I-5 MANAGED LANES PROJECT

(RED HILL AVENUE TO ORANGE COUNTY / LOS ANGELES COUNTY LINE)

Counties of Orange and Los Angeles, California
Cities Irvine, Tustin, Santa Ana, Orange, Anaheim, Fullerton, Buena Park, La Mirada, and Santa Fe Springs

12-Ora-5 – PM 28.9/44.4, 26.9, 27.9, 28.4
07-LA-5 – PM 0.1, 0.3, 0.6, 1.7
12-Ora-55 – PM 7.4, 8.0, 8.7, 8.9, 9.2, 9.7 9.9, 10.2
12-Ora-57 – PM 11.0, 11.3, 11.9, 12.5, 12.7, 12.9, 13.5
12-Ora-91 – PM 0.4, 0.7, 1.1, 1.3, 1.4, 1.6, 1.8, 2.0, 2.2, 2.6, 2.8, 3.4

EA 12-0Q950

DRAFT COMMUNITY IMPACT ASSESSMENT

Prepared for

Caltrans

CALTRANS DISTRICT 12 ORANGE COUNTY

May 18, 2023

SUMMARY

The California Department of Transportation (Caltrans) District 12 is proposing managed lanes (ML) improvements in both directions on Interstate (I) 5. The improvements would modify the existing high-occupancy vehicle (HOV) lanes within the proposed Project limits to address operational deficiencies. The proposed Project limits on I-5 (Figure 1-1) extend from Red Hill Avenue (Post Mile [PM] 28.9) to the Orange County/Los Angeles (OC/LA) County line (12-ORA-5 PM 44.4) in the cities of Irvine, Tustin, Santa Ana, Orange, Anaheim, Fullerton, Buena Park, La Mirada, and Santa Fe Springs and include implementing associated signage (including advance signage on adjacent arterials) and tolling infrastructure.

The purpose of this Project is to improve the overall movement of people and goods along this section of I-5 by:

- Improving the ML network operations
- Improving mobility and trip reliability
- Maximizing person throughput by facilitating efficient movement of bus and rideshare users
- Applying technology to help manage traffic demand

The need, or deficiency, of the Project is the existing I-5 HOV lanes between Red Hill Avenue and the OC/LA County line experience:

- HOV lane degradation (does not meet the federal performance standards)
- Demand exceeds existing capacity
- Operational deficiencies

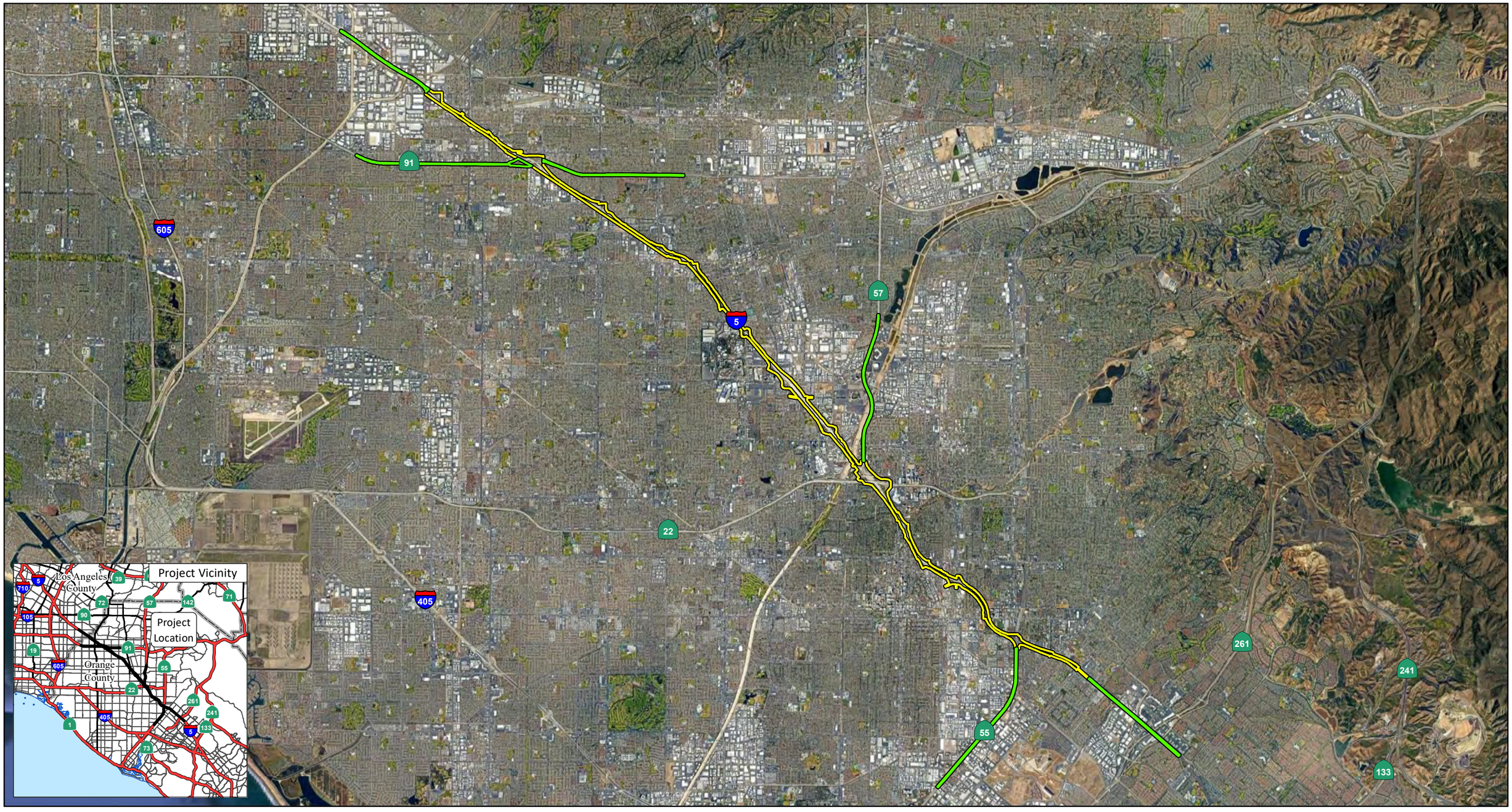
Four preliminary alternatives, including three Build Alternatives and the No Build Alternative, are under consideration and are described below.

ALTERNATIVE 1 (NO BUILD ALTERNATIVE)

Alternative 1, the No Build Alternative, does not include improvements to the existing lane configurations for I-5. Under the No Build Alternative, no additional roadway improvements would occur. This alternative includes other projects on the financially constrained project list in the adopted Southern California Association of Governments (SCAG) 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) within the proposed Project limits on I-5 and the Preferred Plan in the Orange County Transportation Authority (OCTA) 2018 Long-Range Transportation Plan (LRTP) within the proposed Project limits.

ALTERNATIVE 2 (BUILD ALTERNATIVE: MODIFY EXISTING HOV 2+ LANES TO HOV 3+ LANES)

Alternative 2 would maintain the existing lane configurations for I-5 with a modification of the minimum HOV-lane occupancy requirement from two-plus (2+) to three-plus (3+) passengers within the current HOV system in each direction, between Red Hill Avenue and the OC/LA County line. As a result of this increase in the occupancy requirement and improved trip reliability, through the Transportation System Management/Transportation Design Management (TSM/ TDM) elements, it would promote and encourage public and private transit such as Bus Rapid



LEGEND

- Project Area
- Advanced Signage Only

0 0.8 1.6
Miles

SOURCE: Google (2022)

I:\WSP2203.07\GIS\MXD\CIA\ProjLocation_Aerial_1page.mxd (5/17/2023)

FIGURE 1-1

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/Los Angeles County Line)

Project Location and Vicinity

EA No. 0Q950

Transit (BRT) and ridesharing. Under this alternative, no additional roadway improvements would occur. Additionally, two proposed park-and-ride facilities are being evaluated as part of Alternative 2 and would be constructed within the existing freeway right-of-way. Sign replacement and pavement delineation would also be implemented to meet the latest California Manual on Uniform Traffic Control Devices (CA MUTCD) standards.

ALTERNATIVE 3 (BUILD ALTERNATIVE: CONVERT EXISTING HOV LANES TO EXPRESS LANES)

Alternative 3 would convert the existing HOV lane to an Express Lane (EL) in each direction between Red Hill Avenue and State Route (SR) 55; convert two existing HOV lanes to ELs in each direction between SR-55 and SR-57; and convert the existing HOV lane to an EL in each direction from SR-57 to the OC/LA County line. The typical cross-section consists of a 12-foot-wide EL, a 2- to 4-foot buffer, 12-foot-wide general-purpose (GP) lanes, 12-foot-wide auxiliary lanes, a 4- to 26-foot-wide inside shoulder, and a 10-foot-wide outside shoulder and would be provided to accommodate the EL. One 12-foot weave lane is proposed at locations of ingress or egress. Additionally, two proposed park-and-ride facilities are being evaluated as part of Alternative 3 and would be constructed within the existing freeway right-of-way. Sign replacement and pavement delineation would also be implemented to meet the latest CA MUTCD standards.

ALTERNATIVE 4 (BUILD ALTERNATIVE: CONVERT EXISTING HOV LANES TO EXPRESS LANES AND CONSTRUCT ADDITIONAL EXPRESS LANES)

Alternative 4 would convert the existing HOV lane to an EL in each direction between Red Hill Avenue and SR-55; convert two existing HOV lanes to ELs in each direction between SR-55 and SR-57; convert the existing HOV lane to an EL in each direction from SR-57 to the OC/LA County line; and construct an additional EL in each direction between SR-57 and SR-91. The typical cross-section consists of 12-foot-wide ELs, a 2- to 4-foot buffer, 12-foot-wide GP lanes, 12-foot-wide auxiliary lanes, a 4- to 14-foot wide inside shoulder, and a 10-foot-wide outside shoulder and would be provided to accommodate the ELs. One 12-foot weave lane is proposed at locations of ingress or egress. Additionally, two proposed park-and-ride facilities are being evaluated as part of Alternative 4 and would be constructed within the existing freeway right-of-way. Sign replacement and pavement delineation would also be implemented to meet the latest CA MUTCD standards.

LAND USE

The Build Alternatives would be consistent with the goals and policies contained in the General Plans of the cities of Tustin, Santa Ana, Orange, Anaheim, Fullerton, Buena Park, and La Mirada; the SCAG Connect SoCal 2020-2045 RTP/SCS; and the LRTPs of the Los Angeles County Metropolitan Transportation Authority (LACMTA) and OCTA. Alternatives 3 and 4 would require construction staging areas within the Project Area. All construction staging areas are identified within Caltrans right-of-way.

Alternatives 3 and 4 abut four Section 4(f) resources, including Saddleback View Park, at 621 Patricia Lane in Santa Ana; William Eldridge Park, at 2933 Fallbrook Drive in Santa Ana; Santiago

Creek Bike Trail, which passes through the Study Area[1] adjacent to the I-5/North Broadway northbound off-ramp; and Tustin High School, at 1171 El Camino Real in Tustin. However, neither of the Build Alternatives would impact Section 4(f) resources.

Project Feature PF-TR-1 (TMP) in Section 5.3 of this CIA will be implemented to ensure that detours are provided to access parks and recreational facilities during the duration of construction of the Build Alternatives.

GROWTH

The Build Alternatives would not change accessibility as they would not create or eliminate any road connections. Although the Build Alternatives could reduce travel times and improve operations along the I-5 Project corridor, the extent of travel reduction time and amount of improved traffic operations would be unpredictable due to a myriad of other factors that may result in congestion or delays. The Build Alternatives are not anticipated to affect the rate, location, amount, or intensity of growth in the cities of Tustin, Santa Ana, Orange, Anaheim, Fullerton, Buena Park, and La Mirada, or in neighboring Orange County and Los Angeles County cities.

COMMUNITY CHARACTER AND COHESION

The Build Alternatives are not anticipated to result in substantial effects to community character and cohesion. No businesses or residences would be removed or subject to property acquisition and relocation. No parking would be affected within the Study Area. No businesses would see a change in opportunities because of traffic pattern or visibility changes due to the Build Alternatives. Existing jobs and job opportunities, as well as the existing tax base and local economy, would not experience changes due to the Project. Any disruption in access to community facilities or community services due to temporary road closures and lane restrictions would be short-term in nature and would cease after construction is completed. Furthermore, upon completion of the Build Alternatives, community facilities and services in the Study Area and Orange County would benefit from improved circulation as the I-5 improvements would result in slightly more predictable travel time for local residents, commuters, and visitors. The Build Alternatives would not create a physical or geographic barrier between communities.

Although the Build Alternatives would not result in disproportionate distribution of impacts on minority and low-income populations, the improvements proposed under the Build Alternatives would have a potential effect on underserved communities as a result of HOV passenger minimum increase (Alternative 2) or HOV lane conversion to ELs (Alternative 3 and 4). The ELs alternatives have a higher potential to affect equity in the Study Area due to possible income and language barriers (non-English-speaking households).

[1] Study Area: The community surrounding the Project Area in which secondary or indirect community impacts could occur. Community impacts typically decrease in magnitude as distance from a project site increases. Further, the installation of advance signage within State and local right-of-way is not likely to result in community impacts. Therefore, the Study Area generally includes those areas within 0.5 mile of the portions of the Project Area in which most of the proposed improvements would be built. Various community profile datasets are collected and organized by census tract.

Measure UES-1 (Utility Relocation Plan), Measure UES-2 (temporary closure and detour coordination with emergency services), PF-TR-1 (TMP) and Measure EQ-1 (Equity Assistance Plan) will be implemented to minimize potential impacts to community character and cohesion.

TRAFFIC AND TRANSPORTATION/PEDESTRIAN AND BICYCLE FACILITIES

During the construction of the Build Alternatives, short-term construction-related impacts may result in delays to the traveling public due to temporary HOV lane closures and lane restrictions. However, these impacts would be temporary in nature and would cease after construction is completed. In the long term, the Build Alternatives would improve mobility and trip reliability along I-5. A Transportation Management Plan, included as PF-TR-1 (TMP) in Chapter 5, would be prepared and implemented during construction to minimize impacts related to traffic and transportation resulting from implementation of the Build Alternatives.

PUBLIC INVOLVEMENT

The environmental scoping process to involve the public on the proposed Project was initiated with two public scoping meetings held by Caltrans District 12 in May 2022. Due to the COVID-19 pandemic, an in-person meeting and a virtual meeting option were provided to the general public. The in-person public scoping meeting was held at the Downtown Anaheim Community Center, 250 East Center Street, Anaheim, CA 92806, on May 24, 2022, from 5:30 to 7:30 p.m. The virtual public scoping meeting was held via Zoom on May 26, 2022, from 5:30 to 7:30 p.m.

Noticing for both of the public scoping meetings was prepared using several methods, such as postings on the Caltrans District 12 website and the external I-5 Managed Lanes Project website, social media postings, implementation of geofence ads (location-based marketing to mobile users) that targeted a 1-mile radius surrounding the length of the proposed Project corridor, and a postcard mailer, which was sent to those located within a 300-foot radius of the proposed Project corridor. These notices explained that an in-person open house-format public scoping meeting would be held in addition to a virtual scoping meeting.

The in-person meeting included exhibits and informational handouts about the proposed Project to help participants understand the scope and schedule of the proposed Project and to learn about the planning and environmental review process, as well as the proposed alternative concepts. The virtual meeting included the same information provided at the in-person meeting and featured four Zoom breakout rooms, which allowed participants to meet the proposed Project team members and learn more about the proposed Project. The breakout rooms covered the following topics: an overview of the proposed Project, the proposed Project alternatives, the proposed Project's environmental process, as well as a breakout room to provide public comments. The meetings were structured to encourage open discussion of issues and concerns. Although no written comment cards were received at the in-person meeting, one comment was provided to the court reporter located on site. During the virtual meeting, two comments were provided to the court reporter stationed in the public comment breakout room.

Attendance at the in-person meeting held on May 24, 2022, included 4 persons, and attendance at the virtual meeting held on May 26, 2022, included 51 persons.

In addition to the two public scoping meetings held for the proposed Project, two community equity workshops titled "Improving Your Commute on the I-5 in Orange County" were held on October 4, 2022, and March 1, 2023, from 6:00 p.m. to 7:30 p.m. Due to the COVID-19 pandemic,

an in-person meeting and a virtual meeting option were provided to the general public. The in-person meeting was held on October 4, 2022, at the Ponderosa Park Family Resource Center, 320 E. Orangewood Avenue, Anaheim, CA 92802, and the virtual meeting was provided via Zoom on March 1, 2023. A community survey was opened between October 2022 through January 2023, which recorded responses from 235 participants.

Noticing for both equity workshops was provided using several methods, such as postings on the Caltrans District 12 website and the external I-5 Managed Lanes Project website, social media postings, implementation of geofence ads that targeted a 1-mile radius surrounding the length of the proposed Project corridor, and a postcard mailer that was sent to those located within a 300-foot radius of the proposed Project corridor.

The two equity workshops was specifically designed to welcome voices from the communities that have experienced disproportionate outcomes from past transportation projects in the community and to share how proposed changes to I-5 could impact and benefit day-to-day life so Caltrans can make recommendations to improve the proposed Project, if needed. Spanish and Vietnamese language interpreters were present at the in-person meeting location to provide options for non-English-speaking attendees, based on the local demographics of the proposed Project area. In addition, a community input survey was developed in English and Spanish to learn more about local community travel experiences and preferences when traveling along the I-5 corridor.

In both workshops, the attendance count was less than 15 public participants. The October 2022 workshop presented an overview of the proposed Project, including the purpose and need. However, based on comments received during the workshop, an inherent disconnect between the purpose of the Project and the community perception of the Project was noted by the workshop hosts. In the March 2023 workshop, the presentation focused on draft exploratory equity actions that may carry forth to the final Project implementation. A main concern raised during the second workshop was the potential for property acquisitions adjacent to the I-5 Project corridor.

Additional opportunities for public involvement will be available during the Environmental Impact Report/Environmental Assessment (EIR/EA) process, including the circulation of the Draft Environmental Document to solicit public input, and public hearings per California Environmental Quality Act (as the proposed Project is subject to CEQA) and National Environmental Policy Act (NEPA) requirements.

Table S.1 provides a summary of the major potential impacts as a result of the No Build Alternative and Build Alternatives. Because of the absence of designated resources in the Study Area, the proposed Project would have no effect on the following resource categories; therefore, these topics will not be discussed further in this Community Impact Assessment (CIA):

- **Coastal Zone**: The Study Area is not located within the Coastal Zone.
- **Wild and Scenic Rivers**: There are no designated wild and scenic rivers within the Study Area.
- **Farmland and Timberlands**: There are no farmlands or timberlands within the Study Area.

Table S.1 Summary of Major Potential Impacts from Alternatives

Potential Impact		No Build Alternative	Alternative 2	Alternative 3	Alternative 4
Land Use	Consistency with Local General Plans	Consistent	None of the Build Alternatives are included in the future regional models of the SCAG 2020-2045 RTP/SCS and SCAG 2023 FTIP. With implementation of Measure LU-1, this inconsistency would be addressed.		
Parks and Recreation		None	None	None	None
Farmland/Timberland		None	None	None	None
Coastal Zone		Not Applicable	Not Applicable	Not Applicable	Not Applicable
Wild and Scenic Rivers		Not Applicable	Not Applicable	Not Applicable	Not Applicable
Growth		None	The Build Alternatives would not influence the rate, type, amount, and/or location of growth in the Study Area beyond what is currently foreseeably anticipated based on the local General Plans, SCAG's Connect SoCal Plan, etc. The Build Alternatives would not result in impacts to resources of concern related to unplanned growth.		
Community Character and Cohesion		None	• No temporary or permanent impacts to existing pedestrian and bicycle facilities are anticipated. • Would improve traffic safety and could reduce congestion and HOV lane degradation along the I-5 corridor within the Study Area. • Would not create a physical or geographic barrier between communities.	• Temporary impacts to the community related to short-term closures of local ramps. Access to the freeway may be limited intermittently during construction due to improvements to on- and off-ramps in the Project Area. • There are no temporary or permanent impacts to existing pedestrian and bicycle facilities are anticipated. • Would address HOV lane degradation along I-5 within the Study Area. • Alternative 3 would positively affect community character and cohesion in the Study Area by reducing travel times on I-5 and improving trip reliability on I-5 for local residents, as well as	• Temporary impacts to the community related to 55-hour weekend closures of the SR-57 HOV connectors as well as short-term closures of local ramps. Access to the freeway may be limited intermittently during construction due to improvements to on- and off-ramps in the Project Area. • No temporary or permanent impacts to existing pedestrian and bicycle facilities are anticipated. • Would address HOV lane degradation along I-5 within the Study Area. • Alternative 4 would positively affect community character and cohesion in the Study Area by reducing travel times and

Table S.1 Summary of Major Potential Impacts from Alternatives

Potential Impact	No Build Alternative	Alternative 2	Alternative 3	Alternative 4
			making it easier for local residents to reach community services and facilities.	improving trip reliability on I-5 for local residents, as well as making it easier for local community residents to reach community services and facilities. The addition of ELs would improve public accessibility to community services and facilities in the Study Area.
Utilities/Emergency Services	None	No utility impacts are identified. Emergency service providers may experience temporary delays during improvement work.	• Alternative 3 may affect four existing surface or subsurface utility facilities requiring protection in-place. • Completion of utility work may result in temporary service disruptions to some utility users in the vicinity of the Study Area. • During operation, improvements in traffic flow of the ELs are likely to improve emergency response times within the Study Area. • There are no expected permanent adverse effects on utility facilities and providers.	• Alternative 4 may affect nine existing surface or subsurface utility facilities requiring protection in-place. • Completion of utility work may result in temporary service disruptions to some utility users in the vicinity of the Study Area. • During operation, improvements in traffic flow of the ELs are likely to improve emergency response times within the Study Area. • There are no expected permanent adverse effects on utility facilities and providers.

Table S.1 Summary of Major Potential Impacts from Alternatives

Potential Impact		No Build Alternative	Alternative 2	Alternative 3	Alternative 4
Relocations	Housing Displacements	None	None	None	None
	Business Displacements	None	None	None	None
	Utility Displacements	None	None	Four utilities owned by AT&T, PacBell, SCE, and the City of Anaheim would conflict with proposed improvements.	Nine utilities owned by AT&T, PacBell, SCE, the City of Anaheim, OCSD, and Sprint would conflict with proposed improvements.
Environmental Justice		Existing operation and capacity constraints on the current I-5 mainline and its HOV lanes would remain, which may affect the overall population in the Study Area, including environmental justice populations.	• Study Area census tracts immediately adjacent to I 5 currently experience poorer air quality; however, compliance with Caltrans Standard Specifications would ensure that low-income and minority populations would not be adversely affected. Emissions from Alternative 2 are less than both the existing scenario and the corresponding No Build Alternative. • Low-income and minority populations would not be adversely affected.	• Study Area census tracts immediately adjacent to I 5 currently experience poorer air quality. However, compliance with Caltrans Standard Specifications and implementation of an EAP (Measure EQ-1) that would provide assistance to individuals who meet certain income and demographic characteristics would ensure that impacts to low-income and minority populations would be minimized so those populations would not be adversely affected. • Low-income and minority populations would not be adversely affected.	• Study Area census tracts immediately adjacent to I 5 currently experience poorer air quality. However, compliance with Caltrans Standard Specifications and implementation of an EAP (Measure EQ-1) that would provide assistance to individuals who meet certain income and demographic characteristics would ensure that impacts to low-income and minority populations would be minimized so those populations would not be adversely affected. • Low-income and minority populations would not be adversely affected.

Table S.1 Summary of Major Potential Impacts from Alternatives

Potential Impact	No Build Alternative	Alternative 2	Alternative 3	Alternative 4
Equity	The No Build Alternative would not result in temporary adverse effects on the overall population in the Study Area (including underserved population groups).	There would be potential impacts to underserved population groups who are unable to have the minimum three vehicle occupants to use the HOV lanes.	There would be potential impacts to underserved population groups related to income or language barriers in acquiring a FasTrak account/transponder and/or maintaining adequate toll funds.	There would be potential impacts to underserved population groups related to income or language barriers in acquiring a FasTrak account/transponder and/or maintaining adequate toll funds.
Traffic and Transportation/Pedestrian and Bicycle Facilities	None	Construction may result in temporary disruptions in travel patterns and delays due to facility closures/restrictions, and detours. Alternative 2 would perform worse than the No Build Alternative for traffic and intersection operations.	Construction may result in temporary disruptions in travel patterns and delays due to facility closures/restrictions and detours. Alternative 3 would improve traffic operations in the long term. No temporary or permanent impacts to existing pedestrian and bicycle facilities are anticipated as part of Alternative 3.	Construction may result in temporary disruptions in travel patterns and delays due to facility closures/restrictions and detours. Alternative 4 would improve traffic operations and reduce congestion in the long term. No temporary or permanent impacts to existing pedestrian and bicycle facilities are anticipated as part of Alternative 4.
Air Quality	The air quality improvements realized under the Build Alternatives would not occur under the No Build Alternative.	• During construction, emissions from construction equipment include CO, NO_X, VOCs, directly emitted particulate matter (PM_{10} and $PM_{2.5}$), diesel exhaust particulate matter (PM_{10} and $PM_{2.5}$), soot particulate (PM_{10} and $PM_{2.5}$), SO_2, dust, and odor. • Emissions of CO, ROG, NO_X, PM_{10}, and $PM_{2.5}$ from Alternative 2 are less than both the existing scenario and the corresponding No Build Alternative.	• During construction, emissions from construction equipment include CO, NO_X, VOCs, directly emitted particulate matter (PM_{10} and $PM_{2.5}$), diesel exhaust particulate matter (PM_{10} and $PM_{2.5}$), soot particulate (PM_{10} and $PM_{2.5}$), SO_2, dust, and odor. • Emissions of CO, ROG, NO_X, PM_{10}, and $PM_{2.5}$ from Alternative 3 are less than both the existing scenario and the corresponding No Build Alternative.	• During construction, emissions from construction equipment include CO, NO_X, VOCs, directly emitted particulate matter (PM_{10} and $PM_{2.5}$), diesel exhaust particulate matter (PM_{10} and $PM_{2.5}$), soot particulate (PM_{10} and $PM_{2.5}$), SO_2, dust, and odor. • Emissions of CO, ROG, NO_X, PM_{10}, and $PM_{2.5}$ from Alternative 4 are less than both the existing scenario and the corresponding No Build Alternative.

Table S.1 Summary of Major Potential Impacts from Alternatives

Potential Impact	No Build Alternative	Alternative 2	Alternative 3	Alternative 4
		• Alternative 2 is not a project of air quality concern under 40 CFR 93.123(b)(1).	• Alternative 3 is not a project of air quality concern under 40 CFR 93.123(b)(1).	• Alternative 4 is not a project of air quality concern under 40 CFR 93.123(b)(1).
Noise and Vibration	No temporary or permanent impacts associated with noise and vibration.	• Temporary construction noise impacts would be unavoidable at areas immediately adjacent to the Project Area. • Temporary increases in vibration would likely occur in some locations. • No permanent impacts associated with noise and vibration.	• Temporary construction noise impacts would be unavoidable at areas immediately adjacent to the Project Area. • Temporary increases in vibration would likely occur in some locations. • Future predicted traffic noise levels would approach or exceed the NAC for Activity Categories B and C at four locations within the Project Area under Alternative 3; therefore, consideration of noise abatement is required. Measure N-1 would minimize noise impacts.	• Temporary construction noise impacts would be unavoidable at areas immediately adjacent to the Project Area. • Temporary increases in vibration would likely occur in some locations. • Future predicted traffic noise levels would approach or exceed the NAC for Activity Categories B and C at four locations within the Project Area under Alternative 4; therefore, consideration of noise abatement is required. Measure N-1 would minimize noise impacts.
Cumulative Impacts	None	Current or planned projects would be subject to discretionary environmental review to ensure that individual traffic, public service impacts, and other environmental concerns would not be compounded with the Build Alternatives. The I-5 Irvine Tustin Project, located immediately south of the Project limits, which is currently in the PS&E phase, may coincide with this Project's construction time frame, which may result in possible cumulative but temporary effects.		

Caltrans = California Department of Transportation
CFR = Code of Federal Regulations
CO = carbon monoxide
EAP = Equity Assistance Plan
ELs = Express Lanes
HOV = high-occupancy vehicle
I = Interstate
NAC = Noise Abatement Criteria
NO_x = nitrogen oxides
PacBell = Pacific Bell Telephone Company
$PM_{2.5}$ = particulate matter less than 2.5 microns in diameter
PM_{10} = particulate matter less than 10 microns in diameter
PS&E = Plans, Specifications, and Estimates
ROG = reactive organic gases
SCAG = Southern California Association of Governments
SCE = Southern California Edison
SO_2 = sulfur dioxide
SR = State Route
VOCs = volatile organic compounds

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Acronyms and Abbreviations

Abbreviation	Definition
ACS	American Community Survey
ADA	Americans with Disabilities Act of 1990
AELUP	Airport Environs Land Use Plan
ALUC	Airport Land Use Commission
APN	Assessor's Parcel Number
ARSP	Anaheim Resort Specific Plan
ART	Anaheim Regional Transportation
ARTIC	Anaheim Regional Transportation Intermodal Center
BMPs	Best Management Practices
BRT	Bus Rapid Transit
CA MUTCD	California Manual on Uniform Traffic Control Devices
Caltrans	California Department of Transportation
CCR	California Code of Regulations
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CHOC	Children's Hospital of Orange County
CHP	California Highway Patrol
CIA	Community Impact Assessment
CIA Handbook	Caltrans *Environmental Handbook, Volume 4: Community Impact Assessment*
CMS	changeable message signs
CSMP	Construction Site Monitoring Program
Desk Guide	*Desk Guide, Environmental Justice in Transportation Planning and Investments*
DOF	State Department of Finance
DRSP	Disneyland Resort Specific Plan
EA	Environmental Assessment
EAP	Equity Assistance Plan
EIR	Environmental Impact Report
EL	Express Lane
EO	Executive Order
ETC	electronic toll collection
FHWA	Federal Highway Administration
FMA	Fullerton Municipal Airport
FTA	Federal Transit Administration
FTIP	Federal Transportation Improvement Program
GIS	geographic information system
GP	general-purpose
HHS	United States Department of Health and Human Services

Abbreviation	Definition
HOV	High-Occupancy Vehicle
I	Interstate
ISTEA	Intermodal Surface Transportation Efficiency Act of 1991
JFTB	Joint Forces Training Base
JWA	John Wayne Airport
LACoFD	Los Angeles County Fire Department
LACMTA	Los Angeles County Metropolitan Transportation Authority
LOS	level of service
LRTP	Long-Range Transportation Plan
ML	managed lane
NACTO	National Association of City Transportation Officials
MPO	Metropolitan Planning Organization
NEPA	National Environmental Policy Act
NPDES	National Pollutant Discharge Elimination System
OC/LA	Orange County/Los Angeles
OCFA	Orange County Fire Authority
OCTA	Orange County Transportation Authority
PM	Post Mile
Project	I-5 Managed Lanes Project
PS&E	Plans, Specifications, and Estimates
RAP	Relocation Assistance Program
ROW	right-of-way
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RWQCB	Regional Water Quality Control Board
SARTC	Santa Ana Regional Transportation Center
SB	Senate Bill
SCAG	Southern California Association of Governments
SER	Standard Environmental Reference
SFER	Summary Floodplain Evaluation Report
SHPO	State Historic Preservation Officer
SR	State Route
STRA-21	Surface Transportation Reauthorization Act of 2021
SWPPP	Stormwater Pollution Prevention Plan
T&R	Traffic and Revenue
TCA	Transportation Corridor Agencies
TCWG	Transportation Conformity Working Group
TDM	Transportation Design Management
TMP	Transportation Management Plan
TSM	Transportation System Management

Abbreviation	Definition
UCI	Children's Hospital of Orange County
Uniform Act	Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970
USC	United States Code
USDOT	United States Department of Transportation
VMT	vehicle miles traveled

1. INTRODUCTION

This Community Impact Assessment (CIA) is prepared for the I-5 Managed Lanes Project (proposed Project) by the California Department of Transportation (Caltrans), or an authorized agent, in accordance with Caltrans policies, procedures, and guidance as defined in the Standard Environmental Reference (SER). The information in this document has been prepared as a "blended" assessment to comply with both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA) and other substantive environmental laws applicable to the subjects addressed in this document.

