sink faucets within the residential units shall comply with the California Energy Conservation flow rate standards.
- MM GHG-6** Low-flush toilets shall be installed within all commercial and residential (including Congregate Care) units as specified in California State Health and Safety Code § 17921.3.
- MM GHG-7** All commercial/industrial/common area irrigation areas shall be capable of being operated by a computerized irrigation system which includes an on-site weather station/ET gage capable of reading current weather data and making automatic adjustments to independent run times for each irrigation valve based on changes in temperature, solar radiation, relative humidity, rain, and wind. In addition, the computerized irrigation system shall be equipped with flow-sensing capabilities, thus automatically shutting down the irrigation system in the event of a mainline break or broken head. These features will assist in conserving water, eliminating the potential of slope failure due to mainline breaks, and eliminating over-watering and flooding due to pipe and/or head breaks.
- MM GHG-8** Landscape designers shall ensure that project landscaping of commercial/ industrial/ common areas uses drought-tolerant and smog-tolerant trees, shrubs, and groundcover to ensure long-term viability and conserve water and energy.
- MM GHG-9** Landscape designers shall ensure that the landscape plan includes drought resistant trees, shrubs, and groundcover within the parking lot and perimeter.
- MM GHG-10** Project designers shall ensure that design features incorporate light-colored roofing materials that will deflect heat away from the building and conserve energy.
- MMGHG-11** The project designers shall ensure that designs include all illumination elements to have controls to allow selective use as an energy conservation measure.
- MM GHG-12** Prior to issuance of a building permit, the applicant shall demonstrate that measures have been included to promote ride sharing programs such as, but not necessarily including, publishing ride sharing information for all of the tenants, designating a certain percentage of parking spaces for ride sharing vehicles, designating adequate passenger loading and unloading and waiting areas for ride sharing vehicles, and providing a website or message board for coordinating rides. Documentation of compliance with this measure shall be provided to the City Building Official for review and approval. Installation of the identified design features or equipment will be confirmed by the City Building Official prior to issuance of certificate of occupancy.
- MM GHG-13** Prior to issuance of a building permit, the applicant shall demonstrate that measures have been included to provide adequate bicycle parking near building entrances to promote cyclist safety, security, and convenience. Documentation of compliance with this measure shall be provided to the City Building Official for review and approval.

Installation of the identified design features or equipment will be confirmed by the City Building Official prior to issuance of certificate of occupancy.

**MM GHG-14** Prior to issuance of any certificate of occupancy, the applicant shall demonstrate that all interior building lighting supports the use of compact fluorescent light bulbs or equivalently efficient lighting to the satisfaction of the City Building Official.

**MM GHG-15** Tenants shall be responsible to ensure that preferential parking spaces are allocated to ultra-low emission vehicles and alternative fueled vehicles to encourage the use of alternative fuels and ultra-low emission vehicles.

Therefore, under the first significance criterion, GHG emissions would be less than significant, and no mitigation is necessary.

**b) Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHG?**

**Less than Significant Impact**

As was noted in **Section 4.7.2.3**, the City has identified emission measures in its CAP that it can take to reduce GHG emissions from community-wide and municipal operations. While none of these measures is directly relevant to the Legacy Square project, the Legacy Square project does not conflict with any of them.

Another approach to identifying potential conflict with GHG reduction plans, policies, or regulations is to examine General Plan provisions that prescribe or enable GHG emissions control. The Current Santa Ana General Plan lists policies that reduce GHG emissions. The policies prescribe actions to be taken by the City, and not measures to be implemented by a Legacy Square project proponent.

## 4.8 Hazards and Hazardous Materials

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?		X		
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?		X		
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one quarter mile of an existing or proposed school?		X		
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?				X
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?				X
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?				X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
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?			X	

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

**Less than Significant Impact with Mitigation Incorporated**

A Phase I Environmental Site Assessment (Phase I ESA) (refer to **Appendix D**) was conducted for the project site and revealed no evidence or recognized environmental conditions in connection with the property (EEI, 2018, p. iv). However, asbestos floor tiles were identified in the older church building during the Phase I ESA.

As detailed in the Phase I ESA, asbestos, a natural fiber used in the manufacturing of several different building materials, has been identified as a human carcinogen. Most friable (i.e., easily broken or crushed) Asbestos-Containing Material (ACM) was banned in building materials by 1978. By 1989, most major manufacturers had voluntarily removed non-friable ACM (i.e., flooring, roofing, and mastics/sealants) from the market. These materials, however, were not banned completely. According to project information, all of the existing onsite structures were built prior to 1978. Therefore, the presence of ACM in all of the buildings is likely (EEI, 2018, pp. 15-16). Lead-Based Paint (LBP) is identified by OSHA, the Environmental Protection Agency (EPA) and the Department of Housing and Urban Development Department (HUD) as being a potential health risk to humans, particularly children, based upon its effects to the central nervous system, kidneys, and bloodstream (EEI, 2018, pp. 15-16). The risk of Lead-Based Paint has been classified by HUD based upon the age and condition of the painted surface with risk having an inverse relationship to age of the painted surface. Paint applied between 1970 and 1977 presents a slight health risk, and paint applied prior to 1950 presents maximum health risk. According to project information, the existing onsite structures were built prior to 1977 (circa 1929); therefore, the presence of LBP is likely.

**Construction**

Project construction involves the demolition and removal of the existing building on the project site, creating a potential for the release of asbestos and dust from lead-based paint. According to the Transit Zoning Code EIR (TZC EIR), “Existing hazardous materials regulations were established at the state level to ensure compliance with federal regulations to reduce the risk to human health and the environment from the routine use of hazardous substances. The Santa Ana Fire Department has the authority to inspect onsite uses and enforce state and federal laws governing the storage, use, transport, and disposal of hazardous materials and wastes. Any projects built within the Transit Zoning Code (SD 84A and SD 84B) area will be required to comply with existing hazardous materials regulations, which are codified in Titles 17, 19, and 27 of the California Code of Regulations, and their enabling legislation set forth in Chapter 6.5 of the California Health and Safety Code. In addition, all projects will be required to comply with all applicable federal, state, and local laws and regulations pertaining to the transport, use, and disposal of hazardous waste, including, Title 40, 42, 45, and 49 of the Code of Federal Regulations” (City of Santa Ana 2010, p. 4.5-13).

The TZC EIR continues: “Federal, state, and local regulations govern the disposal of wastes identified as hazardous, which could be produced at future development sites. Asbestos, lead, or other hazardous material encountered during demolition or construction activities would be disposed of in compliance with all applicable regulations for the handling of such waste” (City of Santa Ana Transit Zoning Code EIR, 2010, p. 4.5-13).

With implementation of **MM HAZ-1** (MM 4.5-3 from the TZC EIR) and **MM HAZ-2** (MM 4.5-2 from the TZC EIR), the project would comply with state and federal regulations by having pre-demolition

hazardous materials survey performed on all site structures. If any hazardous materials are present, they would be disposed of during the demolition process.

### Mitigation Measures

**MM HAZ-1** Prior to the demolition of structures that were constructed before 1980, a thorough investigation shall be completed to determine if asbestos, lead, or polychlorinated biphenyls (PCBs) exist on the site. All demolition that could result in the release of lead and/or asbestos must be conducted according to Cal/OSHA standards.

**MM HAZ-2:** In the event that previously unknown or unidentified soil and/or groundwater contamination that could present a threat to human health or the environment is encountered during construction of the proposed project, construction activities in the immediate vicinity of the contamination shall cease immediately. If contamination is encountered, a Risk Management Plan shall be prepared and implemented that (1) identifies the contaminants of concern and the potential risk each contaminant would pose to human health and the environment during construction and post-development and (2) describes measures to be taken to protect workers, and the public from exposure to potential site hazards. Such measures could include a range of options, including, but not limited to, physical site controls during construction, remediation, long-term monitoring, post-development maintenance or access limitations, or some combination thereof. Depending on the nature of contamination, if any, appropriate agencies shall be notified (e.g., Santa Ana Fire Department). If needed, a Site Health and Safety Plan that meets Occupational Safety and Health Administration requirements shall be prepared and in place prior to commencement of work in any contaminated area

### Level of Significance After Mitigation

Mitigation measure **HAZ-1** would require the project to conduct a thorough investigation for asbestos, lead, and PCBs in the existing buildings on the project site prior to demolition. If these contaminants are identified in the existing buildings, demolition would be conducted in accordance with Cal/OSHA regulations such as Title 8 Division 1 Chapter 4 Subchapter 4 Article 4 § 1529 and § 15132.1. Building materials containing asbestos or lead paint would be considered hazardous waste and removed from the site by an approved transporter to an appropriate treatment, storage, and disposal facility (TSDF) as described in Title 22 Division 4.5 Chapters 14 and 15. Adherence to these regulations would minimize potential hazards to the public or the environment to a less than significant level.

If a previously unknown or unidentified soil or groundwater contaminant is identified during the demolition and/or the construction process, mitigation measure **HAZ-2** would minimize risk to the public and environment by ceasing work in the area until the contaminant is identified, quantified, removed, and disposed of in adherence to federal, state, and/or local regulations, as detailed in this mitigation measure. Implementation of **MM HAZ-2** would avoid or minimize contaminants from escaping the site and thus minimize potential hazards related to exposure of identified contaminants to the public or the environment to a less than significant level.

With the implementation of mitigation measures **HAZ-1** and **HAZ-2** above, the project would result in less than significant impacts associated with the handling of hazardous materials during the demolition and construction phase.



## Operation

The project would be a mixed-use development including residential and commercial uses. While the project is not anticipated to use or require any unusual hazardous materials, a certain amount of hazardous materials would be extended to be used during project operation. These materials would typically consist of household cleaning products, maintenance products such as solvents or paints, and landscaping products such as pesticides or herbicides.

As stated in the TZC EIR: “Exposure of persons to hazardous materials could occur in the following manners: improper handling or use of hazardous materials or hazardous wastes during construction or operation of future developments, particularly by untrained personnel; transportation accident; environmentally unsound disposal methods; or fire, explosion or other emergencies. The types and amounts of hazardous materials would vary according to the nature of the activity. In some cases, it is the type of material that is potentially hazardous; in others, it is the amount of hazardous material that could present a hazard.” (City of Santa Ana Transit Zoning Code EIR, 2010, p. 4.5-12).

“Existing hazardous materials regulations were established at the state level to ensure compliance with federal regulations to reduce the risk to human health and the environment from the routine use of hazardous substances. The Santa Ana Fire Department has the authority to inspect onsite uses and enforce state and federal laws governing the storage, use, transport, and disposal of hazardous materials and wastes. Any projects built within the Transit Zoning Code (SD 84A and SD 84B) area will be required to comply with existing hazardous materials regulations, which are codified in Titles 17, 19, and 27 of the California Code of Regulations, and their enabling legislation set forth in Chapter 6.5 of the California Health and Safety Code. In addition, all projects will be required to comply with all applicable federal, state, and local laws and regulations pertaining to the transport, use, and disposal of hazardous waste, including, Title 40, 42, 45, and 49 of the Code of Federal Regulations” (City of Santa Ana Transit Zoning Code EIR, 2010, pp. 4.5-12 and 4.5-13).

Compliance with these regulations would avoid or minimize the potential for significant hazards associated with the routine transport, use, or disposal of hazardous materials, and 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**

The potential presence of asbestos and lead-based paint in the existing building onsite is a known issue. Compliance with federal, state, and local regulations, as described previously, would avoid or minimize the release of asbestos, lead paint dust, or additional hazardous materials identified during the pre-demolition hazardous materials survey, into the environment.

Development of the project would involve transport, storage, and use of chemical agents, solvents, paints, and other hazardous materials commonly associated with construction activities. Chemical transport, storage, and use would comply with Resource Conservation and Recovery Act (RCRA); Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); Occupational Safety and Health Administration (OSHA); California hazardous waste control law (California Health and Safety Code, Division 20, Chapter 6.5, Hazardous Waste Control); California Division of Safety and Health (DOSH); SCAQMD; and City of Santa Ana Fire Department requirements. Onsite

maintenance, and operation of the project would involve storage and use of small amounts of commercially available janitorial and landscaping supplies. These materials would be used, stored, handled, and disposed of in accordance with applicable regulations, including RCRA; CERCLA; OSHA; California hazardous waste control law; DOSH; SCAQMD; and City of Santa Ana Fire Department requirements. Compliance with applicable laws and regulations during project construction and operation, and implementation of mitigation measures **HAZ-1** and **HAZ-2** provided above, would minimize the potential risk of contamination by implementing investigation and remediation efforts and ensure that impacts associated with upset or accident conditions would be less than significant.

- c) **Would the project 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 with Mitigation Incorporated**

Four schools are located within one-quarter mile of the project: Orange County Educational Arts Academy, a charter school, is located at 825 North Broadway, approximately 0.25 mile northwest of the project; Saint Joseph Catholic School is located at 608 Civic Center Drive East, approximately 0.2 mile northeast of the project; California Coast University, a for-profit university, is located at 925 North Spurgeon Street, approximately 0.2 mile north of the project; and the Career College of California, a technical school, is located at 201 East 4<sup>th</sup> Street, approximately 0.15 mile from the project. No other schools are located within one-quarter mile of the project site.

As detailed in the Phase I ESA prepared for the project (refer to **Appendix D**), the project site was historically a church property from as early as 1929. A review of historical topographical maps revealed a building near the southeast corner of East Santa Ana Boulevard and French Street as early as 1896; therefore, there is a potential that the site has been a church facility since at least 1896.

Development contemplated under the TZC EIR, such as the proposed project, would handle and/or store potentially hazardous materials; however, the types of hazardous materials anticipated are limited to regulated types and quantities. Construction activities would necessarily involve the utilization of diesel-powered trucks and equipment, which result in diesel emissions that have been determined to be health hazards. Compliance with all applicable local, State, and federal laws, and regulations, as described in **Section 4.5.2** of the TZC EIR (City of Santa Ana Transit Zoning Code EIR, 2010, pp. 4.5-4 through 4.5-10), regulate, control, or respond to hazardous waste, transport, disposal, or clean-up in order to ensure that hazardous materials do not pose a significant risk to nearby receptors. If ground contamination is found within close proximity to the project site before or during construction, further mitigation measures **HAZ-1** and **HAZ-2** (discussed above) would be followed to ensure the health and safety of students. For these reasons, the project would result in a less-than-significant environmental impact related to the emission or handling of hazardous materials within the vicinity of schools.

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

**No Impact**

Government Code § 65962.5 requires the Department of Toxic Substances Control (DTSC) to compile and update, at least annually, lists of the following:

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❖ SECTION 4.8 – HAZARDS AND HAZARDOUS MATERIALS ❖

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- Hazardous waste and substances sites from the DTSC EnviroStor database.
- Leaking Underground Storage Tank (LUST) sites by county and fiscal year in the State Water Resources Control Board (SWRCB) GeoTracker database.
- Solid waste disposal sites identified by SWRCB with waste constituents above hazardous waste levels outside waste management units.
- SWRCB Cease and Desist Orders (CDOs), and Cleanup and Abatement Orders (CAOs).
- Hazardous waste facilities subject to corrective action pursuant to § 25187.5 of the Health and Safety Code, identified by DTSC.

These lists are collectively referred to as the “Cortese List.” (EPA, 2018) The project site was not identified as a Cortese site.

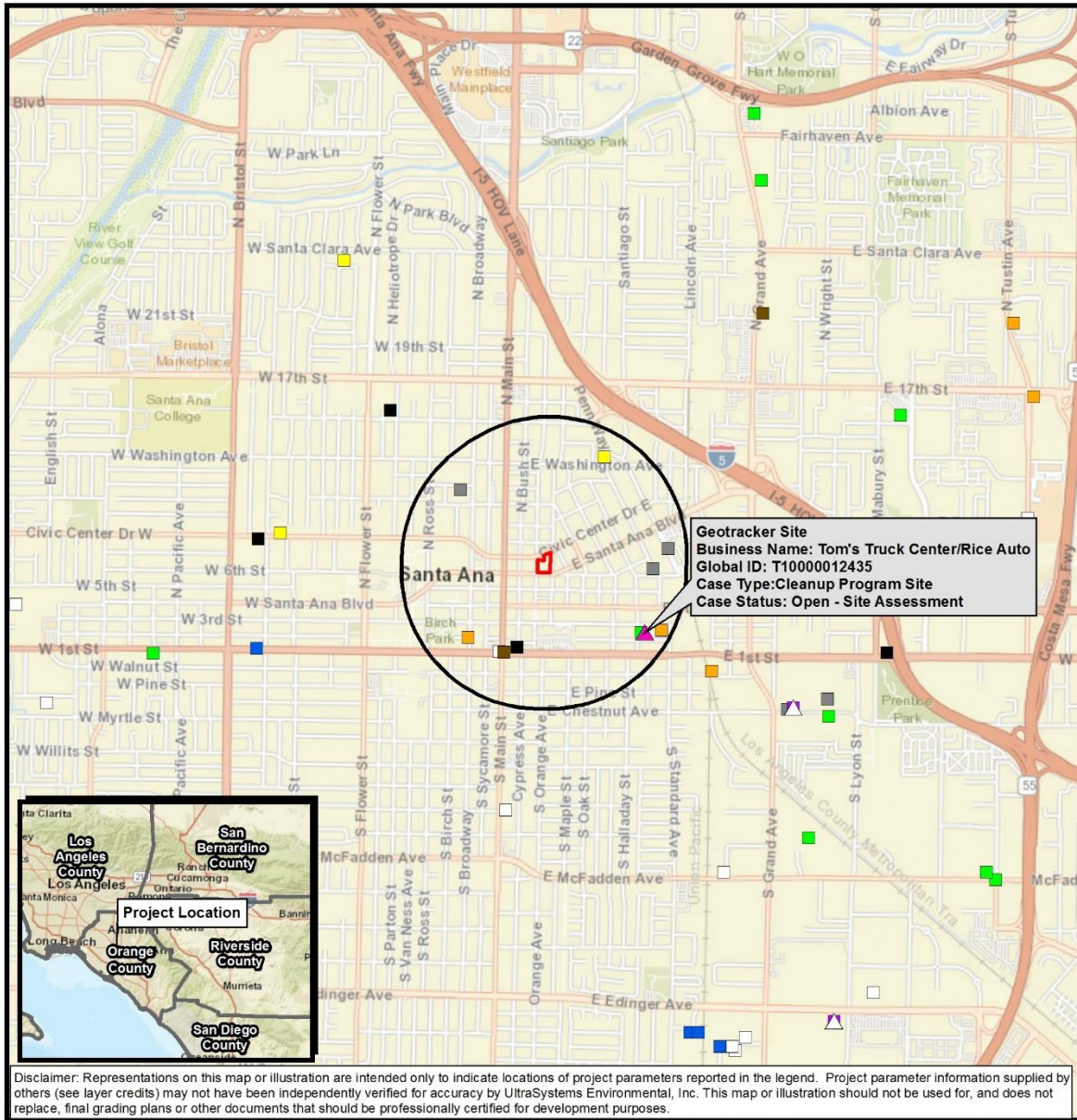
As detailed in the Phase I ESA prepared for the project, an environmental database search was conducted for locations identified as hazardous substance and/or hazardous waste facilities near the subject property. The project site was not listed in the databases searched, including but not limited to the following (EEI, 2018, p. 11):

- Federal Records: USEPA’s Comprehensive Environmental Response Compensation, and Liability Information System; National Priority List; RCRA Treatment, Storage, and Disposal Sites; toxic release reporting, RCRA violators; toxic substance manufacturers and importers; generators, or transporters, commercial storers and/or brokers and disposers of polychlorinated biphenyls; hazardous material spill incidents reported to the department of Transportation; and Federal Superfund Liens.
- California Records: State hazardous waste sites; wastewater treatment facilities; solid waste facilities/landfill sites; and registered and LUST incident reports.

The above-described listings do not identify the project site on the Cortese List. The nearest active site to the project site, “Tom’s Truck Center/Rice Auto” (refer to **Figure 4.8-1**, Cortese Sites) is located 910 East 3<sup>rd</sup> Street, approximately 0.4 mile southeast of the project site and cannot be considered adjacent.

Because the project site is not identified as a Cortese site and is not immediately adjacent to a Cortese site, the project would not create a hazard to the public or the environment, and there would be no impact.

**Figure 4.8-1  
CORTESE SITES**



December 21, 2018

**Legend**

Project Boundary	Historical
Half-Mile Radius	Military Evaluation
<b>Geotracker Sites (12-20-18 Database)</b>	School Cleanup
Cleanup Program Site	School Investigation
<b>Envirostor Sites (12-20-18 Database)</b>	State Response
Corrective Action	Tiered Permit
Evaluation	Voluntary Cleanup
	DTSC Hazardous Waste Site

Scale 1:31,680

0 0.25 0.5 Miles

0 0.25 0.5 Kilometers

**City of Santa Ana  
Legacy Square  
Cortese Sites**

- 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 Orange County Sheriff's Depart Helistop is located approximately 0.75 mile west of the project site (Google Earth Pro, 2018); however, this heliport does not have an Influence Area according to the Orange County Airport Land Use Commission (ALUC, 2018). The nearest active public airport is John Wayne Airport, located approximately 4.6 miles south of the project site. As shown in **Figure 4.8-2, Land Use Influence Area for John Wayne Airport**, the project is not located within this airport's Land Use Influence Area. Fullerton Municipal Airport, the only municipal airport in Orange County, is located approximately 10.5 miles northwest of the project, and the Joint Forces Training Base, Los Alamitos, is located approximately 11 miles west of the project. Due to the project's distance from the nearest active airports, the project site is not located within the boundary of an Airport Influence Area (AIA), or within two miles of a public airport or public use airport. Subsequently, the project would not expose people to safety hazards due to proximity to a public airport, and no impacts would occur.