Because of the absence of designated resources in the Study Area, the proposed Project would have no effect on the following resource categories; therefore, these topics will not be discussed further in this CIA:

- **Coastal Zone:** The Study Area is not located within the Coastal Zone.[2]
- **Wild and Scenic Rivers:** There are no designated wild and scenic rivers within the Study Area.[3]
- **Farmland and Timberlands:** There are no farmlands or timberlands within the Study Area.[4]

In addition, community information related to the cities of Irvine and Santa Fe Springs are excluded, as the city areas that coincide with the improvements associated with the proposed Project would be so minimal as to not warrant further analysis.

1.1 What is a Community Impact Assessment?

The purpose of this report is to provide information regarding social, economic, and land use effects of the proposed Project so that final transportation decisions will be made in the public interest. The report is intended to clearly describe the relevant existing conditions and potential socioeconomic impacts of the proposed Project. Both CEQA and NEPA require consideration of social and economic impacts of projects in the preparation of environmental documents. Under CEQA, however, the economic or social effects of a project in and of themselves shall not be treated as significant effects on the environment. Rather, the economic or social effects of a project may be used to determine the significance or physical changes caused by the project. The focus of the analysis shall be on the physical change, although the economic or social effects may be used to determine the significance of the physical change. For example, if the construction of a new freeway divides a community, the construction would be the physical change, but the social effects on the community would be the basis for determining that the effect would be significant (*CEQA Guidelines* Section 15131). This report includes consideration of direct, indirect, and regional growth impacts.

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[2] California Coastal Commission. 2019. Coastal Zone Boundary – Orange. Website: https://www.coastal.ca.gov/maps/czb/ (accessed February 28, 2023).

[3] National Wild and Scenic Rivers System. 2023. Explore Designated Rivers – California. Website: https://www.rivers.gov/california.php (accessed February 28, 2023).

[4] California Department of Conservation. 2023. California Important Farmland Finder. Website: https://maps.conservation.ca.gov/DLRP/CIFF/ (accessed February 28, 2023).

1.2 Regulatory Setting

1.2.1 Federal

1.2.1.1 The National Environmental Policy Act

Growth

The Council on Environmental Quality (CEQ) regulations, which implement NEPA, require evaluation of the potential environmental consequences of all proposed federal activities and programs. These provisions include a requirement to examine indirect consequences that may occur in areas beyond the immediate influence of a proposed action and at some time in the future. The CEQ regulations (40 Code of Federal Regulations [CFR] 1508.8) refer to these consequences as secondary impacts. Secondary impacts may include changes in land use, economic vitality, and population density, which are all elements of growth.

Community Character and Cohesion

NEPA, as amended, established that the federal government shall use all practicable means to ensure for all United States residents safe, healthful, productive, and aesthetically and culturally pleasing surroundings (42 United States Code [USC] 4331[b][2]). In its implementation of NEPA (23 USC 109[h]), the Federal Highway Administration (FHWA) directs that those final decisions regarding projects are to be made in the best overall public interest. This requires considering environmental impacts such as destruction or disruption of human-made resources, community cohesion, and the availability of public facilities and services.

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) changed federal funding categories and altered processes for the funding and approval of transportation projects. It allocated funds for the completion of the highway system, in addition to intermodal transfer facilities and improvements to public transportation systems that are "necessary to achieve national goals for improved air quality, energy conservation, international competitiveness, and mobility for elderly persons, persons with disabilities, and economically disadvantaged persons in urban and rural areas of the country." ISTEA incorporated Sections 109(h) and 128 of Title 23 (Highways) of the CFR, which required that social and economic impacts of proposed federal-aid projects be determined, evaluated, and eliminated or minimized as part of the environmental documentation for project development on the national intermodal transportation system. Many of the provisions of ISTEA have been continued or expanded in subsequent federal surface transportation legislation.

The Surface Transportation Reauthorization Act of 2021 (STRA-2021), the current federal surface transportation funding bill, also incorporates Sections 109(h) and 128 of Title 23 of the USC on highways. The following social and economic impacts of proposed federal-aid projects funded by STRA-21 are required to be determined, evaluated, and eliminated or minimized: "…destruction or disruption of man-made and natural resources, aesthetic values, community cohesion, and the availability of public facilities and services; adverse employment effects, and tax and property values losses; injurious displacement of people, businesses, and farms; and disruption of desirable community and regional growth." The policies and procedures of the FHWA for implementing NEPA for STRA-21 are contained in 23 CFR 771.

CFR Title 23, Section 254, Accommodation for Pedestrians and Bicyclists, requires the full consideration of safe pedestrian and bicycle accommodations during development and construction of federal-aid projects. In the case of existing or potential conflict between motor vehicles and pedestrian and bicycle traffic, "every effort shall be made to minimize the detrimental effects on all highway users who share the facility." The Americans with Disabilities Act of 1990 (ADA) extends the protection of the Civil Rights Act of 1964 to people with disabilities, prohibiting discrimination in public accommodations, transportation, and other services. The ADA stipulates involving the community, particularly those with disabilities, in the development and improvement of services.

Economic Impacts

40 CFR 1502.16(b) states that economic effects (40 CFR 1508.1) by themselves do not require preparation of a NEPA document. However, when the agency determines that economic, social, natural, or physical environmental effects are interrelated, the NEPA document shall discuss and consider these effects on the human environment.

Relocations

The Caltrans Relocation Assistance Program (RAP) (Caltrans 2015) is based on the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act), as amended, and 49 CFR 24. The purpose of the RAP is to ensure that persons displaced as a result of a transportation project are treated fairly, consistently, and equitably so that such persons will not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole. All relocation services and benefits are administered without regard to race, color, national origin, or sex in compliance with Title VI of the Civil Rights Act of 1964 (42 USC 2000d et seq.).

1.2.1.2 Executive Order 12898: Environmental Justice

All projects involving a federal action (funding, permit, or land) must comply with Executive Order (EO) 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, signed by President Clinton on February 11, 1994. EO 12898 directs federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. The definition of "low income" is based on the United States Department of Health and Human Services (HHS) poverty guidelines. For 2021, an income of $26,500 or less for a family of four was considered low income.

1.2.1.3 Title VI of the Civil Rights Act of 1964

Title VI of the Civil Rights Act of 1964 and related statutes require that there be no discrimination in federally assisted programs based on race, color, national origin, age, sex, or disability (religion is a protected category under the Fair Housing Act of 1968). All considerations under Title VI of the Civil Rights Act of 1964 and related statutes have been included in this project.

1.2.1.4 The Americans with Disabilities Act of 1990

The ADA is a civil rights law that prohibits discrimination against individuals with disabilities in all areas of public life, including jobs, schools, transportation, and all public and private places that are open to the public. The purpose of the law is to make sure that people with disabilities have the same rights and opportunities as everyone else.

1.2.1.5 Department of Transportation Act of 1966, Section 4(f)

Section 4(f) of the Department of Transportation Act of 1966, codified in federal law at 49 USC 303, declares that "it is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites." Section 4(f) applies whenever a United States Department of Transportation (USDOT) action involves the "use" of significant publicly owned (open to the public) parklands, recreation areas, wildlife and waterfowl refuges, and all significant historic sites. A special finding is required for each of the aforementioned facilities where Section 4(f) protection applies.[5]

1.2.2 State

1.2.2.1 General Plan Requirements

State law requires that each city and county adopt "…a comprehensive, long-term general plan for [its] physical development." These general plans are required to include the following seven mandatory elements: land use, circulation, housing, conservation, open space, noise, and safety (California Government Code Sections 65300 et seq.). Due to the passage of Senate Bill (SB) 1000, State law now also requires each city and each county that has a disadvantaged community[6] to adopt an environmental justice element or adopt environmental justice goals, policies, and objectives as part of its other required elements. Each jurisdiction may also adopt additional elements covering subjects of particular interest to that jurisdiction, such as recreation, urban design, or public facilities.

The State is seldom involved in local land use and development decisions. Decision-making authorities have been delegated to the city councils and boards of supervisors of the individual cities and counties, respectively.

1.2.2.2 California Public Park Preservation Act of 1971

The Park Preservation Act (California Public Resources Code Sections 5400–5409) prohibits local and State agencies from acquiring any property that is in use as a public park at the time of acquisition unless the acquiring agency pays sufficient compensation or land, or both, to enable the operator of the park to replace the park land and any park facilities on that land.

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[5] A Section 4(f) evaluation will be attached as Appendix A to the proposed Project's Draft EIR/EA document.

[6] "Disadvantaged communities" means those areas identified by the California Environmental Protection Agency, pursuant to Section 39711 of the Health and Safety Code, as low-income areas that are disproportionately affected by environmental impacts.

1.2.2.3 The California Environmental Quality Act Requirements

Growth

CEQA requires the analysis of a project's potential to induce growth. Section 15126.2(e) of the State *CEQA Guidelines* requires that environmental documents "…discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment…" Included in this definition are projects that would remove obstacles to population growth.

Community Character and Cohesion

Under CEQA, projects must be reviewed against the Environmental Impact Checklist in Appendix G of the State *CEQA Guidelines*. Several of the items addressed in the Appendix G Environmental Impact Checklist provide context for determining whether a project might affect community character or cohesion. Section XIV in Appendix G of the State *CEQA Guidelines* includes two threshold questions about population and housing that address the direct or indirect inducement of unplanned population growth due to project influence, as well as the displacement of substantial numbers of existing people or housing, which may necessitate the construction of replacement housing elsewhere. Section XI in Appendix G of the State *CEQA Guidelines* includes a threshold question about Land Use and Planning that addresses the potential for a project to physically divide an established community.

Economics

Under CEQA, economic change by itself is not considered a significant effect on the environment. However, if economic (or social) change resulting from a project leads to physical change in the environment, then economic change may be considered in determining whether the physical change is significant. Because a project may result in economic or social change, it is appropriate to consider such change since it may result in a physical change to the environment (*CEQA Guidelines*, Section 15131).

Relocations and Environmental Justice

CEQA does not require the evaluation of environmental justice impacts. CEQA documents typically disclose the potential environmental impacts on residents, regardless of their race, ethnicity, or income level. The evaluation of environmental justice impacts under CEQA is strictly optional at the discretion of the Lead Agency. Should a joint NEPA/CEQA document be prepared, it must evaluate environmental justice, as environmental justice issues must be evaluated under NEPA.

1.2.3 Regional and Local Requirements

1.2.3.1 Southern California Association of Governments Connect SoCal 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy

The Southern California Association of Governments (SCAG) is the largest regional planning agency in the nation, functioning as the Metropolitan Planning Organization (MPO) for six counties and 191 cities. SCAG develops long-term solutions for regional challenges such as transportation, air quality, housing, growth, hazardous waste, and water quality. Because these

issues cross city and county boundaries, SCAG works with cities, counties, and public agencies in the six-county region (Los Angeles, Orange, Ventura, San Bernardino, Riverside, and Imperial counties) to develop plans and strategies to address these issues.

Connect SoCal is a comprehensive 20-year transportation plan that provides a vision for the future of SCAG region's multimodal transportation system and specifies how that vision can be achieved for the six-county area. As the RTP/SCS for the SCAG region, Connect SoCal is an important planning document that identifies major challenges as well as potential opportunities associated with growth projections for the region, and allows public agencies that implement transportation projects to do so in a coordinated manner while qualifying for federal and State funding. SCAG adopted the Connect SoCal 2020–2045 RTP/SCS in September 2020 and last amended (Amendment No. 2) it in October 2022.

SCAG's 2020–2045 RTP/SCS places a greater emphasis on sustainability and integrated planning than previous RTPs and defines four principles that guide future development in the six-county region: mobility, economy, environment, and healthy/complete communities. SCAG updates the RTP/SCS every 4 years. The Build Alternatives are currently included in the future commitments section of SCAG's 2020–2045 RTP/SCS. However, the Build Alternatives are not captured in future regional models and efforts to incorporate the Build Alternatives into such models are being taken.

Connect SoCal is supported by a combination of transportation and land use strategies that outline how the region can achieve California's greenhouse gas emission reduction goals and federal Clean Air Act requirements. The plan also strives to achieve broader regional objectives, such as the preservation of natural lands, the improvement of public health, increased roadway safety, support for the region's vital goods movement industries, and more efficient use of resources.

The following goals in Connect SoCal apply to the proposed Project:

- Encourage regional economic prosperity and global competitiveness.
- Improve mobility, accessibility, reliability, and travel safety for people and goods.
- Increase person and goods movement and travel choices within the transportation system.
- Leverage new transportation technologies and data-driven solutions that result in more efficient travel.

1.2.3.2 SCAG Federal Transportation Improvement Program

The Federal Transportation Improvement Program (FTIP) is a listing of all capital transportation projects proposed over a 6-year period for the SCAG region. The FTIP is prepared to implement the projects and programs listed in the RTP and is developed in compliance with State and federal requirements. A new FTIP is prepared and approved every 2 years. These funded projects include highway improvements; transit, rail, and bus facilities; carpool lanes; signal synchronization; intersection improvements; freeway ramps; and other related improvements.

Federal law requires that all federally funded projects and regionally significant projects (regardless of funding) must be listed in an FTIP. The Build Alternatives are included in the 2023 FTIP Amendment #23-01 under FTIP ID ORA210604. However, the Build Alternatives are not

captured in future regional models and efforts to incorporate the Build Alternatives into such models are being taken.

1.2.3.3 Long Range Transportation Plans – Orange and Los Angeles Counties

The Los Angeles County Metropolitan Transportation Authority (LACMTA) and the Orange County Transportation Authority (OCTA) are the transportation planning commissions for (respectively) Los Angeles County and Orange County, California, and are responsible for cooperative regional planning and furthering an efficient multimodal transportation system in each respective county. The purpose of each respective Long-Range Transportation Plan (LRTP) is to lay out a strategy for long-term investment in and management of the county's regional transportation assets. The plans are continuously updated to reflect changing development and traffic patterns. Certain portions of Interstate (I) 5 between Tustin and La Mirada are already identified for high-occupancy vehicle (HOV) lane improvements within each respective LRTP.

1.2.3.4 Airport Planning Areas

The Airport Land Use Commission (ALUC) is governed by Public Utilities Code Section 21670 and has a basic responsibility to assist local agencies in ensuring compatible land uses in the vicinity of all airports in Orange County. The ALUC reviews land use proposals near civilian and military airports and other land use issues that have a potential impact on airport operations.

The ALUC serves all airports in Orange County, including Fullerton Municipal Airport (FMA). Each airport facility has its own Airport Environs Land Use Plan (AELUP), which seeks to protect the public from the adverse effects of aircraft noise, to ensure that people and facilities are not concentrated in areas susceptible to aircraft accidents, and to ensure that no structures or activities adversely affect navigable airspace. In addition, there is an AELUP for heliport projects within Orange County.

1.2.3.5 City of Tustin

City of Tustin General Plan (2018)

The General Plan is a broad policy document that identifies a city's land use, circulation, environmental, economic, and social goals and policies as they relate to land use development, thereby providing guidance to citizens, developers, and decision-makers on a city's "ground rules" for development activity within a city's planning area.

The City of Tustin's General Plan contains the following elements: Land Use, Housing, Circulation, Conservation/Open Space/Recreation, Public Safety, Noise, and Growth Management. The City of Tustin's General Plan includes the following policies applicable to the proposed Project.

Circulation Element

- **Policy C-3.2**: Support capacity and noise mitigation improvements such as HOV lanes, general purpose lanes, auxiliary lanes, and noise barriers on the I-5 and SR-55 freeways.
- **Policy C-3.3:** Monitor and coordinate with Caltrans freeway work as it affects Tustin's roadway and require modifications, as necessary.

City of Tustin Zoning

Please refer to Section 2.1.1 for discussion on various zoning categories that apply to land within the Study Area.

1.2.3.6 City of Santa Ana

City of Santa Ana General Plan (2022)

The City of Santa Ana's General Plan contains the following elements: Community, Economic Prosperity, Mobility, Public Services, Conservation, Noise, Open Space, Safety, Land Use, Historic Preservation, Housing, and Urban Design. The City of Santa Ana's General Plan does not include any goals or policies applicable to the proposed Project.

City of Santa Ana Zoning

Please refer to Section 2.1.1 for discussion on various zoning categories that apply to land within the Study Area.

1.2.3.7 City of Orange

City of Orange General Plan (2010)

The City of Orange's General Plan contains the following elements: Land Use, Circulation and Mobility, Growth Management, Natural Resources, Public Safety, Noise, Cultural Resources and Historic Preservation, Infrastructure, Urban Design, Housing, and Economic Development. The City of Orange's General Plan does not include any applicable goals or policies to the proposed Project.

City of Orange Zoning

Please refer to Section 2.1.1 for discussion on various zoning categories that apply to land within the Study Area.

1.2.3.8 City of Anaheim

City of Anaheim General Plan (2004)

The City of Anaheim's General Plan contains the following elements: Land Use, Circulation, Green, Public Services and Facilities, Growth Management, Safety, Noise, Economic Development, Community Design, and Housing. The City of Anaheim's General Plan includes the following policy applicable to the proposed Project.

Circulation Element

- **Policy C-1.2-1**: Continue working with Caltrans and the FHWA to address traffic flow along State highways that traverse the City.

City of Anaheim Specific Plans

The City of Anaheim has adopted several specific plans that provide development standards, design guidelines, and other long-range planning information for certain areas within Anaheim.

The following specific plans adopted by the City of Anaheim are partially or entirely within the Study Area.

Anaheim Resort SP 92-2 (1994)

The Anaheim Resort Specific Plan (ARSP) encompasses 581.3 acres of the 1,078-acre Anaheim Resort, a portion of the City of Anaheim specifically designated by the City's General Plan for recreation and tourist/convention-related activities along with related uses. The Public Facilities Plan of the ARSP identifies circulation improvements to and from I-5, including HOV lane connections.

Disneyland Resort SP 92-1 (1993)

The Disneyland Resort Specific Plan (DRSP) encompasses approximately 490 acres of 1,078-acre Anaheim Resort. Like the ARSP, the Public Facilities Plan of the DRSP identifies circulation improvements to and from I-5, including HOV lane connections.

City of Anaheim Zoning

Please refer to Section 2.1.1 for discussion on various zoning categories that apply to land within the Study Area.

1.2.3.9 City of Fullerton

The Fullerton Plan (2012)

The Fullerton Plan, which serves as the City of Fullerton's General Plan, contains the following elements: Community Development and Design, Housing, Historic Preservation, Mobility, Bicycle, Growth Management, Noise, Economic Development, Redevelopment/Revitalization, Public Safety, Public Health, Parks and Recreation, Arts and Culture, Education, Community involvement, Water, Air Quality and Climate Change, Integrated Waste Management, Open Space and Natural Resources, and Natural Hazards. The Fullerton Plan does not include any goals or policies applicable to the proposed Project.

City of Fullerton Zoning

Please refer to Section 2.1.1 for discussion on various zoning categories that apply to land within the Study Area.

1.2.3.10 City of Buena Park

City of Buena Park General Plan (2010)

The City of Buena Park's General Plan contains the following elements: Land Use and Community Design, Mobility, Community Facilities, Conservation and Sustainability, Open Space and Recreation, Safety, Noise, Economic Development, Housing, and Environmental Justice. The City of Buena Park's General Plan does not include any goals or policies applicable to the proposed Project.

City of Buena Park Zoning

Please refer to Section 2.1.1 for discussion on various zoning categories that apply to land within the Study Area.

1.2.3.11 City of La Mirada

City of La Mirada General Plan (2003)

The City of La Mirada's General Plan contains the following elements: Land Use, Economic, Circulation, Housing, Safety and Community Services, and Open Space and Conservation. The City of La Mirada's General Plan includes the following policy applicable to the proposed Project.

Circulation Element

- **Policy C-2.1**: Work closely with Caltrans to ensure that I-5 improvements do not adversely impact mobility along the City's connecting arterial system.

City of La Mirada Zoning

Please refer to Section 2.1.1 for discussion on various zoning categories that apply to land within the Study Area.

1.3 Assessment Process and Methodology Used

The following steps were followed in the preparation of this CIA:

1. An understanding of the nature of the proposed Project was developed (refer to Section 1.4, below), and the communities that could potentially be affected by the proposed Project were identified.
2. A profile of the various communities that may be affected by the proposed Project was created to establish the baseline conditions in those communities.
3. The potential impacts that each Project alternative could have on those communities were analyzed.
4. Opportunities to avoid, minimize, and/or mitigate any adverse effects of the proposed Project were identified.
5. A CIA documenting the results of the assessment, including public involvement activities and any commitments made, was prepared.

As noted above in Step 2, the methodology for assessing Project-related community impacts requires the careful compilation of an accurate baseline description of the entire Study Area. Although the Study Area generally consists of the Project Area (the maximum disturbance limits) and a wider area within 0.5 mile of the Project Area in which potential secondary or indirect impacts may occur, as shown in Figure 1-2, the Project Area includes areas along the I-5 corridor where improvements are proposed as well as portions of State Route (SR) 91, SR-57, SR-55, and SR-22 where advance signage would be required. Most of the proposed improvements would be built within the existing right-of-way (ROW) for the I-5 corridor and the installation of advance signage within State and local (City arterials leading to I-5) ROW is not likely to result in community impacts; thus, the Study Area for this CIA does not include the portions of the Project Area that

include advance signage. As shown on Figure 1-3, the Study Area includes the Project Area and the adjacent neighborhoods within the cities of Tustin, Santa Ana, Orange, Anaheim, Fullerton, Buena Park, and La Mirada. The Study Area census tracts are also shown on Figure 1-3 and listed in Table 1.1 (below). Census tracts within the cities of Cerritos, Garden Grove, Irvine, La Palma, Norwalk, and Santa Fe Springs are generally excluded. In addition, Census Tracts 19.01, 525.34, 744.03, 745.01, 750.02, 751, 754.05, 755.04, 755.06, 761.03, 866.02, 871.01, 871.03, 873.02, 874.04, 875.03, 875.05, 884.03, 1106.07, and 5039.02 were not considered in this CIA because the bulk of the population within those areas is more than 0.5 mile from the Project Area. The description of the Study Area is necessarily detailed enough to allow the demographic, economic, and community-based implications of the proposed Project to be accurately ascertained. This was accomplished using a wide variety of information sources, as described below.

Information collection was shaped by various State and federal guidance documents, publications, and websites.

The Caltrans SER Handbook, the CIA Handbook, and the Caltrans CIA template were the primary guides for the structure and direction of this CIA. Additional guidance related to the structure and approach of the study was provided by FHWA publications such as *Community Impact Assessment – A Guide for Transportation* and the variety of resources available through the FHWA's CIA website.

The analysis of project-related impacts to local communities in the Study Area described in Step 3 above was based in part on the following regional planning documents and studies related to the proposed Build Alternatives:

- 2020-2045 Connect SoCal RTP/SCS (SCAG 2020)
- 2023 Federal Transportation Improvement Program (SCAG 2023)
- Orange County Managed Lanes Feasibility Study (CH2M 2016)
- Bus Rapid Transit on Freeways Study (OCTA 2021)

In addition, the following technical studies were used for assessing project-related community impacts (Steps 3 and 4):

- Air Quality Analysis Report (currently being prepared)
- Archeological Survey Report (currently being prepared)
- Biological Resources AssessmentNatural Environment Study (currently being prepared)
- Cultural Resources Study ReportHistoric Property Survey Report (currently being prepared)
- *Draft Concept of Operations Plan* (WSP & SMG 2019)
- *Draft Traffic Operations Analysis Methods and Assumptions* (Caltrans 2022)
- Equity Study (currently being prepared)
- Geotechnical Report (currently being prepared)
- Growth Inducement Technical Memorandum (currently being prepared)
- *Hazardous Waste Initial Site Assessment* (Diaz Yourman & Associates 2022)
- *Jurisdictional Delineation Report* (LSA 2022)

Table 1.1: Study Area Census Tracts

County	City	Census Tract
Orange County	Anaheim	19.03
		761.02
		761.04
		863.03
		867.01
		867.02
		868.01
		868.02
		871.02
		871.05
		871.06
		872
		874.01
		874.03
		1104.01
		9800
	Buena Park	18.01
		18.02
		868.01
		1104.01
		1105
		1106.03
		1106.06
	Fullerton	18.01
		18.02
		19.03
		867.01
		868.01
		868.02
		1104.01
		1105
		1106.03
	La Mirada	1105
		1106.06

Table 1.1: Study Area Census Tracts

County	City	Census Tract
Orange County	Orange	753.01
		754.04
		760.01
		760.02
		761.02
		761.04
		761.05
		863.03
		744.05
		744.06
		744.07
		750.03
		750.04
		753.01
		753.03
		754.01
		754.03
		754.04
		755.05
		755.17
		760.01
		760.02
		761.02
		525.02
	Tustin	525.24
		744.06
		744.07
		744.08
		754.03
		755.04
		755.05
		755.07
		755.12
		755.13
		755.14
		755.17
		755.17

- *Location Hydraulic Study and Summary Floodplain Encroachment Report* (TranSystems 2022)
- Noise Study Report (currently being prepared)
- *Paleontological Investigation Report and Paleontological Evaluation Report* (LSA 2022).
- Section 4(f) evaluation (currently being prepared)
- Storm Water Data Report (currently being prepared)
- Summary Floodplain Evaluation Report (SFER) (currently being prepared)
- Traffic Study and Transportation Management Plan (TMP) (currently being prepared)
- *Utility Plans* (Caltrans 2022)
- *Visual Impact Assessment* (WSP 2023)
- *Water Quality Assessment Report* (WSP 2022)

Review of these reports, use of aerial photographs, geographic information system (GIS) overlays, and review of local planning documents served to identify potential impacts to communities in the Study Area.

Public input regarding the No Build Alternative and Build Alternatives is encouraged. Public meetings will be held during the review period for the Environmental Impact Report (EIR) and Environmental Assessment (EA) that would be prepared for the proposed Project pursuant to CEQA and NEPA, respectively.

1.4 Proposed Project

Caltrans District 12 is proposing managed lanes (ML) improvements in both directions on I-5. The improvements would modify the existing HOV lanes within the proposed Project limits to address operational deficiencies. The proposed Project limits on I-5 extend from Red Hill Avenue (Post Mile [PM] 28.9) to the Orange County/Los Angeles (OC/LA) County line (12-ORA-5 PM 44.4) in the cities of Irvine, Tustin, Santa Ana, Orange, Anaheim, Fullerton, Buena Park, La Mirada, and Santa Fe Springs and include implementing associated signage (including advance signage on adjacent arterials) and tolling infrastructure.

The purpose of this proposed Project is to improve the overall movement of people and goods along this section of I-5 by:

- Improving the MLs network operations
- Improving mobility and trip reliability
- Maximizing person throughput by facilitating the efficient movement of bus and rideshare users
- Applying technology to help manage traffic demand

The need, or deficiency, of the proposed Project is the existing I-5 HOV lanes between Red Hill Avenue and the OC/LA County line experience:

- HOV lane degradation (does not meet the federal performance standards)
- Demand exceeds existing capacity
- Operational deficiencies

Four preliminary alternatives, including three Build Alternatives (2, 3, and 4) and the No Build Alternative, are under consideration and are described below.

1.4.1 Alternative 1 (No Build Alternative)

Alternative 1, the No Build Alternative, does not include improvements to the existing lane configurations for I-5. Under the No Build Alternative, no additional roadway improvements would occur. This alternative includes other projects on the financially constrained project list in the adopted SCAG 2020–2045 RTP/SCS within the proposed Project limits on I-5 and the Preferred Plan in the OCTA 2018 LRTP within the proposed Project limits.

1.4.2 Alternative 2 (Build Alternative: Modify Existing HOV 2+ Lanes to HOV 3+ Lanes)

Alternative 2 would maintain the existing lane configurations for I-5 with a modification of the minimum HOV-lane occupancy requirement from two-plus (2+) to three-plus (3+) passengers within the current HOV system in each direction between Red Hill Avenue and the OC/LA County line. As a result of this increase in the occupancy requirement and improved trip reliability, through the Transportation System Management/Transportation Design Management (TSM/TDM) elements, it would promote and encourage public and private transit such as Bus Rapid Transit (BRT) and ridesharing. Under this alternative, no additional roadway improvements would occur. Additionally, two proposed park-and-ride facilities are being evaluated as part of Alternative 2 and would be constructed within the existing freeway ROW. Sign replacement and pavement delineation would also be implemented to meet the latest California Manual on Uniform Traffic Control Devices (CA MUTCD) standards.

1.4.2.1 Ramps

Physical modifications of the ramp geometry will not be required where the current HOV system is converted from 2+ to 3+ passengers; however, replacement of signage at direct-access ramps will be required accordingly for Alternative 2.

1.4.2.2 Impact to Structures

Alternative 2 would not impact existing structures or create new structures (e.g., bridges) as part of its proposed design.

1.4.2.3 Drainage and Water Quality

Drainage management measures would be included in Alternative 2 to address the impacts to drainage patterns associated with new construction of the park-and-ride facilities. Proposed major drainage design features would include: maintaining existing drainage flow patterns and incorporating existing drainage systems to the maximum extent practicable; providing drainage facilities that would accommodate future improvements; and providing drainage facilities to prevent and/or reduce substantial erosion or siltation on or off site.

Some of the existing systems may be abandoned or removed to accommodate construction of Alternative 2. Best Management Practices (BMPs) would be included to address stormwater requirements and treatment of the added impervious area created by Alternative 2.

1.4.2.4 Tolled Components

Alternative 2 would not include the implementation of any new tolling components as part of the proposed design.

1.4.2.5 Transportation Management Plan

Alternative 2 may be implemented in phases and/or segments and procured under one or more contracts, including the option of using design/build. Construction-related delays are anticipated during construction of Alternative 2.

In accordance with Caltrans Deputy Directive (60-R2), a TMP has been prepared for Alternative 2 which includes strategies that, when implemented, would minimize Project-related construction and circulation impacts.

It is anticipated that lane closures would be required, and it may be necessary to temporarily close on/off ramps and connectors during construction of Alternative 2.

Some of the key elements recommended in the TMP include the following: Public Information/ Public Awareness Campaign; Motorist Information Strategies; Incident Management; Construction Strategies; Demand Management; and Alternate Route Strategies.

Detailed detour plans, staging plans, and traffic handling plans would also be developed during the final design phase.

1.4.2.6 Construction Staging

As no additional construction would occur with Alternative 2, there would be no stage construction impacts associated with construction acitivites within the freeway mainline, which are limited to signage replacement and pavement delineators along the freeway mainline. Construction staging is anticipated for the development of the park-and-ride facilities to minimize impacts to existing traffic.

Stage construction concept plans are currently being developed. Should Alternative 2 be selected as the Preferred Alternative, detailed stage construction and detour plans would be developed during final design. Detailed stage construction plans and traffic handling plans would also be developed in the final design stage.

1.4.2.7 Right-of-Way Data

Additional ROW (e.g., full acquisition, partial acquisition, aerial easements, temporary construction easements) is not anticipated for the construction of Alternative 2.

1.4.2.8 Utility and Other Owner Involvement

Alternative 2 is not expected to have any impacts to surrounding utilities, as there are no proposed utility relocations associated with its proposed design.

1.4.2.9 Nonstandard Design Features (Design Standards Risk Assessment)

Alternative 2 would not impact existing nonstandard design features or create new nonstandard design features as part of the proposed design.

1.4.2.10 Sound Walls

Alternative 2 would not impact any existing sound walls as part of the proposed design.

1.4.2.11 Transportation Systems Management/Transportation Demand Management

Alternative 2 would not implement any new TSM/TDM measures or features beyond the ramp metering, changeable message signs (CMS), cameras, and traffic speed detection systems that already exist within the proposed Project limits.

1.4.2.12 Highway Planting

Existing planting and irrigation systems removed during construction of the Alternative 2 park-and-ride facilities would be replaced wherever space is available. Generally, existing vegetation in and around the park-and-ride areas would be replanted to the maximum extent practicable.

Should Alternative 2 be selected as the Preferred Alternative, planting design would be provided during the final design phase; would consider safety, maintainability, and aesthetic compatibility with adjacent urban communities; and would not deviate significantly from the existing planting theme.

1.4.2.13 Erosion Control

Alternative 2 would be required to comply with the terms and conditions in accordance with Attachment D of the *NPDES Statewide Construction General Permit* (SWRCB 2020), which includes a written site-specific Construction Site Monitoring Program (CSMP). The CSMP would include implementation of specific stormwater effluent monitoring requirements to ensure that the implemented BMPs are effective in preventing discharges from exceeding any of the water quality standards.

Erosion control measures would be implemented during construction as well as after completion of Alternative 2 construction in accordance with the requirements of the Santa Ana (Region 8) and Los Angeles (Region 4) Regional Water Quality Control Boards (RWQCBs) and the current statewide National Pollutant Discharge Elimination System (NPDES) Construction General Permit. During construction, potential construction site BMPs, such as temporary fiber rolls, temporary mulch, drainage inlet protection, concrete washout facilities, street sweeping, and hydroseeding, would be used to minimize erosion. All finished slopes would receive replacement planting or vegetative erosion control application.

Should Alternative 2 be selected as the Preferred Alternative, specific erosion control measures and construction site BMP design would be developed during final design. Preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) would be required during construction.

1.4.3 Alternative 3 (Build Alternative: Convert Existing HOV Lanes to Express Lanes)

Alternative 3 would convert the existing HOV lane to an Express Lane (EL) in each direction between Red Hill Avenue and SR-55; convert two existing HOV lanes to ELs in each direction between SR-55 and SR-57; and convert the existing HOV lane to an EL in each direction from SR-57 to the OC/LA County line. The typical cross-section consists of a 12-foot-wide EL, a 2- to 4-foot buffer, 12-foot-wide general-purpose (GP) lanes, 12-foot-wide auxiliary lanes, a 4- to 26-foot-wide inside shoulder, and a 10-foot-wide outside shoulder and would be provided to accommodate the EL. One 12-foot weave lane is proposed at locations of ingress or egress. Additionally, two proposed park-and-ride facilities are being evaluated as part of Alternative 3 and would be constructed within the existing freeway ROW. Sign replacement and pavement delineation would also be implemented to meet the latest CA MUTCD standards.

1.4.3.1 Ramps

Alternative 3 would impact several existing ramps. The affected ramps and the proposed improvements are summarized in Tables 1.2 and 1.3, below. In general, several existing ramps would be shifted to accommodate outside widening by Alternative 3. Alternative 3 is not anticipated to impact system interchanges within the proposed Project limits. Within the proposed Project limits, ramp metering is incorporated into the existing local interchange on-ramps, except at the South Anaheim Boulevard northbound on-ramp. Where ramp improvements affect ramp metering, any ramp metering equipment would be reestablished. Existing ramp meters and equipment would be reused where possible.

Table 1.2: Anticipated Impacts to On-Ramps within the Proposed Project Limits—Alternative 3

	Location	Post Mile (Approx.)	Ramp Improvements
1	NB SR-55 to NB I-5 Direct Connector	30.472	X
2	Grand Ave. SB Direct-Access On-Ramp	31.794	X
3	N. Main St. SB On-Ramp	32.953	X
4	SB SR-57 to SB I-5 Direct Connector	34.222	X
5	Gene Autry Wy. SB Direct-Access On-Ramp	35.949	X
6	Gene Autry Wy. NB Direct-Access On-Ramp	35.949	X
7	EB SR-91 to SB I-5 Direct Connector	41.928	X
8	WB SR-91 to NB I-5 Direct Connector	42.42	X
9	Auto Center Dr. NB On-Ramp	42.928	X
10	Artesia Blvd. SB On-Ramp	44.271	X
	Total Number of On-Ramp Improvements:		**10**

Notes: * Existing ramp metering to be relocated and/or upgraded to latest equipment requirements.
**Ramps metered separately before joining.

EB = eastbound
I = Interstate
NB = northbound
SB = southbound
SR = State Route
WB = westbound

Table 1.3: Anticipated Impacts to Off-Ramps within the Proposed Project Limits—Alternative 3

Location		Post Mile (Approx.)	Ramp Improvements
1	Grand Ave. NB Direct-Access Off-Ramp	31.532	X
2	Penn Wy. SB Off-Ramp	32.521	X
3	NB I-5 to NB SR-57 Direct Connector	33.433	X
4	Gene Autry Wy. NB Direct-Access Off-Ramp	35.466	X
5	Gene Autry Wy. SB Direct-Access Off-Ramp	36.309	X
6	Anaheim Blvd. NB Direct-Access Off-Ramp	36.072	X
7	Disneyland Dr. SB Direct-Access Off-Ramp	38.439	X
8	NB I-5 to WB SR-91 Direct Connector	41.909	X
9	SB I-5 to EB SR-91 Direct Connector	42.545	X
10	Beach Blvd. SB Off-Ramp	43.680	X
11	Artesia Blvd. NB Off-Ramp	43.996	X
Total Number of Off-Ramp Improvements:			**11**

EB = eastbound
I = Interstate
NB = northbound
SB = southbound
SR = State Route
WB = westbound

For the majority of locations, physical modifications of the ramp geometry will not be required where the HOV direct connector is converted to an ELs Connector; however, replacement of signage and addition of tolling equipment will be required accordingly. The incorporation of weave lanes required physical modifications of the ramp gore geometry where the HOV Direct Connector is converted to an ELs Connector at the northbound Gene Autry Way off-ramp, northbound Disney Way off-ramp, southbound Gene Autry Way off-ramp, and southbound Disneyland Drive off-ramp.

1.4.3.2 Impact to Structures

Alternative 3 would not create new structures (e.g., bridges) but would impact one existing retaining wall to accommodate widening the mainline to avoid ROW acquisition. The affected retaining wall structure and the proposed improvements are summarized in Table 1.4.

Table 1.4: Anticipated Retaining Wall Impacts within the Proposed Project Limits—Alternative 3

Location	Post Mile	Retaining Wall Improvements		Maximum Length of Extension (Feet)
		Rebuild (R) / New(N)	Type	
SB I-5, North of E. 17th St.	32.521	R*	Special	793

Notes: *Retaining Wall/Sound Wall.
I = Interstate
SB = Southbound

1.4.3.3 Drainage and Water Quality

Drainage management measures would be included in Alternative 3 to address the impacts to drainage patterns associated with new construction. Proposed major drainage design features would include: maintaining existing drainage flow patterns and incorporating existing drainage systems to the maximum extent practicable; providing drainage facilities that would accommodate future improvements; and providing drainage facilities to prevent and/or reduce substantial erosion or siltation on or off site.

Some of the existing systems may be abandoned or removed to accommodate the construction of Alternative 3. For widened sections of the pavement for Alternative 3, the existing edge drains would be replaced and reconnected to the drainage system; final connection and location details would be developed in the final design phase. BMPs would be included to address stormwater requirements and treatment of the added impervious area created by Alternative 3.

1.4.3.4 Tolled Components

Toll Operation Policies

The ELs would require single-occupant vehicles to pay a toll. The objective is to open the tolled ELs with some level of HOV occupancy free to encourage rideshare and transit usage. Operational adjustments to the tolled ELs may be implemented based on demand, rates of speed, traffic volumes, and to meet financial covenants, maintenance, and operational obligations. This would be determined based on the Traffic and Revenue (T&R) analysis, input from public, and Caltrans business rules. Caltrans has the authority to set the occupancy policy on the I-5 ELs.

Key Caltrans business rules may include, but are not limited to:

- Toll-free travel for vehicles that meet minimum vehicle occupancy requirements, motorcycles, and buses.
- Qualifying carpools would continue to be able to access the lanes without a charge; trucks, other than two-axle light-duty trucks, would not be allowed.
- Toll/transit credits would be available to frequent ELs transit riders.
- Emergency vehicles may use the ELs toll-free when responding to incidents.
- Qualifying Clean Air Vehicles would be given a toll discount.
- Equity Assistance Plan.

Toll Operations And Maintenance

At this time, a process is in place to develop a formal maintenance plan as part of the Caltrans and FHWA systems engineering process. It is anticipated that Caltrans would maintain the physical infrastructure, such as pavement, striping, and median barriers, as well as perform general maintenance, such as trash and graffiti removal, paid for from toll revenues. It is anticipated that Caltrans would also manage the tolling infrastructure, while the customer service centers and other back-office support facilities would be contracted to others. However, final agreements and deceisions on such responsibilities will be decided in the future phases of the Project.

Toll Revenue/Pricing Structure

Time-of-day pricing and dynamic pricing methods are being analyzed for their application as part of the proposed Project. Toll rates would be set in response to vehicle demand and would be adjusted as necessary to regulate volume in the ELs to maintain traffic flow at a predetermined level of service (LOS).

The pricing structure and details would be evaluated further during final design. No tolling amount or pricing decisions have been made at this time.

Toll Collection

The I-5 ELs facility is expected to use an all-electronic toll collection (ETC) system and would not accept cash or credit card payment on the facility. This would eliminate the need for customers to stop and pay tolls at traditional tollbooths. The ETC system would require customers to have pre-paid accounts with a tolling agency and mount a nonstop automated vehicle identification transponder or toll tag on the windshield of a registered vehicle. Tolls would be collected electronically by reading the transponder at highway speeds.

Toll Enforcement

Toll enforcement is an essential element of any successful EL system, ensuring that traffic laws are enforced, customers are charged the appropriate toll based on vehicle occupancy, and toll evasion is minimized. Toll enforcement would be accomplished through California Highway Patrol (CHP) patrols, electronic systems, and facility design. The CHP is anticipated to be contracted to conduct routine and supplemental enforcement services on the I-5 ELs facility, including toll infractions, HOV eligibility occupancy infractions, buffer crossing infractions, speeding, and other moving violations. The ETC system is intended to identify both vehicles that do not have a transponder as well as the declared transponder switch setting. Caltrans would incorporate an infrared occupancy detection system into the EL enforcement. The CHP currently provides enforcement on all of the toll roads in southern California under several different institutional arrangements.

1.4.3.5 Transportation Management Plan

The same TMP described under Alternative 2 would be utilized as part of Alternative 3. This infrastructure is detailed in Section 1.4.2.5, above**.**

1.4.3.6 Construction Staging

It is anticipated that Alternative 3 would be designed and constructed in separate phases to facilitate Project delivery based on available funding. Each phase would include construction staging to minimize impacts to existing traffic. The same number of existing mainline lanes would be kept open to traffic during construction whenever feasible.

Stage construction concept plans are currently being developed. However, Alternative 3 would require ramp closures of less than 10 days to accommodate reconstruction of pavement at or near on- and off-ramps. Closures of successive on- or off-ramps would be avoided. Should Alternative 3 be selected as the Preferred Alternative, detailed stage construction and detour

plans would be developed during final design. Detailed stage construction plans and traffic handling plans would also be developed in the final design stage.

1.4.3.7 Right-of-Way Data

Additional ROW (e.g., full acquisition, partial acquisition, aerial easements, temporary construction easements) is not anticipated for the construction of Alternative 3.

1.4.3.8 Utility and Other Owner Involvement

Underground and above-ground utility conflicts are anticipated within the proposed Project limits. The anticipated utility impacts within the proposed Project limits are summarized in Table 1.5.

Table 1.5: Anticipated Impacts to Utilities within the Proposed Project Limits—Alternative 3

No.	Location	Utility Owner and/or Contact Name	Wet (W) / Dry (D)	Utility Type(s)	Utility Conflict Description	H*
1	N. Main St. SB On-Ramp	AT&T	D	Telecom	Roadway Conflict	N/A
2	North of N. State College Blvd.	PacBell	D	Telecom	Overhead Sign Conflict	N/A
3	North of N. State College Blvd.	SCE	W	Electric	Overhead Sign Conflict	N/A

Notes: H* denotes high-priority utilities based on Chapter 600 of the Caltrans Encroachment Permits Manual.
AT&T = American Telephone and Telegraph Company
Caltrans = California Department of Transportation
N/A = Not Applicable
PacBell = Pacific Bell Telephone Company
SB = Southbound
SCE = Southern California Edison

Should Alternative 3 be selected as the Preferred Alternative, a "positive location" verification would be performed during the final design phase, which would include surveying and boring the area in order to verify the depth and specific locations of underground utilities in the proposed Project vicinity that may be in close proximity to or conflict with proposed improvements as determined from as-built plans and utility company records. Relocation or addition of towers are not anticipated for the existing overhead electrical lines.

1.4.3.9 Nonstandard Design Features (Design Standards Risk Assessment)

A listing of major existing nonstandard design features for Alternative 3 is included in Table 1.6, below.

Table 1.6: Design Standards Risk Assessment—Alternative 3

No.	Design Standard	Probability of Design Exception Approval (None, Low, Medium, High)
1	201.1 (Stopping Sight Distance Standards)*	Medium/High
2	301.1 (Lane Width)*	Medium
3	302.1 (Shoulder Width)*	Medium/High
4	305.1 (Median Width Freeways and Expressways-Urban)**	High
5	305.1(3)(a) (Median Width)*	High
6	309.1(3)(a) (Horizontal Clearances for Highways)*	Medium /High
7	504.7 (Minimum Weave Length)*	High

Notes: *Boldface
**Underline

1.4.3.10 Sound Walls

Alternative 3 would impact one existing sound wall. The affected sound wall and the proposed improvements are summarized in Table 1.7.

Table 1.7: Anticipated Sound Wall Impacts within the Proposed Project Limits—Alternative 3

Location	Post Mile	Sound Wall Improvements			Maximum Length of Extension (Feet)
		Rebuild (R) / New (N)	Extension	Removal	
SB I-5, North of E. 17th St.	32.521	R*			793

Notes: *Retaining Wall/Sound Wall.
I = Interstate
SB = Southbound

1.4.3.11 Transportation System Management/Transportation Demand Management

TSM/TDM aims to improve traffic flow, promote travel safety, and increase transit usage and rideshare participation. The TSM/TDM measures included as part of Alternative 3 would add TSM/TDM techniques to existing features within the proposed Project limits.

The following TSM features would be incorporated into Alternative 3's proposed design:

- Ramp metering
- Intelligent Transportation Systems
- CHP observation and enforcement areas

The following TDM measures have been incorporated into Alternative 3:

- The EL use would be incentivized for carpool, transit users, electric and clean-emissions vehicles (e.g., discounted, partial, or full subsidized fare).
- Potential excess toll revenue would be allocated to fund projects and programs to reduce vehicle miles traveled (VMT), such as:
  - Outreach and education regarding ridesharing, transit travel, and multimodal opportunities;
  - Outreach and education regarding alternative work schedule programs and telecommuting; and
  - Construction of two park-and-ride facilities.
- Generating sustainable funding to support ongoing operations and promoting transit equity programs.
- Alternative 3 would facilitate travel for commercial buses and tourist buses to and from tourist destinations within the proposed Project area.

1.4.3.12 Highway Planting

The same erosion control features described under Alternative 2 would be included as part of Alternative 3. These are detailed in Section 1.4.2.12, above. Generally, existing vegetation in and around the interchange areas would be replanted; however, due to limited space between the freeway improvements and ROW, planting replacement would not always be possible along the mainline.

1.4.3.13 Erosion Control

The same erosion control features described under Alternative 2 would be included as part of Alternative 3. These are detailed in Section 1.4.2.13, above.

1.4.4 Alternative 4 (Build Alternative: Convert Existing HOV Lanes to Express Lanes and Construct Additional Express Lanes

Alternative 4 would convert the existing HOV lane to an EL in each direction between Red Hill Avenue and SR-55; convert two existing HOV lanes to ELs in each direction between SR-55 and SR-57; convert the existing HOV lane to an EL in each direction from SR-57 to the OC/LA County line; and construct an additional EL in each direction between SR-57 and SR-91. The typical cross-section consists of 12-foot-wide ELs, a 2- to 4-foot buffer, 12-foot-wide GP lanes, 12-foot-wide auxiliary lanes, a 4- to 14-foot-wide inside shoulder, and a 10-foot-wide outside shoulder and would be provided to accommodate the ELs. One 12-foot weave lane is proposed at locations of ingress or egress. Additionally, two proposed park-and-ride facilities are being evaluated as part of Alternative 4 and would be constructed within the existing freeway ROW. Sign replacement and pavement delineation would also be implemented to meet the latest CA MUTCD standards.

1.4.4.1 Ramps

Alternative 4 would impact some existing ramps within the proposed Project limits. The affected ramps and the proposed improvements are summarized in Tables 1.8 and 1.9, below.

Table 1.8: Anticipated Impacts to On-Ramps within the Proposed Project Limits—Alternative 4

Location		Post Mile (Approx.)	Ramp Improvements
1	NB SR-55 to NB I-5 Direct Connector	30.472	X
2	Grand Ave. SB Direct-Access On-Ramp	31.794	X
3	N. Main St. SB On-Ramp	32.953	X
4	SB SR-57 to SB I-5 Direct Connector	34.222	X
5	Gene Autry Wy. SB Direct-Access On-Ramp	35.949	X
6	Gene Autry Wy. NB Direct-Access On-Ramp	35.949	X
7	W. Lincoln Ave. NB On-Ramp	38.913	X
8	EB SR-91 to SB I-5 Direct Connector	41.928	X
9	WB SR-91 to NB I-5 Direct Connector	42.42	X
10	Auto Center Dr. NB On-Ramp	42.928	X
11	Artesia Blvd. SB On-Ramp	44.271	X
	Total Number of Off-Ramp Improvements:		**11**

Notes: * Existing ramp metering to be relocated and/or upgraded to latest equipment requirements.
**Ramps metered separately before joining.

EB = Eastbound
I = Interstate
NB = Northbound
SB = Southbound
SR = State Route
WB = Westbound

Table 1.9: Anticipated Impacts to Off-Ramps within the Proposed Project Limits—Alternative 4

Location		Post Mile (Approx.)	Ramp Improvements
1	Grand Ave. NB Direct-Access Off-Ramp	31.532	X
2	Penn Wy. SB Off-Ramp	32.521	X
3	NB I-5 to NB SR-57 Direct Connector	33.433	X
4	Gene Autry Wy. NB Direct-Access Off-Ramp	35.466	X
5	Gene Autry Wy. SB Direct-Access Off-Ramp	36.309	X
6	Anaheim Blvd. NB Direct-Access Off-Ramp	36.072	X
7	Disneyland Dr. SB Direct-Access Off-Ramp	38.439	X
8	Lincoln Ave. SB Off-Ramp	39.471	X
9	N. Euclid St. NB Off-Ramp	39.263	X
10	NB I-5 to WB SR-91 Direct Connector	41.909	X
11	SB I-5 to EB SR-91 Direct Connector	42.545	X
12	Beach Blvd. SB Off-Ramp	43.680	X
13	Artesia Blvd. NB Off-Ramp	43.996	X
	Total Number of Off-Ramp Improvements:		**13**

EB = Eastbound
I = Interstate
NB = Northbound
SB = Southbound
SR = State Route

In general, some existing ramps would be shifted to accommodate outside widening by Alternative 4. Alternative 4 is not anticipated to impact system interchanges within the proposed Project limits. Within the proposed Project limits, ramp metering is incorporated into the existing local interchange on-ramps, except at the South Anaheim Boulevard northbound on-ramp. Where ramp improvements affect ramp metering, any ramp metering equipment would be reestablished. Existing ramp meters and equipment would be reused where possible.

For the majority of locations, physical modifications of the ramp geometry would not be required where the HOV Direct Connector is converted to an ELs Connector; however, replacement of signage and the addition of tolling equipment would be required accordingly. The incorporation of weave lanes would require physical modifications at the ramp gore where the HOV Direct Connector is converted to an ELs Connector at the following locations:

- Southbound SR-57 connector
- Northbound SR-57 connector
- Southbound Gene Autry Way on-ramp
- Northbound Gene Autry Way off-ramp
- Northbound Disney Way off-ramp
- Southbound Gene Autry Way off-ramp
- Northbound Gene Autry Way on-ramp
- Southbound Disneyland Drive off-ramp

1.4.4.2 Impact to Structures

Alternative 4 would not create new structures (e.g., bridges) but would impact existing retaining walls and create a new retaining wall. Retaining walls would be provided, where required, to minimize and avoid ROW acquisition. The affected retaining wall structures and the proposed improvements are summarized in Table 1.10.

Table 1.10: Anticipated Retaining Wall Impacts within the Proposed Project Limits—Alternative 4

Location	Post Mile	Retaining Wall Improvements		Maximum Length of Extension (Feet)
		Rebuild (R) / New(N)	Type	
SB I-5, South of E. 17th St.	32.521	R*	Special	793
Along NB I-5 to NB SR-57 Direct Connector	34.117	R	Special	479
Along SB SR-57 to SB I-5 Direct Connector	34.124	R	Special	446

Notes: *Retaining Wall/Sound Wall.
I = Interstate
NB = Northbound
SB = Southbound
SR = State Route

1.4.4.3 Drainge and Water Quality

The same drainage and water quality features described under Alternative 3 would be constructed as part of Alternative 4. These features are detailed in Section 1.4.3.3, above.

1.4.4.4 Tolled Components

The same tolling infrastructure described under Alternative 3 would be constructed as part of Alternative 4. This infrastructure is detailed in Section 1.4.3.4, above.

1.4.4.5 Transportation Management Plan

The same TMP described under Alternative 2 would be utilized as part of Alternative 4. This infrastructure is detailed in Section 1.4.2.5, above.

1.4.4.6 Construction Staging

Stage construction concept plans are currently being developed. However, Alternative 4 would require several 55-hour weekend closures of the SR-57 HOV Connectors to accommodate construction of retaining walls, the median barrier, and concrete pavement. Should Alternative 4 be selected as the Preferred Alternative, detailed stage construction and detour plans would be developed during final design. Detailed stage construction plans and traffic handling plans would also be developed in the final design stage.

1.4.4.7 Right-of-Way Data

Additional ROW (e.g., full acquisition, partial acquisition, aerial easements, temporary construction easements) is not anticipated for the construction of Alternative 4.

1.4.4.8 Utility and Other Owner Involvement

Underground and above-ground utility conflicts are anticipated within the proposed Project limits. The anticipated utility impacts within the proposed Project limits are summarized in Table 1.11.

Positive location would be performed for underground utilities in the proposed Project vicinity that may be in close proximity to or conflict with proposed improvements as determined from as-built plans and utility company records.

Relocation or addition of towers are not anticipated for the existing overhead electrical lines.

Table 1.11: Anticipated Impacts to Utilities within the Proposed Project Limits—Alternative 4

No.	Location	Utility Owner and/or Contact Name	Wet (W) / Dry (D)	Utility Type(s)	Utility Conflict Description	H*
1	N. Main St. SB On-Ramp	AT&T	D	Telecom	Roadway Conflict	N/A
2	North of N. State College Blvd.	PacBell	D	Telecom	Overhead Sign Conflict	N/A
3	North of N. State College Blvd.	SCE	W	Electric	Overhead Sign Conflict	N/A
4	N. Euclid St. NB Off-Ramp	City of Anaheim	W	Water	Roadway Conflict	N/A
5	N. Euclid St. SB	City of Anaheim	W	Water	Roadway Conflict	N/A
6	N. Euclid St. SB	Sprint	D	Telecom	Roadway Conflict	N/A
7	North of N. Euclid St. SB	Sprint	D	Telecom	Roadway Conflict	N/A

Notes: H* denotes high-priority utilities based on Chapter 600 of the Caltrans Encroachment Permits Manual.
AT&T = American Telephone and Telegraph Company
Caltrans = California Department of Transportation
N/A = Not Applicable
NB = Northbound
PacBell = Pacific Bell Telephone Company
SB = Southbound
SCE = Southern California Edison

1.4.4.9 Nonstandard Design Features (Design Standards Risk Assessment)

A listing of major existing nonstandard design features for Alternative 4 is included in Table 1.12, below.

Table 1.12: Design Standards Risk Assessment—Alternative 4

No.	Design Standard	Probability of Design Exception Approval (None, Low, Medium, High)
1	201.1 (Stopping Sight Distance Standards)*	Medium/High
2	201.7 (Decision Sight Distance)**	High
3	301.1 (Lane Width)*	Medium
4	302.1 (Shoulder Width)*	Medium/High
5	305.1 (Median Width Freeways and Expressways-Urban)**	High
6	305.1(3)(a) (Median Width)*	High
7	309.1(3)(a) (Horizontal Clearances for Highways)*	Medium/High
8	504.2(2) (Design of Freeways Entrances and Exits)**	Medium
9	504.7 (Minimum Weave Length)*	High

Notes: *Boldface
**Underline

1.4.4.10 Sound Walls

The same impacts to sound walls described under Alternative 3 would occur as part of Alternative 4. These are detailed in Section 1.4.3.10, above.

1.4.4.11 Transportation System Management/Transportation Demand Management

The same TSM/TDM measures described under Alternative 3 would also be included as part of Alternative 4. These are detailed in Section 1.4.3.11, above**.**

1.4.4.12 Highway Planting

The same highway planting impacts listed under Alternative 3 would occur as part of Alternative 4. These are detailed in Section 1.4.3.12, above.

1.4.4.13 Erosion Control

The same erosion control impacts listed under Alternative 2 would occur as part of Alternative 4. These are detailed in Section 1.4.2.13, above.

1.5 Study Area

Consistent with guidance provided in the Caltrans CIA Handbook, the delineation of the affected socioeconomic environment for the proposed Project started with a review of the Project description and the proposed Project's purpose and need statement, location, characteristics, conceptual design, anticipated ROW requirements, and schedule. This information was used to identify the "Project Area" and the "Study Area." These terms are defined below:

- **Project Area:** The area that would be physically affected with primary or direct community impacts during the proposed Project's construction period. The Project Area is coterminous with the maximum disturbance limits for the Build Alternatives.
- **Study Area:** The community surrounding the Project Area in which secondary or indirect community impacts could occur. Community impacts typically decrease in magnitude as distance from a project site increases. Further, the installation of advance signage within State and local ROW is not likely to result in community impacts. Therefore, the Study Area generally includes those areas within 0.5 mile of the portions of the Project Area in which most of the proposed improvements would be built and a wider area within 0.5 mile of those areas. Various community profile datasets are collected and organized by census tract.

As mentioned in Section 1.3 of this CIA, the Study Area includes the Project Area and the adjacent neighborhoods within the cities of Tustin, Santa Ana, Orange, Anaheim, Fullerton, Buena Park, and La Mirada. Census tracts within the cities of Cerritos, Garden Grove, Irvine, La Palma, Norwalk, and Santa Fe Springs are generally excluded. In addition, Census Tracts 19.01, 525.34, 744.03, 745.01, 750.02, 751, 754.05, 755.04, 755.06, 761.03, 866.02, 871.01, 871.03, 873.02, 874.04, 875.03, 875.05, 884.03, 1106.07, and 5039.02 were not considered in this CIA because the bulk of the population in those census tracts is not within the Study Area.

The Project Area, the Study Area, and the Study Area census tracts are shown on Figure 1-2.

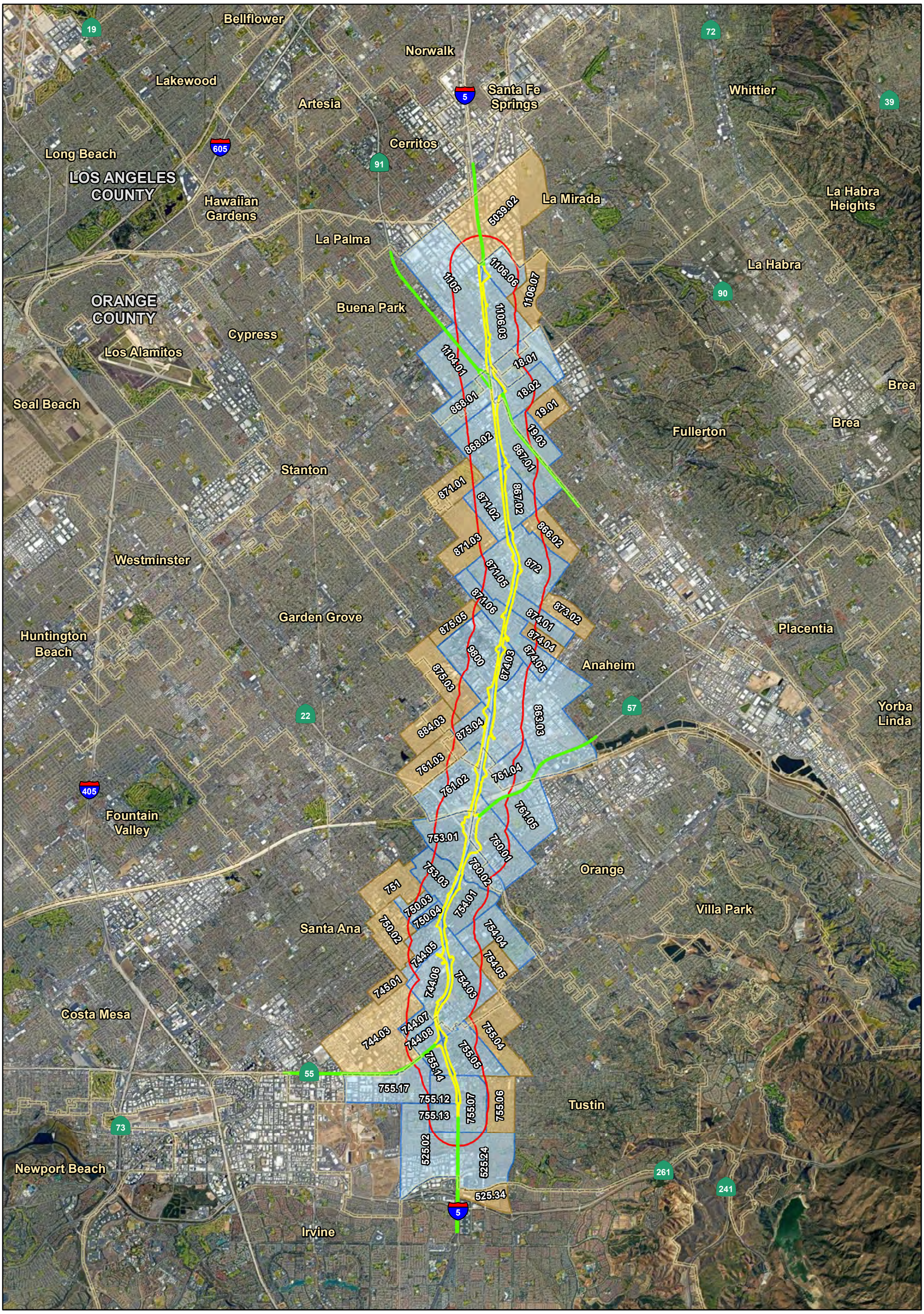

FIGURE 1-2

LEGEND

- Project Area
- Advanced Signage Only
- Community Impacts Study Area
- City Boundary
- Study Area Census Tracts
- Other Census Tracts*

0 0.8 1.6
Miles

* Although portions of these census tracts are within 0.5 mile of the Study Area, the majority of their residential populations are not. Therefore, Census data for these census tracts is not included in this CIA.

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/Los Angeles County Line)
Community Impact Assessment Study Area
EA No. 0Q950

SOURCE: Google (2022); U.S. Census Bureau (2020)

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2. LAND USE

2.1 Existing and Future Use

An examination of land use patterns can effectively convey the general form of a community, including where its residents live, work, and recreate. The Land Use Element is a required section of a municipality's General Plan that governs planning within that municipality's planning area. In some cases, municipalities choose to prepare and adopt Specific Plans, which guide the development of a particular geographic area within a city or county. By describing the existing and projected major land uses in the affected area and the surrounding region, the information can be used to "analyze any potential land use changes or land use conflicts associated with the Proposed Project." Specific topics within land uses include historic and existing land use patterns and development trends, as well as adopted planning goals and policies. Land use patterns also affect a community's "job/housing balance," which focuses on the need for a balance between employment generation and residential land uses.

This chapter presents the affected environment information for the Study Area and, where necessary, the area of primary impacts.