- 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**

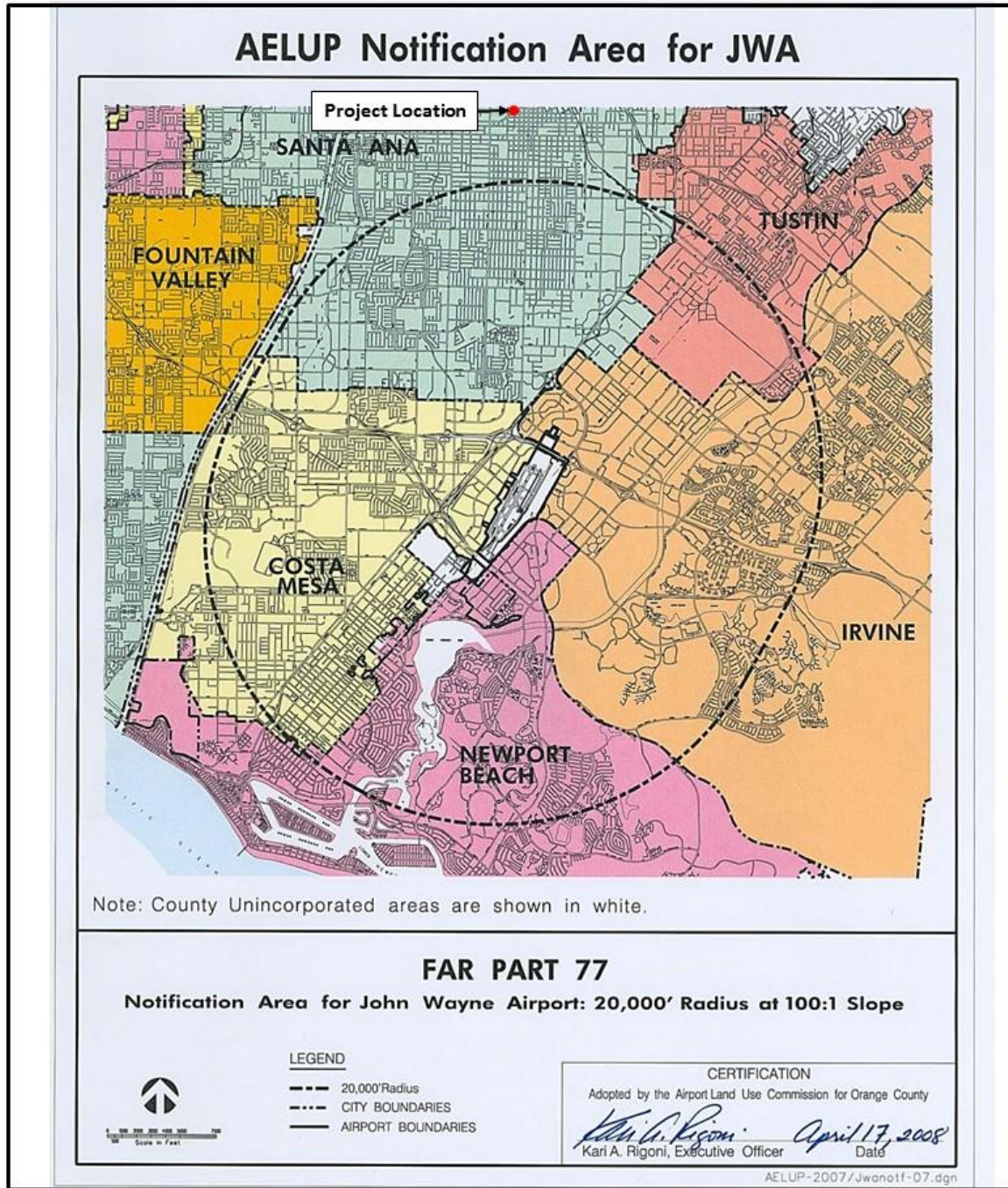
The project is not located within the vicinity of a private airstrip (Google Earth Pro, 2018; ALUC, 2018). For this reason, the project would not expose people to safety hazards as a result of proximity to a private airstrip, and no impacts are anticipated.

- g) **Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

**Less than Significant Impact**

The project could temporarily impact street traffic adjacent to the project site during the construction phase due to construction activities into the right-of-way (ROW). Project construction could reduce the number of lanes or temporarily close a portion of East Santa Ana Boulevard, North Spurgeon Street, French Street, or Civic Center Drive East. The City requires preparation and implementation of a Traffic Management Plan (TMP) for all projects that require construction in the public ROW. The TMP must be reviewed and approved by the City's Traffic Engineer prior to the start of construction activity in the public ROW. The typical TMP requires such things as the installation of K-rail between the construction area and open traffic lanes, the use of flagmen and directional signage to direct traffic where only one travel lane is available or when equipment movement creates temporary hazards, and the installation of steel plates to cover trenches under construction. Emergency access must be maintained. Compliance with City requirements for traffic management during construction in the public ROW would ensure adequate emergency access. The impact would be less than significant.

**Figure 4.8-2**  
**AIRPORT INFLUENCE AREA MAP FOR JOHN WAYNE AIRPORT**



Disclaimer: Illustration provided by the Airport Land Use Commission, who has indicated that the information is true and correct. No other warranties are expressed or implied.

Source: Airport Land Use Commission, 2008



**City of Santa Ana**  
**Legacy Square**

Airport Influence Area for  
 John Wayne Airport

- h) **Would the project 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?**

**Less Than Significant Impact**

The California Department of Forestry and Fire Protection (CALFIRE) developed Fire Hazard Severity Zones (FHSZ) for State Responsibility Areas (SRA) and Local Responsibility Areas (LRA). The project site is not in a SRA. (CALFIRE SRA, 2018) The project site is located in an LRA area and is outside a Very High Fire hazard area, as depicted in **Figures 4.8-3 and 4.8-4**.

Very High fire hazard designation refers to either:

a) wildland areas supporting high-to-extreme fire behavior resulting from climax fuels typified by well-developed surface fuel profiles (e.g., mature chaparral) or forested systems where crown fire is likely. Additional site elements include steep and mixed topography and climate/fire weather patterns that include seasonal extreme weather conditions of strong winds and dry fuel moistures. Burn frequency is typically high, and should be evidenced by numerous historical large fires in the area. Firebrands from both short- (<200 yards) and long-range sources are often abundant.

OR

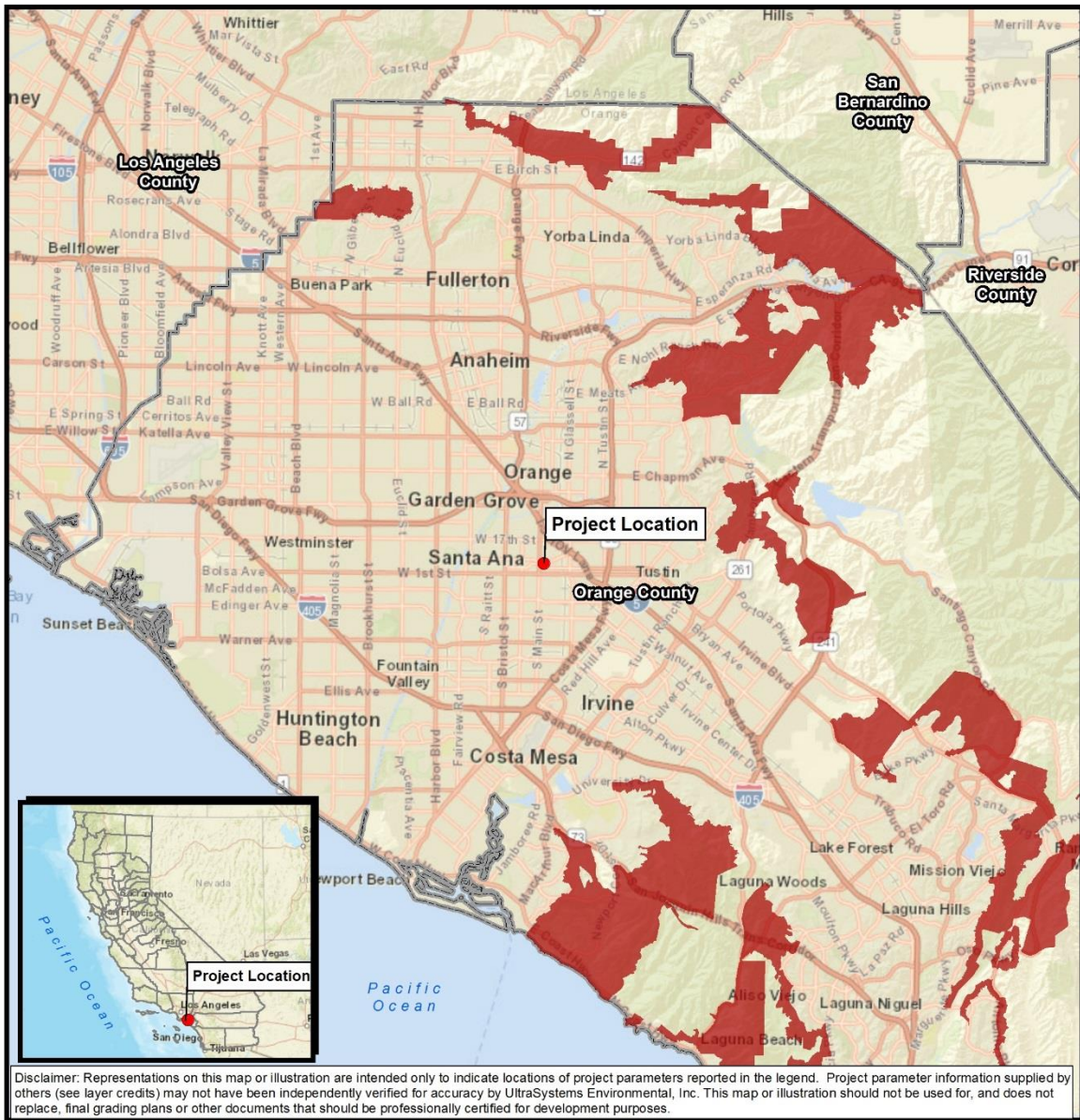
b) developed/urban areas typically with high vegetation density (>70% cover) and associated high fuel continuity, allowing for frontal flame spread over much of the area to progress impeded by only isolated non-burnable fractions. Often where tree cover is abundant, these areas look very similar to adjacent wildland areas. Developed areas may have less vegetation cover and still be in this class when in the immediate vicinity (0.25 mile) of wildland areas zoned as Very High (see above).

c) The proposed project would include required fire suppression design features (i.e., fire-resistant building materials, where appropriate, smoke detection and fire alarm systems, automatic sprinkler systems, portable fire extinguishers, emergency signage in all buildings, and fuel modification/brush clearance) identified in the latest edition of the CBC, and is located in an urbanized area that is presently afforded fire protection and Emergency Management Services (EMS).

The project site is located in a highly urbanized area that is presently afforded fire protection and EMS. The nearest wildlands, or wildland interface area, is the Loma Ridge area on the west side of the Santa Ana Mountains, approximately 6.5 miles east of the project.

In addition, the project would include required fire suppression design features (i.e., fire-resistant building materials, where appropriate, smoke detection and fire alarm systems, automatic sprinkler systems, portable fire extinguishers, emergency signage in all buildings), as required by the latest edition of the CBC. For these reasons, impacts associated with wildland fires are anticipated to be less than significant.

**Figure 4.8-3**  
**FIRE HAZARD SEVERITY ZONES – LOCAL RESPONSIBILITY AREA**



Path: J:\Projects\6095\_Santa\_Ana\_Legacy\_Square\MXDs\6095\_Santa\_Ana\_Legacy\_Square\_4\_8\_Fire\_Hazards\_LRA\_2018\_12\_28.mxd  
 Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community; Cal Fire, 2007/2011-2012; UltraSystems Environmental, Inc., 2018  
 December 28, 2018

**City of Santa Ana  
Legacy Square**

Fire Hazard Severity Zone  
Local Responsibility Area (LRA)

**Legend**

- Project Location
- ▭ County Boundary
- Fire Hazard Severity Zones in LRA (CAL FIRE Recommended 2011/2012):**
- Very High

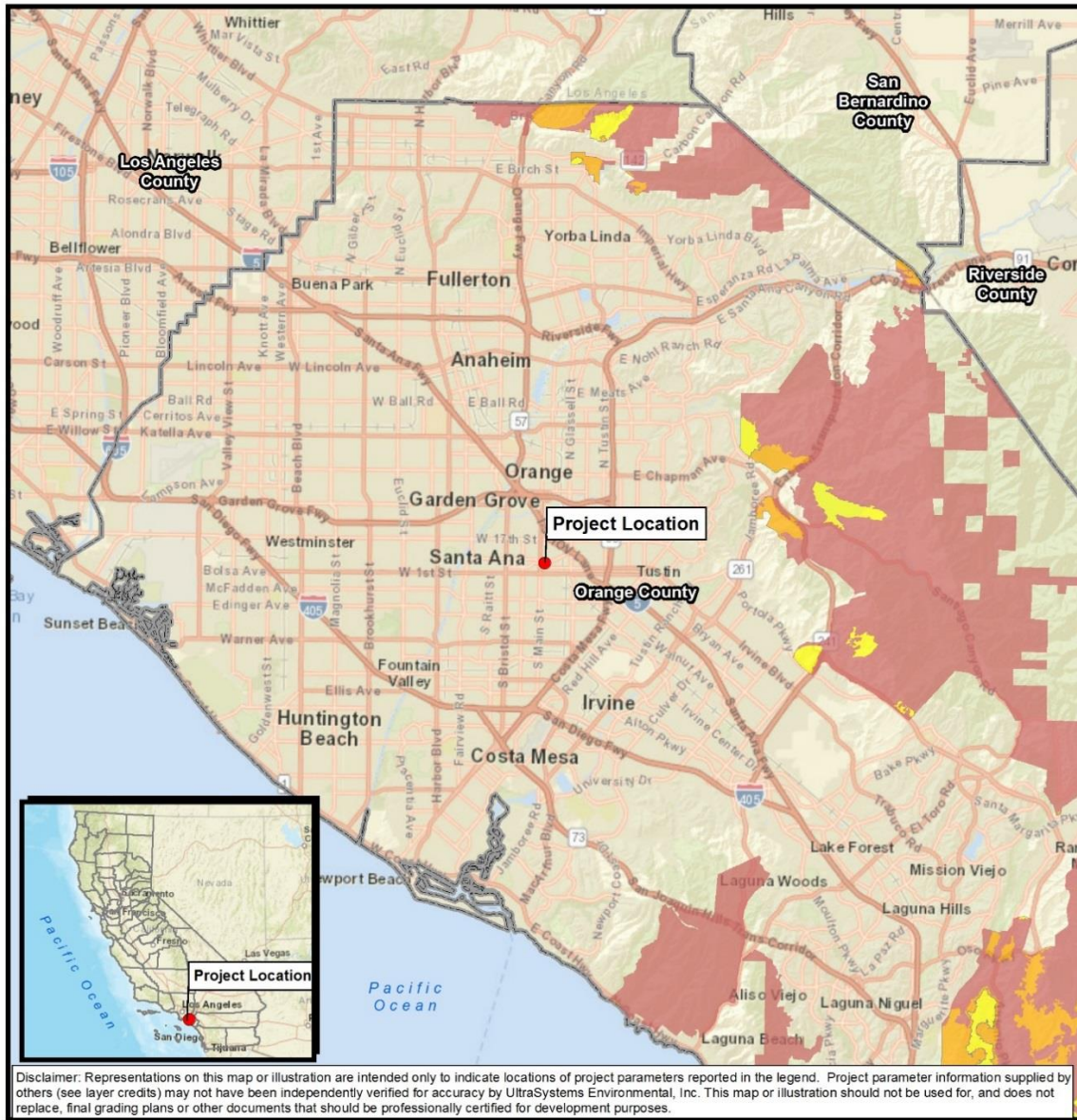
Scale 1:253,440

0 2 4 Miles

0 2 4 Kilometers

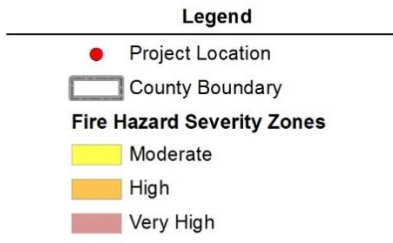
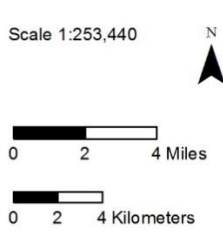


**Figure 4.8-4  
FIRE HAZARD SEVERITY ZONES – STATE RESPONSIBILITY AREA**



Path: J:\Projects\6095\_Santa\_Ana\_Legacy\_Square\MXD\6095\_Santa\_Ana\_Legacy\_Square\_4\_8\_Fire\_Hazards\_SRA\_2018\_12\_28.mxd  
 Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community, Cal Fire, 2007/2011-2012; UltraSystems Environmental, Inc., 2018

December 28, 2018



**City of Santa Ana  
Legacy Square**  
Fire Hazard Severity Zone  
State Responsibility Area (SRA)



## 4.9 Hydrology and Water Quality

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?			X	
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)?				X
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?			X	
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?			X	
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?			X	
f) Otherwise substantially degrade water quality?			X	
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?				X
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				X
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?				X

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
j) Cause inundation by seiche, tsunami, or mudflow?				X

**a) Would the project violate any water quality standards or waste discharge requirements?**

**Less than Significant Impact**

The project site is currently developed. Under existing conditions, stormwater runoff generated on the project site is discharged as sheet flow into the adjacent streets (East Santa Ana Boulevard, French Street, and North Spurgeon Street) and enters the storm drain system via either of two inlets located at the corner of Santa Ana Boulevard and North Spurgeon Street (Fusco, 2018, p. 7). Development of the project has the potential to result in two types of water quality impacts: (1) short-term impacts due to construction related discharges; and (2) long-term impacts from operation. Soil disturbance would temporarily occur during project construction, due to earth-moving activities such as excavation and trenching for foundations and utilities, soil compaction and moving, cut and fill activities, and grading. Disturbed soils are susceptible to high rates of erosion from wind and rain, resulting in sediment transport via stormwater runoff from the project area. Erosion and sedimentation affect water quality through interference with photosynthesis, oxygen exchange, and respiration, growth, and reproduction of aquatic species. Runoff from construction sites may include sediments and contaminants such as oils, fuels, paints, and solvents (City of Santa Ana 2010, p. 4.6-14). Additionally, other pollutants such as nutrients, trace metals, and hydrocarbons can attach to sediment and be carried by stormwater into storm drains which discharge into the Santa Ana River and, eventually, to the Pacific Ocean.

Spills and mishandling of construction materials and waste may also potentially leave the project site and negatively impact water quality. The use of construction equipment and machinery may potentially result in contamination from petroleum products, hydraulic fluids, and heavy metals. Contamination from building preparation materials such as paints and solvents, and landscaping materials such as fertilizers, pesticides, and herbicides may also potentially degrade water quality during project construction. Trash and demolition debris may also be carried into storm drains and discharged into receiving waters.

**Construction Pollutants Control**

Temporary impacts on water quality, such as those described above could result from stormwater runoff during construction of the project. Project construction would require ground-disturbing activities, including demolition and clearing of the existing structures and paved parking lot, and grading for construction of building foundations. Disturbed soils accelerate erosion and increase sediment in stormwater runoff to receiving waters, causing increased turbidity and sedimentation. Additionally, fuel, oil, and other fluids used in construction vehicles, equipment, and heavy machinery could leave the site, enter the storm drain system and create or add to contaminant loads in the Lower Santa Ana River.

The area of the project is approximately 1.75 acres (Fusco 2018, pg. 7); § 402 of the federal CWA requires dischargers of potential pollutants into waters of the United States (waters of the U.S.) to: (1) implement BMPs to eliminate or reduce point and non-point source discharges of pollutants, and (2) if one acre or more of soil is disturbed during construction, to prepare a site-specific Stormwater Pollution Prevention Plan (SWPPP) to protect human health and the environment and obtain a National Pollutant Discharge Elimination System (NPDES) permit. NPDES permits establish enforceable limits on discharges, require effluent monitoring, designate reporting requirements, and require construction and post-construction BMPs to eliminate or reduce point and non-point source discharges of pollutants.

The project would be required to obtain an NPDES permit through the SWRCB, prepare a SWPPP and implement site-specific BMPs, that would minimize or prevent pollutants from leaving the project site and discharging into the Santa Ana River via the storm drain system. For these reasons, potential violations of water quality standards or waste discharge requirements during construction would be less than significant.

### **Operational Pollutant Controls**

NPDES Municipal Stormwater Permits require new development and significant redevelopment projects to incorporate post-construction BMPs to comply with the local Standard Urban Stormwater Mitigation Plan (SUSMP) or Water Quality Management Plan (WQMP) to reduce the quantity of rainfall runoff and improve the quality of water that leaves a site. To maintain compliance with Order No. R8-2009-0030 (as amended)/NPDES No. CAS618030, Waste Discharge Requirements for the County of Orange, Orange County Flood Control District, and the Incorporated Cities of Orange County within the Santa Ana Region Areawide Urban Storm Water Runoff (MS4 Permit), the project would be required to *minimize the short and long-term impacts on receiving water quality from new developments and significant re-developments...by [submitting] a WQMP, emphasizing implementation of LID [Low Impact Development] principles and addressing hydrologic conditions of concern, prior to issuance of any grading or building permits and/or prior to recordation of any subdivision maps* (RWQCB,2009, pg. 47).

LID is a leading stormwater management strategy that seeks to mitigate the impacts of runoff and stormwater pollution as close to its source as possible. LID comprises a set of site design approaches and BMPs that are designed to address runoff and pollution at the source. These LID practices can effectively remove nutrients, bacteria, and metals while reducing the volume and intensity of stormwater flows.

The project design includes one onsite modular wetland (biotreatment BMP), to be installed near the northeast corner of East Santa Ana Boulevard and North Spurgeon Street. Modular Wetlands by Modular Wetlands Systems, Inc. are proprietary biotreatment systems that utilize multi-stage treatment processes including screening media filtration, settling, and biofiltration. The pre-treatment chamber contains the first three stages of treatment, and includes a catch basin inlet filter to capture trash, debris, gross solids and sediments, a settling chamber for separating out larger solids, and a media filter cartridge for capturing fine TSS, metals, nutrients, and bacteria. Runoff then flows through the wetland chamber where treatment is achieved through a variety of physical, chemical, and biological processes. As storm water passes down through the planting soil, pollutants are filtered, adsorbed, biodegraded and sequestered by the soil and plants, functioning similar to bioretention systems. The discharge chamber at the end of the unit collects treated flows and discharges back into the storm drain system (Fusco, 2018, p. 18). As detailed in the WQMP prepared for the project, stormwater discharging from the project would be directed into the biofiltration unit

before being discharged into the City storm drain system (during precipitation events that exceed the design storm of 0.376 cubic feet per second [cfs] or the unit's treatment capacity of 0.462 cfs, excess stormwater would bypass the treatment unit and enter the storm drain system directly to prevent the onsite drains from backing up and flooding the project site).

Additional long-term operational BMPs would be identified through the MS4 Permit issued by the Santa Ana RWQCB. The principal permittee of this permit is the County of Orange, but the City of Santa Ana is a co-permittee, and is subject to the waste discharge requirements set forth in the MS4.

A preliminary draft WQMP has been prepared for the project site and is included herein as **Appendix F**. The MS4 and the associated WQMP would require the implementation of water quality features to ensure that runoff is treated prior to discharge into the storm drain or regional conveyance facilities to the receiving water of the Santa Ana River. Therefore, with adherence to existing state water quality requirements, impacts would be less than significant and no mitigation would be necessary.

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

### **No Impact**

The project site is located in the Coastal Plain of Orange County Groundwater Basin (California Department of Water Resources [DWR] Basin ID 8-001). This groundwater basin is bound on the northwest and the north by the Los Angeles-Orange County line. The Whittier fault zone and consolidated rocks of the Puente Hills and Chino Hills form the northeast extent of the basin. Consolidated rocks of the Santa Ana Mountains form the western boundary, and the consolidated rocks of the Laguna Hills and San Joaquin Hills form the southern boundary. The Pacific Ocean is the southwest extent of the groundwater basin.

As detailed in the project's Infiltration Study, included as **Appendix E** to this document, groundwater was not encountered during the infiltration study, which investigated the subsurface of the site to depths of 51.5 feet; a review of the CGS Seismic Hazard Report 011 indicates historical high groundwater level for the general site area is greater than 40 feet below the existing ground surface (Albus-Keefe & Associates, Inc., 2018, p. 5).

As previously described, the project site is currently developed, and 90 percent of the 1.75-acre site is impervious. Stormwater runoff discharges as sheet flow and enters the storm drain system via two inlets located at the corner of Santa Ana Boulevard and North Spurgeon Street (Fuscoe 2018, p. 7). The project would also result in an impervious area of 90 percent; the project would maintain the same drainage facilities but would create a new connection to storm drain infrastructure on Santa Ana Boulevard, where the biofiltration unit would be installed (Fuscoe, 2018, p. 19).