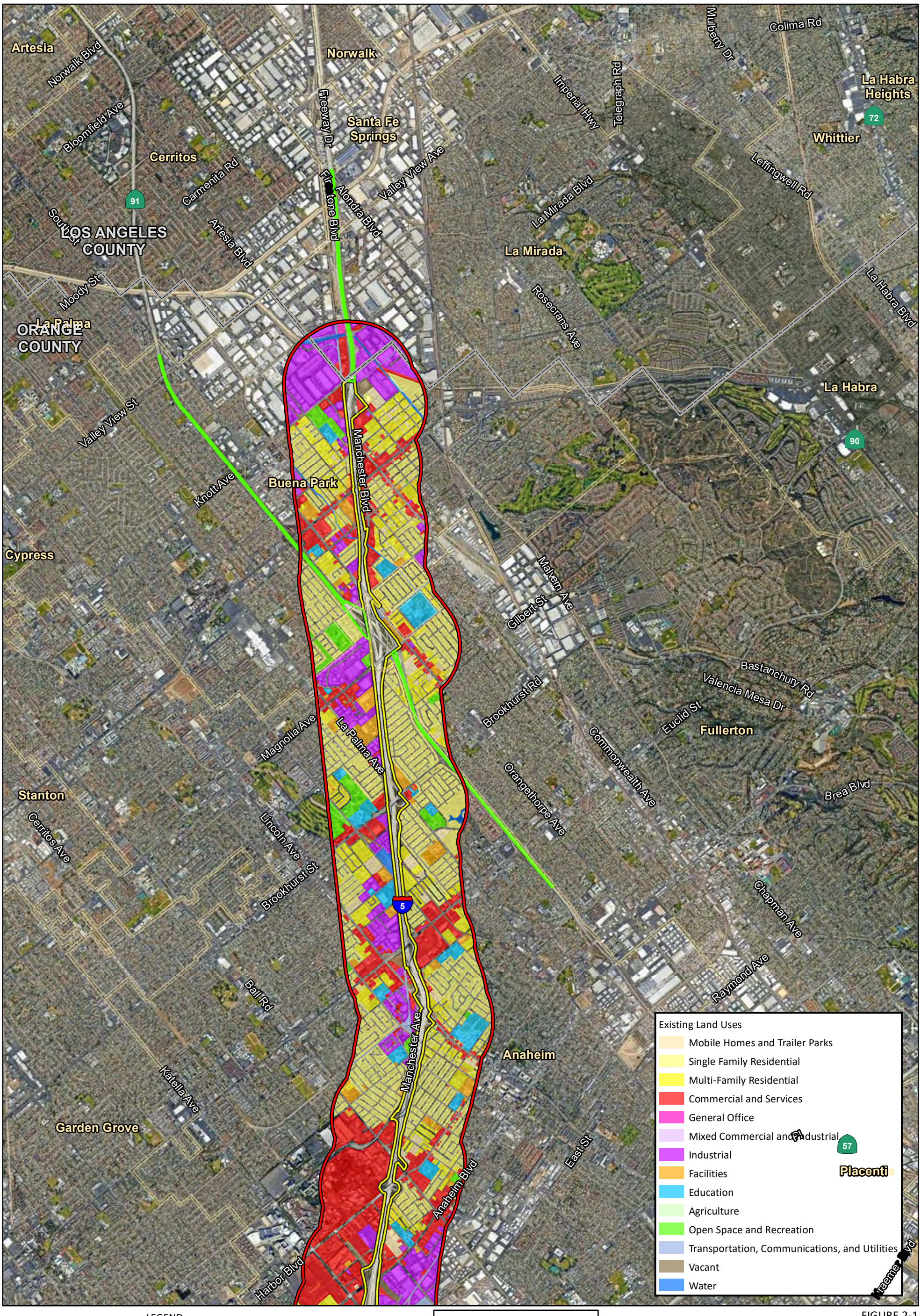
2.1.1 Affected Environment

2.1.1.1 Existing Land Uses

Existing land uses in the Study Area are shown on Figure 2-1. Within the Study Area, existing land uses were mapped based on GIS data compiled by SCAG. The data was compiled into generalized land use classifications.

The Study Area includes portions of several cities within Orange County and Los Angeles County, each with varying densities of single- and multi-family residential, commercial, industrial, and institutional uses as well as other land uses. Freeways within the Study Area include I-5, SR-91, SR-22, SR-55, SR-57, and SR-261. Major land use categories in the Study Area are identified in Table 2.1, below. Major activity centers within the Study Area include the Westfield Mainplace; The Outlets at Orange; Anaheim Plaza; Disneyland; Disney's California Adventure Park; Angel Stadium of Anaheim; the Honda Center; the Anaheim Regional Transportation Intermodal Center (ARTIC); the University of California, Irvine (UCI) Medical Center; Providence St. Joseph Hospital Orange; Children's Hospital of Orange County (CHOC); Christ Cathedral; the Santa Ana Regional Transportation Center; the Discovery Cube; the Santa Ana Zoo; and The Market Place.

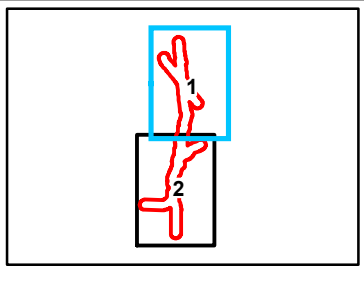
As described in Table 2.1, the Study Area is urban in character. Approximately 40.9 percent of the land within the Study Area is developed for residential uses, approximately 43.8 percent is developed for commercial/service/industrial uses, and approximately 1.2 percent is vacant.



LEGEND

- Project Area
- Advanced Signage Only
- Community Impacts Study Area
- City Boundary
- County Boundary

0 2000 4000
Feet



SOURCE: Google (2022); U.S. Census Bureau (2020)

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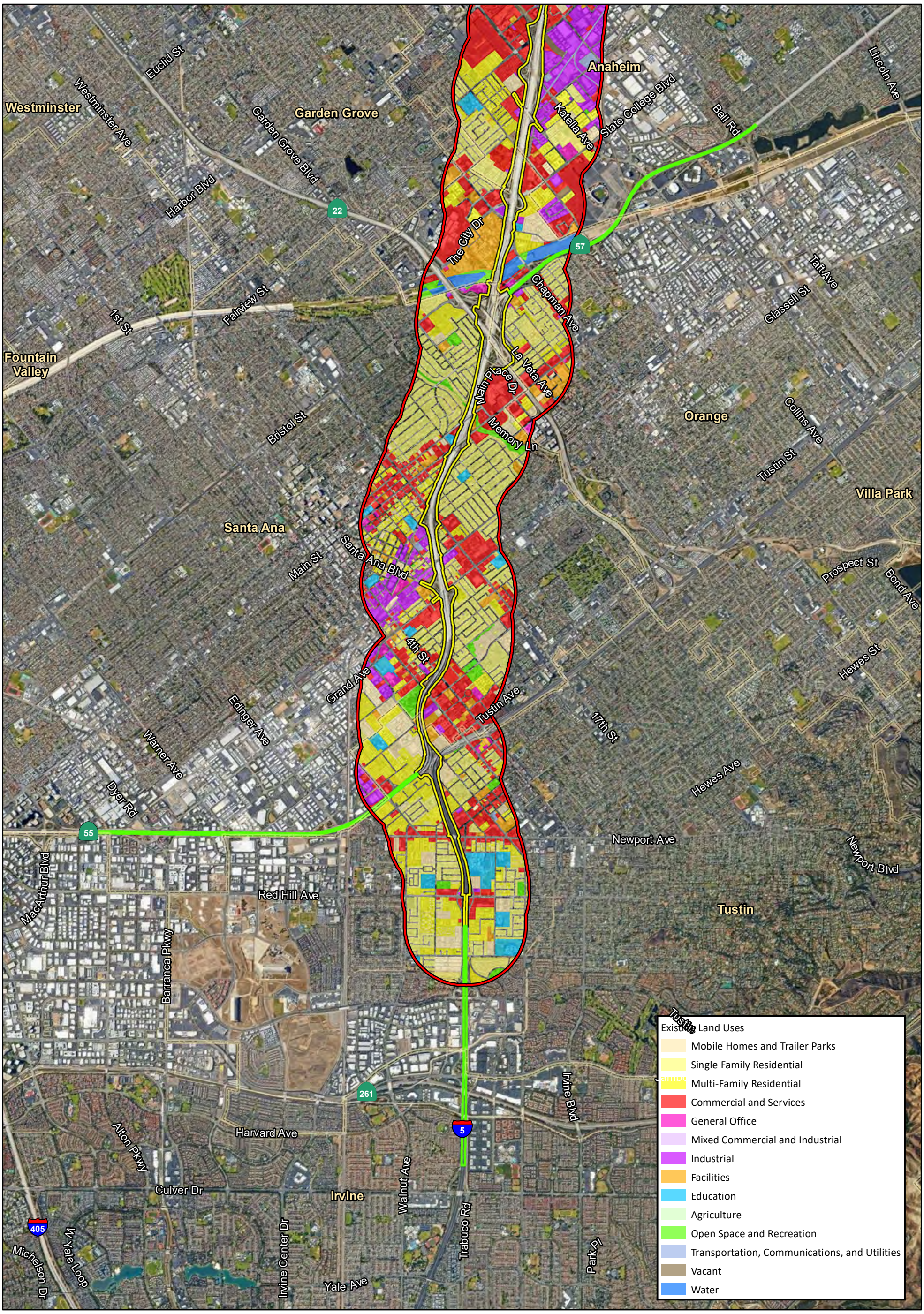
FIGURE 2-1
Sheet 1 of 2

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/Los Angeles County Line)

Existing Land Uses

EA No. 0Q950



LEGEND

- Project Area
- Advanced Signage Only
- Community Impacts Study Area
- City Boundary
- County Boundary

0 2000 4000
Feet

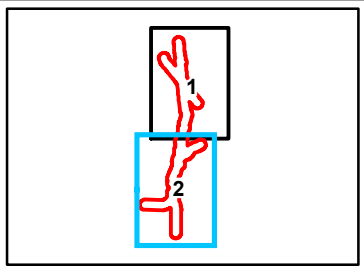


FIGURE 2-1
Sheet 2 of 2

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/Los Angeles County Line)

Existing Land Uses

EA No. 0Q950

SOURCE: Google (2022); U.S. Census Bureau (2020)

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Table 2.1: Existing Land Uses in the Study Area

Land Use	Acres	Percentage
Agriculture	10.5	0.1%
Commercial and Services	3,510.2	22.8%
Education	537.6	3.5%
Facilities	578.6	3.8%
General Office	140.7	0.9%
Industrial	3,233.6	21.0%
Mixed Commercial and Industrial	29.8	0.2%
Mobile Homes and Trailer Parks	591.6	3.9%
Multi-Family Residential	1,623.6	10.6%
Open Space and Recreation	410.9	2.7%
Single Family Residential	4,057.3	26.4%
Transportation, Communications, and Utilities	231.6	1.5%
Undevelopable	1.7	0.01%
Vacant	176.6	1.2%

Source: Southern California Association of Governments (2019).

2.1.1.2 Planned Land Uses

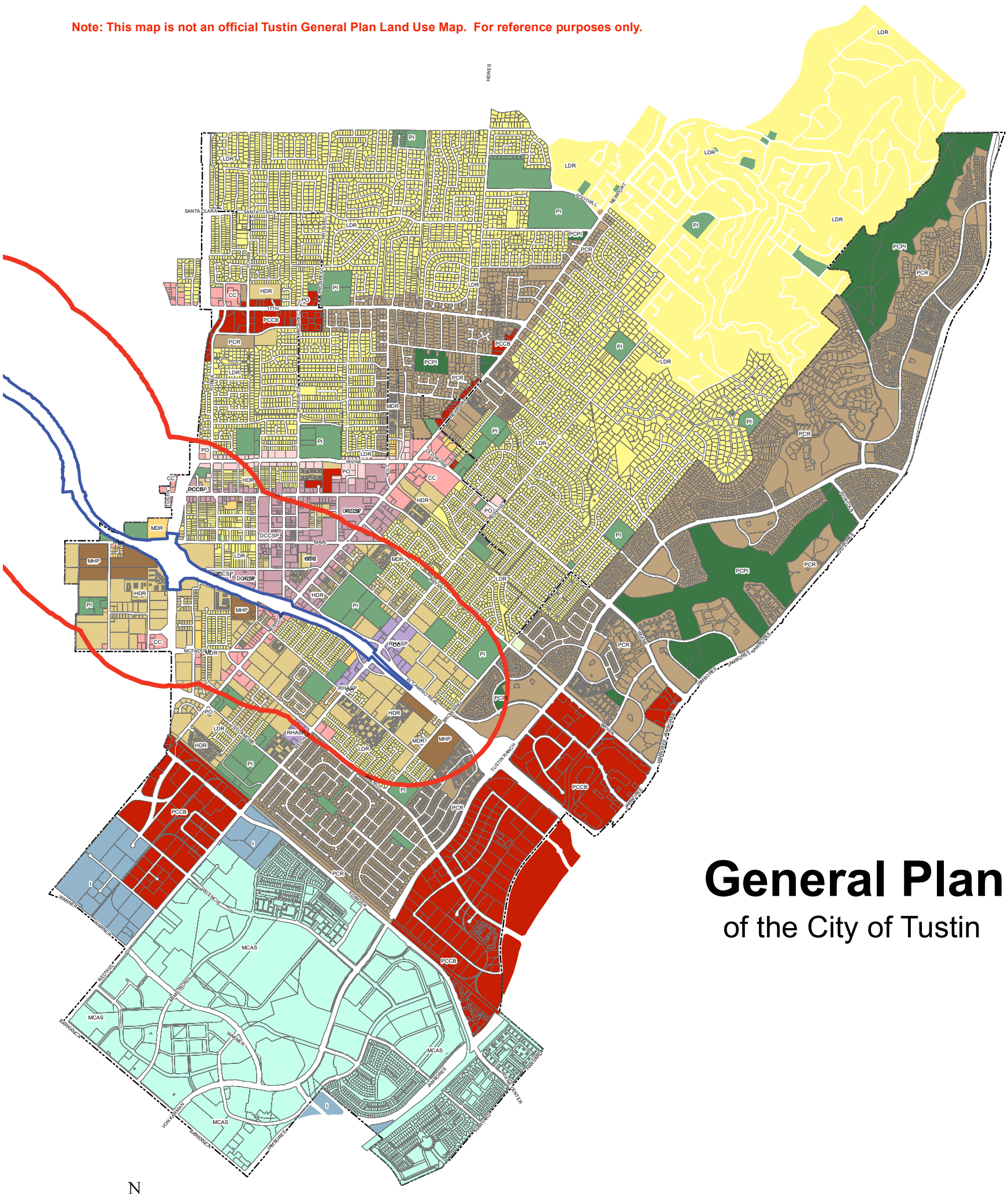
Within the Study Area, Trojan Way and Tustin Ranch Road serve as the northern and southern extent of the Study Area boundary along I-5, respectively. Beach Boulevard and Brookhurst Road (eastbound on-ramp) serve as the western and eastern extent of the Study Area boundary along SR-91, respectively. Orangewood Avenue serves as the northern extent of the Study Area boundary along SR-57. The City Drive and Parker Street serve as the western and eastern extent of the Study Area boundary along SR-22, respectively. Irvine Boulevard (just north) and the Village Way/Sycamore Avenue on- and off-ramps serve as the northern and southern extent of the Study Area boundary along SR-55, respectively.

City of Tustin General Plan

As shown in Figure 2-2, the City of Tustin planned land use designations within the Study Area include:

- CC-Community Commercial
- DCCSP-Downtown Commercial Core Specific Plan
- HDR-High Density Residential
- I-Industrial
- LDR-Low Density Residential
- MDR-Medium Density Residential
- MHP-Mobile Home Park
- PCCB-Planned Community Commercial/Business
- PCPI-Planned Community Public/Institutional
- PCR-Planned Community Residential
- PI-Public/Institutional
- RHASP-Red Hill Avenue Specific Plan

Note: This map is not an official Tustin General Plan Land Use Map. For reference purposes only.



General Plan

of the City of Tustin

N

0 0.25 0.5 1 Miles

Legend

Tustin City Limits

GeneralPlan

- LDR - Low Density Residential
- MDR - Medium Density Residential
- HDR - High Density Residential
- PCR - Planned Community Residential
- MHP - Mobile Home Park
- PO - Professional Office
- CC - Community Commercial
- OTC - Old Town Commercial
- I - Industrial
- PCCB - Planned Community Commercial/Business
- PI - Public/Institutional
- PCPI - Planned Community Public/Institutional
- TLSP - Tustin Legacy Specific Plan
- DCCSP - Downtown Commercial Core Specific Plan
- RHASP - Red Hill Avenue Specific Plan

November 2018

LEGEND

Project Area

Community Impacts Study Area

N

0 .375 .75

MILES

SOURCE: City of Tustin

FIGURE 2-2

I-5 Managed Lanes Project

(Red Hill Avenue to Orange County/Los Angeles County Line)

Existing Land Uses - City of Tustin

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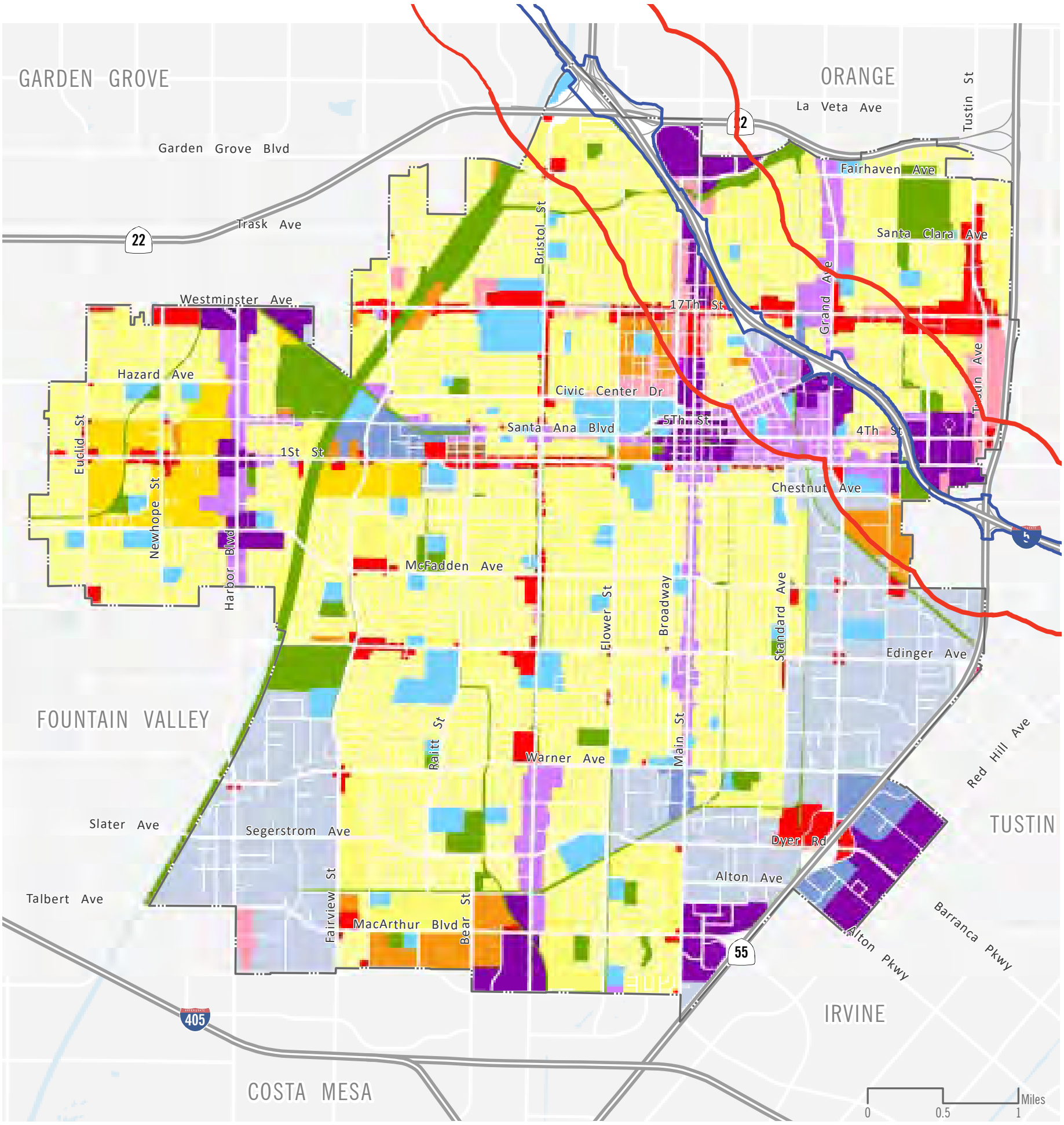

Source: City of Santa Ana 2021 Date Published: 5/5/2022

General Plan Land Use

- LR-7, Low Density Residential
- LMR-11, Low-Medium Density Residential
- MR-15, Medium Density Residential
- CR-30, Corridor Residential
- INS, Institutional
- OS, Open Space
- PAO, Professional and Administrative Office
- GC, General Commercial
- IND, Industrial
- FLEX, Industrial/Flex
- UN, Urban Neighborhood
- OBPDC, One Broadway Plaza District Center
- DC, District Center

LEGEND

- Project Area
- Community Impacts Study Area

FIGURE 2-2
Page 1 of 7

N

0 .5 1
MILE

SOURCE: City of Santa Ana General Plan

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/Los Angeles County Line)
Existing Land Uses - City of Santa Ana

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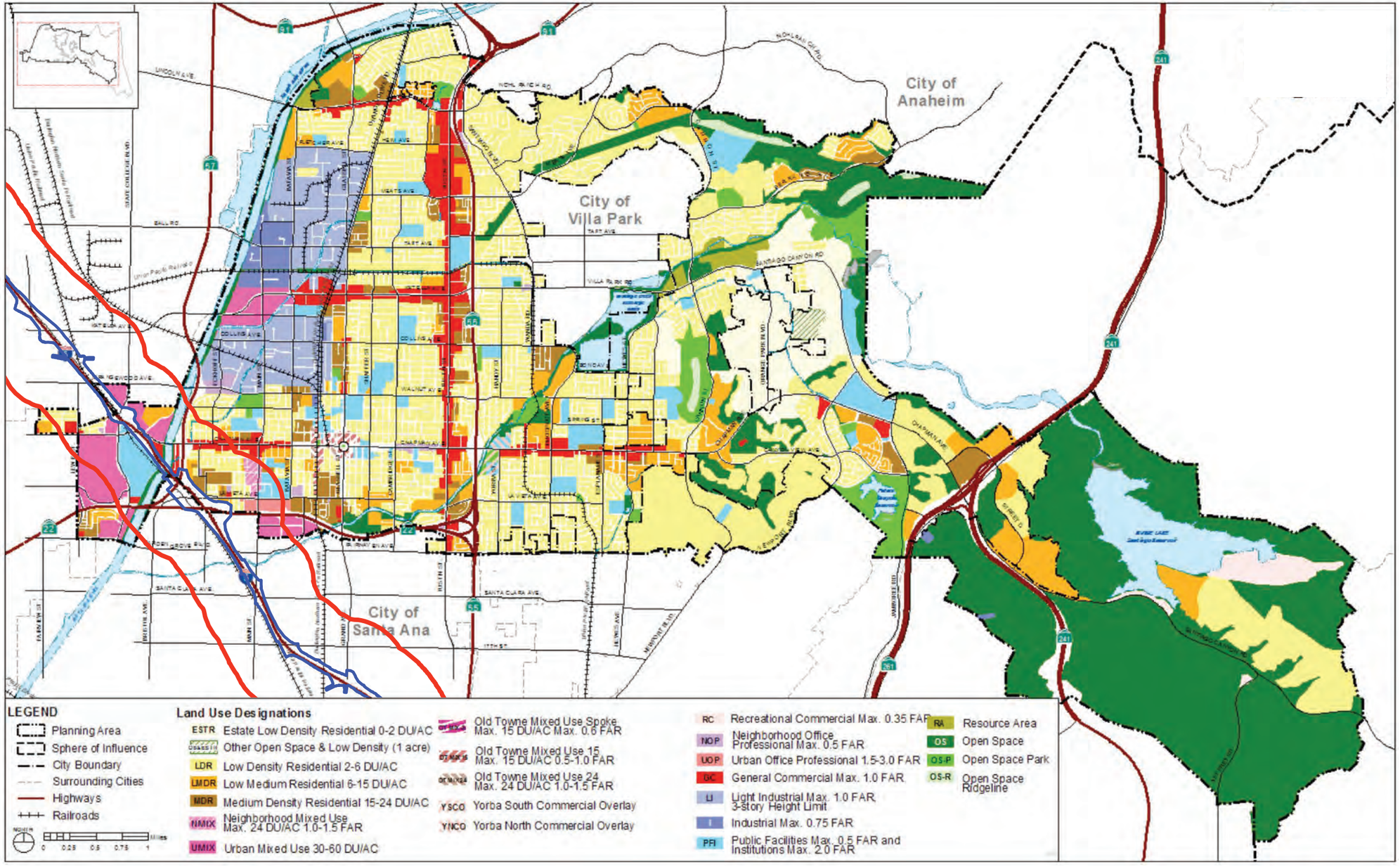

LEGEND

Project Area

Community Impacts Study Area

0 .5 1

MILE

SOURCE: City of Orange General Plan

FIGURE 2-2

I-5 Managed Lanes Project

(Red Hill Avenue to Orange County/Los Angeles County Line)

Existing Land Uses - City of Orange

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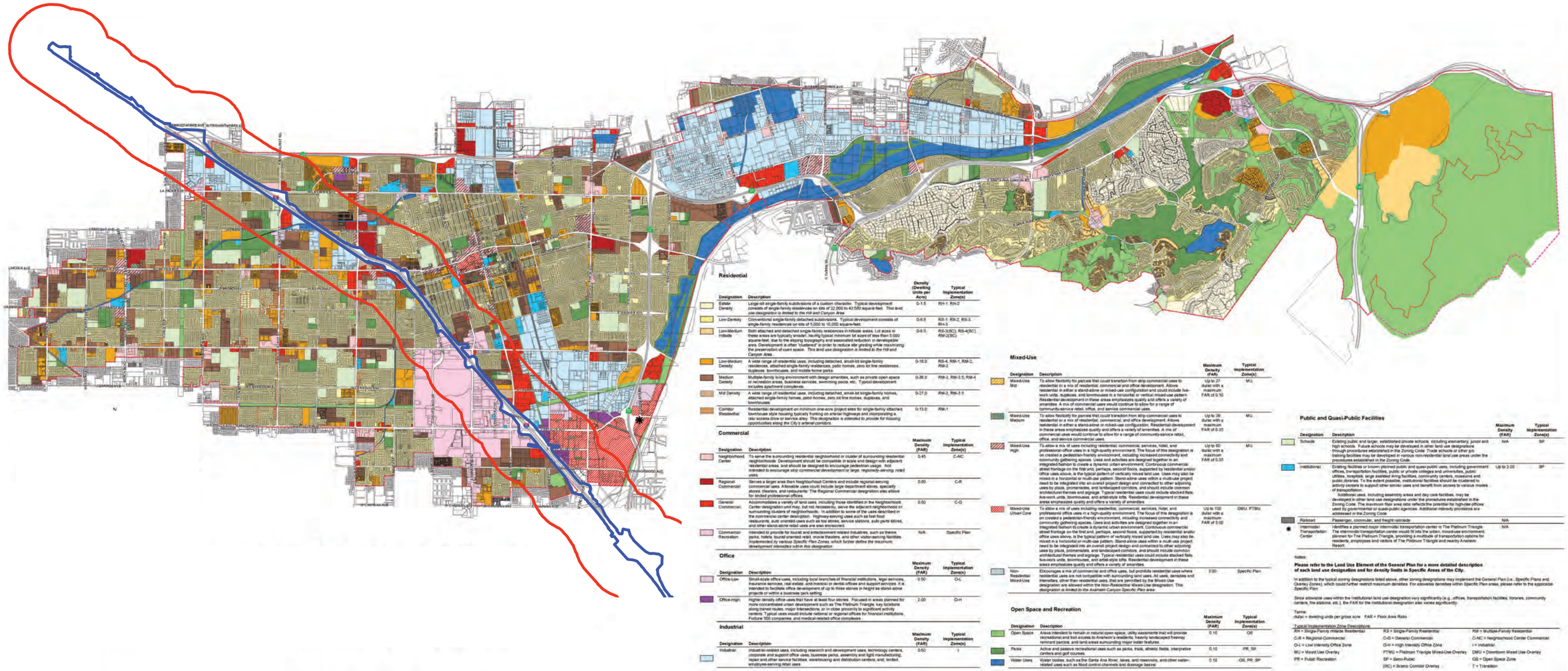

LEGEND

Project Area

Community Impacts Study Area

0 .5 1

MILE

SOURCE: City of Anaheim General Plan

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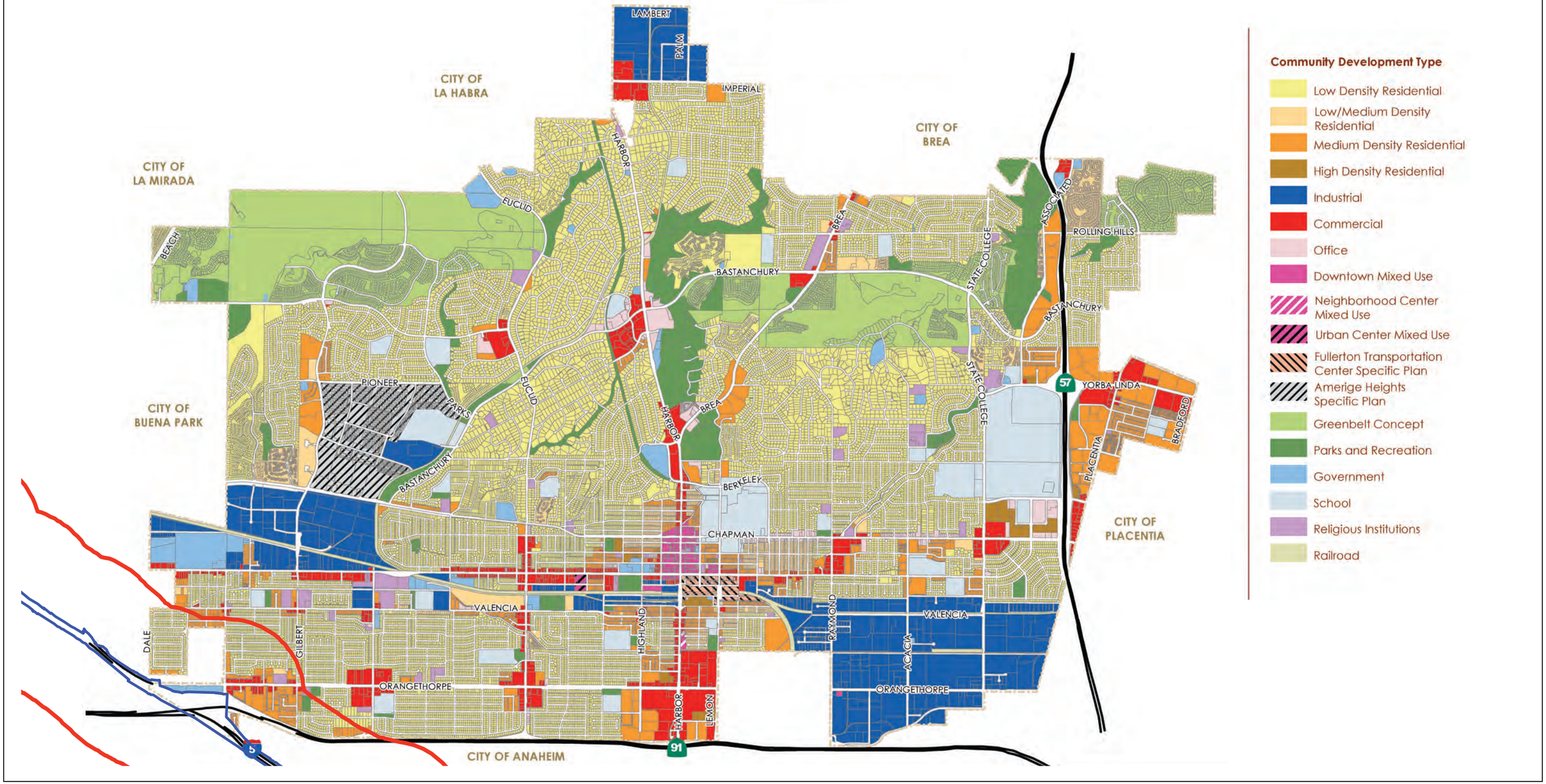
FIGURE 2-2
Page 4 of 7