The project would not substantially deplete groundwater supplies or result in a substantial net deficit in the aquifer volume or lowering of the local groundwater table. The project would have no impact in this regard.

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

### **Less Than Significant Impact**

The project is located on nearly level topography in a developed urban area. However, development in the area could alter the existing drainage pattern of the area and may potentially result in erosion or siltation offsite.

### **Construction**

As described in the TZC EIR, *Construction activities under the proposed Transit Zoning Code (SD 84A and SD 84B) would involve stockpiling, grading, excavation, paving, and other earth-disturbing activities, which could result in the alteration of existing drainage patterns. These types of activities would constitute a temporary alteration of drainage patterns. However, future development would be required to comply with the 2003 DAMP and the City's corresponding Local Implementation Plan (LIP), which serves as the primary policy and implementation document for compliance with the NPDES Stormwater permits. Compliance with NPDES regulations and the City's Municipal Code would reduce the risk of short-term erosion resulting from drainage alteration during construction to a less-than-significant impact (City of Santa Ana, 2010, p. 4.6-19). With the project's compliance with NPDES regulations and the City's Municipal Code, the project would result in less than significant construction-related drainage impacts.*

### **Operation**

The TZC EIR states: *The majority of the Transit Zoning Code (SD 84A and SD 84B) is presently developed with a mix of residential, office, commercial and industrial uses. The introduction of new mixes of uses within the Transit Zoning Code (SD 84A and SD 84B) area are not anticipated to result in substantial changes to the existing drainage patterns because existing drainage facilities would continue to be used and the amount of drainage would remain similar to present levels. However, it is possible that future development in the Transit Zoning Code (SD 84A and SD 84B) area could result in minor alterations to drainage, such as changes in ground surface permeability via paving, or changes in topography via grading and excavation.*

Applicable regulations (e.g., preparation of a WQMP, including site design, source control, and treatment control BMPs, compliance with the City's Water Pollution Ordinance, etc.) would limit pollutant discharges from development of the project. *In addition, all development in the Specific Plan would be subject to the provisions of the City's LIP and Orange County DAMP. These regulations include the implementation of appropriate BMPs including a range of methods that could minimize off-site erosion, including but not limited to hydrodynamic devices, swales/biofilters, basins, and various filters (City of Santa Ana, 2010, p. 4.6-20). Therefore, development of the project would be subject to the provisions of the City's LIP and Orange County DAMP, which would reduce runoff from the project site.*

In addition, as required by the TZC EIR, future developments are required to prepare a storm drain plan and the aforementioned WQMP. Implementation of these plans would reduce the volume of sediment-laden runoff discharging from sites within the Transit Zoning Code area (SD 84A and SD 84B) City of Santa Ana, 2010, pp. 4.6-19 and 4.6-20).

The project's adherence to existing requirements would reduce erosion and siltation during operation; therefore, impacts resulting from operation of the project would be less than significant.

- d) **Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?**
- e) **Would the project 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 not be located near or in a stream or river, and does not involve alteration of the course of a stream or river. Although the existing drainage patterns will be altered during construction activities, the post-construction drainage pattern would be nearly identical to the existing drainage patterns.

### **Construction**

During the course of construction, the project would implement and maintain the site-specific BMPs that would be defined in the project SWPPP. These BMPs would be selected to avoid or minimize not only polluted runoff from leaving the project site, but would also be designed, as necessary, to slow the discharge from large precipitation events to avoid or minimize offsite flooding. This impact would be less than significant.

### **Operation**

The project site is currently developed and 90 percent of the 1.75-acre site is covered with impervious surfaces. Under existing conditions, stormwater runoff discharges as sheet flow and enters the storm drain system via two inlets located at the corner of Santa Ana Boulevard and North Spurgeon Street (Fusco, 2018, p. 2). The project would also result in an impervious area of 90 percent and would maintain the same drainage facilities but would create a new connection to storm drain infrastructure on Santa Ana Boulevard, where the biofiltration unit would be installed (Fusco, 2018, p. 2). The project would not result in an increase of impervious surfaces that would result in flooding offsite, create or contribute runoff that would exceed the capacity of existing or planned stormwater drainage systems, or provide substantial additional sources of polluted runoff. Any potential project-related impacts would be less than significant.

- f) **Would the project otherwise substantially degrade water quality?**

### **Less Than Significant Impact**

The project would involve ground-disturbing activities which may potentially result in the discharge of sediment from the project site. The presence and use of construction vehicles and equipment may also have the potential to discharge other pollutants from the project site during the construction phase. However, with the implementation of standard stormwater construction BMPs, the potential for sediment and other pollutants to leave the project site and enter the storm drain system would be less than significant. During the operational phase of the project, stormwater runoff would be

directed into a biofiltration system prior to being discharged into the storm drain system. Therefore, project-related impacts to water quality would be less than significant.

- g) Would the project 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) Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?**

**No Impact**

As shown on Figure 4.9-1, *FEMA Flood Insurance Rate Map*, the project site is located in the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Zone X, “Areas determined to be outside the 0.2% annual chance [500-year] floodplain boundary” (FEMA, 2009). The nearest delineated FEMA floodplain is the 500-year floodplain associated with a portion of the Santa Ana River; the eastern boundary of this floodplain is approximately 0.4 mile from the project. The nearest 100-year (0.1% annual chance) floodplain is that associated with Santiago Creek and is located approximately 1.5 miles north of the project (FEMA, 2009).

Therefore, the project would not place housing within a 100-year flood hazard area as mapped by FEMA. No impacts on housing would occur as a result of the project, and the project would not result in the placement of structures within a 100-year flood hazard area which would impede or redirect flood flows.

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

**No Impact**

As discussed in **Sections 8.9 h)** above and **j)** below, the project is not within the 100-year flood hazard zone or the 500-year flood hazard zone of Santiago Creek and is likewise not within the 100- or 500-year flood hazard zone of Irvine Lake (Santiago Reservoir). Furthermore, the project is not within the 100- or 500-year flood hazard zone of the levees along the Santa Ana River west of the project site (FEMA, 2009), and would not expose people or structures to a significant loss, injury, or death in the event of a levee failure. Therefore, no impact would occur.

- j) Would the project cause inundation by seiche, tsunami, or mudflow?**

**No Impact**

The project site is located approximately 135 feet above mean sea level, ten miles from the Pacific Ocean. Specifically, the project is approximately 6.6 miles north (inland) from the closest Tsunami Inundation Zone (in Upper Newport Bay), as mapped by the California Geological Survey (CGS, 2009). The project would not cause inundation by tsunami, and no impact would occur.

Similarly, the nearest body of water large enough to potentially result in an earthquake-induced seiche is Irvine Lake (also known as Santiago Reservoir), located 8.3 miles east of the project site. The Federal Emergency Management Agency (FEMA, 2009) has mapped the flood hazard zone of



❖ SECTION 4.9 – HYDROLOGY AND WATER QUALITY ❖

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Irvine Lake as generally following Santiago Canyon Road and Silverado Canyon Road, approximately 11 miles east of the project, and flowing in the opposite direction. The project would not cause inundation by seiche, and no impact would occur.

As discussed in the TZC EIR the project is located on nearly level topography, and there are no slopes significant enough to cause mudflows near the project (City of Santa Ana 2010, p. 4.6-13). Therefore, no impacts resulting from mudflows would occur.



## 4.10 Land Use and Planning

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Physically divide an established community?				X
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?			X	
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				X

### a) Would the project physically divide an established community?

#### No Impact

The project includes construction of a new commercial/residential mixed-use development consisting of 93 residential units, flexible non-residential space, a community center and leasing office space. The project constitutes infill development on land currently developed with two church buildings and surface parking lot.

The project site is adjacent to other developed parcels located to the north, south, east and west. Single and multi-family housing is located to the north, the Garden Court Apartments (multi-family housing) is located to the south. The Ebell Club (an event location and club), multi-family housing, and the Alcance Victoria Santa Ana Church are located to the east. The Spurgeon Station Post Office and associated parking lot are located to the west of the project site. Buildings in the immediate vicinity of the project range in height from one- to four-stories.

The project would introduce new residential and commercial uses on the project site, which would be similar to nearby land uses. The project includes development of one building (with an area of 121,639 square feet) surrounding an interior landscaped courtyard, and would increase the density, scale, and height of development, compared to existing conditions. The proposed new building has been designed with the two-story townhome units on the exterior fronting Spurgeon and French Streets and transitioning to a four-story courtyard building in the center of the site. This provides a gradual transition from the surrounding lower density uses and visually breaks up the mass of the building. A community center, leasing/property management office and flexible non-residential space would be located on the ground floor facing Santa Ana Boulevard activating the street frontage and interfacing with the proposed Santa Ana Streetcar platform to be located at the corner of Santa Ana Boulevard and French Street. Careful consideration for the character and scale of surrounding

neighborhood was taken to ensure that the project architecture and massing blends in with the existing surrounding uses.

Therefore, the project would not be out of character with the surrounding area, which contains a mix of land uses, primarily residential, at various scales of development, including single family and multi-family. Development of the project site with commercial/residential mixed uses would be compatible with the established land use patterns in the area and would not physically divide an established community.

The project would not divide existing public spaces in the vicinity of the site or extend beyond the project site's boundaries. Furthermore, no streets or sidewalks would be permanently closed as a result of the development. The project would utilize existing roadways; thus, there would be no change in roadway patterns. No separation of uses or disruption of access between land use types would occur as a result of the project. Therefore, the project would not physically divide an established community and no impacts would occur.

- b) Would the project 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 general plan land use designation for the project site is Urban Neighborhood (refer to **Figure 4.10-1**). This land use designation applies to primarily residential areas with pedestrian oriented commercial uses, schools and small parks. The project is located in the Transit Zoning Code (TZC) (SD 84A and SD 84B) area. Under the TZC, the project site has a zoning designation of Urban Neighborhood 2 (UN-2) (refer to **Figures 4.10-2** and **4.10-3**). This zone is applied to primarily residential areas intended to accommodate a variety of housing types, with some opportunities for live-work, as well as neighborhood-serving retail and dining (City of Santa Ana Transit Zoning Code EIR, 2010, p. 4.7-19). The project would require City and State Density Bonus Agreements allowing a density of up to 54.7 units per acre.

The City's General Plan land use designations surrounding the project site include DC (District Center) to the west and south, UN (Urban Neighborhood) to the east, LR-7 (Low Density Residential) to the north, and PAO (Professional and Administrative Office) to the northwest. The zoning surrounding the project site includes UC (Public Facilities School) to the west and south, UN-2 (Urban Neighborhood) to the east and OZ (Industrial Overlay) to the north.

No general plan amendment or zone change will be required for the project. The intensity standard for the Urban Neighborhood ranges from a floor area ratio (FAR) of 0.5 to 3.0; with residential density based on a combination of floor area ratio and zoning development standards (City of Santa Ana Current General Plan, Land Use Element, 1998, p. A-23). The project includes one building that is 121,639 square feet. The project would require City and State Density Bonus Agreements allowing up to 54.7 units per acre.

According to the TZC EIR, development within the TZC area would be consistent with the policies contained in the applicable regional plans for both SCAG and the City of Santa Ana. At the time of the preparation of the TZC EIR, it was anticipated that the City's General Plan and Zoning Code will be

amended to incorporate the Transit Zoning Code (SD 84A and SD 84B), to avoid conflict with these applicable documents (City of Santa Ana Transit Zoning Code EIR, 2010, p. 4.7-37).

According to the TZC EIR, because the TZC (SD 84A and SD 84B) was prepared eight years or more after the last update to the City's current General Plan, the provisions of the Transit Zoning Code (SD 84A and SD 84B) represent more current community intentions for the character and quality of development in the areas covered by the plan than are reflected in the existing, older General Plan. In particular, the code establishes zoning designations that identify differences in the desired form and character of development, in addition to the land use distinctions that are the focus of the General Plan's Land Use Element (1998), and provide for key changes in the intensity and density of development. Therefore, the provisions of the existing General Plan that are superseded by the directions proposed in the Transit Zoning Code (SD 84A and SD 84B) will be revised simultaneously with the adoption of the Transit Zoning Code (SD 84A and SD 84B) (City of Santa Ana Transit Zoning Code EIR, 2010, p. 4.7-24).

Similarly, the Transit Zoning Code (SD 84A and SD 84B) designates new zones within the Transit Zoning Code (SD 84A and SD 84B) area, including corresponding development standards for each zone. The provisions of the proposed Transit Zoning Code (SD 84A and SD 84B) would apply to all properties within the Transit Zoning Code (SD 84A and SD 84B) area, and would supersede the provisions of the existing Zoning Code when items appear in both documents. Therefore, adoption of the proposed Transit Zoning Code (SD 84A and SD 84B) would be complementary to, and compatible with the existing Zoning Code (City of Santa Ana Transit Zoning Code EIR, 2010, p. 4.7-24).

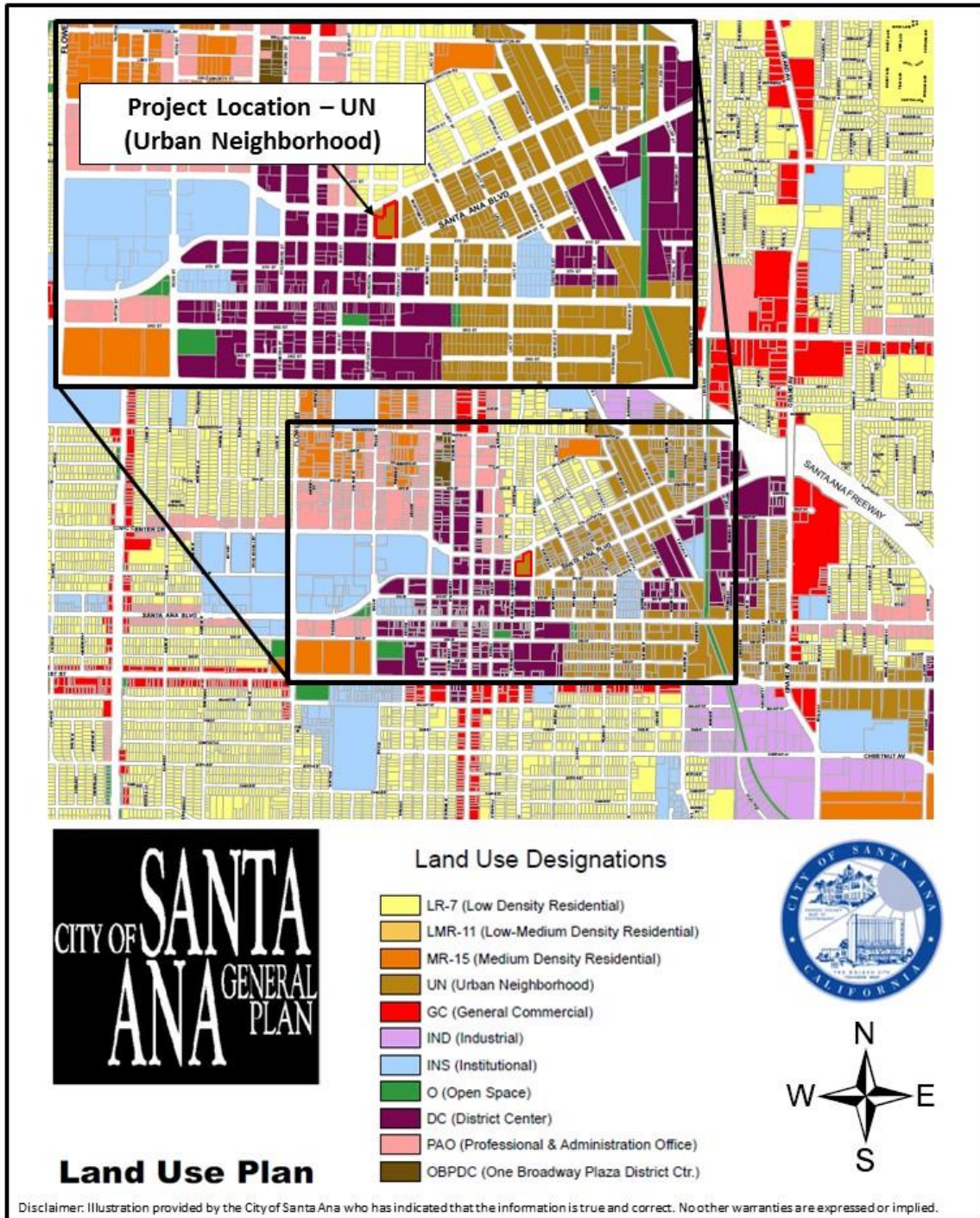
The project would be developed in compliance with the development standards and provisions of the TZC. Therefore, the project would have less than significant impacts in relation to consistency with local land use plans, policies, or regulations.

**c) Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?**

**No Impact**

The project site does not lie within an area covered by a HCP or a NCCP (City of Santa Ana Transit Zoning Code EIR, 2010, p. 4.3-15). In addition, no significant HCP areas are located near the project. Therefore, no impact would occur as a result of project implementation.

**Figure 4.10-1  
PROJECT SITE CURRENT GENERAL PLAN LAND USE DESIGNATIONS**



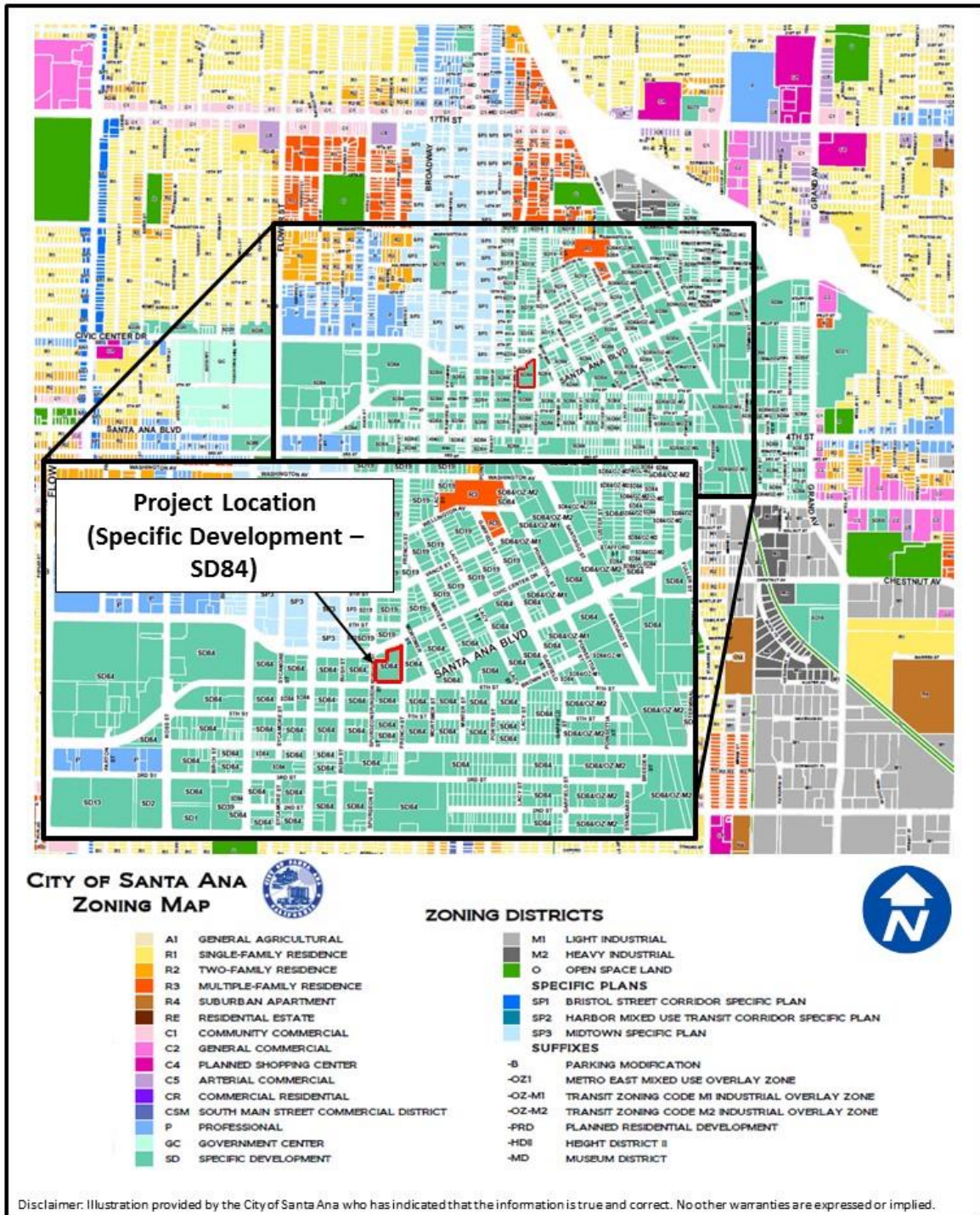
Sources: City of Santa Ana, November 2018



**City of Santa Ana  
Legacy Square**

General Plan Land Use

**Figure 4.10-2  
TRANSIT ZONING CODE AREA**



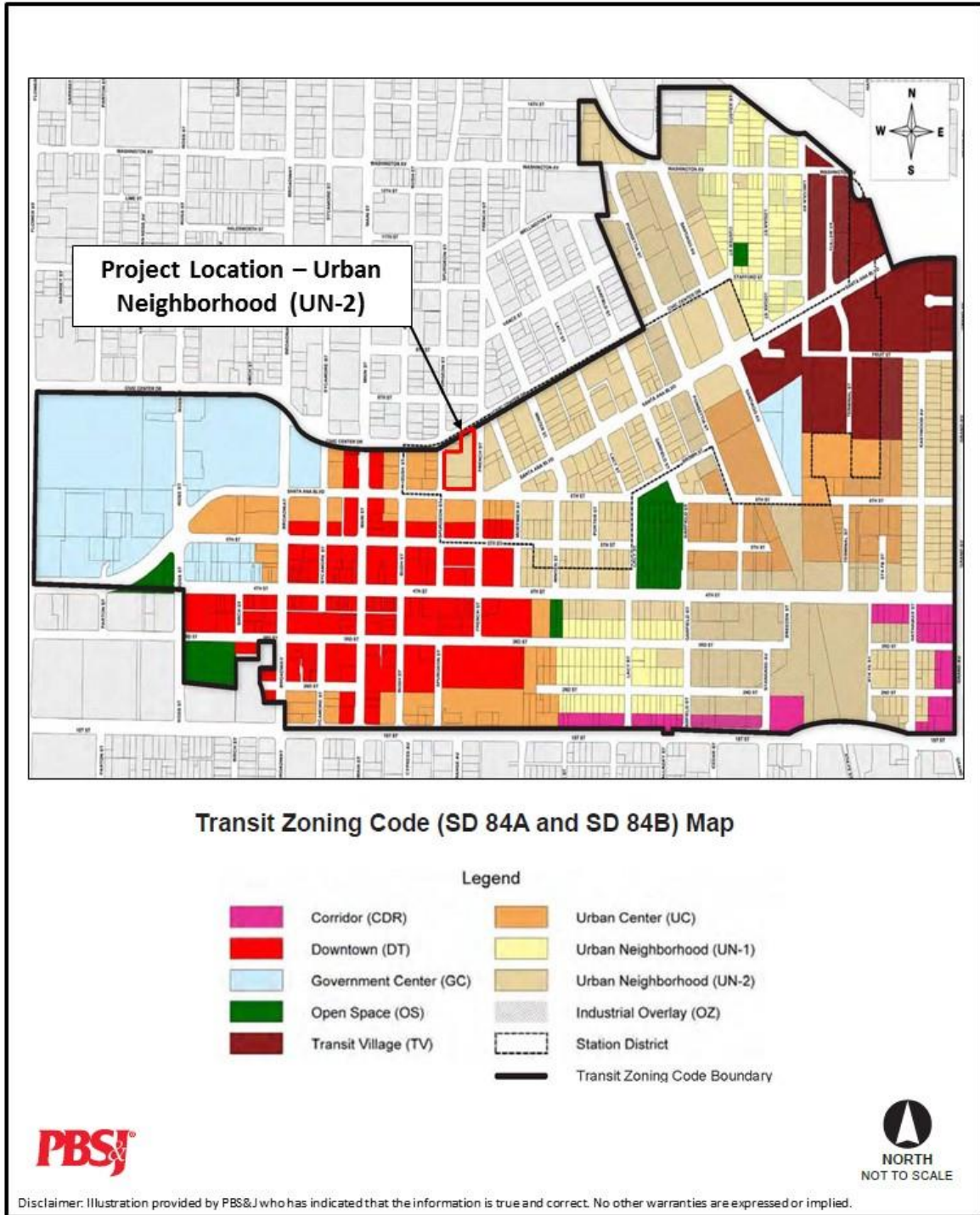
Sources: City of Santa Ana, January, 2017

**City of Santa Ana  
Legacy Square**



Zoning

**Figure 4.10-3  
PROJECT SITE CURRENT ZONING**



Sources: PBS&J, 2010.



**City of Santa Ana  
Legacy Square**

Transit Zoning Code



## 4.11 Mineral Resources

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
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?				X

- a) **Would the project 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) **Would the project 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

Assessment of mineral resources is based on the State of California's Mineral Land Classification/Designation Program established after the adoption of the Surface Mining and Reclamation Act (SMARA) in 1975. The primary objectives of SMARA are the assurance of adequate supplies of mineral resources important to California's economy and the reclamation of mined lands. These objectives are implemented through land use planning and regulatory programs administered by local government with the assistance of the Department of Conservation (DOC), California Geological Survey (CGS). Information on the location of important mineral deposits is developed by the CGS through a land use planning process termed mineral land classification.

As detailed on the SMARA Generalized Mineral Land Classification Map for Orange County (DOC, 1994), the project site is classified within SMARA designated Mineral Resource Zone-3 (MRZ-3 defined as area containing mineral deposits, the significance of which cannot be evaluated from available data (refer to **Figure 4.11-1**).<sup>14</sup> However, according to the Land Use Element of the City of Santa Ana General Plan, there are no current mineral extraction activities in the City (City of Santa Ana Current General Plan, Land Use Element, 1998, p. A-51). Moreover, according to the DOC Division of Oil, Gas, & Geothermal Resources Well Finder, no oil or gas wells were identified on or within one mile of the project site (DOC, 2018a.) (refer to **Figure 4.11-2**).

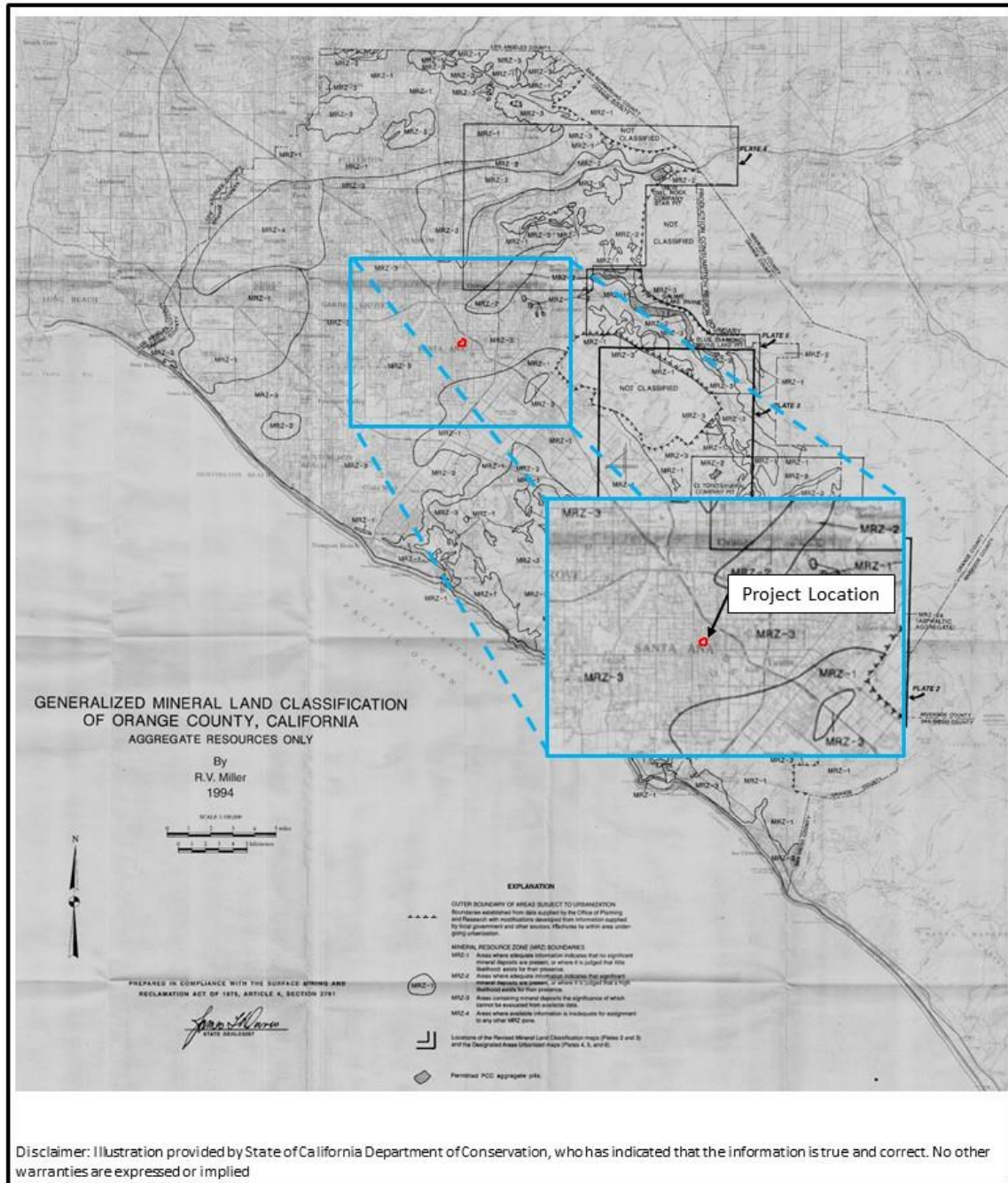
<sup>14</sup> Note: MRZ-1 are areas of no significant mineral resource deposits, MRZ-2 are areas that contain identified mineral resources, MRZ-3 are areas of undetermined mineral resource significance, and MRZ-4 are areas of unknown resource potential.

❖ SECTION 4.11 – MINERAL RESOURCES ❖

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For these reasons the project would have no impact to: (1) the availability of known mineral resources of value to the region or state residents, or (2) a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

**Figure 4.11-1  
MINERAL RESOURCES**

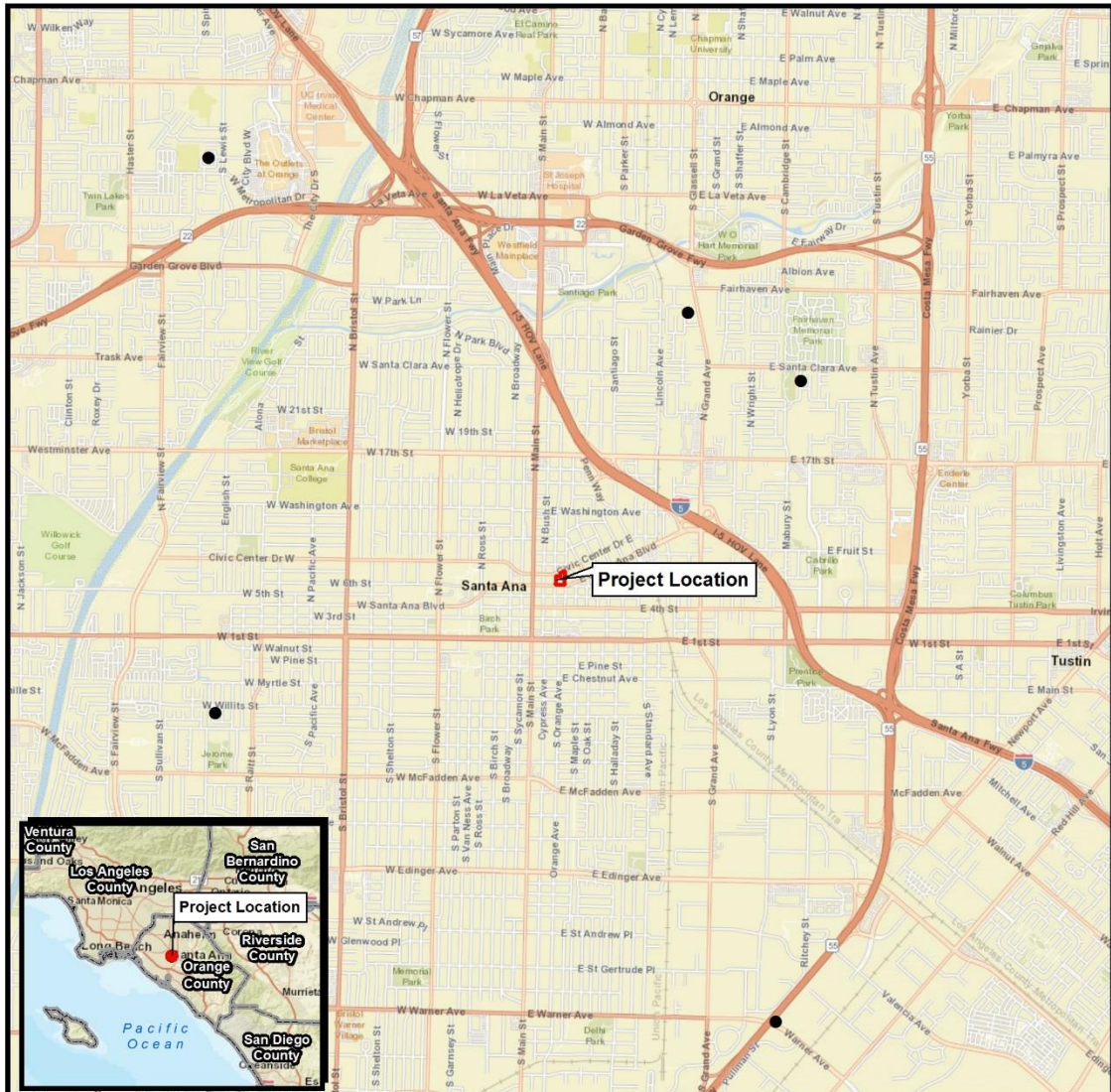


**City of Santa Ana  
Legacy Square**

Mineral Land Classification



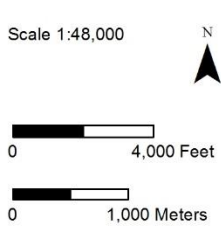
**Figure 4.11-2  
OIL AND GAS WELLS**



Disclaimer: Representations on this map or illustration are intended only to indicate locations of project parameters reported in the legend. Project parameter information supplied by others (see layer credits) may not have been independently verified for accuracy by UltraSystems Environmental, Inc. This map or illustration should not be used for, and does not replace, final grading plans or other documents that should be professionally certified for development purposes.

Path: J:\Projects\6095\_Santa\_Ana\_Legacy\_Square\MXD\6095\_Santa\_Ana\_Legacy\_Square\_4.8\_Oil\_Gas\_Wells\_and\_Fields\_2018\_12\_12.mxd  
 Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community; County of Orange, 2018; CA Dept. of Conservation, December, 2018; UltraSystems Environmental, Inc., 2018

December 12, 2018



- Legend**
- Project Boundary
  - Oil and Gas Well Status:**
  - Plugged & Abandoned

**City of Santa Ana  
Legacy Square**  
Oil and Gas  
Wells and Fields



## 4.12 Noise

Would the project result in:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Exposure of persons to or generation of noise level in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		X		
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?		X		
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
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?				X
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?				X

### 4.12.1 Characteristics of Sound

Sound is a pressure wave transmitted through the air. It is described in terms of loudness or amplitude (measured in decibels), frequency or pitch (measured in hertz or cycles per second), and duration (measured in seconds or minutes). The decibel (dB) scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound. The pitch of the sound is related to the frequency of the pressure vibration. Because the human ear is not equally sensitive to all frequencies, a special frequency-dependent rating scale is used to relate noise to human sensitivity. The A-weighted decibel scale (dBA) provides this compensation by discriminating against upper and lower frequencies in a manner approximating the sensitivity of the human ear. The scale is based on a reference pressure level of 20 micropascals (zero dBA). The scale ranges from zero (for the average least perceptible sound) to about 130 (for the average human pain level).

### 4.12.2 Noise Measurement Scales

Several rating scales have been developed to analyze adverse effects of community noise on people. Since environmental noise fluctuates over time, these scales consider that the effect of noise on people depends largely upon the total acoustical energy content of the noise, as well as the time of day when the noise occurs. Those that are applicable to this analysis are as follows:

- $L_{eq}$ , the equivalent noise level, is an average of sound level over a defined time period (such as 1 minute, 15 minutes, 1 hour or 24 hours). Thus, the  $L_{eq}$  of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure.
- $L_{90}$  is a noise level that is exceeded 90 percent of the time at a given location; it is often used as a measure of “background” noise.
- $L_{max}$  is the root mean square (RMS) maximum noise level during the measurement interval. This measurement is calculated by taking the RMS of all peak noise levels within the sampling interval.  $L_{max}$  is distinct from the peak noise level, which only includes the single highest measurement within a measurement interval.
- CNEL, the Community Noise Equivalent Level, is a 24-hour average  $L_{eq}$  with a 4.77-dBA “penalty” added to noise during the hours of 7:00 p.m. to 10:00 p.m., and a 10-dBA penalty added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime (Caltrans, 2013). The logarithmic effect of these additions is that a 60-dBA 24-hour  $L_{eq}$  would result in a calculation of 66.7 dBA CNEL.
- $L_{dn}$ , the day-night average noise, is a 24-hour average  $L_{eq}$  with an additional 10-dBA “penalty” added to noise that occurs between 10:00 p.m. and 7:00 a.m. The  $L_{dn}$  metric yields values within 1 dBA of the CNEL metric. As a matter of practice,  $L_{dn}$  and CNEL values are considered to be equivalent and are treated as such in this assessment.

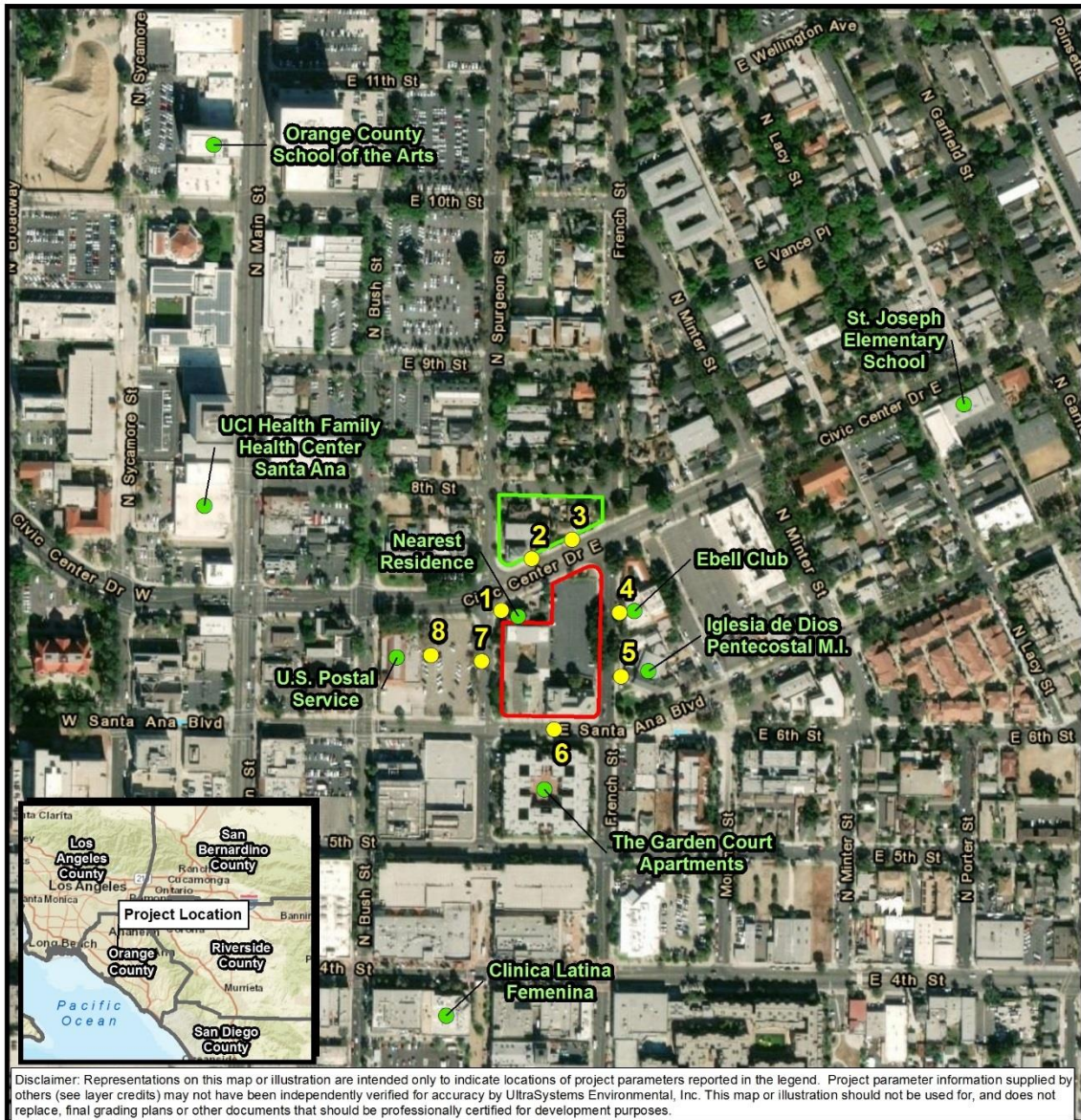
### 4.12.3 Existing Noise

Neither the City of Santa Ana General Plan Noise Element, the City of Santa Ana Municipal Code, nor the Transit Zoning Code EIR explicitly defines noise-sensitive land uses. However, the Municipal Code has a special provision for short-term noise exposures at “any school, hospital or church while the same is in use.”<sup>15</sup> Also, the Transit Zoning Code EIR gives “residences, schools and hospitals” as examples of uses that are sensitive to groundborne vibration. Following common practice, the present analysis defines “noise-sensitive” uses in areas of 24-hour-per-day of exposure as residential uses, hospitals, rest homes, long-term care facilities, and mental care facilities. Sensitive receivers<sup>16</sup> for shorter-term exposures are defined as schools, libraries, places of worship, and passive recreation uses. The nearest sensitive receivers to the project are single- and multi-family residences, a social hall, and a church. These and more distant ones are shown in **Figure 4.12-1. Table 4.12-1** summarizes information about them.

15 City of Santa Ana Municipal Code, § 18-315.

16 The targets of adverse noise impacts are called “sensitive receivers” in this document, while those of adverse air quality impacts are termed “sensitive receptors.”

**Figure 4.12-1**  
**SENSITIVE RECEIVERS AND AMBIENT NOISE MONITORING LOCATIONS**



Path: J:\Projects\6095\_Santa\_Ana\_Legacy\_Square\MXD\6095\_Santa\_Ana\_Legacy\_Square\_4\_12\_Sensitive\_Receiver\_Ambient\_Noise\_2018\_12\_27.mxd  
 Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community. Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community; County of Orange, 2017; UltraSystems Environmental, Inc., 2018

December 27, 2018

Scale 1:4,200



0 175 350 Feet

0 35 70 Meters

**Legend**

- Ambient Noise Monitoring Location
- Sensitive Receiver
- Sensitive Receiver (Single Family Residences)
- Project Boundary

**City of Santa Ana  
Legacy Square**

Sensitive Receivers &  
Ambient Noise  
Monitoring Locations



**Table 4.12-1**  
**SENSITIVE RECEIVERS IN PROJECT AREA**

Description	Location	Distance From Site Boundary (feet)	Nearest Ambient Sampling Point <sup>a</sup>
Nearest residence	621 N. Spurgeon Street, Santa Ana, CA 92701, immediately adjacent to site on the northwest	24	1
Single family residences <sup>b</sup>	On north side of Civic Center Drive East	87	2, 3
Ebell Club (social hall)	625 French Street, Santa Ana, CA 92701	64	4
Iglesia de Dios Pentecostal M.I. (church)	401 E. Santa Ana Boulevard, Santa Ana, CA 92701	72	5
The Garden Court Apartments (apartment building)	300 E. Santa Ana Boulevard, Santa Ana, CA 92701	78	6
U.S. Postal Service (post office)	615 N. Bush Street, Santa Ana, CA 92702	206	7, 8
St. Joseph Elementary School	608 Civic Center Drive East, Santa Ana, CA 92701	1,080	N/A
Orange County School of the Arts	1010 N. Main Street, Santa Ana, CA 92701	1,510	N/A
UCI Health Family Health Center – Santa Ana	800 N. Main Street, Santa Ana, CA 92701	900	N/A
Clínica Latina Femenina	220 E. 4 <sup>th</sup> Street # 207, Santa Ana, CA 92701	770	N/A

<sup>a</sup>See **Figure 4.12-1** for locations of ambient noise sampling points.

<sup>b</sup>Some homes partially shielded by masonry wall.

The predominant source of noise in the Legacy Square vicinity is traffic on local surface streets. As part of the Transit Zoning Code EIR (City of Santa Ana, 2010, pp. 4.8–5 to 4.8–11), short-term noise measurements were made on Spurgeon Street between Santa Ana Boulevard and Civic Center Drive, across the street from the Legacy Square project site. The 15-minute  $L_{eq}$  at that location was 59.0 dBA. The minimum and maximum values were 49.2 dBA and 70.9 dBA, respectively. These values are typical for urban residential/commercial areas. The EIR also used local traffic data and modeling to estimate 24-hour average noise levels (as dBA CNEL) at 50 feet from the centerlines of roadway segments throughout the Transit Zoning Code area. None of the segments bordered the Legacy Square project site. However, three roadway segments had a terminus at an intersection of the block in which the project is located. These are shown in **Table 4.12-2**. The reported 2010 values were adjusted to December 31, 2018 by assuming that the sound pressure level (not expressed as dBA) was proportional to the traffic, which was assumed to increase at 1.0% per year (KOA, 2018).