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/Los Angeles County Line)

Existing Land Uses - City of Anaheim



LEGEND

Project Area

Community Impacts Study Area

NO SCALE

SOURCE: City of Fullerton

FIGURE 2-2
Page 5 of 7

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/Los Angeles County Line)

Existing Land Uses - City of Fullerton

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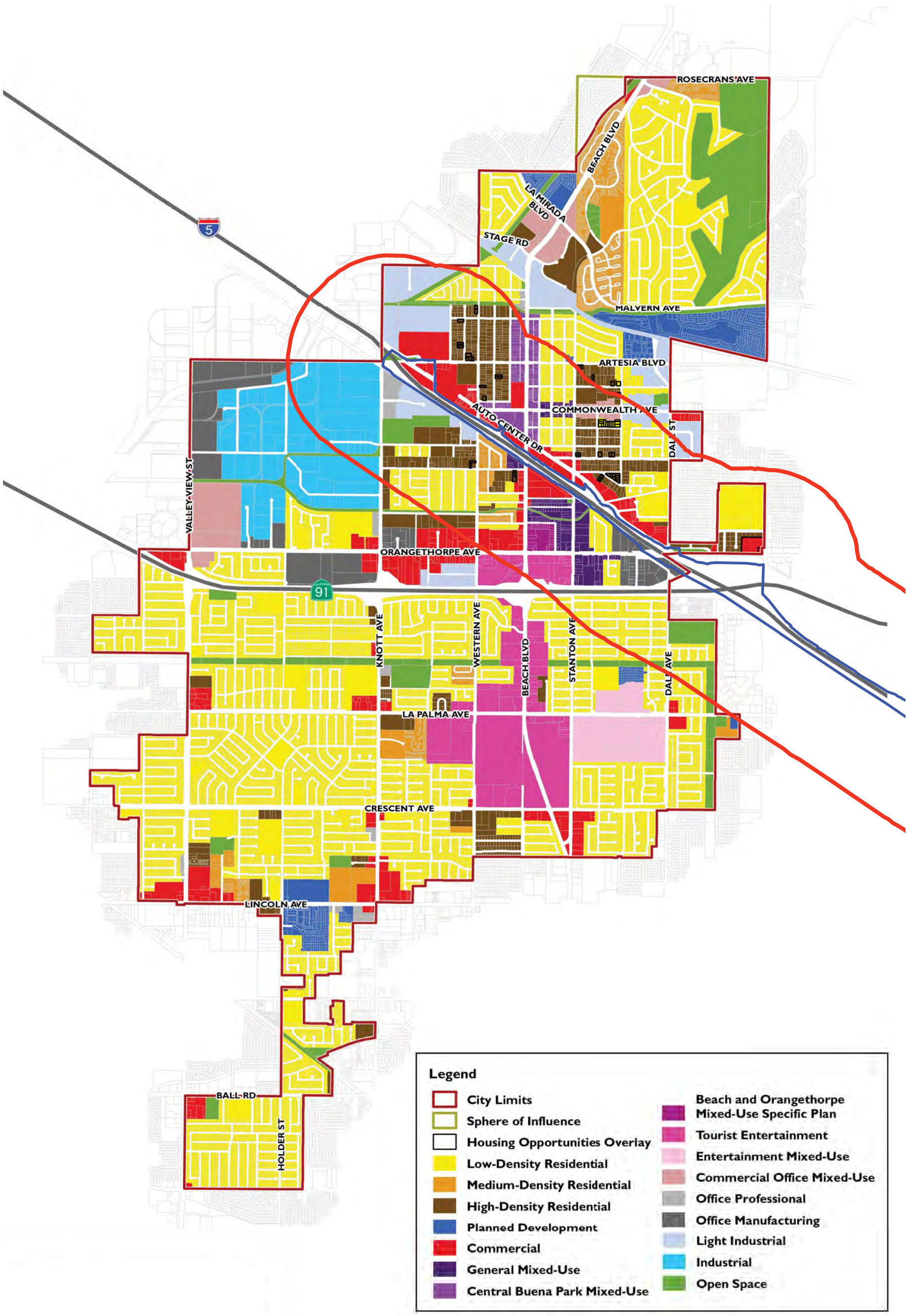

LEGEND

Project Area

Community Impacts Study Area

FIGURE 2-2

N

0 .25 .5

MILEs

SOURCE: City of Buena Park

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/Los Angeles County Line)

Existing Land Uses - City of Buena Park

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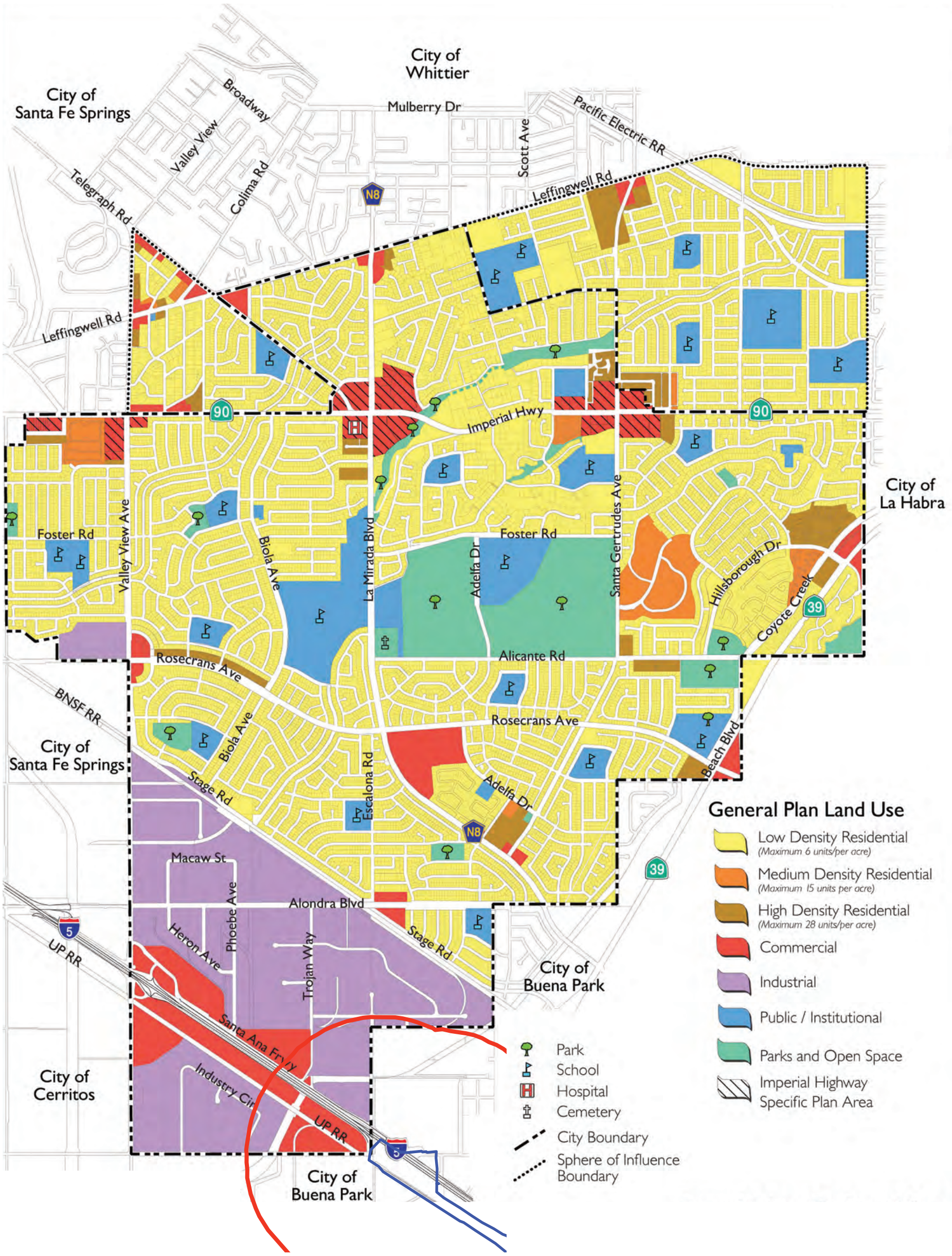

LEGEND

Project Area

Community Impacts Study Area

FIGURE 2-2

N

0 .25 .5

MILES

SOURCE: City of La Mirada

I-5 Managed Lanes Project

(Red Hill Avenue to Orange County/Los Angeles County Line)

Existing Land Uses - City of La Mirada

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As shown on Figure 2-3, the City of Tustin Zoning designations within the Study Area include:

- C1-Retail Commercial
- CG-Commercial General
- MHP-Mobile Home Park
- M-Industrial
- PC COM-Planned Community Commercial
- PC IND-Planned Community Industrial
- PC RES-Planned Community Residential
- PI-Public and Institutional
- R1-Single Family Residential
- R2-Duplex Residential
- SP 13-Red Hill Avenue

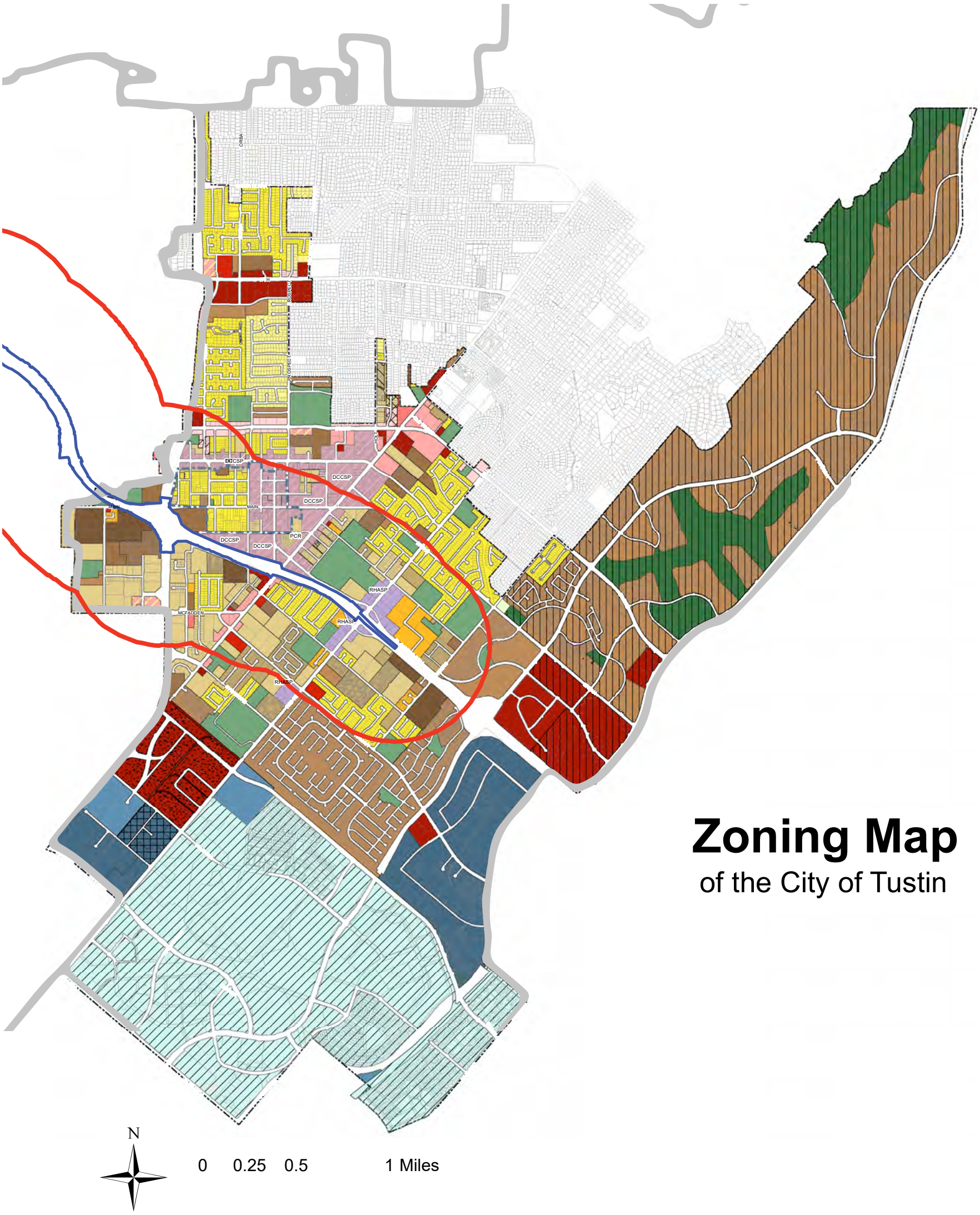
City of Santa Ana General Plan

As shown on Figure 2-2, the City of Santa Ana planned land use designations within the Study Area include:

- DC-District Center
- FLEX-Industrial/Flex
- GC-General Commercial
- IND-Industrial
- INS-Institutional
- LMR 11-Low-Medium Density Residential
- LR 7-Low Density Residential
- MR 15-medium Density Residential
- OBPDC-One Broadway Plaza District Center
- OS-Open Space
- PAO-Professional and Administrative Office
- UN-Urban Neighborhood

As shown on Figure 2-3, the City of Santa Ana Zoning designations within the Study Area include:

- C1-Community Commercial
- C2-General Commercial
- C4-Planned Shopping Center
- C5-Arterial Commercial
- M1-Light Industrial
- M2-Heavy Industrial



Zoning Map

of the City of Tustin

November 2018

Boundaries and Overlays

- Tustin City Limits
- Cultural Resource District
- Parking Overlay

Zoning

- RA - Residential Agriculture
- E4 - Residential Estate
- R1 - Single Family Residential
- R2 - Duplex Residential
- R3 - Multiple Family Residential
- R4 - Suburban Residential
- PC RES - Planned Community Residential
- PD - Planned Development
- MHP - Mobile Home Park
- PR - Professional
- C1 - Retail Commercial
- C2 - Central Commercial
- CG - Commercial General
- PC COM - Planned Community Commercial
- PM - Planned Industrial
- M - Industrial
- PC IND - Planned Community Industrial
- PI - Public and Institutional
- PCPI - Planned Community Public and Institutional
- SP 1 - Tustin Legacy
- SP 3 - International Rectifier
- SP 4 - Tustin Plaza
- SP 6 - Holt Warren
- SP 8 - East Tustin
- SP 9 - Yorba Street
- SP 11 - Pacific Center East
- SP 12 - Downtown Commercial Core
- SP 13 - Red Hill Avenue

LEGEND

- Project Area
- Community Impacts Study Area

0 .375 .75
MILES

SOURCE: City of Tustin

FIGURE 2-3

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/Los Angeles County Line)
Zoning Designations - City of Tustin

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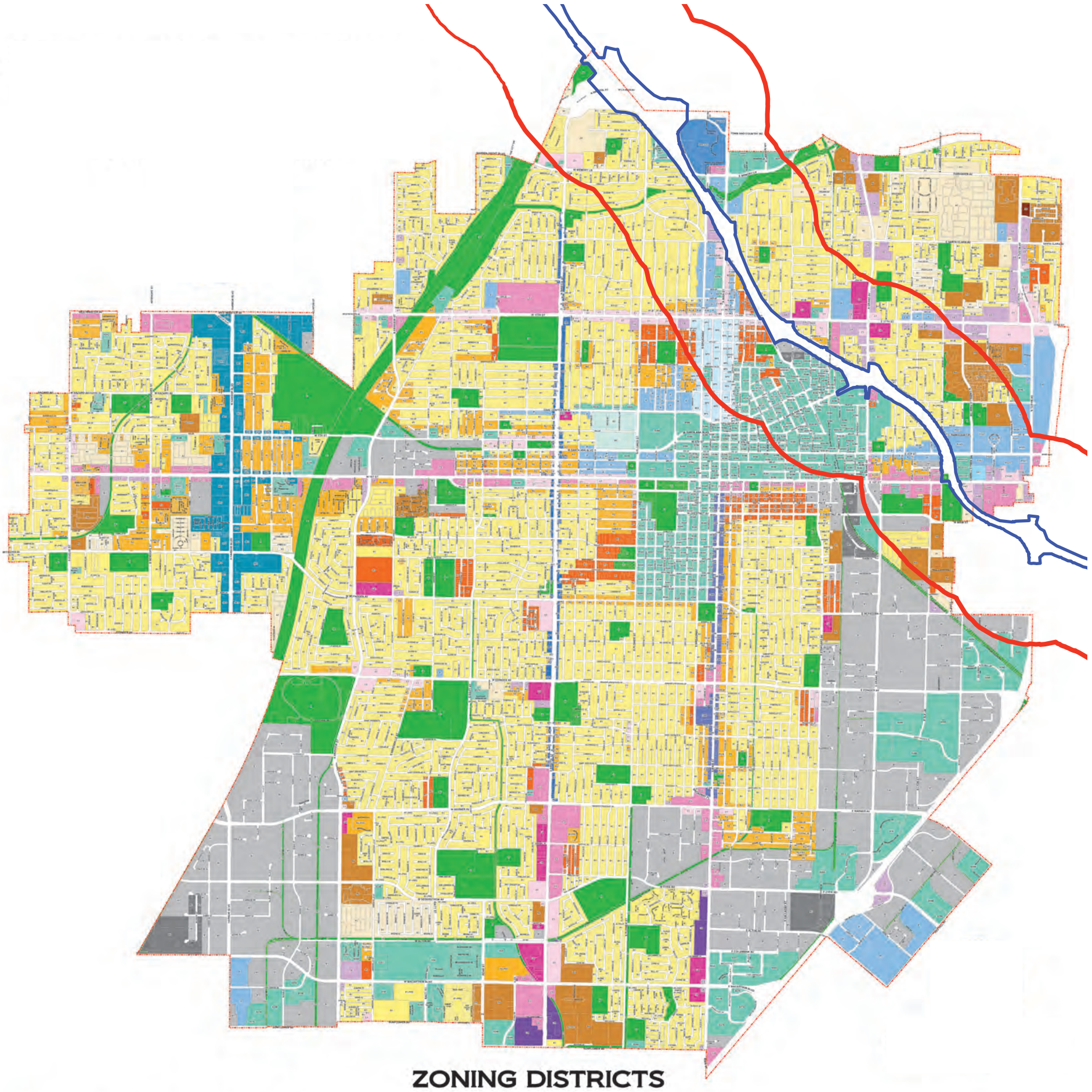


ZONING DISTRICTS

A1	GENERAL AGRICULTURAL	M1	LIGHT INDUSTRIAL
R1	SINGLE-FAMILY RESIDENCE	M2	HEAVY INDUSTRIAL
R2	TWO-FAMILY RESIDENCE	O	OPEN SPACE LAND
R3	MULTIPLE-FAMILY RESIDENCE	OZ1	METRO EAST MIXED USE OVERLAY ZONE
R4	SUBURBAN APARTMENT	**SPECIFIC PLANS**	
RE	RESIDENTIAL ESTATE	SP1	BRISTOL STREET CORRIDOR SPECIFIC PLAN
C1	COMMUNITY COMMERCIAL	SP2	HARBOR MIXED USE TRANSIT CORRIDOR SPECIFIC PLAN
C2	GENERAL COMMERCIAL	SP3	MIDTOWN SPECIFIC PLAN
C4	PLANNED SHOPPING CENTER	SP4	MAINPLACE SPECIFIC PLAN
C5	ARTERIAL COMMERCIAL	**SUFFIXES**	
CR	COMMERCIAL RESIDENTIAL	-B	PARKING MODIFICATION
CSM	SOUTH MAIN STREET COMMERCIAL DISTRICT	-OZ1	METRO EAST MIXED USE OVERLAY ZONE
P	PROFESSIONAL	-OZ-M1/M2	TRANSIT ZONING CODE M1/M2 INDUSTRIAL OVERLAY ZONE
GC	GOVERNMENT CENTER	-PRD	PLANNED RESIDENTIAL DEVELOPMENT
SD	SPECIFIC DEVELOPMENT	-HDII	HEIGHT DISTRICT II
		-MD	MUSEUM DISTRICT

LEGEND

Project Area

Community Impacts Study Area

N

0 .5 1

MILES

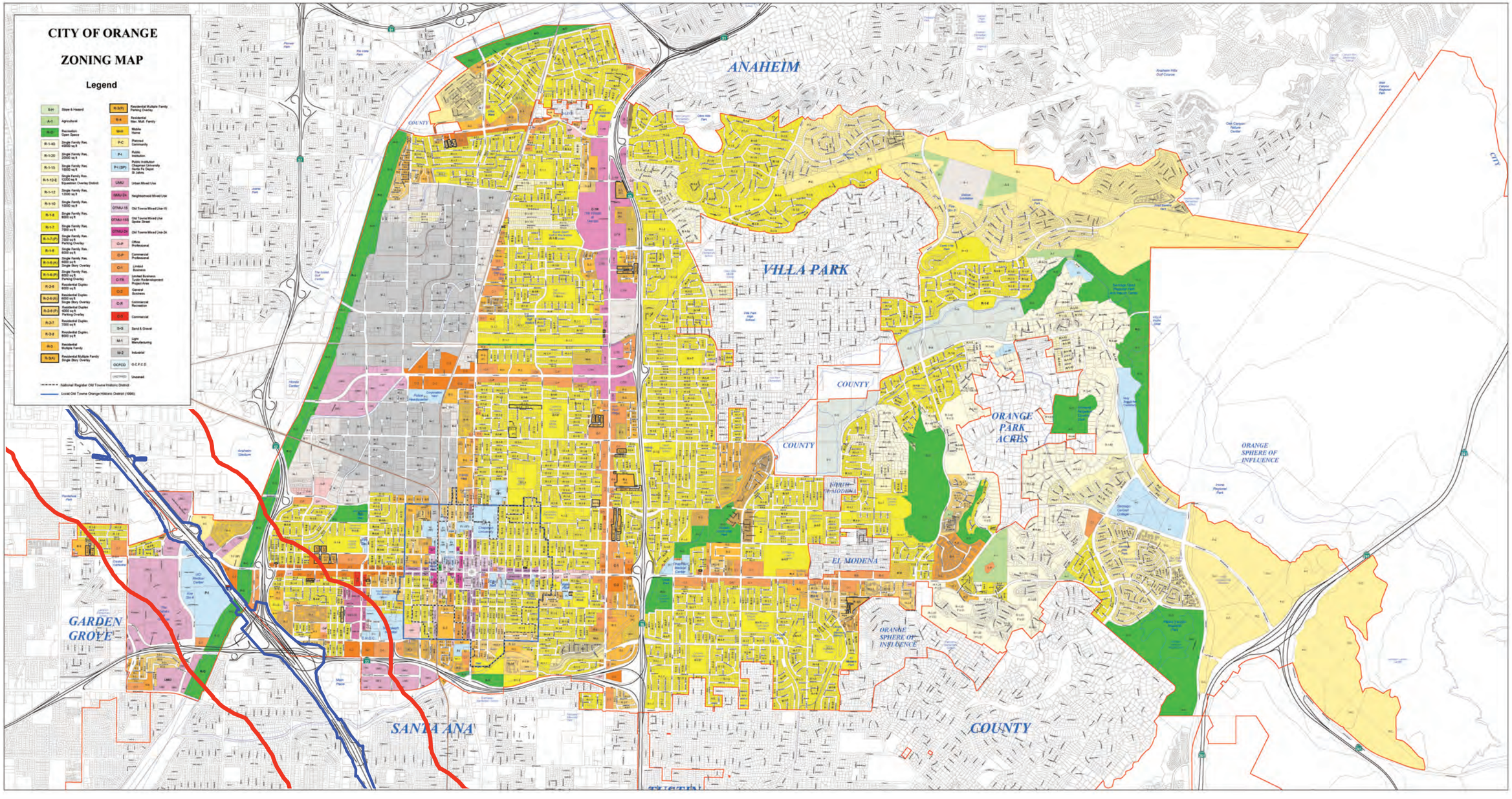
SOURCE: City of Santa Ana

FIGURE 2-3

I-5 Managed Lanes Project

(Red Hill Avenue to Orange County/Los Angeles County Line)

Zoning Designations - City of Santa Ana



LEGEND

- Project Area
- Community Impacts Study Area

0 2,000 4,000

FEET

SOURCE: City of Orange

FIGURE 2-3
Page 3 of 7

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/Los Angeles County Line)

Zoning Designations - City of Orange

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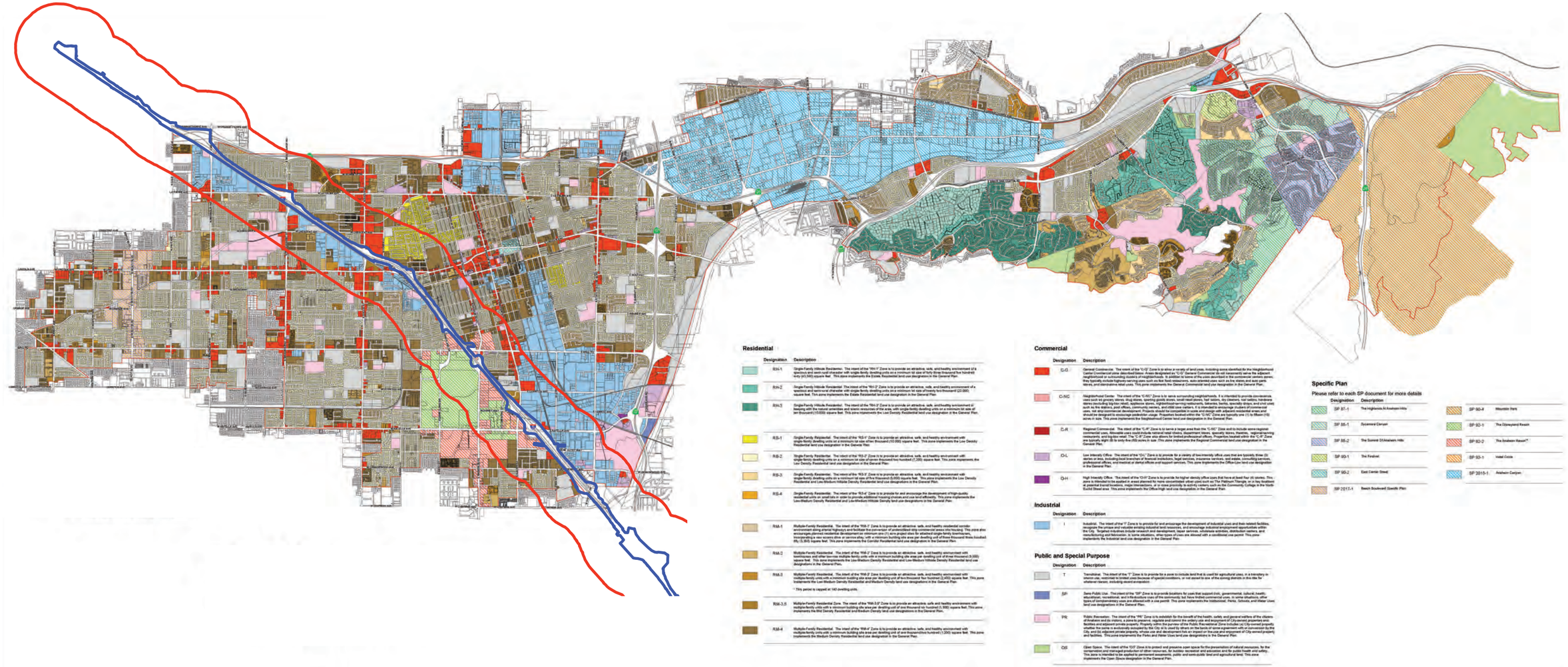

LEGEND

Project Area

Community Impacts Study Area

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SOURCE: City of Anaheim General Plan

FIGURE 2-3

I-5 Managed Lanes Project

(Red Hill Avenue to Orange County/Los Angeles County Line)

Zoning Designations - City of Anaheim

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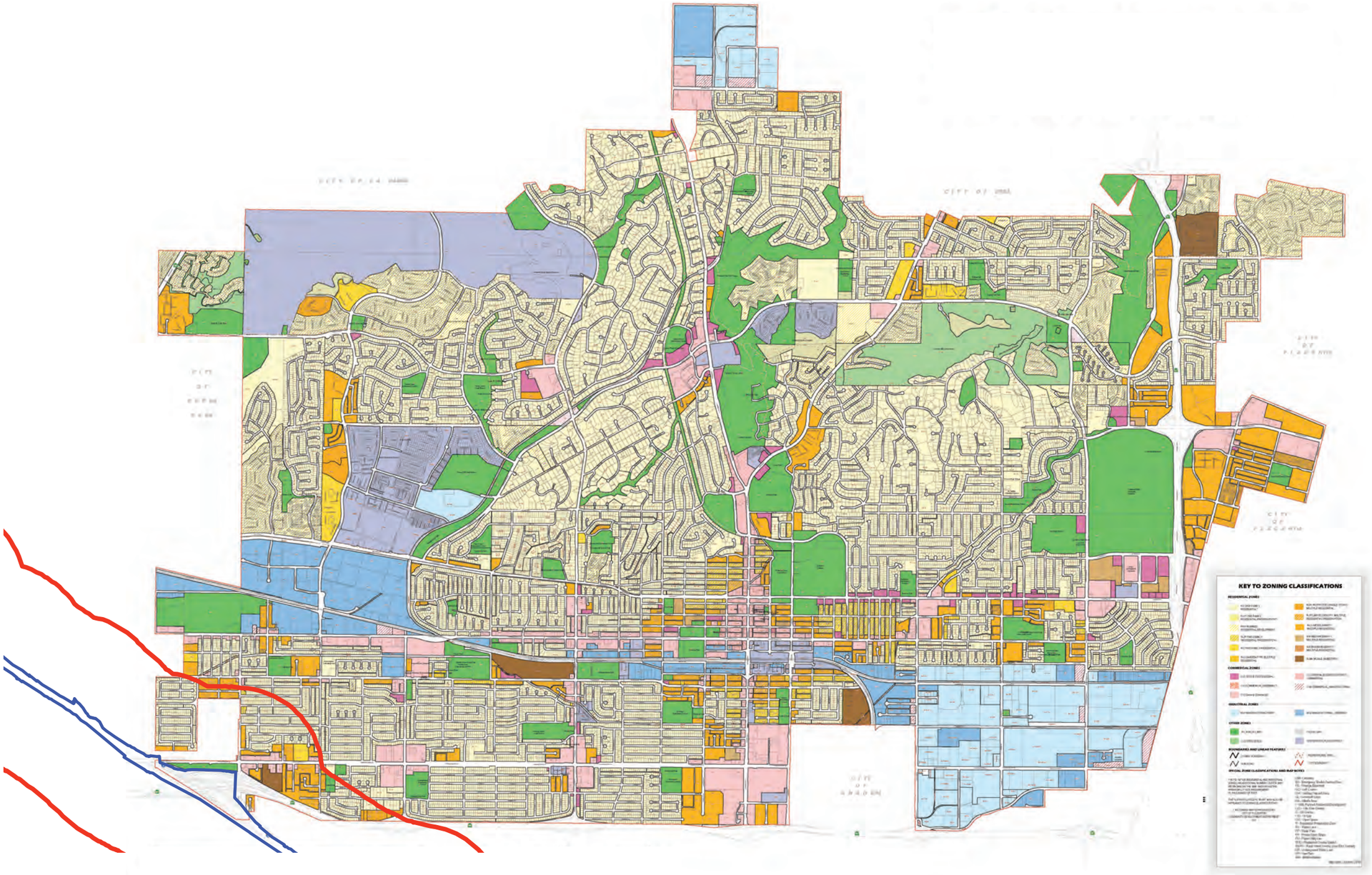

LEGEND

Project Area

Community Impacts Study Area

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FEET

SOURCE: City of Fullerton

FIGURE 2-3
Page 5 of 7

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/Los Angeles County Line)