**Table 4.12-2**  
**MODELED 24-HOUR AVERAGE NOISE LEVELS IN PROJECT AREA**

Roadway Segment	24-Hour Noise Level 50 Feet From Centerline (dBA CNEL)	
	2010	Adjusted To 2018
Santa Ana Boulevard between Bush Street and Spurgeon Street	63.6	64.0
Civic Center Drive between French Street and Lacy Street	65.6	66.0
Santa Ana Boulevard between French Street and Lacy Street	65.0	65.4

Source: City of Santa Ana, 2010, p. 4.8-10.

On December 26, 2018, 15-minute ambient noise level samples were obtained at eight locations in the general area of the project, which are also shown in **Figure 4.12-1**. (See **Appendix J**.) Measurements were made between 3:37 p.m. and 6:19 p.m. As shown in **Table 4.12-3**, average short-term ambient noise levels ( $L_{eq}$ ) ranged from 58.8 to 68.3 dBA  $L_{eq}$ . The highest average noise level (68.3 dBA) was along Civic Center Drive East, a heavily-traveled thoroughfare. All monitored noise levels were within the range considered typical for the nearby land uses, and are consistent with the aforementioned 59.0-dBA  $L_{eq}$  measurement on N. Spurgeon Street reported in the Transit Zoning Code EIR.

**Table 4.12-3**  
**AMBIENT NOISE MEASUREMENT RESULTS**

Point	Data Set	Sampling Time	Address	Sound Level (dBA)			Notes
				$L_{eq}$	$L_{max}$	$L_{90}$	
1	S022	1537-1552	621 N. Spurgeon Street	64.5	79.7	53.4	At the corner of Spurgeon Street and Civic Center Drive.
2	S023	1601-1619	314 Civic Center Drive East	65.1	78.7	49.2	In front of single-family house northwest of project site.
3	S024	1623-1638	337 Civic Center Drive East	68.3	84.8	50.2	In front of single-family house northwest of project site.
4	S025	1642-1659	625 French Street	58.8	75.5	49.8	In front of a community center, Ebell Club, east of the project site.
5	S026	1659-1714	615 French Street	65.5	85.4	50.1	In front of Iglesia de Dios Pentecostal M.I. east of the project site.
6	S027	1717-1732	300 E. Santa Ana Boulevard	66.6	80.3	52.2	In front of apartment complex south of project site.
7	S028	1735-1750	600 N. Spurgeon Street	62.2	79.1	55.8	Outside of gated parking lot west of project site.
8	S029	1804-1819	608 N. Spurgeon Street Parking	60.0	76.4	52.4	Inside gated Post Office parking lot west of project.

#### 4.12.4 Regulatory Setting

##### State of California


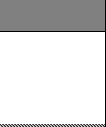
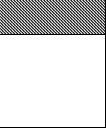
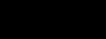
The California Department of Health Services (DHS) Office of Noise Control has studied the correlation of noise levels with effects on various land uses. (The Office of Noise Control no longer exists.) The most current guidelines prepared by the state noise officer are contained in the “General Plan Guidelines” issued by the Governor’s Office of Planning and Research in 2003 and reissued in 2017 (Governor’s Office of Planning and Research, 2017). These guidelines establish four categories for judging the severity of noise intrusion on specified land uses:

- **Normally Acceptable:** Is generally acceptable, with no mitigation necessary.
- **Conditionally Acceptable:** May require some mitigation, as established through a noise study.
- **Normally Unacceptable:** Requires substantial mitigation.
- **Clearly Unacceptable:** Probably cannot be mitigated to a less-than-significant level.

The types of land uses addressed by the state standards, and the acceptable noise categories for each, are presented in **Table 4.12-4**. There is some overlap between categories, which indicates that some judgment is required in determining the applicability of the numbers in every situation.

Title 24 of the California Code of Regulations requires performing acoustical studies before constructing dwelling units in areas that exceed 60 dBA  $L_{dn}$ . In addition, the California Noise Insulation Standards identify an interior noise standard of 45 dBA CNEL for new multi-family residential units. Local governments frequently extend this requirement to single-family housing.

**Table 4.12-4**  
**CALIFORNIA LAND USE COMPATIBILITY FOR COMMUNITY NOISE SOURCES**

Land Use Category	Noise Exposure (dBA, CNEL)					
	55	60	65	70	75	80
Residential – Low-Density Single-Family, Duplex, Mobile Homes						
Residential – Multiple Family						
Transient Lodging – Motel, Hotels						
Schools, Libraries, Churches, Hospitals, Nursing Homes						
Auditoriums, Concert Halls, Amphitheaters						
Sports Arena, Outdoor Spectator Sports						
Playgrounds, Neighborhood Parks						
Golf Courses, Riding Stables, Water Recreation, Cemeteries						
Office Buildings, Business Commercial and Professional						
Industrial, Manufacturing, Utilities, Agriculture						
	<b>Normally Acceptable:</b> Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.					
	<b>Conditionally Acceptable:</b> New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply system or air conditioning will normally suffice.					
	<b>Normally Unacceptable:</b> New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.					
	<b>Clearly Unacceptable:</b> New construction or development should generally not be undertaken.					

Source: Governor's Office of Planning and Research, 2017.

**City of Santa Ana****General Plan Noise Element**

The Noise Element of the City of Santa Ana General Plan (City of Santa Ana, 1982)<sup>17</sup> identifies sources of noise in the City and provides objectives and policies that ensure that noise from various sources would not create an unacceptable noise environment. **Table 4.12-5** shows the City’s guidelines for interior and exterior noise exposure, by land use.

**Table 4.12-5  
CITY OF SANTA ANA GENERAL PLAN INTERIOR AND EXTERIOR NOISE STANDARDS**

<b>Categories</b>	<b>Land Use Categories</b>	<b>Interior<sup>a</sup> (dBA CNEL)</b>	<b>Exterior<sup>b</sup> (dBA CNEL)</b>
Residential	Single-family, duplex, multi-family	45 <sup>c</sup>	65
Institutional	Hospital, school classroom/playgrounds	45	65
	Church, library	45	--
Open Space	Parks	--	65

Source: City of Santa Ana General Plan Noise Element.

Notes:

<sup>a</sup>Interior areas (to include but are not limited to): bedrooms, bathrooms, kitchens, living rooms, dining rooms, closets, corridors/hallways, private offices, and conference rooms.

<sup>b</sup>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 from exterior areas provided sufficient common area is included within the project.

<sup>c</sup>Interior noise level requirements contemplate a closed window condition. Mechanical ventilation system or other means of natural ventilation shall be provided per Chapter 12, Section 1305 of the Uniform Building Code.

For a multi-family housing development such as Legacy Square, exterior noise levels of 65 dBA CNEL or less are desirable. According to the General Plan, all residential uses should be protected with sound insulation over and above that provided by normal building construction when built in areas exposed to more than 60 dBA CNEL (City of Santa Ana, 1982, p. 9).

The General Plan Noise Element has one goal with two associated objectives for addressing noise issues in the community (City of Santa Ana, 1982, p. 10):

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

**Objectives for Goal 1**

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

<sup>17</sup> The Noise Element was revised in 2010. Subsequent general plan revisions do not mention noise issues.

To achieve these objectives, the City has adopted the following policies (City of Santa Ana, 1982, pp. 10–11):

- Require consideration of noise generation potential and susceptibility to noise impacts in the siting, 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.
- Minimize noise generation in residential neighborhoods through control or elimination of truck traffic and through-traffic from these areas.

To the extent that the foregoing applies to the Legacy Square project, the project design and operational characteristics are compatible with the Noise Element’s goal, objectives and policies.

### City of Santa Ana Municipal Code

The City of Santa Ana’s regulations with respect to noise are included in Municipal Code Chapter 18 (Health and Sanitation), Article VI (Noise Control).<sup>18</sup> The regulations include exterior and interior noise standards, specific noise restrictions, exemptions and variances. Only those Municipal Code provisions that are directly relevant to the project are presented here.

**Table 4.12-6** shows the Municipal Code’s standards for short-term exposures at the exteriors and in the interiors of residences.

**Table 4.12-6**  
**CITY OF SANTA ANA MUNICIPAL CODE SHORT-TERM NOISE STANDARDS**

Exterior Noise Standards		
Noise Level That May Not Be Exceeded for More Than	7:00 a.m. – 10:00 p.m.	10:00 p.m. – 7:00 a.m.
30 minutes in any hour	55 dBA	50 dBA
15 minutes in any hour	60 dBA	55 dBA
5 minutes in any hour	65 dBA	60 dBA
1 minute in any hour	70 dBA	65 dBA
Any time	75 dBA	70 dBA

<sup>18</sup> [https://library.municode.com/ca/santa\\_ana/codes/code\\_of\\_ordinances?nodeId=PTIITHCO\\_CH18HESA\\_ARTVINOCO](https://library.municode.com/ca/santa_ana/codes/code_of_ordinances?nodeId=PTIITHCO_CH18HESA_ARTVINOCO).

Interior Noise Standards		
Noise Level That May Not Be Exceeded for More Than	7:00 a.m. – 10:00 p.m.	10:00 p.m. – 7:00 a.m.
5 minutes in any hour	55 dBA	45 dBA
1 minute in any hour	60 dBA	50 dBA
Any time	65 dBA	55 dBA

<sup>a</sup>City of Santa Ana Municipal Code § 18-312.

<sup>b</sup>City of Santa Ana Municipal Code § 18-313.

Municipal Code § 18-314 contains two exemptions from the short-term noise standards that apply to the Legacy Square project:

- Noise sources associated with construction, repair, remodeling, or grading of any real property, provided said activities do not take place between the hours of 8:00 p.m. and 7:00 a.m. on weekdays, including Saturday, or any time on Sunday or a federal holiday.<sup>19</sup>
- Noise sources associated with the maintenance of real property, provided said activities take place between 7:00 a.m. and 8:00 p.m. on any day except Sunday or a federal holiday, or between the hours of 9:00 a.m. and 8:00 p.m. on Sunday or a federal holiday.<sup>20</sup>

#### 4.12.5 Significance Thresholds

This analysis incorporated the significance thresholds developed for the Transit Zoning Code (TZC) EIR (City of Santa Ana, 2010, pp. 4.8-18 to 4.8-19). They are based upon the noise thresholds prescribed in Appendix G of the CEQA Guidelines, as amended (AEP, 2018), and shown as checklist questions **a**) through **f**) at the beginning of this section. As noted in the DEIR, the CEQA Guidelines do not define the levels at which temporary and permanent increases in ambient noise are considered “substantial.” A noise level increase of 3 dBA is barely perceptible to most people, a 5-dBA increase is readily noticeable, and a difference of 10 dBA would be perceived as a doubling of loudness. (Caltrans, 2009, p. 7-5) Using this information, the DEIR defined the following significance thresholds for project operations (City of Santa Ana, 2010, p. 4.8-19):

- Less than 3 dBA: not discernable, not significant.
- Greater than 3 dBA but less than 5 dBA: noticeable, but not significant, if noise levels remain below 65 dBA CNEL noise level standard at sensitive land uses, including residential uses.
- Five dBA or greater: potentially significant, if the noise increase would meet or exceed 65 dBA CNEL noise level standard at sensitive land uses, including residential uses.
- Five dBA or greater: potentially significant.

<sup>19</sup> City of Santa Ana Municipal Code § 18-314(e).

<sup>20</sup> City of Santa Ana Municipal Code § 18-314(i).

#### 4.12.6 Impact Analysis

- a) **Would the project expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

#### **Less than Significant Impact with Mitigation Incorporated**

Noise impacts associated with housing projects include short-term and long-term impacts. Construction activities, especially heavy equipment operation, would create noise effects on and adjacent to the construction site. Long-term noise impacts include project-generated onsite and offsite operational noise sources. Onsite (stationary) noise sources from the apartment homes would include operation of mechanical equipment such as air conditioners, landscape and building maintenance. Offsite noise would be attributable to project-induced traffic, which would cause an incremental increase in noise levels within and near the project vicinity.

#### **Short-Term Construction Noise**

The construction of the proposed project may generate temporary increases in ambient noise levels that exceed the thresholds of significance for this analysis. Noise impacts from construction activities are a function of the noise generated by the operation of construction equipment and onroad delivery and worker commuter vehicles, the location of equipment, and the timing and duration of the noise-generating activities.

Although it did not analyze a specific project within the Transit Zoning Code boundaries, the EIR noted that infill development could place construction equipment within 50 feet of sensitive noise receivers. In the case of the Legacy Square project, the existing residence immediately northwest of the project would likely be that close to active construction equipment. The EIR determined that construction noise impacts would be significant without mitigation, but that mitigation measures would reduce impacts to a less than significant level. This finding would apply to the Legacy Square project because it does not include unusually noisy activities such as blasting or pile driving.

#### **Mitigation Measures**

The following mitigation measures from the Transit Zoning Code EIR<sup>21</sup> will reduce short-term construction impacts to a less than significant level.

- MM N-1** All construction activity within the City shall be conducted in accordance with Section 18-314(e) of the City of Santa Ana Municipal Code.
- MM N-2** Each project applicant shall require by contract specifications that the following construction best management practices (BMPs) be implemented by contractors to reduce construction noise levels:
- Two weeks prior to the commencement of construction, notification must be provided to property owners within 300 feet of a project site disclosing the

---

21 Some measures have been lightly edited to improve grammar and/or to clarify that they apply here to a specific proposed project.

construction schedule, including various types of activities that would be occurring throughout the duration of the construction period.

- Ensure that construction equipment is properly muffled according to industry standards and is in good working condition.
- Place noise-generating construction equipment and locate construction staging areas away from sensitive uses, where feasible.
- Schedule high noise-producing activities between the hours of 8:00 a.m. and 5:00 p.m. to minimize disruption of sensitive uses.
- Implement noise attenuation measures, which may include, but are not limited to, temporary noise barriers or noise blankets around stationary construction noise sources.
- Use electric air compressors and similar power tools rather than diesel equipment, where feasible.
- Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than 30 minutes.

Contract specifications shall be included in the proposed project construction documents, which shall be reviewed by the City prior to issuance of a grading permit.

**MM N-3** The project proponent shall require by contract specifications that construction staging areas along with the operation of earthmoving equipment within the project area would be located as far away from vibration and noise-sensitive sites as possible. Contract specifications shall be included in the proposed project construction documents, which shall be reviewed by the City prior to issuance of a grading permit.

**MM N-4** The project proponent shall require by contract specifications that heavily loaded trucks used during construction be routed away from residential streets. Contract specifications shall be included in the proposed project construction documents, which shall be reviewed by the City prior to issuance of a grading permit.

### **Level of Significance After Mitigation**

With implementation of Mitigation Measures **MM N-1** through **MM N-4** above, the Legacy Square project would result in less than significant impacts to sensitive receivers.

### **Operational Noise**

#### **Mobile Sources**

The principal noise source in the project area is traffic on local roadways. The Transit Zoning Code EIR found that existing exterior noise exposures in many residential portions of the area it examined exceeded the General Plan Noise Element's 65-dBA CNEL limit<sup>22</sup> (City of Santa Ana, 2010, p. 4.8–23). As shown in **Table 4.12-2**, two roadway segments terminating at intersections that included Legacy Square project boundaries estimate current exposures slightly exceeding 65 dBA CNEL. As

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<sup>22</sup> The limit is shown in **Table 4.12-C**.



noted in **Section 4.12.4** above, the General Plan Noise Element states that all residential land uses in areas exposed to more than 60 dBA CNEL should have more effective acoustic insulation than that provided by normal building construction. The Transit Zoning Code EIR defines the following mitigation measures where existing noise level exceed 60 dBA CNEL:

**MM N-5** When residential uses would be located in areas with noise levels in excess of 60 dBA CNEL (either through conversion of use/structure or new construction), the project applicant shall provide noise barriers around private open space areas, including patios and balconies, as necessary. The height and density of the barriers shall be sufficient to reduce the exterior noise levels within private open space areas to a CNEL of 65 dBA or less.

**MM N-6** Prior to issuance of building permits, building plans shall specify the sound transmission class (STC) rating of windows and doors for all residential land uses. Window and door ratings shall be sufficient to reduce the interior noise level to a CNEL of 45 dBA or less, and shall be determined by a qualified acoustical consultant as part of the final engineering design of the project.

With implementation of mitigation measures **MM N-5** and **MM N-6**, impacts from mobile sources will be less than significant.

### **Onsite**

Onsite noise sources from the proposed housing project would include operation of mechanical equipment such as air conditioners, lawnmowers, leaf blowers, and building maintenance equipment; and motor vehicles accessing, driving on, and exiting the parking lot. The Transit Zoning Code EIR determined that noise from heating, ventilation and air conditioning (HVAC) units associated with residential and commercial building would be potentially significant (City of Santa Ana, 2010, p. 4.8–24). However, implementation of mitigation measure **MM N-7** would reduce impacts to less than significant levels:

**MM N-7** The project applicant shall provide proper shielding for all new HVAC systems used by the proposed residential building to achieve an attenuation of 15 dBA at 50 feet from the equipment.

**b) Would the project expose persons to or generate excessive groundborne vibration or groundborne noise levels?**

### **Less than Significant Impact with Mitigation Incorporated**

Vibration is sound radiated through the ground. Vibration can result from a source (e.g., subway operations, vehicles, machinery equipment, etc.) causing the adjacent ground to move, thereby creating vibration waves that propagate through the soil to the foundations of nearby buildings. This effect is referred to as groundborne vibration. The peak particle velocity (PPV) or the RMS velocity is usually used to describe vibration levels. PPV is defined as the maximum instantaneous peak of the vibration level, while RMS is defined as the square root of the average of the squared amplitude of the level. PPV is typically used for evaluating potential building damage, while RMS velocity in dB is typically more suitable for evaluating human response.

The background vibration velocity level in residential areas is usually around 50 vibration decibels (VdB). The vibration velocity level threshold of perception for humans is approximately 65 VdB. A vibration velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels for most people. Most perceptible indoor vibration is caused by sources within buildings such as operation of mechanical equipment, movement of people, or the slamming of doors. Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the groundborne vibration from traffic is rarely perceptible. The range of interest is from approximately 50 VdB to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings.

### **Construction Vibration**

Construction activities for the project have the potential to generate low levels of groundborne vibration. The operation of construction equipment generates vibrations that propagate through the ground and diminish in intensity with distance from the source. Vibration impacts can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage of buildings at the highest levels. The construction activities associated with the project could have an adverse impact on both sensitive structures (i.e., building damage) and populations (i.e., annoyance).

The Transit Zoning Code EIR concluded that vibration impacts from construction would be significant and unavoidable in the TZC area under two circumstances (City of Santa Ana, 2010, pp. 4.8-38 to 4.8-39).

- Use of impact pile drivers or other major vibration sources.
- Use of typical construction equipment within 25 feet of sensitive receivers.

Pile drivers or other major vibration sources will not be used for construction of the Legacy Square project. The question is whether the equipment that will be deployed will have significant vibration impacts. The FTA (2006) has published standard vibration levels for construction equipment operations, at a distance of 25 feet. The construction-related vibration levels for the nearest sensitive receivers are shown in **Table 4.12-7**. These calculations were based on the geometric mean distances from the construction activity to the closest sensitive receivers.<sup>23</sup>

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23 In this case, the geometric mean is defined as the square root of the product of the minimum and maximum distances from the sensitive receiver to construction activities.

**Table 4.12-7**  
**VIBRATION LEVELS OF TYPICAL CONSTRUCTION EQUIPMENT**

Equipment	621 N. Spurgeon Street (88 feet)		Ebell Club (183 feet)		Iglesia de Dios Pentecostal M.I. (159 feet)		Garden Club Apartments (171 feet)	
	RMS (in/sec)	VdB	RMS (in/sec)	VdB	RMS (in/sec)	VdB	RMS (in/sec)	VdB
Loaded trucks	0.0115	75.1	0.0038	68.7	0.0047	69.9	0.0042	69.3
Jackhammer	0.0053	68.1	0.0018	61.7	0.0022	62.9	0.0020	62.3
Small bulldozer	0.0005	47.1	0.0002	40.7	0.0002	41.9	0.0002	41.3
Large bulldozer	0.0135	76.1	0.0045	69.7	0.0055	70.9	0.0050	70.3

As shown in **Table 4.12-7**, the PPV of construction equipment at the nearest sensitive receiver (88 feet) is at most 0.0135 inch per second, which is less than the FTA damage threshold of 0.12 inch per second PPV for fragile historic buildings. The maximum VdB are 76.1 VdB, which are below the FTA threshold for human annoyance of 80 VdB. Unmitigated vibration impacts would therefore be less than significant.

That being said, there may be short periods of time when construction equipment is at or slightly less than 25 feet from the existing residence at 621 N. Spurgeon Street. In those cases, the peak particle velocity would still be below 0.12 inch per second, but the vibration velocity level could be as high as 87 VdB, thereby exceeding the 80-VdB annoyance threshold. However, implementation of mitigation measure **MM N-8** would reduce impacts to less than significant levels:

**MM N-8** At least 72 hours before construction activities involving large bulldozers are forecasted to occur within 25 feet of a residence, the occupants of residence will be notified by the construction contractor, so that they may arrange to be absent from the site during the hours of construction on the forecasted day.

### Level of Significance After Mitigation

With implementation of Mitigation Measure **N-8** above, VdB would remain below 80, no sensitive receivers would be exposed to more than 80 VdB, and the project would have less than significant vibration impacts.

### Operational Vibration

The project involves the operation of residential uses and would not involve the use of stationary equipment that would result in high vibration levels, which are more typical for large manufacturing and industrial projects. Groundborne vibrations at the project site and immediate vicinity currently result from heavy-duty vehicular travel (e.g., refuse trucks and transit buses) on the nearby local roadways, and the project would not result in a substantive increase of these heavy-duty vehicles on the public roadways. Therefore, vibration impacts associated with operation of the project would be less than significant.

- c) Would the project cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?**

**Less than Significant Impact**

The primary noise source in the project area is traffic on local roadways. The Transit Zoning Code EIR used modeling to estimate traffic levels along roadway segments throughout the zoning code area, without and with trips contributed by the future development (City of Santa Ana, 2010, pp. 4.8-26 to 4.8-36). These projections include cumulative traffic from the project and other proposed projects. Noise levels at 50 feet from roadways were also modeled. In no case was the increase in traffic noise due to full buildout of the Transit Zoning Code area significant. Because the Legacy Square project would generate a tiny fraction of the full buildout traffic, there would be no substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. Therefore, cumulative impacts from the proposed project would be less than significant.

- d) Would the project cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?**

**Less than Significant Impact**

The Transit Zoning Code EIR observed that implementation of the code would not include special events or temporary activities that would cause an increase in ambient noise levels. In addition, operation of the proposed project would not require periodic use of special stationary equipment that would expose offsite sensitive receivers to an increase in ambient noise levels above those existing without the proposed project. Therefore, there would be no temporary or periodic noise impacts to onsite or offsite receivers due to operation of the proposed project (City of Santa Ana, 2010, p. 4.8-26). This impact would be less than significant for the Transit Zoning Code area in general, and for the Legacy Square project in particular.

- 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 EIR for the Transit Zoning Code (SD 84A and SD 84B) found that no part of the Transit Zoning Code area was located within an airport land use plan or within two miles of a public airport or public use airport (City of Santa Ana, 2010, p. 4.8-19). The nearest public airport to the project is the John Wayne Airport, which is located approximately 5.0 miles to the south. Further, the project is located over 5,000 feet from the 60 CNEL noise contour for John Wayne Airport. Thus, no impact related to the exposure of people residing or working in the Legacy Square project area to excessive airport-related noise levels is anticipated.

- 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**

According to the Transit Zoning Code EIR (City of Santa Ana, 2010, p. 4.8–20), The Transit Zoning Code (SD 84A and SD 84B) area is not located within the vicinity of a private airstrip. Thus, no impact related to the exposure of people residing or working in the Legacy Square project site to excessive airstrip-related noise levels is anticipated.

### 4.13 Population and Housing

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Induce substantial 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)?			X	
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X

- a) Would the project induce substantial growth in an area either directly (for example, by proposing new homes and business) or indirectly (for example, through extension of roads or other infrastructure)?**

**Less than Significant Impact**

The project proposes the construction of a new commercial/residential mixed-use development consisting of 93 residential units, flexible non-residential space, a community center and leasing office space. The project constitutes infill development on land currently developed with two church buildings and parking lot.

The general plan land use designation for the project site is Urban Neighborhood. This land use designation applies to primarily residential areas with pedestrian oriented commercial uses, schools and small parks. The project is located in the Transit Zoning Code (TZC) (SD 84A and SD 84B) area. Under the TZC, the project site has a zoning designation of Urban Neighborhood 2 (UN-2). This zone is applied to primarily residential areas intended to accommodate a variety of housing types, with some opportunities for live-work, as well as neighborhood-serving retail and dining (City of Santa Ana Transit Zoning Code EIR, 2010, p. 4.7-19). The project would require City and State Density Bonus Agreements allowing a density of up to 54.7 units per acre.

As described in **Section 3.0** of this document, the project would add 241 residents to the project site. Additionally, the project would create jobs through the provision of commercial office and flexible non-residential spaces.

According to the TZC EIR, a population increase of 15,930 residents is projected between 2010 and 2035 for the City of Santa Ana, representing an annual average growth rate of 0.3 percent or approximately 637 residents per year. The direct population growth estimated to be associated with the full build-out of properties with development potential within the Transit Zoning Code (SD 84A

and SD 84B) area, which is also projected to occur over the next 20 to 25 years—approximately 12,225 people, or approximately 76 percent of the projected growth. Projected growth rates assume some level of new housing construction that contributes to future population growth (City of Santa Ana Transit Zoning Code EIR, 2010, p. 4.9-17).

In comparison to the average annual growth rate of 0.3 percent projected for the City, the population of Orange County is forecasted to grow by an annual average growth rate of 0.5 percent between 2005 and 2035, while the population of the SCAG Region is forecasted to grow by an average of 0.8 percent per year during this same 30-year period. As the City's population is forecasted to grow at a slower rate than the County and SCAG Region, the forecasted direct population growth as a result of development projects within the TZC area is not considered substantial relative to the surrounding areas. The project would comprise a negligible percentage (approximately 1.5%) of the City's anticipated population growth and approximately 1.9% of estimated population growth in the TZC area. As such, the population growth from the project is within the City's population projections (City of Santa Ana Transit Zoning Code EIR, 2010, p. 4.9-18).

Furthermore, according to the 2009 Housing Element of the General Plan, there was a potential for only 1,651 residential units to be developed on the City's remaining undeveloped and underutilized properties. Even if all of these units were developed, the population increase that could be accommodated would only range between 4,953 and 7,760 persons (depending on a persons per household factor of 3.0 or 4.7). Therefore, to accommodate the forecasted population growth that is anticipated to continue to occur, infill and reutilization of underdeveloped land has become a priority in the City (City of Santa Ana Transit Zoning Code EIR, 2010, p. 4.9-18). As the proposed project constitutes infill mixed use development, it will further the City's ability to respond to projected population growth and to meet the objectives of the City's Housing Element.

Implementation of the project is consistent with the overall intent of the City's goals to provide adequate housing opportunities to meet its fair share of projected housing needs and accommodate the projected growth increases. Additionally, the estimated increase in population caused by the project has been anticipated by the TZC, the City, and the region. Therefore, a less than significant impact would occur.

The increased population and housing resulting from the project would not necessarily cause direct adverse physical environmental effects; however, indirect physical environmental effects such as population-driven traffic or air quality impacts could occur. These indirect physical environmental effects associated with population increases are analyzed in **Section 4.2**, Air Quality) and **Section 4.16**, Transportation/Traffic) of this IS/MND. The project constitutes infill development and does not propose infrastructure improvements outside the existing boundaries of the site. Therefore, no indirect impacts associated with the extension of roads and other infrastructure would occur.

**b) Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?**

**and**

**c) Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?**

**No Impact**

The project site is currently developed with two existing church buildings and a large surface parking lot. No housing exists onsite and no one currently resides on the project site. Therefore, the project would not displace any housing or people and the project would not necessitate the construction of replacement housing. No impact would occur.



**4.14 Public Services**

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, 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?		X		
b) Police protection?		X		
c) Schools?		X		
d) Parks?		X		
e) Other public facilities?			X	

**a) Fire protection?**

**Less than Significant Impact with Mitigation Incorporated**

Fire Services for the City of Santa Ana are provided by Orange County Fire Authority (OCFA). Ten fire stations are strategically located throughout the city, providing primary response for fire suppression and emergency medical services (OCFA, 2018). The nearest station to the project site is OCFA Fire Station No. 75, located at 120 West Walnut Street in Santa Ana (OCFA Station Locator, 2018). Station 75, located approximately 0.43 mile southwest of the project site is anticipated to be the first responding unit to the project site because it is the closest fire station to the project site. Refer to **Table 4.14-1** below, which shows the location of the closest fire stations within 1.75 miles of the project site.

**Table 4.14-1**  
**FIRE STATIONS WITHIN 1.75 MILES OF THE PROJECT SITE**

Fire Station Number	Address	Distance from the Project Site
75	120 West Walnut Street	0.43 mile to the southwest
71	1028 West 17 <sup>th</sup> Street	1.0 mile to the northwest
72	1688 East 4 <sup>th</sup> Street	1.18 miles to the southeast
70	2310 North Old Grand Street	1.40 miles to the northeast
74	1427 South Broadway Street	1.55 miles to the southwest
73	419 South Franklin Street	1.72 miles to the southwest

Sources: OCFA Station Locator, 2018 and Google Earth Pro, 2018

The project includes the development of a 93-unit, multi-family residential and commercial mixed-use project. The project would comply with the applicable portions of the City of Santa Ana

Fire Code, the City of Santa Ana Municipal Code, and the OCFA Fire Prevention Guideline B-09, Fire Master Plans for Commercial and Residential Development, which include regulations for water supply, built in fire protection systems, emergency access, availability of fire hydrants, and fire-safe building materials.

The project proposes a total of 93 residential units, with an anticipated population of 241 persons. Given the six existing fire stations within 1.75 miles of the project site, the project area has adequate nearby fire facilities to serve the project in addition to the existing service needs. Therefore, the project would not result in the need for construction of a new or expanded fire station. The project would not result in substantial adverse physical impacts associated with the provision of, or the need for, new or physically altered fire protection facilities. Development of the project site is consistent with the overall growth anticipated by the Transit Zoning Code EIR (TZC EIR) and has therefore been planned for, from the standpoint of long-term infrastructure needs. However, the project would increase demand for fire protection services.

The City of Santa Ana collects development impact fees (DIF) for fire facilities which would be available to fund additional fire protection facilities as needed. With the payment of the applicable development impact fees, and implementation of mitigation measure MM 4.10-1 from the TZC EIR (provided below as mitigation measure **PS-1**), the project's impacts on fire protection services would be less than significant.

#### **Mitigation Measure**

**MM PS-1** Prior to an issuance of a building permit, a water supply, fire flow test and fire protection system design analysis shall be performed to ensure that the proposed project is in accordance to meet standard fire protection design requirements.

#### **Level of Significance After Mitigation**

After implementation of mitigation measure **PS-1** provided above, potential project impacts on fire services would be reduced to a less than significant level.

#### **b) Police protection?**

#### **Less than Significant Impact with Mitigation Incorporated**

The Santa Ana Police Department provides police services in the City of Santa Ana and would provide law enforcement services to the project site. In addition to the Office of the Chief of Police, the SAPD is organized into five bureaus: the Administration Bureau, the Field Operations Bureau, the Investigations Bureau, the Jail Bureau, and the Technology & Support Bureau (City of Santa Ana Transit Zoning Code EIR, 2010, p. 4.10-6). The Police Department headquarters is located at 60 Civic Center Plaza, approximately 0.86 mile west of the project site. The Police Department also has a Westend Substation located at 3750 West McFadden Avenue, which is located approximately 3.15 miles southwest of the project site (City of Santa Ana Police Facilities, 2018 and Google Earth Pro, 2018).

There is an increased possibility for trespassing, vandalism, and unattractive nuisances during the construction phase. However, as described in the project description, temporary barricades would be used to limit access to the site prior to the commencement of construction activities.

Implementation of this project feature would reduce impacts during the construction phase to a less than significant level.

As detailed in the project description section of this document, the residential population resulting from the project is expected to be a maximum of 241 residents. Development of the project site is consistent with the overall growth anticipated by the Transit Zoning Code EIR at buildout and has therefore been planned for, from the standpoint of long-term infrastructure needs. As detailed in the TZC EIR, implementation of the TZC is intended to accommodate existing and future population growth forecasted for by the City by introducing new residential housing and implementation of the TZC could result in a net growth of up to 4,075 residential units (City of Santa Ana Transit Zoning Code EIR, 2010, p. 4.9-15). The project will not result in a substantial increase in the population and housing in the surrounding area; however, the project would increase demand for law enforcement services.

The Police Department collects development impact fees which would be available to fund additional police and law enforcement services as needed. With the payment of the appropriate development impact fees, and implementation of mitigation measures 4.10-2 and 4.10-3 from the TZC EIR (provided below as mitigation measures **PS-2** and **PS-3**), the project's impacts on police protection services would be less than significant.

### **Mitigation Measures**

**MM PS-2** Any development that would exceed two stories in height shall submit site-specific security plans to the Santa Ana Police Department for review prior to issuance of a building permit.

**MM PS-3** No developer within the Transit Zoning Code (SD 84A and SD 84B) boundaries shall utilize a frequency of 800 MHz, which is reserved for emergency services.

### **Level of Significance After Mitigation**

After implementation of mitigation measures **PS-2** and **PS-3**, potential project impacts on police/law enforcement services would be reduced to a less than significant level.

### **c) Schools?**

#### **Less than Significant Impact with Mitigation Incorporated**

The project is located within the boundaries of the Santa Ana Unified School District (SAUSD), which serves a 24-square mile area and has a total of 60 schools, including: 36 elementary schools, 9 intermediate schools, 7 high schools, and other specialized schools (SAUSD Quickfacts, 2018). The closest schools to the project site include the following (SAUSD School Locator Map, 2018):

- James A. Garfield Elementary School, at 850 Brown Street; 0.24 mile southeast of the project site.
- Sierra Preparatory Academy, at 2021 North Grand Avenue; 1.15 miles northeast of the project site.
- Century High School, at 1401 South Grand Avenue; 1.64 miles southeast of the project site.

Development of the project would generate new students at the project site, who are anticipated to attend the schools listed above. Using the student generation rate found in Table 4.10-2 of the Transit Zoning Code EIR, for multifamily attached units<sup>24</sup>, the project would generate an estimated one elementary school student, one middle school student, and one high school student. The project's impact on local schools by adding additional students is addressed through payment of school impact fees. Pursuant to § 65995 of the California Government Code, the project applicant would be required to pay fees in accordance with SB 50. Payment of such fees is intended for the general purpose of addressing the construction of new school facilities, whether schools serving the project in question are at capacity or not. With implementation of mitigation measure PS-4 below (mitigation measure 4.10-4 from the TZC EIR), the project would have a less than significant impact on schools.

**Mitigation Measure**

**MM PS-4** Individual project developers shall pay school impact fees prior to the issuance of occupancy permits.

**Level of Significance After Mitigation**

After implementation of mitigation measure **PS-4**, potential project impacts on schools would be reduced to a less than significant level because the project applicant would be required to pay school impact fees, which would reduce potential impacts on schools to a less than significant level.

**d) Parks?**

**Less than Significant Impact with Implementation of Mitigation**

The Open Space, Parks, and Recreation Element of the Santa Ana General Plan states that the City has approximately 400 acres of public parks and recreational space (City of Santa Ana Current General Plan, Open Space, Parks and Recreation Element, 1982, p. 9). Refer to **Table 4.14-2** below, which lists the City's park and recreational facilities within a half mile radius of the project site.

**Table 4.14-2  
CITY PARKS WITHIN HALF A MILE OF THE PROJECT SITE**

Park Name	Address	Distance from the Project Site	Park Acreage	Amenities/Description
French Park	901 North French Street	0.15 mile northeast of the project site	0.17 acres	Pocket park, benches, street parking
Birch Park	210 North Birch Street	0.36 mile southwest of the project site	2.66 acres	Neighborhood Park Santa Ana Senior Center Concession Stand Parking Structure Picnic Shelters Outdoor exercise equipment Restroom
Sasscer Park	502 West Santa Ana Boulevard	0.42 mile southwest of the project site	0.92 acres	Specialty park

Sources: Google Earth Pro, 2018 and City of Santa Ana Parks Location, 2018.

<sup>24</sup> Elementary school: 0.0076, Middle School: 0.0017, and High School: 0.0028

The City has a standard of two acres open space per 1,000 persons residing within the City (City of Santa Ana General Plan, Open Space, Parks and Recreation Element, 1982). The City of Santa Ana has approximately 400 acres of public park and recreation facilities (City of Santa Ana General Plan, Open Space, Parks and Recreation Element, 1982). The City's population is approximately 338,247 people as of January 2018 (California Department of Finance, 2018). This equates to approximately 1.18 acres of park land per 1,000 residents, which is below the City's current standard of two acres of open space per 1,000 residents. Based on the City's standards, this increase in population would require an additional 0.02 acres of open space. The addition of 241 persons to the City is expected to marginally increase the use of existing neighborhood and regional parks, but this increased use would be partially offset by the proposed open space on the project site, including a central landscaped courtyard, a tot lot, and planting areas. The courtyard and surrounding open space would have seating areas, trees, modular planters and a green court. The tot lot would include play equipment and shaded benches. There would be approximately 9,837 square feet of first floor takeoffs and 19,460 square feet of second floor takeoffs, totaling 29,297 square feet (0.67 acres) of open space on the project site. Additionally, to ensure that the project would have a less than significant impact, mitigation measure **PS-5** (mitigation measure 4.10-5 from the TZC EIR) would be implemented, which requires payment of the Park Acquisition and Development Fee.

With the payment of appropriate fees and the provision of onsite open space and recreational uses, project related impacts on parks would be less than significant.

#### **Mitigation Measure**

**MM PS-5** Prior to issuance of a building permit for a residential development project, or change of use from non-residential to residential within the Transit Zoning Code (SD 84A and SD 84B) area, project applicants shall pay to the City of Santa Ana the Park Acquisition and Development Fee.

#### **Level of Significance After Mitigation**

After implementation of mitigation measure **PS-5**, potential project impacts on parks would be reduced to a less than significant level.

#### **e) Other Public Facilities?**

#### **Less than Significant Impact**

The City library system consists of a central library in Civic Center Plaza (located at 26 Civic Center Plaza) and a branch library at 122 North Newhope Street (City of Santa Ana Library Services, 2018). The nearest branch to the project site is the central library, located approximately 0.54 mile southwest of the project site. The increase of an estimated 241 residents associated with the project would not constitute a substantial increase in population or a substantial increase in the demand for library facilities and services. As detailed in the Transit Zoning Code EIR, "The City's library system is funded through the general fund and does not have a fee collection system in place (similar to City Parks) to obtain fees from a developer. The tax base afforded by the additional development within the Transit Zoning Code (SD 84A and SD 84B) area would contribute to the City's general fund, which is distributed to various City services, including libraries. Therefore, any necessary improvements/modifications to the existing Santa Ana library system would be implemented using the general fund and determined on an as-needed annual basis by the City. As such, any increase in the need for library resources would be implemented by the City irrespective of the [Transit Zoning

Code] project, although aided by the additional tax base from development within the Transit Zoning Code (SD 84A and SD 84B) area, and impacts would be less than significant.” Therefore, impacts from the proposed project on library services would similarly be less than significant.

**4.15 Recreation**

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

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

**Less than Significant Impact with Mitigation Incorporated**

The project involves the construction of a single residential building with 93 units surrounding an interior, landscaped courtyard. The project includes the construction of a tot lot. The project would house a maximum of 241 persons on the project site.<sup>25</sup> The City has a standard of two acres open space per 1,000 persons residing within the City (City of Santa Ana General Plan, Open Space, Parks and Recreation Element, 1982, p.9). The City of Santa Ana has approximately 400 acres of public park and recreation facilities (City of Santa Ana General Plan, Open Space, Parks and Recreation Element, 1982, p.9). The City’s population is approximately 338,247 people as of January 2018 (California Department of Finance, 2018). This equates to approximately 1.18 acres of park land per 1,000 residents, which is below the City’s current standard of two acres of open space per 1,000 residents. Based on the City’s standards, the project generated increase in population would require an additional 0.02 acres of open space.

The addition of 241 persons to the City is expected to marginally increase the use of existing neighborhood and regional parks, but this increased use would be partially offset by the proposed open space on the project site, including a central-landscaped courtyard, a tot lot, and planting areas. The courtyard and surrounding open space would have seating areas, trees, modular planters and a green court. The tot lot would include play equipment and shaded benches. As shown in **Figure 4.15-1**, there would be approximately 9,837 square feet of first floor takeoffs and 19,460 square feet of second floor takeoffs, totaling 29,297 square feet (0.67 acres) of open space on the project site. The provision of open space and amenities on site would reduce impacts to existing recreational facilities. Additionally, to ensure that the project would have a less than significant impact, mitigation measure

<sup>25</sup> Email correspondence between Margaret Partridge, Senior Project Manager, at UltraSystems and Pedro Gomez, Assistant Planner I, on December 19, 2018 regarding the proposed project maximum population at buildout information from National Community Renaissance of California, the project applicant.

**PS-5** (mitigation measure 4.10-5 from the TZC EIR) would be implemented, which requires payment of the Park Acquisition and Development Fee.

With the payment of appropriate fees and the provision of onsite open space and recreational uses, project related impacts on recreation facilities would be less than significant.

#### **Mitigation Measure**

**MM PS-5** Prior to issuance of a building permit for a residential development project, or change of use from non-residential to residential within the Transit Zoning Code (SD 84A and SD 84B) area, project applicants shall pay to the City of Santa Ana the Park Acquisition and Development Fee.

#### **Level of Significance After Mitigation**

After implementation of mitigation measure **PS-5**, potential project impacts to recreational facilities would be reduced to a less than significant level.

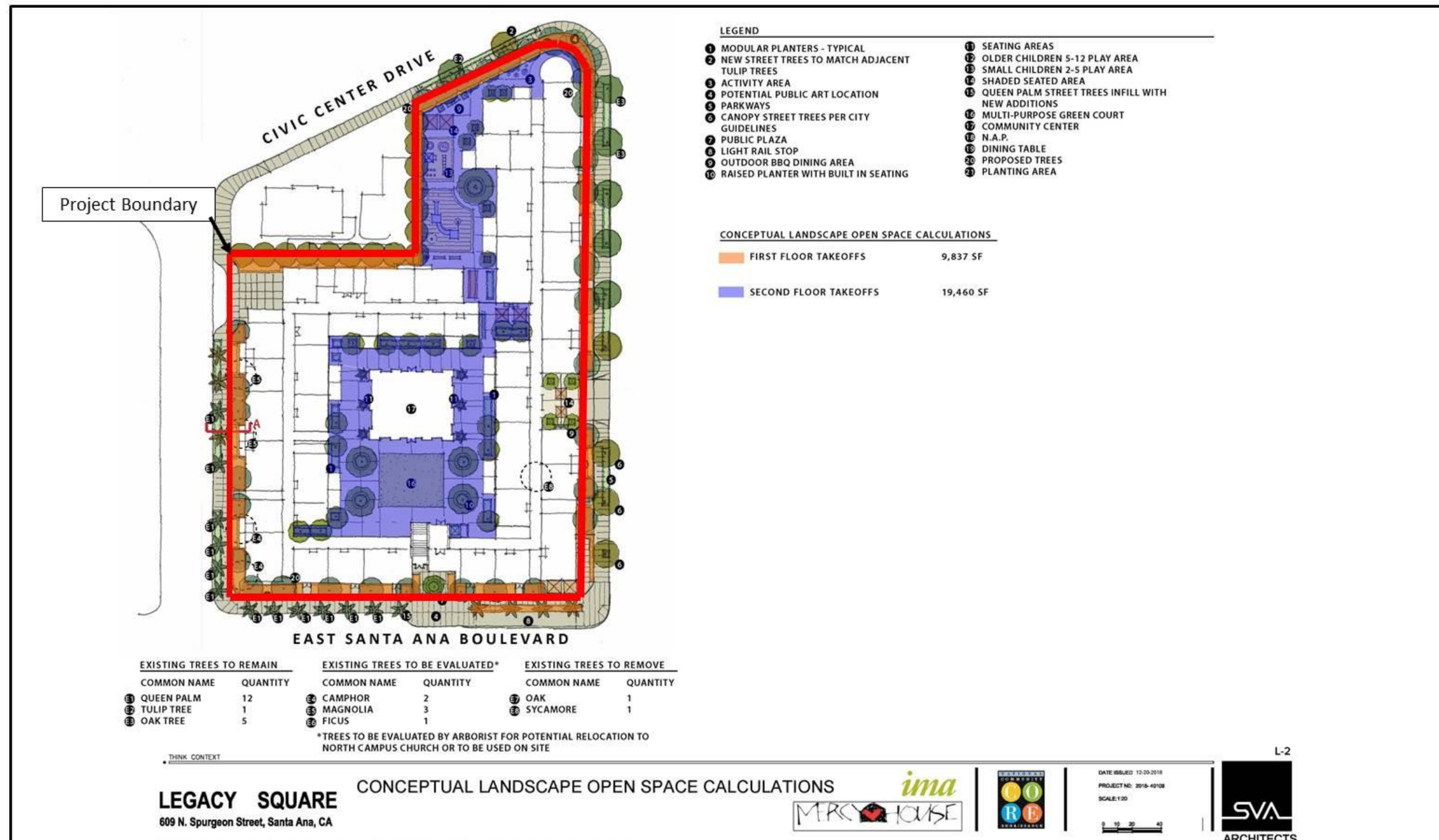
**b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?**

#### **Less Than Significant Impact**

As described above, the project includes recreational facilities for tenants onsite. Furthermore, the project would not require the construction or expansion of recreational facilities beyond the limits of the project site. Therefore, there would be no significant adverse physical effect on the environment and less than significant impacts would occur with project implementation.



**Figure 4.15-1**  
**CONCEPTUAL LANDSCAPE PLAN – OPEN SPACE**



Disclaimer: Illustration provided by SVA Architects, who has indicated that the information is true and correct. No other warranties are expressed or implied.

Source: SVA Architects, 12/20/18



City of Santa Ana  
 Legacy Square

Conceptual Landscape Plan – Open Space

**4.16 Transportation and Traffic**

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
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?			X	
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?			X	
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location, which results in substantial safety risks?				X
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
e) Result in inadequate emergency access?				X
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?			X	

The following analysis is based upon Section 4.11 (Transportation/Traffic) of the City of Santa Ana Transit Zoning Code (SD 84A and SD 84B) EIR (City of Santa Ana, 2010) and a traffic impact study (TIS) prepared specifically for the proposed Legacy Square project (KOA, 2018). Because the Legacy Square project is completely within the study area of the EIR, the EIR’s findings will be used for the site-specific project wherever justified.