Zoning Designations - City of Fullerton

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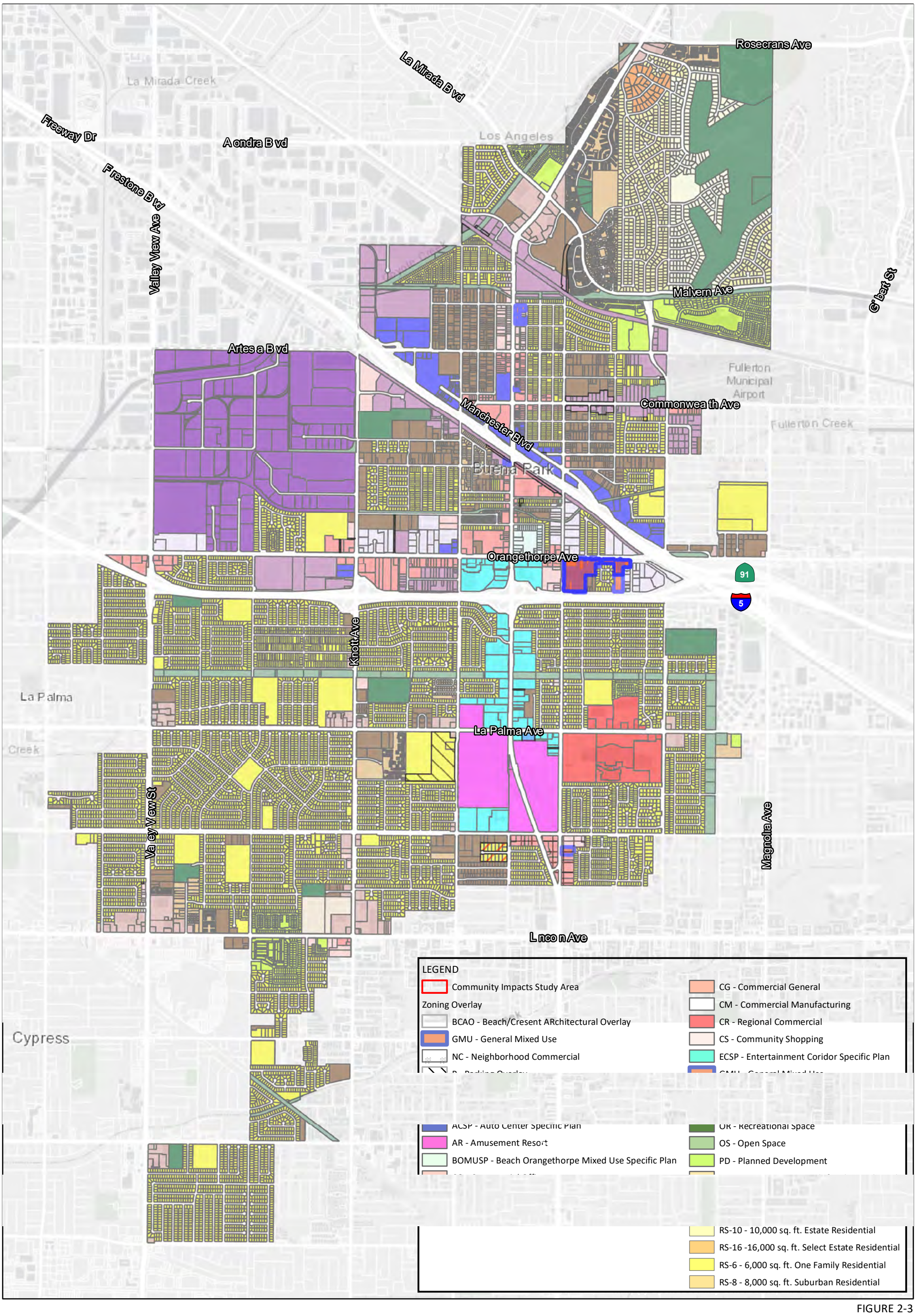

FIGURE 2-3

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SOURCE: Google (2022); City of Buena Park (7/2022)

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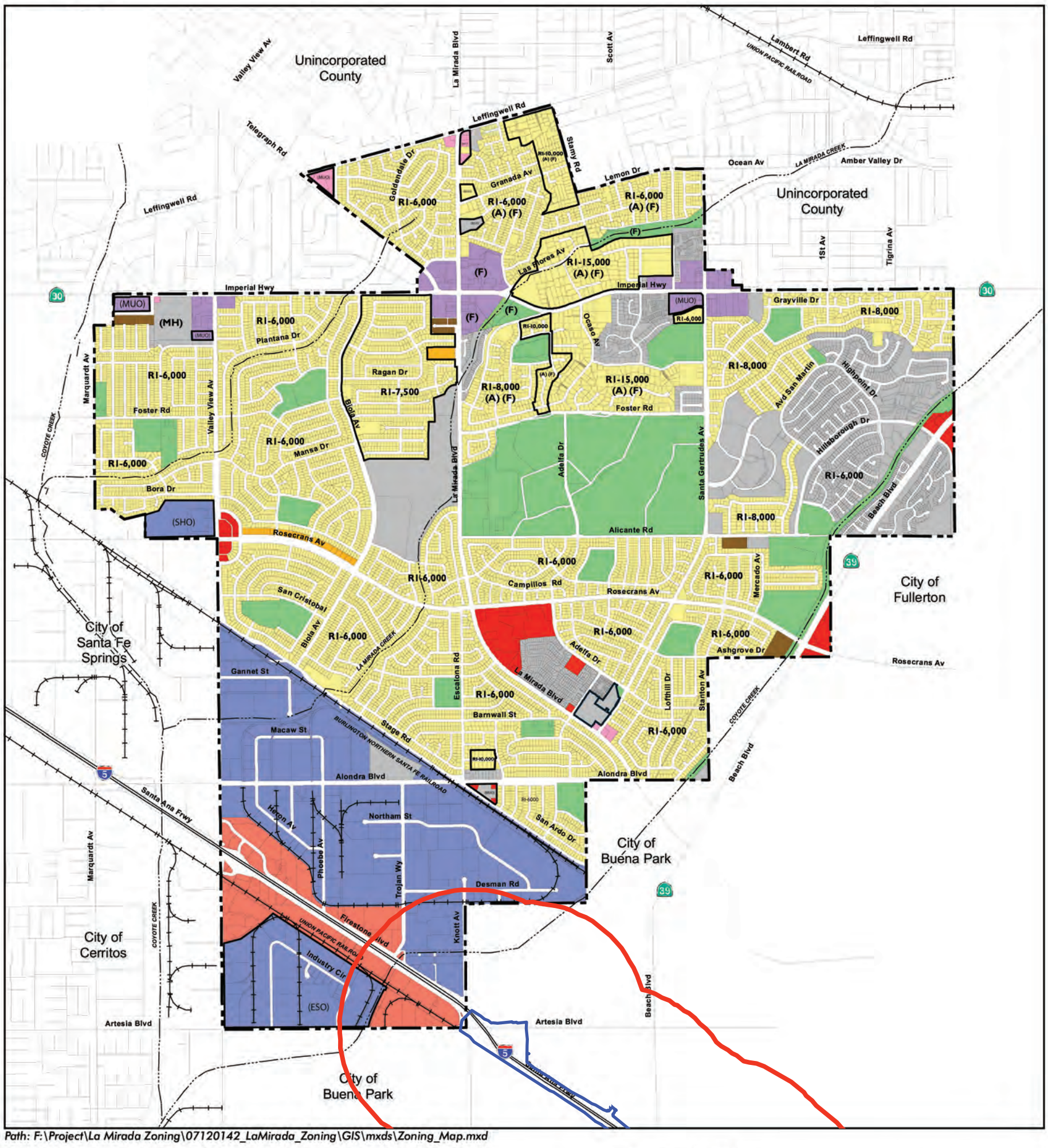
I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/Los Angeles County Line)
Zoning - City of Buena Park
EA No. 0Q950



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Zoning Districts

R-1	Single-Family Residential	C-1	Neighborhood Commercial
R-3	Medium Density Residential	C-F	Freeway Commercial
R-4	High Density Residential	C-4	General Commercial
C-O	Administrative Office	PUD	Planned Unit Development
M2	Industrial	SP	Specific Plan
IHSP	Imperial Highway Specific Plan	OS	Open Space

Overlay Districts

(MH)	Mobile Home Park
(A)	Farm Animal
(F)	Flood Hazard
(ESO)	Emergency Shelter
(MUO)	Mixed Use
(SHO)	Special Housing

City Boundary	
Freeway	
Railroad	
Creek	

LEGEND

Project Area

Community Impacts Study Area

FIGURE 2-3

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SOURCE: City of La Mirada

I-5 Managed Lanes Project

(Red Hill Avenue to Orange County/Los Angeles County Line)

Zoning Designations - City of La Mirada

I:\WSP2203.07\G\Zoning_LaMirada.ai (4/5/2023)

- O-Open Space Land
- P-Professional
- R1-Single Family Residence
- R2-Two Family Residence
- R3-Multiple Family Residence
- SD-Specific Development
- SP-Specific Plans

City of Orange General Plan

As shown on Figure 2-2, the City of Orange planned land use designations within the Study Area include:

- GC-General Commercial
- LDR-Low Density Residential
- LMDR-Low Medium Residential
- MDR-Medium Density Residential
- OS-Open Space
- PFI-Public Facilities and Institutions
- UMIX-Urban Mixed Use

As shown on Figure 2-3, the City of Orange Zoning designations within the Study Area include:

- C1-Limited Business
- C2-General Business
- M1-Light Manufacturing
- MH-Mobile Home
- NMU-Neighborhood Mixed Use
- OP-Office Professional
- PI-Public Institution
- R-1-6-Single Family Residential
- R3-Residential Multiple Family
- R4-Residential Max Multi-family
- RO-Recreation and Open Space
- UMU-Urban Mixed Use

City of Anaheim General Plan

As shown on Figure 2-2, the City of Anaheim planned land use designations within the Study Area include:

- CG-General Commercial
- CNC-Neighborhood Center

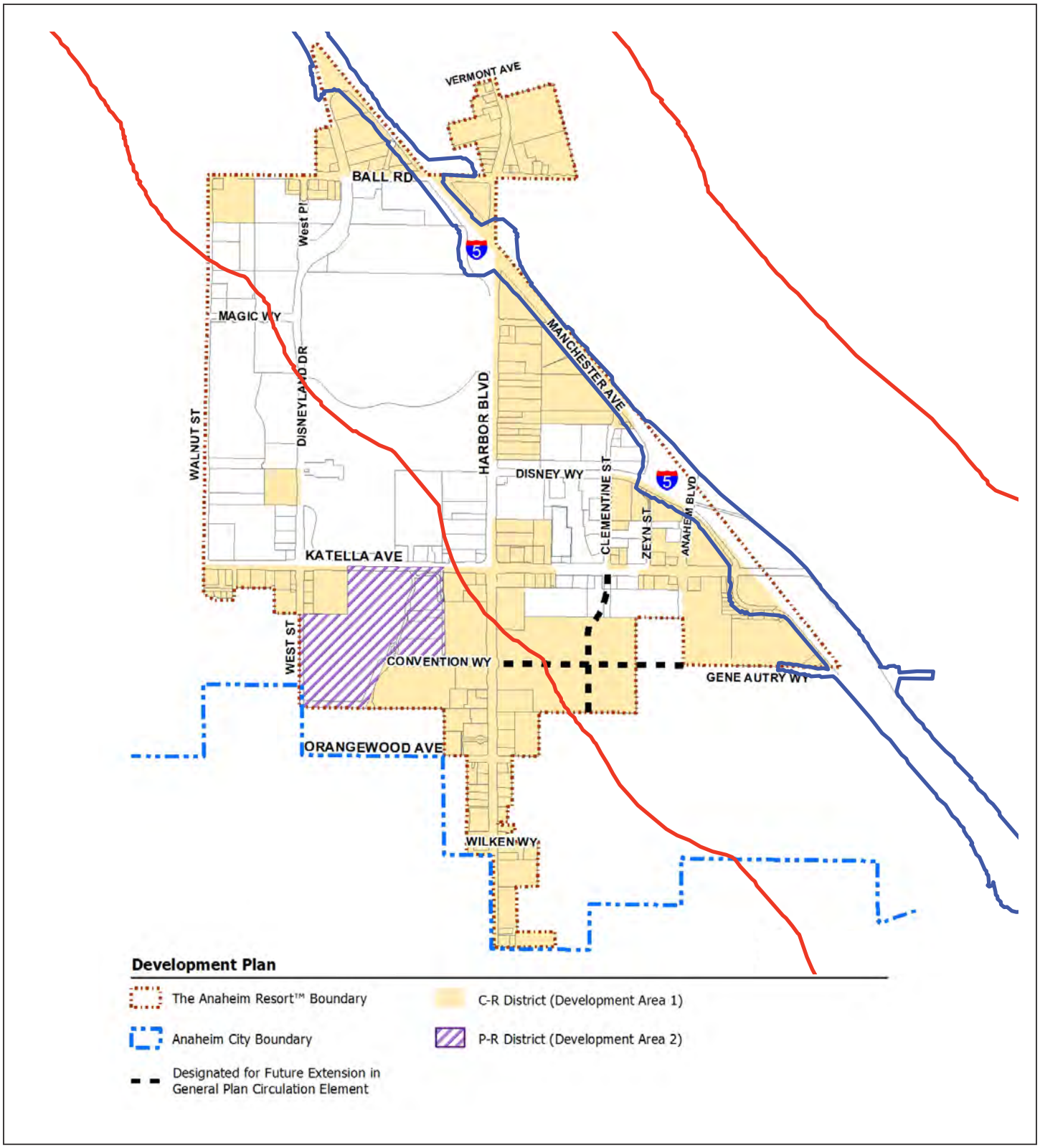
- CR-Regional Commercial
- I-Industrial
- MU, DMU, PTMU, SP-Mixed Use
- OH-Office High
- OL-Office Low
- OS, PR, SP-Water Uses
- OS-Open Space
- PR, SP-Parks
- RM3, RM3.5, RM4-Medium Density Residential
- RS1, RS2, RS3, RH3-Low Density Residential
- RS4, RM1, RM2, RM3-Low Medium Density Residential
- SP-Commercial Recreation
- SP-Institutional
- SP-Schools

As shown on Figure 2-3, the City of Anaheim Zoning designations within the Study Area include:

- CG-General Commercial
- CNC-Neighborhood Center
- I-Industrial
- OH-High Intensity Office
- OL-Low Intensity Office
- PR-Public Recreation
- RM-Multiple Family Residential
- RS-Single Family Residential
- SP(#)-Specific Plans
- SP-Semi-Public Use
- T-Transitional

City of Anaheim Specific Plans

Figure 2-4 identifies the two Specific Plans adopted by the City of Anaheim that are located partially or entirely within the Study Area.



LEGEND

Project Area

Community Impacts Study Area

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SOURCE: The Anaheim Resort Specific Plan

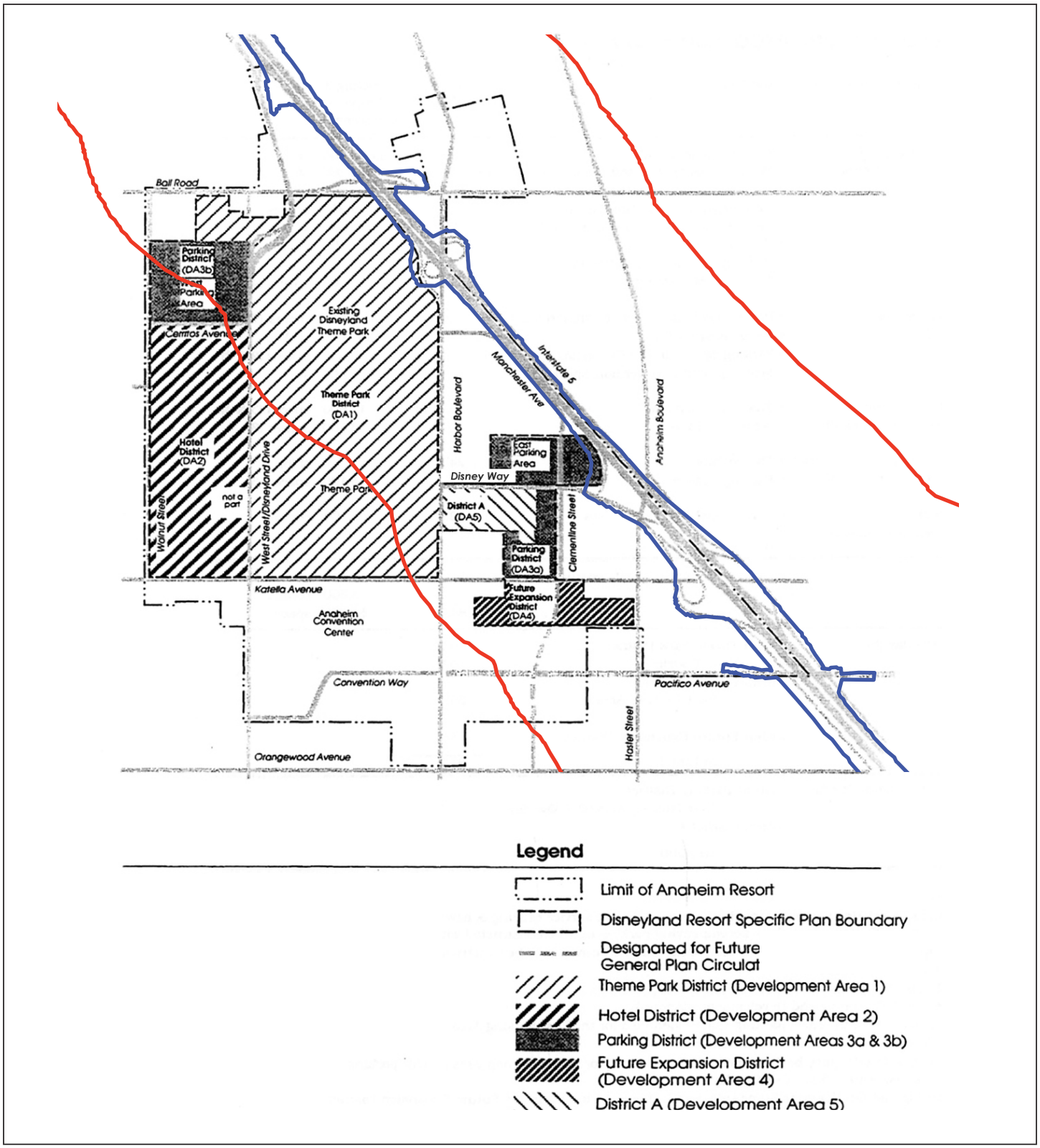
FIGURE 2-4

Page 1 of 2

I-5 Managed Lanes Project

(Red Hill Avenue to Orange County/Los Angeles County Line)

Specific Plan - Anaheim Resort



LEGEND

Project Area

Community Impacts Study Area

FIGURE 2-4
Page 2 of 2

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SOURCE: The Disneyland Resort Specific Plan

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/Los Angeles County Line)
Specific Plan - Disneyland Resort

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Anaheim Resort Specific Plan (1994)

Planned land uses in the ARSP portion of the Study Area include:

- Residential
- Retail/Office/Hotel
- Roadways
- Social/Cultural/Institution
- Transportation/Infrastructure

Disneyland Resort Specific Plan (1993)

Planned land uses in the DRSP portion of the Study Area include:

- Mobile Home Park
- Office
- Residential
- Roadways
- RV Park
- Service/Hotel/Retail
- Theme Park/Convention Center

City of Fullerton General (Fullerton) Plan

As shown on Figure 2-2, the City of Fullerton planned land use designations within the Study Area include:

- Commercial
- Government
- Industrial
- Low Density Residential
- Medium Density Residential
- Neighborhood Center Mixed Use
- Office
- Parks and Recreation
- Railroad
- Religious Institution
- School

As shown on Figure 2-3, the City of Fullerton Zoning designations within the Study Area include:

- CG-General Commercial
- MG-Manufacturing General
- OP-Office Professional

- PL-Public Land
- R1-One Family Residential
- R3-Limited Density, Multiple Residential
- RG-Garden-Type Multiple Residential
- RMH-Mobile Home Park
- SPD-Specific Plan District

City of Buena Park General Plan

As shown on Figure 2-2, the City of Buena Park planned land use designations within the Study Area include:

- Beach and Orangethorpe Mixed-Use Specific Plan
- Commercial
- Commercial Office Mixed-Use
- Entertainment Mixed-Use
- General Mixed-Use
- High-Density Residential
- Industrial
- Light Industrial
- Low-Density Residential
- Medium-Density Residential
- Office Manufacturing
- Office Professional
- Open Space
- Planned Development
- Tourist Entertainment

As shown on Figure 2-3, the City of Buena Park Zoning designations within the Study Area include:

- ACSP-Auto Center Specific Plan
- AR-Amusement Resort
- C0-Office
- CG-Commercial General
- CM-Commercial Manufacturing
- CR-Regional Commercial
- ECSP-Entertainment Corridor Specific Plan
- GMU-General Mixed-Use
- MH-Heavy Industrial
- ML-Light Industrial

- OR-Recreational Space
- OS-Open Space
- PD-Planned Development
- RM10-Low Density Multifamily Residential
- RM20-Medium Density Multifamily Residential
- RS-One Family Residential

City of La Mirada General Plan

As shown on Figure 2-2, the City of La Mirada planned land use designations within the Study Area include:

- Commercial
- Industrial
- Parks and Open Space
- Public/Institutional

As shown on Figure 2-3, the City of La Mirada Zoning designations within the Study Area include:

- C4-General Commercial
- CF-Freeway Commercial
- M2-Industrial
- PUD-Planned Unit Development
- R1-Single Family Residential

2.1.1.3 Cumulative Projects

There are several transportation and development projects that are either planned, approved, or under construction in the Study Area. While the affected jurisdictions have achieved or are close to achieving General Plan full build out, additional growth may occur in vacant infill parcels or due to redevelopment of land that is currently developed. Table 2.2 provides a list of reasonably foreseeable projects in the Study Area, including the name/type of each project along with its location, a description of its proposed use, and each project's current status.

Table 2.2: Development Activities and Transportation Improvements in the Project Vicinity

Project Name/Type	Jurisdiction/Location	Proposed Use/Description	Status
City of Tustin			
Fast5Express Carwash	2762 El Camino Real	A new Fast5Express carwash at the Tustin Marketplace.	Under Construction
The Hill	13751 & 13841 Red Hill Ave.	Construction of a new, four-story vertical mixed-use project within the Red Hill Ave. Specific Plan area. Includes 137 residential units and 7,000 sq ft of commercial retail space.	Under Review
Police Department Improvements	300 Centennial Wy.	Short- and long- term improvements to existing Police Department.	Under Review
Civic Center Alternate Power Source	300 Centennial Wy.	Generator installation.	Under Review
Signal Synchronization	First St. from I-5 to Centennial Wy.	Signal equipment installation and synchronization measures.	Under Review
Signal Synchronization	Tustin Ave. and First St. intersection; Fourth St. and Irvine Blvd.	Signal synchronization.	Under Review
Main St. Improvements	Main St. between Newport Ave. and Prospect Ave., and El Camino Real at various locations	Public improvements, roadway improvements, pedestrian and bicycle facility improvements, and gateway signage installation. Parklets and seating installations along El Camino Real.	Ongoing
Newport Ave. Rehabilitation	Newport Ave. between I-5 and Holy Ave., and between I-5 and Sycamore Ave.	Rehabilitation and repairs to the existing roadway and facilities.	Under Construction
Del Amo/Newport Improvements	SR-55 on-ramp and Edinger Ave.	Roadway and median improvements near Schools First campus.	Completed
Old Town Improvements	Downtown Commercial Core Specific Plan Area	Enhancements to mobility, walkability, traffic calming, and wayfinding within public rights-of-way.	Under Review
Citywide Pedestrian ADA Improvements	Citywide	Reconstruction of pedestrian infrastructure and installation of equipment that meets ADA standards.	Ongoing
Red Hill Ave. Rehabilitation	Red Hill Ave. between San Juan St. and First St., and between Walnut Ave. and I-5	Rehabilitation and repairs to the existing roadway and facilities.	Under Review

Table 2.2: Development Activities and Transportation Improvements in the Project Vicinity

Project Name/Type	Jurisdiction/Location	Proposed Use/Description	Status
El Camino Real/Tustin Ranch Improvement	Westbound El Camino Real at Tustin Ranch Rd.	Modification to add a second westbound left-turn lane and exclusive right-turn lane on El Camino Real at Tustin Ranch Rd.	Under Review
Newport Ave. Extension Phase II	Newport Ave. north of Edinger Ave.	Extension of Newport Ave. from current terminus to south of Edinger Ave., including construction of a railroad underpass, realignment of a flood control channel, and roadway improvements.	On hold
Valencia Ave. Widening	Valencia Ave. between Newport Ave. and Red Hill Ave.	Widening and intersection improvements, including acquisition of right-of-way to facilitate widening to augmented primary arterial status.	Under Review
City of Santa Ana			
Main & 15th St. Traffic Signal Installation	N. Main St. and 15th St. intersection	Traffic signal installations.	Under Construction
Santa Ana Blvd. and 5th St. Protected Bike Lanes	Santa Ana Blvd. between Flower St. and Santiago St., and 5th St. between Flower St. and Garfield St.	Protected bike lanes and sidewalks for additional ADA access.	Under Construction
OC Streetcar	Harbor Transit Center to Santa Ana Regional Transportation Center via Santa Ana Blvd.	Capital Improvement Project. Streetcar System.	Under Construction
Warner Ave. improvements	Warner Ave. between Grand Ave. and Main St.	Improvements and widening of Warner Ave. segment from four to six lanes.	Under Review
1st St. Pedestrian Improvements and Rehabilitation from Flower to Standard Ave.	1st St. between Flower Ave. and Standard Ave.	Design and construction of pedestrian safety improvements. Reconstruction/resurfacing of existing pavement and replacement/installation of missing or damaged features.	Under Construction
2700 N. Main Residential Development	2700 N. Main St.	243-unit apartment building at a former office building and associated parking lot.	Under Review
AMG Family Affordable Apartments	2114 E. First St.	552 affordable residential units and 10,000 sq ft of commercial space. Includes demolition of existing strip mall and auto related commercial uses.	Under Construction

Table 2.2: Development Activities and Transportation Improvements in the Project Vicinity

Project Name/Type	Jurisdiction/Location	Proposed Use/Description	Status
Cabrillo Crossing Townhomes	1814 and 1818 E. First St.	35 single-family attached townhomes, including 6 proposed as live/work and 4 proposed as affordable.	Under Review
Central Pointe Mixed-Use Development	1801 E. Fourth St.	644 multi-family residential units and 15,130 sq ft of commercial space.	Approved
Crossroads at Washington	1126 E. Washington Ave.	86-unit affordable residential community with 1,060 sq ft of commercial space, amenities, and parking.	Approved
Warner Redhill Mixed-Use Development	2300 S. Red Hill Ave.	Industrial redevelopment of 212,121 sq ft, including demolition of existing industrial buildings and landscaping.	Approved
Garry Ave. Business Park	1700 E. Garry Ave.	91,500 sq ft industrial warehouse building.	Under Review
Hampton Inn Hotel	2129 N. Main St.	73,322 sq ft hotel with 135 rooms and the use of an existing building as a restaurant. Includes relocation of a historic building. Includes demolition of existing parking, office building, and residential structures.	Approved
The Heritage	2001 E. Dyer Rd.	1,221-unit mixed-use development surrounding a 1-acre central park open to public. Includes 12,900 sq ft of retail, 5,500 sq ft of restaurant space, and 56,000 sq ft of office.	Under Construction
Innovative Housing Opportunities Mixed-Use Project	2021 E. 4th St. and 501 & 601 N. Golden Circle Dr.	Mixed-use project with 160 affordable housing units and 15,000 sq ft of commercial space.	Under Review
Legado at the Met	200 E. First American Wy.	278-unit multi-family residential development with a 617-parking space garage.	Approved
The Madison	200 N. Cabrillo Park Dr.	260-unit mixed-use development with 445 parking spaces and 6,600 sq ft of commercial space.	Approved

Table 2.2: Development Activities and Transportation Improvements in the Project Vicinity

Project Name/Type	Jurisdiction/Location	Proposed Use/Description	Status
MainPlace Mall Transformation Project	2800 N. Main St.	Specific Plan including 1,900 units, 400 hotel rooms, 1,400,000 sq ft of commercial space, and 750,000 sq ft of office.	Under Construction
One Broadway Plaza	1109 N. Broadway	Re-entitlement to include 327 units and 23 floors of office and commercial uses.	On Hold
Russell Fischer Commercial Center	301 & 325 N. Tustin Ave.	7,500 sq ft commercial building and 2,800 sq ft gas station convenience store. Revised to include an automated car wash and remodel the existing gas station and convenience store.	Litigation
Tapestry Hotel by Hilton	1580 E. Warner Ave.	139-room hotel and 2,000 sq ft restaurant with 142 parking spaces. Includes a zoning amendment.	Under Review
Tom's Trucks Residential & Adaptive Reuse Development	1008 E. 4th St.	Conversion of an existing truck center to a 117-unit residential development.	Under Review
Warmington Residential Development	717 S. Lyon St.	51-unit residential development with 15,028 sq ft of open space and 105 parking spaces.	Review Complete
Wermers Elks Site "Elan" Mixed-Use Development	1660 E. First St.	Redevelopment of the former Elks Club site into a 603-unit mixed-use development with 20,000 sq ft of commercial space.	Under Construction
The Westerly	2020 E. First St.	79 townhomes, 86 live/work units, and 209 parking spaces. Includes retail plaza.	Under Review
WISEPlace PSH Adaptive Reuse Development	1411 N. Broadway Ave.	Adaptive reuse project to convert the Santa Ana-Tustin YMCA into a mixed-use development with 49 permanent supportive housing units and 20 parking stalls.	Approved

Table 2.2: Development Activities and Transportation Improvements in the Project Vicinity

Project Name/Type	Jurisdiction/Location	Proposed Use/Description	Status
City of Orange			
Chapman Ave. & Flower St. Left Turn Signal Mod.	Chapman Ave. at Flower St.	Protected left turn for NB and SB approaches on Flower St. at Chapman Ave. to improve operational efficiency and enhance safety.	Completed
Radar Feedback Signs: La Veta, Collins, & Chapman	La Veta Ave. from Flower St. to Bedford St., Collins Ave. from Wanda Rd to Bond Ave, and Chapman Ave. from Jamboree Rd to Orange Park Blvd.	Installation of radar feedback signs on segments of three arterials with a history of speed related accidents.	Completed
Main St. Signal Synchronization	Main Street	Signal synchronization.	Completed
Katella Ave. Street Rehab and Signal Synchronization	Rehab from SR-55 to Harding St., Signal Synchro from Struck Ave. to Jamboree Rd.	Rehab of pavement and reconstruction of ramps to be ADA-compliant; signal synchronization.	Under Construction (Rehab) and Under Review (Synchronization)
NEXX Burger	2940 W. Chapman Ave	Proposal to demolish an existing restaurant and construct a new fast-food drive-through restaurant.	Approved
Marriott Dual Hotel	3000 W. Chapman Ave.	Demolition of an existing Motel 6 and Denny's Restaurant to construct a 306-key dual hotel.	Approved
7-Eleven Gas Station	2620 W. Chapman Ave.	Demolition of an existing drive-through restaurant and construct a new 4,319 sq ft convenience store with fuel service and associated site improvements.	Under Construction
IDI Orange	759 N. Eckhoff St.	Demolition of existing buildings to construct two warehouse buildings with ancillary office space.	Under Review
Sunrise Senior Assisted Living and Memory Care	1301 E. Lincoln Ave.	Demolition of an existing office to construct a 93-unit senior assisted living and memory care facility.	Under Construction
In N Out	3520 E. The City Wy.	Proposed demolition of an existing sit-down restaurant for the construction of a new fast-food drive through restaurant.	Under Review
Town and Country Apartments and Townhomes	702–1078 W. Town and Country Rd.	Redevelopment of an office complex to 653 apartments and 74 townhomes.	Under Construction

Table 2.2: Development Activities and Transportation Improvements in the Project Vicinity