The analyses in the EIR and for the Legacy Square Project differ in the following ways:

- The EIR examined 50 intersections throughout the area covered by the Transit Zoning Code, while the TIS considered two intersections on the Legacy Square project boundary and two intersections two blocks to the west.
- Some portions of the Santa Ana traffic network, such as freeway on-ramps and off-ramps, were not in the area of the Legacy Square project site and were not evaluated in the traffic impact analysis for the latter.
- The EIR assessed traffic impact for a transit zone buildout year of 2030 and a General Plan buildout year of 2035. As required by a landmark California Court of Appeals ruling,<sup>26</sup> the Legacy Square-specific TIS did one analysis with existing (2018) conditions as a baseline. It also evaluated traffic increases against a future (2021) baseline.
- The EIR assumed an ambient traffic growth rate of 0.5% per year, while the Legacy Square-specific TIS used 1.0%.<sup>27</sup>

- a) **Would the project 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**

#### **Applicable Plans, Ordinances, and Policies**

##### **Statewide Transportation Improvement Program (STIP)**

The Statewide Transportation Improvement Program (STIP) is a multi-year capital improvement program of transportation projects on and off the State Highway System, funded with revenues from the State Highway Account and other funding sources. The Legacy Square development is not a transportation project and does not conflict with the STIP.

##### **Orange County Congestion Management Plan**

The Congestion Management Plan (CMP) requires that a traffic impact analysis be conducted for any project generating 2,400 or more daily trips, or 1,600 or more daily trips for projects that directly access the CMP Highway System (CMPHS). The CMPHS includes specific roadways, which include State Highways and Super Streets, which are now known as Smart Streets, and CMP arterial monitoring locations/intersections). (City of Santa Ana, 2010, p. 4.11-30.) As discussed below, the Legacy Square project will generate fewer than 2,400 daily trips and fewer than 1,600 daily trips that directly access the CMPHS. Furthermore, none of the study intersections is part of the 2017 Orange County Congestion Management Program (KOA, 2018, p. 3).

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26 Sunnyvale West Neighborhood Assoc. v. City of Sunnyvale City Council (2010) 190 Cal.App.4th 1351.

27 This is discussed below.

**Measure M/OC Go**

Measure M, approved by Orange County voters in November 1990, and re-approved in 2006, authorizes a sales tax to fund a variety of transportation projects in the County. The measure, which is now called OC Go, requires each jurisdiction in the County to adopt a Growth Management Element with specific contents and guidelines. The City of Santa Ana adopted such an element to its general plan on July 1, 1991 (City of Santa Ana, 1991). A current OC Go project in the vicinity of Legacy Square is the OC Streetcar, which will link the Santa Ana Regional Transportation Center (SARTC), which provides regional rail, OCTA bus, and intercity and international bus services, to a new multimodal hub at Harbor Boulevard/Westminster Avenue in Garden Grove.<sup>28</sup> The streetcar will have a stop directly in front of the project site on the northwest corner of Santa Ana Boulevard and French Street. Groundbreaking for the OC Streetcar occurred November 30, 2018, and the line is expected to be operational in late 2021.<sup>29</sup> The Legacy Square project will not conflict with the streetcar line.

**City of Santa Ana General Plan—Circulation Element**

The General Plan Circulation Element (City of Santa Ana, 1998) has three goals with ten associated policies that potentially apply to transportation issues for the Legacy Square project. These are summarized as follows (City of Santa Ana, 2010, pp. 4.11-31 to 4.11-32):

**Goal 1.0**      *Provide and maintain a comprehensive circulation system that facilitates the efficient movement of people and goods throughout the City, and enhances its economic viability.*

**Policy 1.1**      Coordinate transportation improvements in a manner which minimizes disruptions to the community.

**Policy 1.4**      Maintain at least a level of service (LOS) of D on arterial street intersections, except in major development areas.

**Policy 1.6**      Improve intersection capacity on major arterials to accommodate increased traffic demands.

**Goal 3.0**      *Provide a full spectrum of travel alternatives for the community's residents, employees, and visitors.*

**Policy 3.4**      Encourage the development of multi-modal transit opportunities within major development areas.

**Policy 3.5**      Enhance sidewalks and pedestrian systems to promote their use as a means of travel.

**Policy 3.7**      Support system enhancements and bikeway support facilities that encourage bicycle usage.

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28 <https://www.octa.net/Projects-and-Programs/All-Projects/Rail-Projects/OC-Streetcar/>. Accessed January 1, 2019.

29 <https://losangeles.cbslocal.com/2018/11/30/oc-and-federal-officials-celebrate-groundbreaking-for-streetcar-project/>. Accessed January 1, 2019.

**Policy 3.8** Develop bicycle paths that maximize access to major activity centers, neighboring jurisdictions, and regional bicycle paths.

**Goal 4.0** *Fully coordinate transportation and land use planning activities.*

**Policy 4.1** Program and prioritize transportation improvements to stimulate growth in major development areas.

**Policy 4.2** Assess land use and transportation project impacts through the development review process.

**Policy 4.3** Assess all development projects in order to identify their traffic impacts and require that they pay their fair-share of the system improvements necessary to accommodate traffic generated by the project.

According to the Transit Zoning Code EIR (City of Santa Ana, 2010, p. 4.11-32), implementation of the zoning code is consistent with applicable policies of the Circulation Element. As discussed below, the Legacy Square project will not result in an unacceptable LOS in the project area. Lower income residents at Legacy Square are expected to avail themselves of the available public transit; this will reduce daily vehicle trips. Consequently, implementation of the Legacy Square project would not conflict with the above-listed policies.

**City of Santa Ana Municipal Code**

Article XIII of Chapter 36 of the Santa Ana Municipal Code has a set of transportation management requirements for development projects in the City. However, these provisions apply only to developments that will “result in places of employment that are, in the aggregate, estimated to employ a total of two hundred fifty (250) or more persons...”<sup>30</sup> Since the Legacy Square project will employ fewer than 250 people, these transportation management requirements do not apply.

In conclusion, the Legacy Square project would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system. Impact would be less than significant.

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

**Less than Significant Impact**

The Orange County Transportation Authority (OCTA) is designated as the Congestion Management Agency (CMA) to oversee the Orange County Congestion Management Program (CMP). The City has six intersections that are subject to the CMP (OCTA, 2011, p. 24). None of these is in the Legacy Square area (KOA, 2018, p. 3).

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30 City of Santa Ana Municipal Code, Chapter 36, Article XIII, § Sec. 36-604(a).

**Existing Conditions**

Thoroughfares in the Legacy Square traffic study area include the following:

- **French Street** is classified in the Circulation Element of the City of Santa Ana General Plan as a Commuter Street. It provides one travel lane in each direction and on-street parking is generally permitted on both sides of the roadway.
- **East Santa Ana Boulevard** is classified as a Primary Arterial in the City of Santa Ana General Plan, within the project vicinity. East of French Street, the roadway provides one travel lane in each direction with a striped median. East Santa Ana Boulevard merges with 6th Street at French Street and becomes a three-lane westbound one-way street. Some sections of the one-way portion of Santa Ana Boulevard allow on-street parking on the north side of the street, but on-street parking is generally prohibited on both sides of the roadway.
- **East 6th Street** is not classified in the Circulation Element of the City of Santa Ana General Plan. However, this roadway’s characteristics are most similar to those of a Commuter street. East of French Street, East 6th Street provides one travel lane in each direction. On-street parking is generally permitted on both sides of the roadway. The street terminates at French Street and merges with East Santa Ana Boulevard as described above.
- **North Main Street** is classified as a Secondary Arterial in the City of Santa Ana General Plan. This roadway provides two travel lanes in each direction, separated by a striped median. On-street parking is generally prohibited on both sides of the roadway.
- **Civic Center Drive East** is classified as a Secondary Arterial in the City of Santa Ana General Plan. This roadway provides one travel lane in each direction east of Minter Street and two travel lanes in each direction, separated by a striped median south of Willow Street. On-street parking is generally permitted on one side of the roadway west of Minter Street and largely allowed on the roadway east of Minter Street with some exceptions.
- **North Spurgeon Street** is not classified in the Circulation Element of the City of Santa Ana General Plan. However, this roadway’s characteristics are most similar to what is defined as a Commuter street. The street provides one travel lane in each direction with on-street parking that is generally permitted on both sides of the roadway.

Local public transit service is summarized in **Table 4.16-1**. As noted above, at about the time that the new housing is available for occupancy, the OC Streetcar may be in operation. The new line will provide relatively easy access to the SARTC and its local and regional transportation services.

**Table 4.16-1  
PUBLIC TRANSIT SERVICE SUMMARY**

OCTA Line	From	To	Via	Peak Frequency
53/53X	ARTIC Station	Irvine—West Yale Loop & Alton	Main St	5 Minutes
55	Santa Ana—Flower & 6th	Newport Transportation Center	Standard Ave/ Bristol St/ Fairview St/ 17 <sup>th</sup> St	13 Minutes

❖ SECTION 4.16 – TRANSPORTATION AND TRAFFIC ❖

OCTA Line	From	To	Via	Peak Frequency
64/64X	Huntington Beach—Boeing	Tustin—Larwin Square	Bolsa Ave/ 1 <sup>st</sup> St	6 Minutes
83	Anaheim—Manchester & Harbor	Laguna Hills Transportation Center	I-5 Fwy/ Main St	12 Minutes
206	Santa Ana—Bristol and Civic Center	Lake Forest—Icon & Ellipse	I-5 Fwy	24 Minutes
462	Santa Ana Regional Transportation Center	Santa Ana—Civic Center	Santa Ana Blvd/ Civic Center Dr	5 Minutes

For analysis of level of service at signalized intersections, the City of Santa Ana has designated the Intersection Capacity Utilization (ICU) analysis methodology for signalized intersections and the Highway Capacity Manual (HCM) analysis methodology for unsignalized intersections. **Table 4.16-2** and **Table 4.16-3** define the level of service criteria applied to signalized and un-signalized intersections, respectively. A 5% adjustment to the clearance and loss time factor based on the critical phases of the signalized control was included in the traffic analysis. A facility is “at capacity” (ICU value of 1.00 or greater) when extreme congestion occurs. This volume/capacity ratio value is based upon volumes by lane, signal phasing, and approach lane configuration. According to the City of Santa Ana traffic impact analysis guidelines, 1,700 and 1,600 vehicles per hour per lane should be used for all through and turn lanes, respectively. Additionally, no de facto right turn lanes are used for shared lanes.

**Table 4.16-2**  
**LEVEL OF SERVICE DEFINITIONS FOR SIGNALIZED INTERSECTIONS**

Level of Service	Definition	Intersection Volume/Capacity Ratio (ICU)
A	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.	0.000–0.600
B	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.	0.601–0.700
C	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.	0.701–0.800
D	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.	0.801–0.900
E	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.	0.901–1.000
F	FORCED FLOW. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.	> 1.000

Source: Transportation Research Board, Highway Capacity Manual (2000)

**Table 4.16-3**  
**LEVEL OF SERVICE DEFINITIONS FOR UNSIGNALIZED INTERSECTIONS**

<b>Level of Service</b>	<b>Definition</b>	<b>HCM Delay Value (seconds)</b>
A	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.	0.0 – 10.0
B	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.	10.1 – 15.0
C	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.	15.1 – 25.0
D	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.	25.1 – 35.0
E	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.	35.1 – 50.0
F	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.	50.1 or more

Source: Transportation Research Board, Highway Capacity Manual (2000)

KOA Corporation (KOA, 2018) conducted a traffic impact analysis for four intersections at or near the project site.<sup>31</sup> (See **Figure 4.16-1.**) The intersections are:

1. French Street and Civic Center Drive East (northeast corner of project site).
2. French Street and East Santa Ana Boulevard (southeast corner of project site).
3. North Main Street and East Santa Ana Boulevard.
4. North Main Street and Civic Center Drive East.

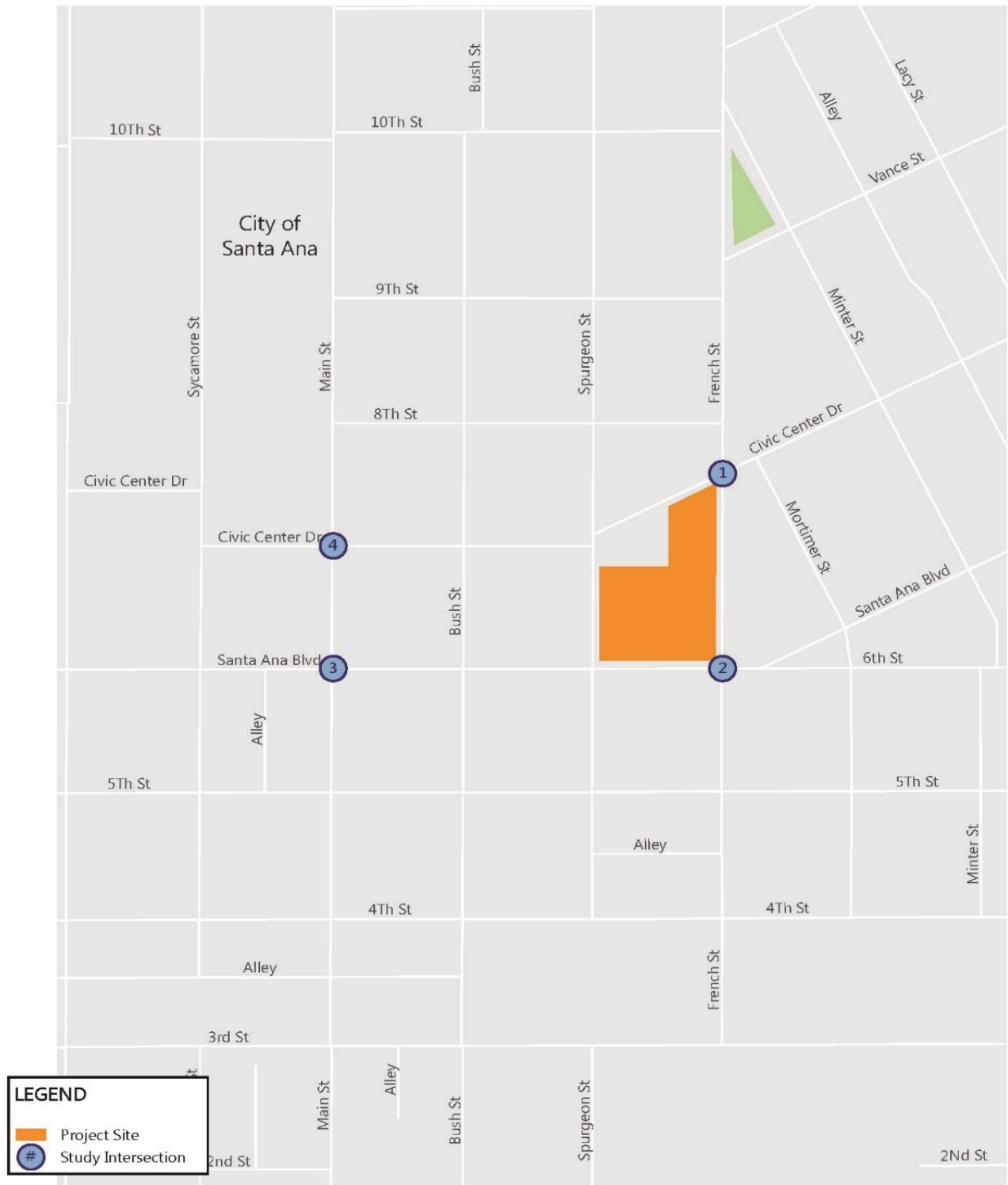
The following traffic scenarios were evaluated for this project:

- Existing Year (2018) conditions.
- Existing Year (2018) with project conditions.
- Opening Year (2021) without project conditions.
- Opening Year (2021) with project conditions.

<sup>31</sup> The traffic study is in **Appendix H2.**



**Figure 4.16-1**  
**LEGACY SQUARE TRAFFIC STUDY INTERSECTIONS**



Source: KOA, 2018.

Existing conditions at key study intersections were characterized by identifying traffic controls and approach lane configurations at each study intersection and the locations of on-street parking and transit stops. Traffic volumes were counted on Friday, December 21, 2018 during the AM peak-hour (7:00 a.m. – 9:00 a.m.) and PM peak-hour (4:00 p.m. – 6:00 p.m.) periods. Detailed results are provided in **Appendix H2**.

**Table 4.16-4** summarizes the volume-to-capacity ratios and LOS values for existing traffic conditions. All study intersections are operating at LOS C or better during the weekday AM and PM peak hours.

**Table 4.16-4**  
**INTERSECTION PERFORMANCE UNDER EXISTING CONDITIONS**

Study Intersection		AM Peak Hour		PM Peak Hour	
		V/C or Delay	LOS	V/C or Delay	LOS
1	French Street and Civic Center Drive East	13.1	B	21.3	C
2	French Street and East Santa Ana Boulevard	19.2	C	22.5	C
3	N Main Street and East Santa Ana Boulevard	0.567	A	0.591	A
4	N Main Street and Civic Center Drive East	0.620	B	0.685	B

The following procedure was used to estimate average daily and AM and PM peak hour trips generated by the proposed Legacy Square project and by the existing onsite land uses (KOA, 2018):

Except where otherwise noted, rates were obtained from the Institute of Transportation Engineers (ITE) – Trip Generation Manual (10th edition). Rates from the City of Los Angeles Transportation Impact Guidelines (City of Los Angeles, 2016) were also used to calculate the trip generation by the Affordable Housing and Permanent Supportive Housing designations.<sup>32</sup> **Table 4.16-5** shows the calculation. The Legacy Square project is estimated to generate 656 daily trips, including 46 and 60 trips for the AM and PM peak hours, respectively. From these values the daily and peak hours trips generated by the existing onsite use (a church) were subtracted, since they will be eliminated. The net forecast is **472** daily trips, including **37** and **47** trips for the AM and PM peak hours, respectively.

The traffic study allocated the trips to the surrounding road network. The primary factors affecting the trip distribution for the project are the nature of the uses; existing traffic patterns; the geographic location of the site and its proximity to freeways and major travel routes; and the relative distribution of the population from which prospective employees and visitors of the project would expect to be drawn. Based on these factors, the overall project directional trip distribution was determined. The general geographic distribution for project trips anticipated is:

- North: 15%
- South: 30%
- East: 30%
- West: 25%

32 Although the project is not in the City of Los Angeles, the Los Angeles Department of Transportation (LADOT) rates for were used because they are based upon extensive research on affordable housing and permanent supportive housing trip generation, and are therefore more appropriate.

A map of the project trip distribution is provided in **Appendix H2**.

For the opening year (2021) scenarios, to acknowledge regional population and employment growth outside of the study area, an ambient/background traffic growth rate was applied to the existing traffic counts. An annual growth rate of 1% per year was approved and included in the scoping document to the City of Santa Ana.

**Table 4.16-5  
PROJECT TRIP GENERATION**

Land Use	ITE Code	Intensity	Weekday								
			Average Daily	AM Peak Hour			PM Peak Hour				
				In	Out	Total	In	Out	Total		
<b><i>Trip Generation Rates<sup>1</sup></i></b>											
Low-Rise Apartment (Adjacent Streets, 7-9A, 4-6P)	221		Units	5.44	26%	74%	0.36	61%	39%	0.44	
Affordable Housing <sup>2</sup>	-		Units	4.08	40%	60%	0.50	55%	45%	0.34	
Permanent Supportive Housing <sup>2</sup>	-		Units	1.27	44%	56%	0.12	59%	41%	0.12	
Shopping Center (Adjacent Streets, 7-9A, 4-6P)	820		k.s.f	37.75	62%	38%	0.94	48%	52%	3.81	
Recreational Community Center (Adjacent Streets, 7-9A, 4-6P)	495		k.s.f	28.82	66%	34%	1.76	47%	53%	2.31	
Church (Adjacent Streets, 7-9A, 4-6P)	560		k.s.f	6.95	60%	40%	0.33	45%	55%	0.49	
<b><i>Estimated Trips</i></b>											
Low-Rise Apartment (Adjacent Streets, 7-9A, 4-6P)	933	1	k.s.f	5	0	0	0	0	0	0	
Affordable Housing <sup>2</sup>	-	59	Units	241	12	18	30	11	9	20	
Permanent Supportive Housing <sup>2</sup>	-	33	Units	42	2	2	4	2	2	4	
Shopping Center (Adjacent Streets, 7-9A, 4-6P)	820	7.767	k.s.f	293	4	3	7	14	16	30	
Recreational Community Center (Adjacent Streets, 7-9A, 4-6P)	937	2.576	k.s.f	74	3	2	5	3	3	6	
<b>Sub-total</b>				<b>656</b>	<b>21</b>	<b>25</b>	<b>46</b>	<b>30</b>	<b>30</b>	<b>60</b>	
<b><i>Existing Use Credits</i></b>											
Church (Adjacent Streets, 7-9A, 4-6P)	560	26.400	k.s.f	-183	-5	-4	-9	-6	-7	-13	
<b>Sub-total</b>				<b>-183</b>	<b>-5</b>	<b>-4</b>	<b>-9</b>	<b>-6</b>	<b>-7</b>	<b>-13</b>	
<b>Total</b>				<b>472</b>	<b>16</b>	<b>21</b>	<b>37</b>	<b>24</b>	<b>23</b>	<b>47</b>	

Source: ITE, 10th edition

<sup>1</sup>K.S.F. is 1000 square feet gross floor area.

<sup>2</sup>City of Los Angeles Transportation Impact Study Guidelines (LADOT, 2016).

**Table 4.16-6** summarizes the LOS evaluation for the four aforementioned impact scenarios. Details of the calculations are provided in **Appendix H2**.

**Table 4.16-6**  
**SUMMARY OF LEVEL OF SERVICE IMPACTS**

Study Intersection	Existing Conditions				Opening Year (2021)			
	Without Project		With Project		Without Project		With Project	
	AM	PM	AM	PM	AM	PM	AM	PM
1	B	C	B	C	B	C	B	C
2	C	C	C	C	C	C	C	D
3	A	A	A	A	A	B	A	B
4	B	B	B	B	B	C	B	C

According to the City of Santa Ana Traffic Impact Analysis criteria, a project is considered to have a significant traffic impact at an intersection if LOS deteriorates from LOS D (or better) to a LOS E or LOS F, outside of Major Development Areas (MDA). If the project contribution to the volume/capacity ratio at the study intersection is greater than 0.01, and if the location is at Level of Service E or poorer outside of an MDA or Level of Service F within an MDA, the impact is considered significant. The study intersections of French Street & Santa Ana Boulevard, Main Street & Santa Ana Boulevard and Main Street & Civic Center Drive analyzed in this report are located within an MDA. The study intersection of French Street & Civic Center Drive is not located within an MDA.

If the project is shown to have a significant impact as described above, mitigation of the project contribution to ICU is required to bring the intersection back to an acceptable level of service or to no project conditions.