Project Name/Type	Jurisdiction/Location	Proposed Use/Description	Status
City of Anaheim			
Lincoln Ave. Improvements	Lincoln Ave. between West St. to Harbor Blvd.	Various improvements to 0.5-mile stretch, including ADA compliant curb ramps.	Under Review
A-Town Areas C and D	1432 E. Katella Ave. 7	508-multi-family residential units with retail space and structured parking.	Under Review
Platinum Triangle	2040 S. State College Blvd.	947 residential units and 25,000 sq ft of commercial space.	Under Review
Angel Stadium Redevelopment	2000 E. Gene Autry Wy.	Redevelopment of Angel Stadium.	Under Review
Palais Industrial Building	270 E. Palais Rd.	Demolition of existing building for a 100,000 sq ft building.	Under Review
Ball Road Mixed-Use Development	1200 S. Phoenix Club Dr.	Mixed-use development consisting of 15,000 sq ft of commercial uses, 1,320 residential units, and 204,335 sq ft of open space.	Under Review
Anaheim RV Park	200 W. Midway Dr.	159 attached townhome development at the existing RV park.	Approved
Lincoln Colony Apartments	898 W. Lincoln Ave.	43-unit apartment building.	Approved
Broadway Townhomes	1661 W. Broadway	Demolition of existing office buildings for 34 single-family attached townhomes.	Under Review
Anaheim Transportation Network Maintenance Facility	1551 W. Lincoln Ave.	New maintenance facility with bus washing for Anaheim Transportation Network Maintenance Facility	Under Review
Katella Gateway Anaheim	1847 S. Mountain View Ave.	Construction of 1,163 hotel rooms, 1,108 residential units, 32,450 sf of retail space, and 2,629 parking spaces.	Under Review
City of Fullerton			
No applicable CIP or Development Projects within city limits occurring within the Study Area.			
City of Buena Park			
Yamaha International Headquarters	6600, 6660, and 6722 Orangethorpe Ave.	Replace existing two-story office and one-story warehouse building with a two-story corporate office building; expansion to existing three-story office/storage building, and other campus improvements, including reduction of parking stalls.	Entitled

Table 2.2: Development Activities and Transportation Improvements in the Project Vicinity

Project Name/Type	Jurisdiction/Location	Proposed Use/Description	Status
8281 Page St. Residential Development	8281 Page St.	54 residential townhome units, with two open space areas.	Approved
M+D Properties, 34 Unit Mixed Use	6555 Beach Blvd.	34-unit apartment and commercial mixed-use building.	Approved
Rick Gomez Park	7501 8th St.	0.46-acre pocket park.	Completed
8th St. Rehabilitation	8th St.	Rehabilitation and improvements, including ADA ramp construction.	Under Review
City of La Mirada			
Intersection Improvement	Valley View Ave. and Alondra Blvd.	Improvements to existing intersection as part of ongoing Valley View Ave. Interchange project.	Under Review
Valley View Ave. Interchange	Valley View Ave. and I-5 interchange	Bridge replacement, railroad overpass, ramp improvements, HOV lane and mixed-flow lane on I-5, and frontage road modifications. Part of I-5 Widening Project (ongoing).	Under Construction
Signal Installation	Alondra Blvd. and Phoebe Ave.	New traffic signal.	Under Review
OCTA			
I-5 Improvement Project (I-405 to SR-55)	I-405 to SR-55	Additional general-purpose lane in each direction, additional auxiliary lanes, modification of ramp configurations for nine select interchanges, braiding the NB Sand Canyon Ave. on-ramp and SB SR-133 to NB I-5 connector with the NB Jeffrey Road off-ramp, and converting existing buffer-separated HOV lanes to continuous-access HOV lanes.	PS&E Phase
SR-57 NB Improvement Project	Orangewood to Katella Ave., SR-57	Extension of the fifth general-purpose lane, additional exit lanes to Katella Ave. off-ramp, and shoulder widening.	Approved
SR-55 Improvement Project	I-5 to SR-91	Additional general-purpose lane in each direction between I-5 and SR-22, Katella Ave. SB on- and off-ramps modifications, Lincoln Ave. SB off-ramp modification, and 4th St. NB and SB off-ramps modifications.	Approved

Table 2.2: Development Activities and Transportation Improvements in the Project Vicinity

Project Name/Type	Jurisdiction/Location	Proposed Use/Description	Status
SR-55 Improvement Project	I-405 to I-5	Improvements to four bridges, retaining walls, ramp configurations, lane reconstruction, utilities relocation, and local street modifications and realignment.	Under Construction
Transit Security and Operations Center	Lincoln Ave. and I-5 interchange	New TSOC facility to house OCTA operational and security functions.	Under Construction
I-5 (SR-57 to SR-55) Project	I-5, from SR-55 to SR-57	Second carpool lane, carpool lane restriping, and demolition of I-5/Main St HOV on- and off-ramps.	Completed

Sources: Current, Planned, and Capital Improvement Projects from City of Tustin (2023), City of Santa Ana (2023), City of Orange (2023), City of Anaheim (2023), City of Buena Park (2023), and City of La Mirada (2023). OCTA Programs & Projects (2023). Caltrans District 12 Current and Future Projects (2023).
ADA = Americans with Disabilities Act
CIP = Capital Improvement Project
I = Interstate
NB = northbound
OCTA = Orange County Transportation Authority
PS&E = Plans, Specifications, and Estimates
SB = southbound
sq ft = square foot/feet
SR = State Route
TSOC = Transit Security and Operations Center

2.1.2 Environmental Consequences

2.1.2.1 Temporary Impacts

Alternative 1 (No Build Alternative)

Under the No Build Alternative, there would be no action, and the improvements associated with the Build Alternatives would not be constructed. Other development and transportation improvement projects that are planned or currently under construction would be completed, which may entail potential temporary changes in existing and future land use as land is temporarily used for construction staging. However, each project would be subject to discretionary environmental review as part of project development to reduce the environmental impacts associated with those construction activities. There would be no temporary impacts associated with existing and future land use.

Alternative 2 (Build Alternative: Modify Existing HOV 2+ Lanes to HOV 3+ Lanes)

Alternative 2 does not include roadway improvements, except for the modification of the minimum HOV-lane occupancy requirement from two-plus (2+) to three-plus (3+) passengers

within the current HOV lanes in each direction within the proposed Project limits. Temporary HOV lane disruptions may occur due to potential lane repainting and HOV signage changes by construction workers within the freeway ROW and along several local arterials that warrant HOV lane signage leading to an I-5 on-ramp. Two park-and-ride facilities are also proposed. However, the potential repainting of HOV lanes would occur on the existing freeway facility, and signage changes would not result in any land use changes. The park-and-ride facilities would be located within Caltrans existing ROW of the Project Area and would not result in any land use changes.

Given the lack of land use changes, Alternative 2 would not result in any temporary impacts associated with existing and future land use.

Alternative 3 (Build Alternative: Convert Existing HOV Lanes to Express Lanes)

Construction staging areas within the Study Area are anticipated under Alternative 3 and are shown on Figure 4-1. A total of six areas within existing State ROW would be utilized as staging areas for construction equipment. Refer to Section 4.4 for a more detailed discussion of the construction staging areas required for Alternative 3.

Signage improvements associated with the conversion of existing HOV lanes to ELs would occur within the existing right-of-way of I-5, SR-55, SR-57, SR-91, Gene Autry Way, E. Santa Ana Boulevard, and N. Grand Avenue.

To accommodate the conversion of the HOV lane to an EL between Red Hill Avenue and SR-55, the outside widening of southbound I-5 from Red Hill Avenue to SR-55 would require the reconstruction of two ramps (the northbound on-ramps from eastbound and westbound 17th Street in Santa Ana), improvements to the Newport Avenue undercrossing, and reconstruction of existing retaining and sound walls, all of which would occur within existing State ROW.

Construction staging activities may result in temporary increases in dust and noise levels in the immediate vicinity, potentially affecting and disrupting adjacent land uses that may require concentration or lend itself to relaxation. However, impacts from dust and air pollution resulting from construction activities would be substantially minimized through applicable Caltrans and regional regulations to control excessive fugitive dust emissions, control emissions from construction vehicles, and adhere to Caltrans Standard Specification Section 14-9 for reducing air pollution during construction. Noise resulting from construction activities would be substantially minimized through compliance with Caltrans Standard Specifications Section 14-8.02 (Noise Control). Therefore, the construction activities related to Alternative 3 are not anticipated to result in any temporary conflicts with existing land uses on adjacent properties.

Alternative 4 (Build Alternative: Convert Existing HOV Lanes to Express Lanes and Construct Additional Express Lanes)

In addition to the temporary impacts related to land use under Alternative 3 above, Alternative 4 would entail additional temporary increases in dust and noise levels due to the addition of proposed ELs on I-5 between SR-57 and SR-91. Adjacent properties along the additional length of the ELs would potentially be affected by construction activities. Similar to Alternative 3, dust and air pollution resulting from construction activities would be minimized through avoidance/ minimization/mitigation measures and regulatory standards to control excessive fugitive dust emissions, emissions from construction vehicles, and vibrations from tunnel excavation activities,

and would adhere to regional, and federal specifications for reducing air pollution and other impacts during construction. Noise resulting from construction activities would be minimized through compliance with federal, and State regulations, including Caltrans specifications within the ROW and applicable construction and noise standards. Therefore, the construction activities related to Alternative 4 are not anticipated to result in any temporary conflicts with existing land uses on adjacent properties.

2.1.2.2 Permanent Impacts

Alternative 1 (No Build Alternative)

Under the No Build Alternative, there would be no action, and the improvements associated with the Build Alternatives would not be constructed. Other current or planned development and transporation improvement projects would occur, which may entail potential changes in existing and future land use. However, each project would be subject to discretionary environmental review as part of project development. Therefore, there would be no permanent impacts associated with existing and future land use.

Alternative 2 (Build Alternative: Modify Existing HOV 2+ Lanes to HOV 3+ Lanes)

Alternative 2 does not include roadway improvements, except for the modification of the minimum HOV-lane occupancy requirement from two-plus (2+) to three-plus (3+) passengers within the current HOV lanes in each direction, within the proposed Project limits. Temporary disruptions associated with potential HOV lane repainting, HOV signage changes on the I-5 and local arterials, and construction of the two park-and-ride facilities would cease. Therefore, there would be no permanent impacts associated with existing and future land use.

Alternative 3 (Build Alternative: Convert Existing HOV Lanes to Express Lanes)

Alternative 3 would not require property acquisitions. No existing land uses would be converted to another land use, nor would any land use amendments be required. Construction activities associated with signage changes, repainting, freeway widening, and ramp improvements would cease. Therefore, Alternative 3 would not result in the permanent conversion of existing and planned land uses.

Alternative 4 (Build Alternative: Convert Existing HOV Lanes to Expess Lanes and Construct Additional Express Lanes)

Alternative 4 would not require property acquisitions. No existing land uses would be converted to another land use, nor would any land use amendments be required. Construction activities associated with signage changes, repainting, freeway widening, ramp improvements, and the additional EL from SR-57 to SR-91 would cease. Therefore, Alternative 4 would not result in the permanent conversion of existing and planned land uses.

Cumulative Impacts

The cumulative projects listed in Table 2.2 are not expected to divide established communities or be incompatible with existing land uses. Future development projects would require discretionary approvals and additional review under CEQA, NEPA or both CEQA and NEPA regarding potential impacts to existing and planned land use. Cumulative development projects must comply with

the goals and policies outlined in applicable local, regional, State, and federal plans as they come forward for approval. As a result, these projects would not contribute to cumulative adverse land use impacts. However, the I-5 Improvement Project (I-405 to SR-55), located immediately south of the Project limits and currently in the Plans, Specifications, and Estimates (PS&E) phase, may coincide with this Project's construction time frame, which may result in possible cumulative effects on nearby land uses.

2.1.3 Avoidance, Minimization, and/or Mitigation Measures

No property acquisitions would occur. All construction staging areas occur on existing ROWs and would not conflict with existing and planned land uses. Therefore, no avoidance, minimization, or mitigation measures are proposed.

2.2 Consistency with State, Regional, and Local Plans

2.2.1 Affected Environment

Please refer to Section 1.2, Regulatory Setting, for a more general discussion on the applicable State, regional, and local plans.

2.2.1.1 SCAG Regional Transportation Plan/Sustainable Communities Strategy

As described in Section 1.2.3.1, the 2020-2045 Connect SoCal RTP/SCS includes policies and goals that pertain to the proposed Project, such as encouraging regional economic prosperity and global competitiveness; improving mobility, accessibility, reliability, and travel safety for people and goods; increasing person and goods movement and travel choices within the transportation system; and leveraging new transportation technologies and data-driven solutions that result in more efficient travel. The Build Alternatives are currently included in the future commitments section of SCAG's 2020–2045 RTP/SCS. However, the Build Alterntives are not captured in the future regional models and efforts to incorporate the Build Alternatives into such models are currently being undertaken.

2.2.1.2 SCAG Federal Transportation Improvement Program

As described in Section 1.2.3.2, federal law requires that all federally funded projects and regionally significant projects (regardless of funding) must be listed in an FTIP. The proposed Project is included in the 2023 FTIP Amendment #23-01 under FTIP ID ORA210604. However, the Build Alternative are not captured in future regional models and efforts to incorporate the Build Alternatives into such models are currently being undertaken.

2.2.1.3 Long Range Transportation Plans

Both LACMTA and OCTA retain an LRTP document, which provides a future vision and key strategies for the respective transportation systems. The draft 2023 OCTA LRTP identifies portions of I-5 in north Orange County for recommended EL conversion. The LACMTA 2020 LRTP identifies improvements that intersect or align with segments of I-5.

2.2.1.4 Airport Planning Areas

As required by State law, the Airport Environs Land Use Plan (AELUP) (equivalent of an Airport Land Use Compatibility Plan) provides guidance to affected local jurisdictions regarding airport land use compatibility matters involving Fullerton Municipal Airport (FMA).

The Project Area overlaps with the notification area and obstruction imaginary surfaces zones of FMA. The Study Area overlaps with the notification area, airport impact zones and noise contours, and obstruction imaginary surfaces zones of FMA.

2.2.1.5 Study Area Jurisdictions General Plans

Please refer to Sections 1.2.3.5 through 1.2.3.11 for the General Plan policies that are relevant to the proposed Project.

2.2.1.6 Study Area Jurisdictions Specific Plans

Please refer to Section 1.2.3.8 for the City of Anaheim's Specific Plan areas that are partially or entirely within the Study Area. Neither of the applicable City-adopted Specific Plans contain goals or policies relevant to the proposed Project.

2.2.2 Environmental Consequences

Table 2.3, Consistency with Local Plans, summarizes the No Build Alternative and Build Alternatives' consistency with relevant goals and policies in local and regional planning documents.

Table 2.3: Consistency with Plans

Policy	No Build Alternative	Alternative 2 (HOV 3+)	Alternative 3 (Converted EL)	Alternative 4 (Converted and Expanded EL)
City of Tustin General Plan				
Policy C-3.2: Support capacity and noise mitigation improvements such as HOV lanes, general purpose lanes, auxiliary lanes, and noise barriers on the I-5 and SR-55 freeways.	**Consistent**: The No Build Alternative would not preclude current and future planned capacity and noise mitigation improvements to I-5 or SR-55; therefore, the No Build Alternative would be consistent with this policy.	**Consistent**: Although Alternative 2 does not include any vehicle capacity or noise mitigation improvements on I-5 or SR-55, it would not preclude any future planned capacity and noise mitigation improvements on those freeways. Therefore, Alternative 2 would be consistent with this policy.	**Consistent**: Alternative 3 includes noise mitigation improvements on I-5 through Tustin by reconstructing existing noise barriers. Therefore, Alternative 3 would be consistent with this policy.	**Consistent**: Refer to the discussion for Alternative 3. In addition, Alternative 4 includes the addition of ELs on I-5 between SR-57 and SR-91, which would support improvements such as HOV lanes and noise barriers. Therefore, Alternative 4 would be consistent with this policy
Policy C-3.3: Monitor and coordinate with Caltrans freeway work as it affects Tustin's roadway and require modifications, as necessary.	**Consistent**: The No Build Alternative would not preclude current and ongoing coordination and monitoring of Caltrans freeway work on I-5 within Tustin; therefore, the No Build Alternative would be consistent with this policy.	**Consistent**: Alternative 2 would require changes to freeway signage on I-5 within Tustin. Because none of the work would occur on local roadways, the work is not anticipated to affect roads in Tustin. Nevertheless, Caltrans will coordinate with the local jurisdictions in the Study Area, including the City of Tustin, regarding the proposed Project schedule. Therefore, Alternative 2 would be consistent with this policy.	**Consistent**: Alternative 3 would require improvements to I-5 within Tustin. Although construction is not anticipated on local roadways (including signage), construction traffic and occasional truck trips to construction staging areas may affect roads in Tustin. Caltrans will coordinate with the local jurisdictions in the Study Area, including the City of Tustin, regarding the proposed Project construction and schedule. Therefore, Alternative 3 would be consistent with this policy.	**Consistent**: Refer to the discussion for Alternative 3.

Table 2.3: Consistency with Plans

Policy	No Build Alternative	Alternative 2 (HOV 3+)	Alternative 3 (Converted EL)	Alternative 4 (Converted and Expanded EL)
City of Anaheim General Plan				
Policy C-1.2-1: Continue working with Caltrans, the Federal Highway Administration, and the Federal Transit Administration to address traffic flow along State highways that traverse the City.	**Consistent**: The No Build Alternative would not preclude ongoing and future coordination to address traffic flow along State highways that traverse Anaheim; therefore, the No Build Alternative would be consistent with this policy.	**Consistent**: Alternative 2 involves changes to the existing HOV lanes on I-5, which traverse Anaheim. Key staff at the City of Anaheim have been and will continue to be involved in proposed Project planning efforts. As FTA is not involved in the proposed Project, the FTA portion of the policy does not apply. Therefore, Alternative 2 would be consistent with this policy.	**Consistent**: Alternative 3 involves conversion of the existing HOV lanes on I-5, which traverse Anaheim, into EL facilities. Key staff at the City of Anaheim have been and will continue to be involved in proposed Project planning efforts. As FTA is not involved in the proposed Project, the FTA portion of the policy does not apply. Therefore, Alternative 3 would be consistent with this policy.	**Consistent**: Refer to the discussion for Alternative 3. In addition, Alternative 4 includes additional ELs between SR-57 and SR-91. Key staff at the City of Anaheim have been and will continue to be involved in proposed Project planning efforts. As FTA is not involved in the proposed Project, the FTA portion of the policy does not apply.
City of La Mirada General Plan				
Policy C-2.1: Work closely with Caltrans to ensure that I-5 improvements do not adversely impact mobility along the City's connecting arterial system.	**Consistent**: The No Build Alternative would not preclude future coordination regarding projects that may affect the City's connecting arterial system; therefore, the No Build Alternative would be consistent with this policy.	**Consistent**: Alternative 2 would require changes to freeway signage on I-5 within La Mirada. Because none of the work would occur on local roadways, the improvement is not anticipated to adversely impact mobility along arterial streets in La Mirada. Nevertheless, Caltrans will coordinate with the local jurisdictions in the Study Area, including the City of La Mirada, regarding the proposed Project schedule. Therefore,	**Consistent**: Alternative 3 would require changes to freeway signage on I-5 within La Mirada. Because none of the work would occur on local roadways, the improvement are not anticipated to adversely impact mobility along arterial streets in La Mirada. Nevertheless, Caltrans will coordinate with the local jurisdictions in the Study Area, including the City of La Mirada, regarding the proposed Project schedule. Therefore,	**Consistent**: Refer to the discussion for Alternative 3. Improvements to I-5 under Alternative 4 include a segment of I-5 as it intersects with Artesia Blvd.; there would be improvements to freeway on- and off-ramps at Artesia Blvd. that are adjacent to the City of La Mirada's boundaries. PF-TR-1 (TMP) will be prepared to ensure that I-5

Table 2.3: Consistency with Plans

Policy	No Build Alternative	Alternative 2 (HOV 3+)	Alternative 3 (Converted EL)	Alternative 4 (Converted and Expanded EL)
		Alternative 2 would be consistent with this policy.	Alternative 3 would be consistent with this policy.	improvements at the Artesia Blvd. segment would not adversely impact mobility along the City's connecting arterial system. Therefore, Alternative 4 would be consistent with this policy.
2020–2045 Connect SoCal RTP/SCS				
Future regional modeling	**N/A:** The No Build Alternative includes other projects on the financially constrained project list in the adopted SCAG 2020–2045 RTP/SCS within the proposed Project Area on I-5.Build Alternatives	**Inconsistent:** The Build Alternatives are not included in the future regional models of the SCAG 2020-2045 RTP/SCS. Measure LU-1 is included to identify ongoing efforts by Caltrans, OCTA, and SCAG to include the Build Alternatives into future regional models for consistency.		
SCAG Federal Transportation Improvement Program				
ORA210604 – Future regional modeling	**N/A:** The improvements under the Build Alternatives would not be realized.Build Alternatives	**Inconsistent:** The Build Alternatives are not included in the future regional models of the SCAG 2023 FTIP. Measure LU-1 is included to identify ongoing efforts by Caltrans, OCTA, and SCAG to include the Build Alternatives into future regional models for consistency.		
Long Range Transportation Plans				
LACMTA LRTP	**Consistent:** Although the improvements under the Build Alternatives would not be realized, the No Build Alternative does not preclude other planned and ongoing projects that intersect or align with segments of I-5	**N/A:** Most of the Project Area occurs within Orange County, with a small portion of the Study Area occurring in La Mirada in Los Angeles County on the northern end. However, the improvements under the Build Alternatives would provide a link to existing HOV/EL networks in Los Angeles County.		

Table 2.3: Consistency with Plans

Policy	No Build Alternative	Alternative 2 (HOV 3+)	Alternative 3 (Converted EL)	Alternative 4 (Converted and Expanded EL)
	within the Project Area.			
OCTA LRTP	**Consistent:** Although the improvements under the Build Alternatives would not be realized, the No Build Alternative does not preclude other planned and ongoing projects to improve the circulation network throughout Orange County.	**N/A:** The draft 2023 OCTA LRTP identifies portions of northern I-5 for recommended EL conversion. The 2018 OCTA LRTP identifies an HOV project between SR-55 and SR-57, which is currently present and in operation. Alternative 2 would adjust the passenger minimums on the existing HOV lanes in the I-5 Project corridor. Alternatives 3 and 4 would convert the existing HOV lane into ELs.		
Airport Planning Areas				
Fullerton Municipal Airport	**Consistent:** No changes to I-5 under the Build Alternatives would occur. There would be no effect on existing operations and safety at the airport facility.	**Consistent:** The proposed improvements to I-5, including HOV passenger adjustments, necessary signage/lane restriping, and two-park-and-ride facilities under Alternative 2, and the EL conversions under Alternatives 3 and 4, would not result in I-5 features that would trigger review by the Airport Land Use Commission for the three airport facilities whose Airport Environs Land Use Plan radius coincide with the Project and Study Area. The improvements to I-5 under the Build Alternatives would be similar in scale and density to existing signage and freeway features on I-5. The noise environment would be similar to the current noise environment of I-5. No structures of significant heights that would impede aircraft safety or provide suitable rest areas for birds would occur.		

Sources: City of Tustin (2018), City of Anaheim (2004), City of La Mirada (2003), SCAG 2020–2045 RTP/SCS, LACMTA (2020), OCTA (2022), John Wayne Airport Land Use Commission.
Caltrans = California Department of Transportation
EL = Express Lane
FTA = Federal Transit Administration
HOV = high-occupancy vehicle
I = Interstate
SR = State Route
TMP = Transportation Management Plan

2.2.2.1 Alternative 1 (No Build Alternative)

The policy consistency analysis for the No Build Alternative is provided in Table 2.3. As detailed in Table 2.3, the No Build Alternative would be consistent with all relevant goals and policies. Under the No Build Alternative, there would be no action, and the improvements associated with the

Build Alternatives would not be constructed. The No Build Alternative would not preclude other current and planned development and transportation improvement projects, which would require discretionary environmental review for consistency with State, regional, and local land use policies. Therefore, the No Build Alternative would be consistent with local and regional planning documents.

2.2.2.2 Alternative 2 (Build Alternative: Modify Existing HOV 2+ Lanes to HOV 3+)

The policy consistency analysis for Alternative 2 is also provided in Table 2.3. Alternative 2 is not included in the future regional models of the SCAG 2020-2045 RTP/SCS and SCAG 2023 FTIP. With implementation of Measure LU-1, which would require continued efforts by Caltrans, OCTA, and SCAG to include Alternative 2 into future regional models, this inconsistency would be addressed.

2.2.2.3 Alternative 3 (Build Alternative: Convert Existing HOV Lanes to Express Lanes)

Alternative 3 is not included in the future regional models of the SCAG 2020-2045 RTP/SCS and SCAG 2023 FTIP. With implementation of Measure LU-1, which would require continued efforts by Caltrans, OCTA, and SCAG to include Alternative 3 into future regional models, this inconsistency would be addressed.

2.2.2.4 Alternative 4 (Build Alternative: Convert Existing HOV Lanes to Expess Lanes and Construct Additional Express Lanes)

The scope of Alternative 4 is similar to that of Alternative 3, but includes the additional construction of ELs between SR-57 and SR-91, which is noted in Table 2.3. Alternative 4 is not included in the future regional models of the SCAG 2020-2045 RTP/SCS and SCAG 2023 FTIP. With implementation of Measure LU-1, this inconsistency would be addressed.

2.2.2.5 Cumulative Impacts

The transportation projects in Table 2.2 would each individually be required to be consistent with the general plans (or equivalent) of Tustin, Santa Ana, Orange, Anaheim, Fullerton, Buena Park, and La Mirada; adopted specific plans under respective jurisdictions; and other applicable local and regional planning policies and planning documents. The I-5 Improvement Project (I-405 to SR-55), located immediately south of the Project limits and currently in the PS&E phase, may coincide with this Project's construction time frame, which may result in possible cumulative effects regarding consistency with State, regional, and local plans.

Direct Project Impact

As described above, the proposed Project would not conflict with any State, regional, or local planning documents with the implementation of Measure LU-1 to address inconsistency with the SCAG 2020-2045 RTP/SCS and SCAG 2023 FTIP.

Indirect Project Impact

As the proposed Project is being screened for any potential conflicts with existing regional and local policies and planning documents prior to construction, there would be no indirect project impacts pertaining to existing and future land use. Measure LU-1 is included to address inconsistency with the SCAG 2020-2045 RTP/SCS and SCAG 2023 FTIP.

2.2.3 Avoidance, Minimization, and/or Mitigation Measures

The proposed Project would be consistent with applicable local, regional, and State plans and programs. Measure LU-1 is included to address the inconsistency of the Build Alternatives with the the SCAG 2020-2045 RTP/SCS and SCAG 2023 FTIP.

Measure LU-1 **RTP/SCS Modeling and FTIP Coordination:** Caltrans, OCTA, and SCAG will coordinate to incorporate the Build Alternatives into the future regional models for the SCAG 2020-2045 RTP/SCS and include the Build Alternatives in the SCAG 2023 FTIP.

2.3 Parks and Recreation

2.3.1 Affected Environment

The Study Area includes parks managed by the Study Area cities, which are listed below in Table 2.4 and shown on Figure 2-5. There are no City of La Mirada or City of Orange park facilities within the Study Area.

Table 2.4: Parks in the Study Area

Facility Name	Address	Acreage	Distance from Proposed Project Area (miles)
City of Buena Park			
George Bellis Park	7171 8th St., Buena Park	15.1 acres	0.1
Henry Boisseranc Park	7520 Dale St., Buena Park	19.7 acres	0.1
City of Fullerton			
Gilbert Park	2120 W. Orangethorpe Ave., Fullerton	5.9 acres	0.4
City of Anaheim			
Brookhurst Park	2271 Crescent Ave., Anaheim	27 acres	0.4
Chaparral Park	1770 W. Broadway, Anaheim	9.4 acres	0.5
John Marshall Park	2001 W. La Palma Ave., Anaheim	14.9 acres	0.4
Paul Revere Park	160 W. Guinida Ln., Anaheim	0.5 acre	0.3
Ponderosa Park	320 E. Orangewood Ave., Anaheim	9 acres	0.4
Walnut Grove Park	905 S. Anaheim Blvd., Anaheim	3.1 acres	0.5
Aloe Greens Park	Market St., Anaheim	1.2 acres	0.3
City of Santa Ana			
Betsy Ross Park	1280 W. Santa Ana St., Anaheim	5.1 acres	0.2
Cabrillo Park	1820 E. Fruit St., Santa Ana	7.6 acres	0.4
Chepa's Park	1009 N. Custer St., Santa Ana	0.5 acre	0.3
French Park	901 N. French St., Santa Ana	0.5 acre	0.5
Jack Fisher Park	2501 N. Flower St., Santa Ana	1.5 acres	0.4

Table 2.4: Parks in the Study Area

Facility Name	Address	Acreage	Distance from Proposed Project Area (miles)
Maybury Park	1801 E. Fruit St., Santa Ana	5.0 acres	0.2
Morrison Park	2801 N. Westwood Ave., Santa Ana	5.4 acres	0.4
*Saddleback View Park	621 Patricia Ln., Santa Ana	0.9 acre	0.1
*Santiago Park	2535 N. Main St., Santa Ana	33.1 acres	0.1
*William Eldridge Park	2933 Fallbrook Dr., Santa Ana	1.4 acres	0.1
*Prentice Park	1801 E. Chestnut Ave., Santa Ana	18.8 acres	0.1
City of Tustin			
Frontier Park	1400 Mitchell Ave., Tustin	4.7 acres	0.3
Peppertree Park	230 W. First St., Tustin	3.5 acres	0.4
Pine Tree Park	1402 Bryan Ave., Tustin	4.3 acres	0.5

Source: Parks and Recreation and/or Facilities websites from the City of Anaheim, City of Buena Park, City of Santa Ana, City of Fullerton, City of Tustin, and City of Orange (accessed December 2022); I-5 Managed Lanes Project Web Viewer (LSA 2022); & Google Earth.
Distances of parks measured using ruler tool in Google Earth Pro and Web Viewer.
Section 4(f) facilities are marked with an asterisk (*)

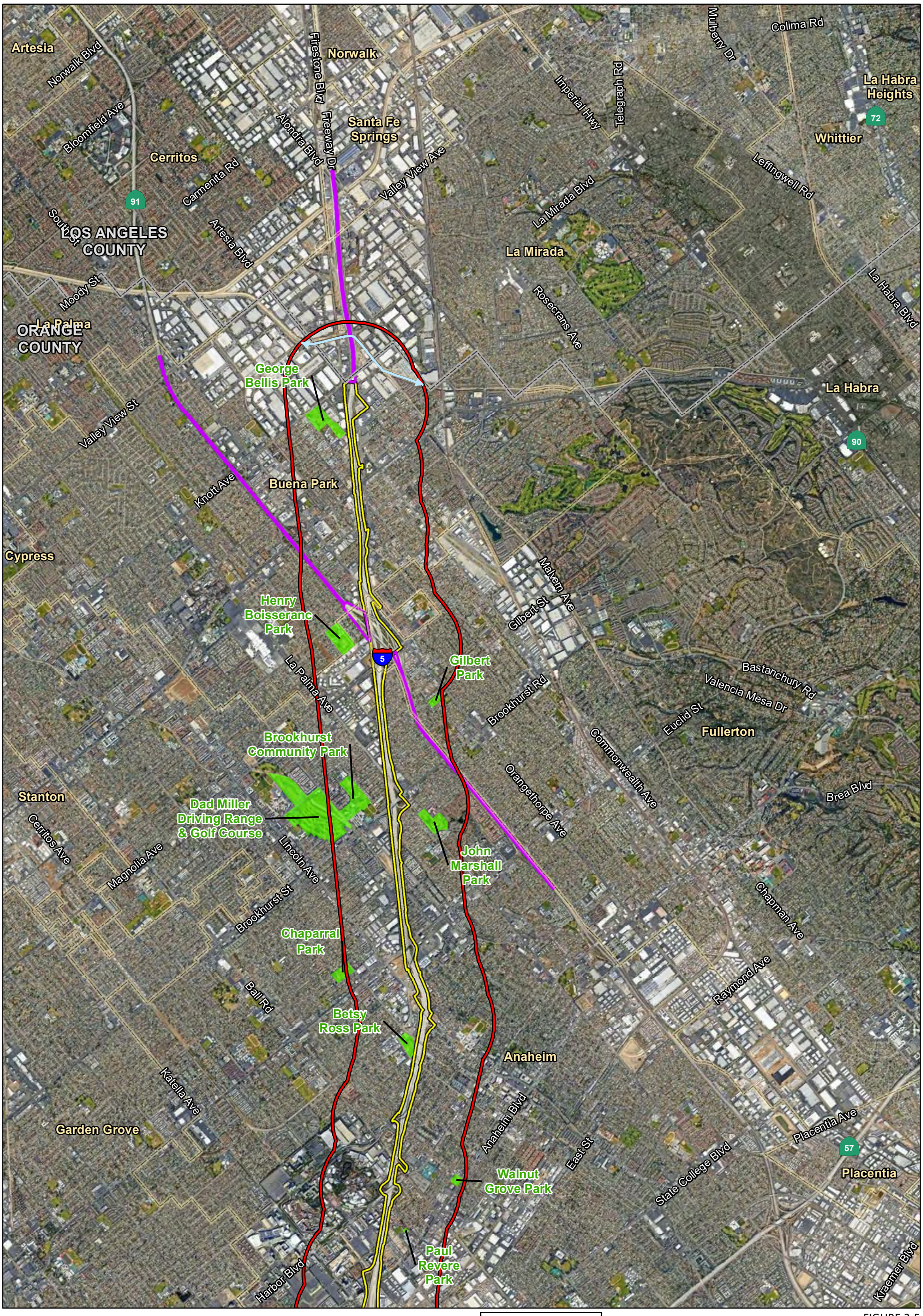
The Study Area includes areas of recreational opportunities, which are listed below in Table 2.5 and shown on Figure 2-5.