As seen in **Table 4.16-6**, under existing (2018) conditions, implementation of the project would not result in any decrease in level of service at the four studied intersections. In the opening year (2021) scenario, without the project, the PM peak LOS at the intersection of North Main Street and Santa Ana Boulevard would decline from A to B. This would be due only to the increase in the “ambient” traffic at the 1% annual growth rate. In the opening year scenario, the AM peak LOS at all scenarios would be the same with or without the Legacy Square project-induced traffic’s contribution. However, the PM peak LOS at the intersection of French Street and East Santa Ana Boulevard would decline from C to D. Under the City’s criteria, none of the changes in LOS is significant, and no mitigation is necessary.

- c) **Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location, which results in substantial safety risks?**

### No Impact

As discussed in **Section 4.8**, the nearest active public airport is John Wayne Airport, located approximately 4.6 miles south of the project site. The Legacy Square project is not located within this airport’s Land Use Influence Area. Fullerton Municipal Airport, the only municipal airport in Orange County, is located approximately 10.5 miles northwest of the project, and the Joint Forces Training Base, Los Alamitos, is located approximately 11 miles west of the project. Due to the project’s distance from the nearest active airports, it is not located within the boundary of an Airport Influence Area (AIA), or within two miles of a public airport or public use airport.

Furthermore, the highest structure to be built as part of the Legacy Square project is about 55 feet above the ground. It will not be necessary to file a Notice of Proposed Construction or Alteration (FAA Form 7460-1) with the Federal Aviation Administration. The project will have no influence on airport operations, and it will not pose a safety risk. There will be no impact.

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

**Less than Significant Impact**

The Transit Zoning Code (SD 84A and SD 84B) encourages infill projects that would be suitably designed to use the existing network of regional and local roadways located within the vicinity of the study area. Additional proposed changes to road design within the study area as a part of the proposed Transit Zoning Code (SD 84A and SD 84B) could include potential improvement measures. Most of the identified improvements include the addition of a turn lane at intersections, the addition of shared through lanes, and installation of traffic signals, and would not represent an increase in hazards associated with a design feature. Rather, these recommended improvements are designed to reduce potential hazards due to congestion (City of Santa Ana, 2010, pp. 4.11-107 to 4.11-108). Therefore, this impact would be less than significant.

**e) Would the project result in inadequate emergency access?**

**No Impact**

The project would comply with applicable City regulations, such as the requirement to comply with the City's Fire Code with regarding to providing adequate emergency access, as well as the California Building Standards Code. Prior to the issuance of building permits, the City of Santa Ana would review project site plans, including location of all buildings, fences, access driveways and other features that may affect emergency access. Fire lanes would be provided for adequate emergency access. The site design for the project includes access and fire lanes that would accommodate emergency ingress and egress by fire trucks, police units, and ambulance/paramedic vehicles. All onsite access and sight-distance requirements would be in accordance with City and Caltrans design requirements. The City's review process and compliance with applicable regulations and standards would ensure that adequate emergency access would be provided at the project site at all times. Therefore, the project would not result in inadequate emergency access and there would be no impacts in this regard.

**f) Would the project 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 Transit Zoning Code (SD 84A and SD 84B) would not conflict with adopted policies, plans, or programs supporting alternative transportation. The project would comply with City of Santa Ana Municipal Code requirements and would provide bicycle racks, parking spaces for carpool/vanpool vehicles, and display rideshare information. The project is also near the SARTC, which offers commuter rail service and will allow residents of the project to use public transit to access other parts of the region. As mentioned above, the OC Streetcar is under construction. It will increase the access of Legacy Square residents to both local and regional public transit. The impacts of the project on public transit, bicycle, or pedestrian facilities will be less than significant.

**4.17 Tribal Cultural Resources**

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a tribal cultural resource that is 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 § 5020.1(k)?		X		
b) Cause a substantial adverse change in the significance of a tribal cultural resource that is determined to be a significant resource to a California Native American tribe pursuant to the criteria set forth in subdivision (c) of Public Resource Code § 5024.1(c)?			X	

Information from the Phase I Cultural Resources Inventory, dated December 28, 2018 (see **Appendix I**), prepared for the Legacy Square project by UltraSystems has been included in this section.

- a) Cause a substantial adverse change in the significance of a tribal cultural resource that is 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 § 5020.1(k)?**

**Less Than Significant with Mitigation Incorporated**

Assembly Bill 52 (AB 52) requires meaningful consultation with California Native American Tribes on potential impacts on tribal cultural resources (TCRs), as defined in Public Resources Code § 21074. TCRs are sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either eligible or listed in the California Register of Historical Resources or local register of historical resources (CNRA, 2007).

As part of the AB 52 process, Native American tribes must submit a written request to the lead agency to be notified of projects within their traditionally and culturally affiliated area. The lead agency must provide written, formal notification to those tribes within 14 days of deciding to undertake a project. The tribe must respond to the lead agency within 30 days of receiving this notification if they want to engage in consultation on the project, and the lead agency must begin the consultation process within 30 days of receiving the tribe’s request. Consultation concludes when either (1) the parties agree to mitigation measures to avoid a significant effect on a tribal cultural resource, or (2) a party, acting in good faith and after reasonable effort, concludes mutual agreement cannot be reached.

Letters were sent by the City (the lead agency), to local Native American tribes asking if they wished to participate in AB 52 consultation concerning the Legacy Square Project within the City of Santa Ana. The letters were sent on December 21, 2018 via email and by certified mail on December 26, 2018 to the Gabrielino Band of Mission Indians – Kizh Nation, Chairman Andrew Salas; the Gabrielino/Tongva Nation, Chairperson Sandonne Goad; the Gabrieleno/Tongva San Gabriel Band of Mission Indians, Chairperson Anthony Morales; the Gabrielino-Tongva Tribe, Chairperson Linda Candelaria and to Councilmember Charles Alvarez; the Gabrielino Tongva Indians of California Tribal Council, Chairman Robert F. Dorame; the Juaneño Band of Mission Indians, Tribal Chairperson Sonia Johnson; the Juaneño Band of Mission Indians – Acjachemen Nation, Chairperson Matias Belardes and to Tribal Manager Joyce Perry; and the Juaneño Band of Mission Indians – Acjachemen Nation, Chairperson Teresa Romero (see **Appendix M**). Additional letters were sent on January 2, 2019 by certified mail and email to the Agua Caliente Band of Cahuilla Indians, Jeff Grubbe, Chairperson; the Pala Band of Mission Indians, Robert Smith, Chairperson; the Pauma Band of Luiseño Indians, Temet Aguilar, Chairperson; the Pechanga Band of Mission Indians, Mark Macarro, Chairperson; the Rincon Band of Luiseño Indians, Bo Mazzetti, Chairperson and to Jim McPherson, Tribal Historic Preservation Officer; the San Luis Rey Band of Mission Indians, to the Tribal Council; and to the Soboba Band of Luiseño Indians, Scott Cozart, Chairperson (see **Appendix M**). To date the City has received a response from one of the tribes to the City’s outreach. This was from Chairman Andrew Salas of the Gabrieleño Band of Mission Indians – Kizh Nation, in an email and letter dated December 31, 2018. The City will contact Mr. Salas promptly to coordinate a meeting. The remaining tribes have thirty days in which to reply and request consultation.

No sites were documented in the NAHC’s SLF search. No resources as defined by Public Resources Code § 21074 have been identified (refer to **Attachment C**: “Native American Heritage Commission Records Search and Native American Contacts” in **Appendix I** to this IS/MND). Additionally, the project site has not been recommended for historic designation for prehistoric and TCRs. No specific tribal resources have been identified.

No prehistoric or historic archaeological resources were observed during the field survey. The previous cultural resources surveys within the half-mile buffer zone resulted in no archaeological sites or isolates being recorded. Eighty-eight historic properties were identified within the half-mile buffer zone; however, none are within the area of potential effect, and the results of the pedestrian assessment indicate it is unlikely that historic properties will be adversely affected by construction of the project aside from the 1966 United Methodist Church and the 1929 educational facility present on the project site. The cultural resource study findings at the SCCIC indicate that there is a low potential for finding tribal resources.

A mitigation measure (MM) for minimizing impacts on potential TCRs is applicable to the project site because while the land at the site was used for cattle raising and farming into the mid-19<sup>th</sup> century, the immediate area has been urban with residential and civic buildings since the late 19<sup>th</sup> century. Therefore, the potential for subsurface cultural and or historical deposits is considered to be low.

Mitigation measure **TCR-1** described below requires consultation of a qualified archaeologist and the local Native American representative, if unanticipated discoveries are made during construction activities. With implementation of mitigation measure **TCR-1**, potential project impacts on TCRs would be less than significant.



### Mitigation Measure

**MM TCR-1:** If unanticipated discoveries are made during project construction, all work will stop within a 30-foot radius of the discovery. The developer will hire a qualified archaeologist as approved by the City of Santa Ana to assess the discovery. Work will not continue until the discovery has been evaluated by a qualified archaeologist and the local Native American representative has been contacted and consulted to assist in the accurate recordation and recovery of the resources.

**b) Cause a substantial adverse change in the significance of a tribal cultural resource that is determined to be a significant resource to a California Native American tribe pursuant to the criteria set forth in subdivision (c) of Public Resource Code § 5024.1(c)?**

### Less than Significant Impact

To date, the lead agency has received one request for consultation from a California Native American tribe in response to their emailed notification of the project on December 21, 2018 and the City's mailed notifications on December 26, 2018 regarding resources defined by Public Resources Code § 21074 (**Appendix M**). This was from Chairman Andrew Salas of the Gabrieleño Band of Mission Indians – Kizh Nation, in an email and letter dated December 31, 2018. The City will contact Mr. Salas promptly to initiate consultation. The remaining tribes have thirty days in which to reply and request consultation. There is no substantial evidence that TCRs are present on the project site, including no sites listed with the SLF. Therefore, at this time the project is determined to have less than significant impacts related to TCRs. This finding is subject to change following the completion of consultation with local tribes as part of the AB 52 process.

**4.18 Utilities and Service Systems**

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board (RWQCB)?			X	
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?			X	
c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			X	
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?			X	
f) Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			X	
g) Would the project comply with federal, state, and local statutes and regulations related to solid waste?				X

**a) Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board (RWQCB)?**

**Less than Significant Impact**

The project site is within the jurisdiction of the Santa Ana Regional Water Quality Control Board (RWQCB). In compliance with RWQCB regulations, the City requires projects to obtain National Pollutant Discharge Elimination System (NPDES) permits for point source discharges (municipal and industrial discharges) as well as nonpoint source discharges (diffuse runoff of water from adjacent

land uses) to minimize impacts on surface waters of the United States (City of Santa Ana Transit Zoning Code EIR, 2010, pp. 4.12-21 – 4.12-22).

In addition, the NPDES permitting process requires a Stormwater Pollution Prevention Plan (SWPPP) to regulate the wastewater discharge of pollutants and runoff that could impact water quality during construction activities. The SWPPP addresses methods for treating discharged water and minimizing water pollution with the use of Best Management Practices (BMPs) (City of Santa Ana Transit Zoning Code EIR, 2010, p. 4.6-8). Therefore, with the implementation of the NPDES permit and required BMPs, the project would not exceed wastewater treatment requirements of the RWQCB and the project would have a less than significant impact.

**b) Would the project 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 City’s sewer collection system consists of approximately 450 miles of sewer mains and operates largely by gravity with discharges at several locations into gravity trunk sewers owned and maintained by the Orange County Sanitation District (OCSD). All the OCSD sewers in the City collect and convey wastewater to the OCSD Treatment Plant Number 1 located just southwest of the City in Fountain Valley (RMC, 2016, p. ES-1). Plant No. 1 has a capacity of 320 million gallons per day (mgd) (Arcadis, 2016, p. 6-2).

The project proposes 93 residential units on an approximately 1.74-acre site. As shown in **Table 4.18-1**, full occupancy of the units on the project site would generate an estimated 11,858 gallons per day of effluent requiring collection and treatment at Treatment Plant No. 1. The amount of effluent anticipated to be generated by the project would constitute a fraction of the treatment plant’s current daily flow of 117 mgd (OCSD, 2018). Therefore, there is sufficient capacity available at Treatment Plant No. 1 to meet the needs of the project.

**Table 4.18-1**  
**ESTIMATED PROJECT WASTEWATER GENERATION**

Land Use	Unit Water Demand Factor Gallons Per Day (GPD)/per unit*	Number of Units	Wastewater Generated (GPD)
Urban Neighborhood	127.5	93	11,858

Notes:  
\* City of Santa Ana Transit Zoning Code EIR, 2010, Table 4.12-8

The site is served by an existing sanitary sewer network. New connections to existing sewer lines located near the project site would be installed. All sewer line sizes and connections are subject to review by the City. No new treatment facilities or expanded entitlements will be required. Therefore, the project would have a less than significant impact on existing water and wastewater treatment facilities.

- c) **Would the project require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

**Less than Significant Impact**

Stormwater would be captured by a series of roof and area drains in both the courtyard and the perimeter of the project site. No new catch basins or curb inlets would be installed within the public right of way. All runoff exiting the site will tie in to existing City storm drain infrastructure on Santa Ana Boulevard. The project would not alter project site drainage patterns.

The project would also be required to comply with the City's stormwater management guidelines. The stormwater runoff from the project site would be captured through roof and area drains and transported to the southwest corner of the property. Stormwater would then flow through biotreatment Best Management Practices (BMPs) such as a Modular Wetlands System (MWS) or equivalent before draining to City storm drain facilities on Spurgeon Street. High flows would bypass the MWS system and discharge directly to the City drainage system (Fusco, 2018, p. 7). Low-flows and first-flush runoff would drain to landscaped areas or will be infiltrated back into the ground through infiltration BMPs (Fusco, 2018, p. 11).

Following compliance with applicable stormwater management guidelines and implementation of stormwater BMPs, the project is anticipated to result in a less than significant impact on stormwater drainage facilities.

- d) **Would the project 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**

The primary sources of water supply for the City are imported water, local groundwater, and recycled water. The City's main sources of water include approximately 71 percent groundwater, 28 percent imported water, and one percent recycled water. Groundwater is produced from the Orange County Basin and imported water is supplied by the State Water Project and the Colorado River Aqueduct (Arcadis, 2016 p. 3-1). Domestic water for the Transit Zoning Code (SD 84A and SD 84B) area is supplied by both groundwater and imported surface water sources (Transit Zoning Code EIR, 2010, p. 4.12-8). Additionally, the Transit Zoning Code EIR states that the water demand for the overall buildout of the TZC area is 1,125.37 acre-feet per year (af/year). Nearly 75 percent of the total water demand can be attributed to residential uses. The proposed uses allowed under the Transit Zoning Code would result in a net increase of 131 afy.

The project would result in the construction of 93 residential units with an associated population of 241 residents. **Table 4.18 2** shows the estimated water demand for the project.

**Table 4.18-2  
ESTIMATED PROJECT WATER DEMAND**

Land Use	Square Footage	Unit Water Demand Factor <sup>1</sup>	Estimated Water Demand (gallons per year)	Estimated Water Demand (acre-feet per year)
93 Multiple Family Residential	Not applicable	150 gallons per day/unit	5,091,750	15.62
Community Center	2,576	0.11 gallons per day/square foot	103,427	0.32
Leasing/property management office	984	0.09 gallons per day/square foot	32,325	0.10
Flexible non-residential space	7,267	0.11 gallons per day/square foot	291,771	0.90
Office uses	2,100	0.09 gallons per day/square foot	68,985	0.21
<b>Total</b>		--	<b>5,588,258</b>	<b>17.15</b>

Notes:

1 Demand factors for water are from Table 4.12-3, Unit Water Demand Factors, of the Transit Zoning Code EIR.

The water demand for the Transit Zoning Code area is expected to reach 43,993 afy by the year 2030 while the supply will be 46,809 afy (City of Santa Ana Transit Zoning Code EIR, 2010, p. 4.12-5). Although a minor increase in the demand for domestic water would occur as a result of the project, the increase would not be significant and adequate water supplies and facilities are available to serve the project. Therefore, less than significant impacts are anticipated.

- e) Would the project 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 described in **Section 4.18(b)** above, the volume of wastewater generated by the project has been accounted for in growth projections and represents only a fraction of the existing daily capacity of the wastewater treatment facility providing service in the area. Therefore, the wastewater anticipated to be generated by the project would be within the existing capacity of the wastewater treatment provider and less than significant impacts would occur.

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

**Less than Significant Impact**

The City contracts with Waste Management of Orange County in Santa Ana for collection and disposal of the City's solid waste. The primary solid waste disposal locations for the City are Frank R. Bowerman (Bowerman) Landfill in Irvine or Olinda Alpha Landfill in Brea (City of Santa Ana Transit Zoning Code EIR, 2010, p. 4.12-23). Bowerman is a 725-acre landfill with a daily maximum permitted capacity of 11,500 tons per day and it is expected to close in December 2053. Olinda Alpha has 420

acres dedicated for disposal use with a maximum permitted capacity of 8,000 tons per day and it is expected to close in December 2021. (Cal Recycle, 2018a, 2018b).

Project construction and occupancy would generate solid waste requiring disposal at local landfills. Materials generated during construction of the project would include paper, cardboard, metal, plastics, glass, concrete, lumber scraps and other materials. During construction (short-term) and operation (long-term), bulk solid waste, excess building material, fill, etc., shall be disposed of in a manner consistent with State of California Integrated Waste Management Act of 1989 and shall be removed from the project site. Existing regulations related to recycling during construction and operation phases of the project, require that the project shall provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of nonhazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, and metals.

As shown in **Table 4.18-3**, occupancy of the 93 residential units would generate an estimated 75.7 tons of waste annually. This estimate does not account for diversion from landfills.

**Table 4.18-3**  
**ESTIMATED PROJECT GENERATED SOLID WASTE**

Land Use	Square Footage	Generation Rate <sup>1</sup>	Waste (pounds/year)	Waste (tons/year)
93 Residential units	not applicable	4 pounds per dwelling unit per day	135,780	67.89
Community Center	2,576	2.5 pounds per 1,000 square feet per day	2,351	1.18
Leasing/property management office	984	6 pounds per 1,000 square feet per day	2,112	1.01
Flexible non-residential space	7,267	2.5 pounds per 1,000 square feet per day	6,632	3.32
Office uses	2,100	6 pounds per 1,000 square feet per day	4,599	2.30
<b>Total</b>	--	--	<b>151,474</b>	<b>75.70</b>

Notes:

1 The generation rate for residential land uses from Table 4.12-9 of the Transit Zoning Code EIR, which provides a solid waste generation rate of 4 pounds per dwelling unit per day (which equates to approximately 0.73 tons per unit per year. The generation rate for the other land uses is from the following source: CalRecycle, 2018c. Estimated Solid Waste Generation Rates. Accessed online at <https://www2.calrecycle.ca.gov/wastecharacterization/general/rates>, Accessed on December 28, 2018.

As discussed above, the current permitted solid waste disposal at Bowerman Landfill is 11,500 tons per day and 8,000 tons per day at Olinda Alpha Landfill. The project's estimated generation of approximately 76 tons of waste per day represents a minuscule percentage of the daily capacity at both landfills. Since sufficient permitted landfill capacity exists to support the project, no adverse impact on either solid waste collection service or the landfill disposal system would occur. Therefore, project impacts on existing solid waste disposal facilities would be less than significant.

**g) Would the project comply with federal, state, and local statutes and regulations related to solid waste?**

### **No Impact**

In 1989, the California Legislature enacted the California Integrated Waste Management Act (AB 939), in an effort to address solid waste problems and capacities in a comprehensive manner. The law required each city and county to divert 50 percent of its waste from landfills by the year 2000.

OC Waste and Recycling<sup>33</sup> outlines the goals, policies, and programs the County and its cities would implement to create an integrated and cost-effective waste management system that complies with the provisions of AB 939 and its diversion mandates. As a result, the City has developed a Source Reduction and Recycling Element (SRRE), started in 1992, that aims at recycling, composting, special waste disposal, and education and public information programs. This program's objective was to divert 50 percent of the solid waste generated by the City by the year 2000. Currently, the City diverts approximately 60 percent of the solid waste generated (City of Santa Ana Transit Zoning Code EIR, 2010, p. 4.12-23).

The project would comply with the City's SRRE program for waste reduction procedures and other applicable local, State, and federal solid waste disposal standards, thereby ensuring that the solid waste stream to regional landfills is reduced in accordance with existing regulations. Therefore, no impacts are anticipated.

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33 Formerly the Orange County Integrated Waste Management Department

## 4.19 Mandatory Findings of Significance

Would the project have:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
a) 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?		X		
b) 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)?			X	
c) Environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X	

- a) Would 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

The project site is located in a highly-urbanized area, which provides low habitat value for special-status plant and wildlife species. No special-status plants or wildlife<sup>34</sup> were observed within the project site. Additionally, as detailed in the Transit Zoning Code EIR (TZC EIR), no endangered, rare, threatened, or special status plant species (or associated habitats) or wildlife species designated by the United States Fish and Wildlife Service, California Department of Fish and Game, or California Native Plant Society are known to occur or expected to occur within the TZC area (City of Santa Ana

<sup>34</sup> Special-status species include candidate and sensitive species.



Transit Zoning Code EIR, 2010, p. 4.3-15). For this reason, no direct or indirect impacts on special-status plant or wildlife species would occur as a result of project activities.

Construction-related activities that may include, but are not necessarily limited to, building demolition and/or relocation, grading, materials laydown, access and infrastructure improvements, and building construction, could result in the disturbance of nesting migratory species covered under the MBTA (City of Santa Ana Transit Zoning Code EIR, 2010, p. 4.3-16). Implementation of mitigation measure **BIO-1** would reduce this potentially significant impact on a less than significant level by ensuring that surveys for MBTA species are performed during the appropriate time of the year and, if necessary, construction buffer zones are established to protect nesting MBTA species.

As detailed in **Section 4.5**, Cultural Resources, with implementation of mitigation measure **CUL-1** for impacts on historic structures, the project would have a less than significant impact. Mitigation Measure **CUL-1** calls for recordation of the existing historic-age church on the project site. With implementation of this mitigation measure, the project would have a less than significant impact on historic resources.

- b) Would 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**

The project is consistent with the TZC EIR, which takes into account long-term growth in population, housing, traffic, and other factors that can result in adverse impacts on the community. In the short run, there would be a potential for cumulative effects on traffic, air quality, and noise if other development projects were implemented concurrently with the project. However, a review of current and near-term future development activity indicates that no other projects are proposed within the immediate vicinity of the project.<sup>35</sup> Therefore, cumulative impacts would be less than significant.

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

**Less than Significant Impact**

**Section 4.8**, Hazards and Hazardous Materials, indicated that development of the project would involve transport, storage, and use of chemical agents, solvents, paints, and other hazardous materials commonly associated with construction activities. Chemical transport, storage, and use would comply with applicable regulatory agency requirements.

The project could temporarily impact street traffic adjacent to the project site during the construction phase due to roadway improvements and potential extension of construction activities into the right-of-way. Project construction could reduce the number of lanes or temporarily close a portion of adjacent roads. Traffic impacts are anticipated during the construction phase of the project and would only impact the adjacent streets/intersections. As detailed in **Section 4.16**, Transportation and Traffic, the project would have less than significant traffic impacts both during project construction and operation.

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35 This is based on the City of Santa Ana Major Development Activity report accessed online at: <http://santa-ana.maps.arcgis.com/apps/MapTour/index.html?appid=b1721834401f4cf48012577a443f2b42>, on January 2, 2019.

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