Table 2.5: Recreational Facilities in the Study Area

Facility Name	Facility Type	Distance from Project Area (miles)
Coyote Creek Bikeway	Multi-use trail	0.13, southeast of I-5/Alondra Blvd. intersection
Dad Miller Driving Range & Golf Course	Golf Course	0.36
*Santa Ana River Trail	Multi-use trail	0.19, south of the Chapman Ave./Santa Ana River crossing
*Santa Ana Zoo	City-operated public zoo	0.1 (within Prentice Park)
*Santiago Creek Bike Trail	Multi-use trail	<0.01, adjacent to I-5/N. Broadway off-ramp

Source: LSA. 2022. I-5 Managed Lanes Project Web Viewer; Google Earth.
Distances of recreational facilities measured using ruler tool in Google Earth Pro and Web Viewer.
Section 4(f) facilities are marked with an asterisk (*).

The Park Preservation Act (California Public Resources Code Sections 5400–5409) prohibits local and State agencies from acquiring any property that is in use as a public park at the time of acquisition unless the acquiring agency pays sufficient compensation or land, or both, to enable the operator of the park to replace the park land and any park facilities on that land.



LEGEND

- Project Area
- Advanced Signage Only
- Community Impacts Study Area
- City Boundary
- County Boundary
- Public Parks and Recreational Facilities in the Study Area
- Coyote Creek Bikeway
- Santa Ana River Trail
- Santiago Creek Bike Trail

0 2000 4000
Feet

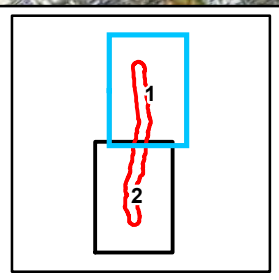


FIGURE 2-5
Sheet 1 of 2

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/Los Angeles County Line)

Public Parks and Recreational Facilities in the Study Area

EA No. 0Q950

SOURCE: Google (2022); U.S. Census Bureau (2020)

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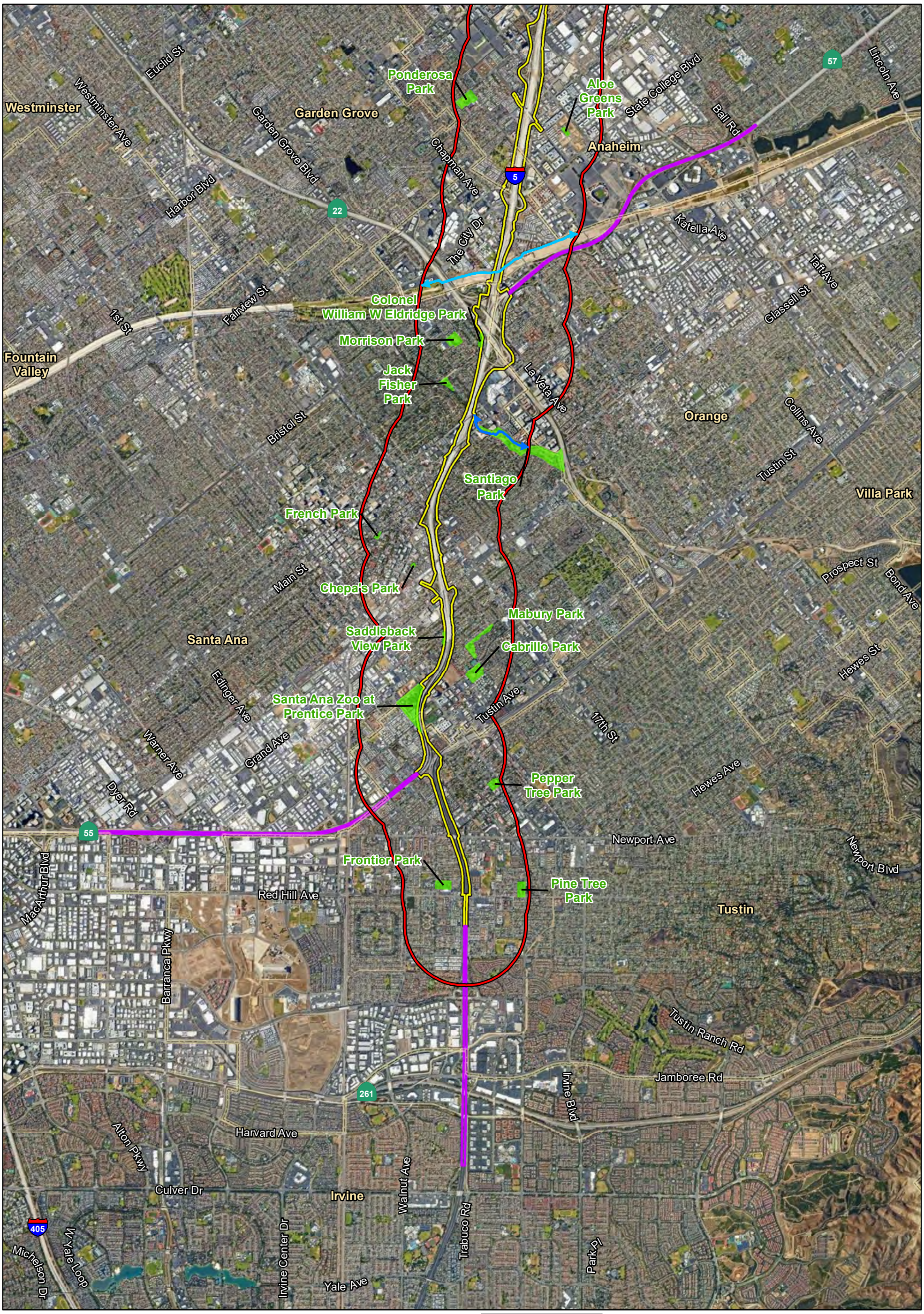

LEGEND

- Project Area
- Advanced Signage Only
- Community Impacts Study Area
- City Boundary
- County Boundary
- Public Parks and Recreational Facilities in the Study Area
- Coyote Creek Bikeway
- Santa Ana River Trail
- Santiago Creek Bike Trail

0 2000 4000
Feet

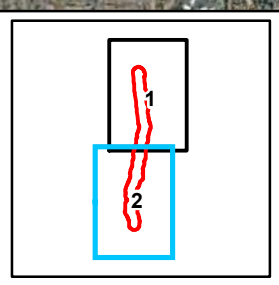

FIGURE 2-5
Sheet 2 of 2

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/Los Angeles County Line)

Public Parks and Recreational Facilities in the Study Area

EA No. 0Q950

SOURCE: Google (2022); U.S. Census Bureau (2020)

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Section 4(f) (Caltrans 2014) requirements of the Department of Transportation Act stipulate that FHWA and other USDOT agencies cannot approve the use of land from publicly owned parks, recreational areas, wildlife and waterfowl refuges, or public and private historical sites unless the following conditions apply:

- There is no feasible and prudent avoidance alternative to the use of land, and the action includes all possible planning to minimize harm to the property resulting from such use; or
- The FHWA or other USDOT agency determines that the use of the property will have a *de minimis* impact.[7]

Parks, recreation facilities, and public facilities with recreational resources open to the public are considered as Section 4(f) if a project may result in a "use" of the property, whether via permanent incorporation, temporary occupancy that may be considered adverse in terms of the Section 4(f) statute, or substantial impairment of the attributes of a property. Parks and recreation areas must be open to the entire public during their hours of operation.

There are seven Section 4(f) facilities within the Study Area:

- Santa Ana River Trail, which passes through the Study Area adjacent to the Santa Ana River
- William Eldridge Park, at 2933 Fallbrook Drive in Santa Ana
- Santiago Creek Bike Trail, which passes through the Study Area adjacent to the I-5/N. Broadway northbound off-ramp
- Santiago Park, at 2535 N. Main Street in Santa Ana
- Saddleback View Park, at 621 Patricia Lane in Santa Ana
- Prentice Park, at 1801 E. Chestnut Avenue in Santa Ana
- Santa Ana Zoo, within Prentice Park in Santa Ana
- Tustin High School,[8] at 1171 El Camino Real in Tustin

Officials with jurisidiction of the above Section 4(f) facilities were notified of the proposed Project. A follow-up letter will be sent to the officials with jurisdiction stating that there will be no impacts on the above facilities as a result of the proposed Project.

[7] A *de minimis* impact is a minimal impact to a 4(f) resource that is not considered to be adverse. For historic sites, a *de minimis* impact means that no historic property is affected or that there is a "no adverse effect" finding under 36 CFR Part 800. For parks, recreational areas, and wildlife and waterfowl refuges, a *de minimis* impact is one that will not adversely affect the qualities or activities that give the property protection under Section 4(f).

[8] The recreational field at Tustin High School accommodates the use of its facilities by the general public. As this resource is open to the public and servces an organized recreational purpose, it is subject to the requirements of Section 4(f) per the FHWA's most recently published Section 4(f) Policy Paper, which provides specific guidelines for identifying Section 4(f) properties.

2.3.2 Environmental Consequences

2.3.2.1 Temporary Impacts

Alternative 1 (No Build Alternative)

The No Build Alternative proposes no improvements to I-5. The freeway facility would remain as is, with the exception of other proposed projects that are either under development or currently under construction. Current and future projects would undergo discretionary environmental review to ensure that impacts to parks and recreation facilities are avoided and minimized. There would be no temporary impacts to parks and recreational facilities.

Alternative 2 (Build Alternative: Modify Existing HOV 2+ Lanes to HOV 3+ Lanes)

Alternative 2 proposes no physical improvements that would require park and recreational land or would disrupt access to such facilities. There would be no temporary impacts to parks and recreational facilities.

Alternative 3 (Build Alternative: Convert Existing HOV Lanes to Express Lanes)

The construction staging areas required for Alternative 3 are not located within or adjacent to any identified park or recreational facilities within the Study Area. Construction of I-5 improvements, including lane repainting, signage work, and freeway widening, may result in temporary increased travel times for the public in accessing local parks and recreation facilities, but access would be maintained throughout project construction duration via the transportation management strategies in PF-TR-1 (TMP). Pedestrian and bicycle traffic would also be maintained throughout the duration of construction in local arterial areas where advance signage improvements are identified to occur.

Eldridge Park, Saddleback Park, Santiago Creek Bike Trail, Tustin High School, Santiago Park, Santa Ana Zoo, and Prentice Park are Section 4(f) facilities that abut Caltrans existing ROW of the Project limits. A Section 4(f) evaluation was prepared and is included as Appendix A in the Draft Environmental Impact Report/Environmental Assessment (EIR/EA). The improvements under Alternative 3 would be located within Caltrans existing ROW of the Project limits and would not impair the existing activities, features, or attributes of recreational and park facilities. No temporary construction easements are identified for the aforementioned Section 4(f) facilities. Access to the aforementioned Section 4(f) facilities and other parks and recreational facilities identified in the Study Area would remain operational (via identified detours if applicable) during Project construction. Pedestrian and bicycle traffic would also be maintained throughout the duration of construction. Therefore, no access disruptions to parks or recreational resources, including Section 4(f) facilities, are anticipated during construction activities.

Alternative 4 (Build Alternative: Convert Existing HOV Lanes to Express Lanes and Construct Additional Express Lanes)

The temporary impacts related to parks and recreational facilities under Alternative 3 above would apply to Alternative 4. In addition, Alternative 4 includes the construction of additional ELs between SR-57 and SR-91. No construction staging areas or temporary construction easements are located within or adjacent to an identified park or recreational facility within the Study Area, including the aforementioned Section 4(f) facilities under Alternative 3. A As stated above, a

Section 4(f) evaluation was prepared and is included as Appendix A in the Draft Environmental Impact Report/Environmental Assessment (EIR/EA). The freeway widening and other improvements identified on I-5 between SR-57 to SR-91 would not encroach onto identified parks and recreational facilities. Temporary increased travel times for the public in accessing local parks and recreation facilities may occur, but access to these facilities would remain operational and maintained throughout project construction duration via the transportation management strategies in PF-TR-1 (TMP).

2.3.2.2 Permanent Impacts

Alternative 1 (No Build Alternative)

The No Build Alternative proposes no improvements to I-5. The freeway facility would remain as is, with the exception of other proposed projects that are either under development or currently under construction. Current and future projects would undergo discretionary environmental review to ensure that impacts to parks and recreation facilities are avoided and minimized. There would be no impacts to parks and recreational facilities.

Alternative 2 (Build Alternative: Modify Existing HOV 2+ Lanes to HOV 3+ Lanes)

Alternative 2 proposes no physical improvements other than potential HOV lane repainting and signage work, which would not require park and recreational land, and would not disrupt access to such facilities. There would be no permanent impacts to parks and recreational facilities.

Alternative 3 (Build Alternative: Convert Existing HOV Lanes to Express Lanes)

Alternative 3 would not disturb parks and recreational facilities, including the Section 4(f) resources identified in Table 2.4. Alternative 3 would not result in any permanent use of land from other parks and recreational facilities within the Study Area. Therefore, Alternative 3 would not result in significant direct or indirect permanent impacts on any parks or recreational resources.

Alternative 4 (Build Alternative: Convert Existing HOV Lanes to Express Lanes and Construct Additional Express Lanes)

Alternative 4, which includes the improvements identified under Alternative 3 and additional ELs between SR-91 and SR-57, would not disturb identified parks and recreational facilities, and would not result in any permanent use of land from other parks and recreational facilities within the Study Area. Therefore, Alternative 4 would not result in significant direct or indirect permanent impacts on any parks or recreational resources.

2.3.3 Avoidance, Minimization, and/or Mitigation Measures

As described above, Alternatives 2, 3, and 4 would not result in impacts to parks and recreational facilities in the Study Area, including Section 4(f) resources. Access to all parks and recreational facilities will be maintained throughout the duration of Project construction. PF-TR-1 (TMP) in Section 5.3 of this CIA will be implemented to ensure that detours are provided to access parks and recreational facilities during the duration of construction of the Build Alternatives.

3. GROWTH

3.1 Affected Environment

The State Department of Finance (DOF) estimated that Orange County is expected to grow at a rate of 0.14 percent (3,218,111 to 3,222,492) between 2022 and 2055. The DOF estimated that Los Angeles County is expected to decrease at a rate of 3.12 percent (10,208,717 to 9,891,603) between 2022 and 2055 (DOF 2022b). Please refer to Section 4.1 for a discussion of historic and projected population and housing growth.

3.1.1 City of Tustin

According to the State DOF, the City of Tustin's population was approximately 79,535 as of January 2022 (DOF 2022a). According to the City's General Plan, which was adopted in 2018, the first General Plan iteration in 1966 anticipated an optimum or maximum population of 100,438 persons within the City's planning area (City of Tustin 2018).

The current General Plan points out that a significant portion of transportation problems in Orange County stem from inadequate capacity of the freeway system to serve peak-period travel demands. The most severe congestion occurs at the junction of I-5 and SR-55, which influences the City's transportation system. Intersecting arterials, such as Newport Avenue, Red Hill Avenue, and Irvine Boulevard, are becoming increasingly congested and receive heavy traffic volumes well in excess of their design capacities; thus, it is not possible for the City to fully address growth management issues in isolation of other jurisdictions.[9]

3.1.2 City of Santa Ana

According to the State DOF, the City of Santa Ana's population was approximately 308,459 as of January 2022 (DOF 2022a). According to the City's current General Plan, which was adopted in 2022, the current population of the City exceeds 300,000 residents. (City of Santa Ana 2022).

Santa Ana ranks among the largest and most densely populated cities in the State and is one of the youngest by age in Orange County.[10] The City's central location in Orange County, as well as its proximity to transportation hubs and freeways, make Santa Ana an important economic driver to the region. The City continues to improve upon its circulation system with added mobility systems such as the OC Streetcar project and additional investments in bikeways and pedestrian infrastructure.

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[9] City of Tustin. 2018. *City of Tustin General Plan, Growth Management Element*. Page 454 (Page 8 of Growth Management Element). Website: https://www.tustinca.org/DocumentCenter/View/713/City-of-Tustin-General-Plan-PDF#:~:text=The%20plan%20anticipated%20an%20optimum,Plan%20during%20the%20early%201970s. (accessed January 2023).

[10] City of Santa Ana. 2022. *City of Santa Ana General Plan, Introduction*. Page 2. Website: https://www.santa-ana.org/documents/general-plan-april-2022/ (accessed January 2023).

3.1.3 City of Orange

According to the State DOF, the City of Orange's population was approximately 137,676 as of January 2022 (DOF 2022a). According to the City's current Housing Element, which was adopted in 2022, the forecasted 2020 population of Orange is 143,100 persons (City of Orange 2022).

According to the City's Growth Management Element, Orange continues to balance future growth with continued reinvestment with roadways and other transportation services and facilities. The City recognizes that federal and State highways are a significant part of Orange's transportation system and therefore greatly influence the operation of the City's roadway system. The City is bisected by SR-55 and bounded by SR-91 to the north, SR-57 and I-5 to the west, SR-22 to the south, and the Eastern Transportation Corridor (SR-241) to the east. Coordination with Caltrans and the Transportation Corridor Agencies regarding future improvements to these roadways is identified to be imperative to prevent unintended traffic impacts on the City's roadway system.[11]

3.1.4 City of Anaheim

According to the State DOF, the City of Anaheim's population was approximately 341,245 as of January 2022 (DOF 2022a). According to the City's current Housing Element, which was adopted in 2014, the estimated 2012 population of Anaheim was 343,793 persons (City of Anaheim 2014).

The City is strategically located and traversed by 5 major freeways, 2 State highways, and 18 major and primary arterial highways; thus, the City's mobility and overall quality of life have the potential to be significantly impacted by regional growth pressures. Anaheim is considered to be a fully developed community.[12]

3.1.5 City of Fullerton

According to the State DOF, the City of Fullerton's population was approximately 142,732 as of January 2022 (DOF 2022a). According to the City's Final Program EIR for the Fullerton Plan (General Plan), which was adopted in 2012, the 2010 population of Fullerton was 135,314 persons (City of Fullerton 2012).

The City is located between three freeways in the region: SR-57 to the east, SR-91 to the south, and I-5 to the west. Many of Fullerton's arterial roadways extend beyond the borders of the City; thus, the City's growth pressures and the state of the regional circulation system are intertwined.

3.1.6 City of Buena Park

According to the State DOF, the City of Buena Park's population was approximately 83,430 as of January 2022 (DOF 2022a). According to the City's General Plan, which was adopted in 2010, the estimated population of Buena Park was 83,385 persons (City of Buena Park 2010).

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[11] City of Orange. 2010. *Orange General Plan, Growth Management Plan*. Website: https://www.cityoforange.org/home/showpublisheddocument/202/637698172544070000 (accessed January 2023).

[12] City of Anaheim. 2004. *City of Anaheim General Plan, Growth Management Element*. Website: https://www.anaheim.net/DocumentCenter/View/2034/H-Growth-Management-Element-?bidId= (accessed January 2023).

Buena Park is accessible by I-5 and SR-91, which traverse the center of the City. Many of the City's arterial roadways extend beyond its borders; thus, land use decisions and traffic patterns in adjacent jurisdictions have the potential to affect traffic flow, mobility, and growth pressures in Buena Park, and vice versa.

3.1.7 City of La Mirada

According to the State DOF, the City of La Mirada's population was approximately 48,696 as of January 2022 (DOF 2022a). According to the City's General Plan, which was adopted in 2003, the estimated population of the City was 47,000 persons (City of La Mirada 2003).

The General Plan notes that City growth patterns have been shaped largely by accessibility; its industrial businesses utilize I-5 and rail lines to the south, and commercial businesses front I-5 and Imperial Highway, which extends into neighboring jurisdictions in the region. Although La Mirada is considered to be fully developed according to its General Plan buildout scenario, the City continues to experience changing growth patterns as recycling of existing land uses occurs and aging industrial plants slowly transition into modern business parks. Other incremental changes are expected to occur throughout La Mirada.

3.2 Environmental Consequences

The potential growth-related impacts of the proposed Project were considered in the context of the first-cut screening approach to assessing the potential growth-influencing effects of the proposed Project and whether any further analysis is necessary based on consideration of the following:

- How, if at all, does the proposed Project potentially change accessibility?
- How, if at all, do the Project type, project location, and growth pressure potentially influence growth?
- Is Project-related growth reasonably foreseeable as defined in NEPA? (Under NEPA, indirect impacts need only be evaluated if they are reasonably foreseeable, as opposed to remote and speculative.)
- If there is Project-related growth, how, if at all, will that impact resources of concern?

The potential for the proposed Project to influence growth based on these considerations is discussed below.

3.2.1 Alternative 1 (No Build Alternative)

Under the No Build Alternative, no improvements would be made to I-5 or any of the ramps, auxiliary lanes, overcrossing and undercrossings, and signage in the Project Area. The freeway facility would remain as is, with the exception of other proposed projects that are either under development or currently under construction. The No Build Alternative would not change accessibility around the I-5 corridor in the Study Area cities and would not reduce delays and congestion along the I-5 corridor. Over time, forecasted growth of the Study Area cities and the surrounding areas may be somewhat constrained due to continued HOV lane degradation and conditions on I-5. In addition, the Study Area is fully urbanized. Therefore, the No Build Alternative

would not influence growth patterns and would not result in any impacts on resources of concern in any of the Study Area cities, Los Angeles County, or Orange County.

3.2.2 Alternative 2 (Build Alternative: Modify Existing HOV 2+ Lanes to HOV 3+ Lanes)

The following questions were considered in determining growth-related impacts to the Study Area cities, Los Angeles County, and Orange County for Alternative 2.

1. **How, if at all, does the proposed Project potentially change accessibility?**

   Alternative 2 would not change accessibility in the Study Area as it would not create or eliminate any road connections. As summarized in Table 2.1 in Chapter 2, Land Use, the Study Area is fully developed (except for a small amount of vacant infill parcels and undevelopable areas), consisting of open space, commercial uses, industrial, mixed uses, public, institutional, and low-, medium-, and high-density residential uses.

2. **How, if all, do the Project type, project location, and growth pressure potentially influence growth?**

   As noted above, Alternative 2 would not change accessibility in the Study Area as it would not create or eliminate any road connections. As stated in Chapter 2, Land Use, the Study Area is fully developed (except for a small amount of vacant infill parcels and undevelopable areas), consisting of open space, commercial uses, industrial, mixed uses, public, institutional, and low-, medium-, and high-density residential uses.

   Although Alternative 2 would not add lane capacity, Alternative 2 is intended to accommodate approved and planned growth in the Study Area (refer to the list of reasonably foreseeable projects included in Table 2.2) because it would improve speeds in the HOV lane (fewer vehicles but comprising 3+ passengers), especially during the peak hours along I-5, therefore reducing congestion in the Study Area. The proposed addition of two park-and-ride facilities within Caltrans existing ROW of the Project limits under Alternative 2 would also encourage the movement of additional people in fewer vehicles in the HOV lanes. Pressure for growth is typically a result of a combination of factors, including economic, market, and land use demands and conditions. Growth in the Study Area is expected to occur with or without Alternative 2.

   Alternative 2 may encourage changes in driving behavior by enticing some drivers to form carpools with other motorists who need to travel in the same direction at the same time so they can take advantage of the faster-moving HOV lanes, but it is not expected to make growth in the Study Area more attractive given the limited influence that it would have on driving habits across Orange County. As seen in Table 2.2, a substantial number of development projects were proposed and approved prior to the initiation of this study, which indicates that development within the Study Area is not dependent on completion of Alternative 2. Therefore, although Alternative 2 would accommodate existing and planned growth, it would not influence growth beyond what is currently planned. Growth is anticipated to occur in these areas, regardless of whether Alternative 2 is completed, and this growth has already been accounted for in local and regional planning documents.

3. **Is Project-related growth reasonably foreseeable as defined in NEPA? Specifically, under NEPA, indirect impacts need only be evaluated if they are reasonably foreseeable as opposed to remote and speculative.**

   Based on the analysis described above, Alternative 2 would not influence the rate, type, amount, and/or location of growth in the Study Area cities beyond what is currently planned for the area. It is also speculative to estimate how much the area would grow under the influence of Alternative 2.

4. **If there is Project-related growth, how, if at all, will that affect resources of concern? Identify which resources of concern are likely to be affected by the foreseeable future growth. If a Project is likely to influence future growth, but no resources of concern will be affected, then state that here and indicate that no further growth analysis is necessary.**

   Based on the analysis described above, Alternative 2 would not result in any growth-related effects and, therefore, would not result in growth-related impacts on any resources of concern. No further analysis is necessary.

3.2.3 Alternative 3 (Build Alternative: Convert Existing HOV Lanes to Express Lanes)

The following questions were considered in determining growth-related impacts to the Study Area cities, Los Angeles County, and Orange County for Alternative 3.

1. **How, if at all, does the proposed Project potentially change accessibility?**

   Alternative 3 would alleviate HOV lane deficiencies and accommodate projected future traffic volumes in the traffic study area, consistent with adopted local land use and transportation plans. Alternative 3 includes improvements to I-5 via the conversion of existing HOV lanes to ELs, along with ramp improvements, overcrossing/undercrossing improvements, and advance signage improvements within specific locations along I-5 and in specific local arterial locations. Alternative 3 would not provide new transportation facilities (conversion of the existing HOV lanes to ELs), nor would it create new access points to areas previously not accessible. Therefore, Alternative 3 would not result in changes in accessibility to the transportation system in the Study Area.

2. **How, if all, do the Project type, project location, and growth pressure potentially influence growth?**

   As noted above, Alternative 3 would not change accessibility in the Study Area as it would not create or eliminate any road connections. As stated in Chapter 2, Land Use, the Study Area is fully developed (except for a small amount of vacant infill parcels and undevelopable areas), consisting of open space, commercial uses, industrial, mixed uses, public, institutional, and low-, medium-, and high-density residential uses.

   Alternative 3 is intended to accommodate approved and planned growth in the Study Area (refer to the list of reasonably foreseeable projects included in Table 2.2) because it would price-manage the EL facility to ensure trip time reliability and encourage carpool and transit use along I-5, thereby reducing congestion in the Study Area. Pressure for growth is typically a result of a combination of factors, including economic, market, and land use demands and conditions. Growth in the Study Area is expected to occur with or without Alternative 3.

Alternative 3 may allow growth in the Study Area to be more attractive; however, as seen in Table 2.2, a substantial number of development projects were proposed and approved prior to the initiation of this study, which indicates that development within the Study Area is not dependent on completion of Alternative 3. Therefore, although Alternative 3 would accommodate existing and planned growth, it would not influence growth beyond what is currently planned. Growth is anticipated to occur in these areas, regardless of whether Alternative 3 is completed, and this growth has already been accounted for in local and regional planning documents.

3. **Is the Project-related growth reasonably foreseeable as defined by NEPA? Specifically, under NEPA, indirect impacts need only be evaluated if they are reaonsably foreseeable as opposed to remote and speculative.**

   Based on the analysis described above, Alternative 3 would not influence the rate, type, amount, and/or location of growth in the Study Area cities beyond what is currently planned for the area. It is also speculative to estimate how much the area would grow under the influence of Alternative 3.

4. **If there is Project-related growth, how, if at all, will that affect resources of concern? Identify which resources of concern are likely to be affected by the foreseeable future growth. If a Project is likely to influence future growth, but no resources of concern will be affected, then state that here and indicate that no further growth analysis is necessary.**

   Based on the analysis described above, Alternative 3 would not result in any growth-related effects and, therefore, would not result in growth-related impacts on any resources of concern. No further analysis is necessary.

3.2.4 Alternative 4 (Build Alternative: Convert Existing HOV Lanes to Express Lanes and Construct Additional Express Lanes)

The following questions were considered in determining growth-related impacts to the Study Area cities, Los Angeles County, and Orange County for Alternative 4.

1. **How, if at all, does the proposed Project potentially change accessibility?**

   Alternative 4 would alleviate existing GP and HOV lane deficiencies and accommodate projected future traffic volumes in the Study Area, consistent with adopted local land use and transportation plans. Alternative 4 includes improvements to I-5 via the conversion of existing HOV lanes to ELs, the addition of ELs between the SR-57 and SR-91, applicable freeway widening, ramp improvements, overcrossing/undercrossing improvements, and advance signage improvements within specific locations along I-5 and in specific local arterial locations. Despite the additional ELs between SR-57 and SR-91, Alternative 4 would not provide new transportation facilities (the additional ELs would occur on an existing freeway facility), nor would it create new access points to areas previously not accessible. Therefore, Alternative 4 would not result in changes in accessibility to the transportation system in the Study Area.

2. **How, if all, do the Project type, project location, and growth pressure potentially influence growth?**

   As noted above, Alternative 4 would not change accessibility in the Study Area as it would not create or eliminate any road connections. As stated in Chapter 2: Land Use, the Study Area is fully developed (except for a small amount of vacant infill parcels and undevelopable areas), consisting of open space, commercial uses, industrial, mixed uses, public, institutional, and low-, medium-, and high-density residential uses.

   Alternative 4 is intended to accommodate approved and planned growth in the Study Area (refer to the list of reasonably foreseeable projects included in Table 2.2) because it would add capacity along I-5, thereby reducing congestion in the Study Area. Pressure for growth is typically a result of a combination of factors, including economic, market, and land use demands and conditions. Growth in the Study Area is expected to occur with or without Alternative 4.

   As a capacity enhancement to an existing freeway facility, including the additional ELs between SR-57 and SR-91, Alternative 4 may make growth in the Study Area more attractive; however, as seen in Table 2.2, a substantial number of development projects were proposed and approved prior to the initiation of this study, which indicates that development within the Study Area is not dependent on completion of Alternative 4. Therefore, although Alternative 4 would accommodate existing and planned growth, it would not influence growth beyond what is currently planned. Growth is anticipated to occur in these areas regardless of whether Alternative 4 is completed, and this growth has already been accounted for in local and regional planning documents.

3. **Is the Project-related growth reasonably foreseeable as defined by NEPA? Specifically, under NEPA, indirect impacts need only be evaluated if they are reaonsably foreseeable as opposed to remote and speculative.**

   Based on the analysis described above, Alternative 4 would not influence the rate, type, amount, and/or location of growth in the Study Area cities beyond what is currently planned for the area. It is also speculative to estimate how much the area would grow under the influence of Alternative 4.

4. **If there is Project-related growth, how, if at all, will that affect resources of concern? Identify which resources of concern are likely to be affected by the foreseeable future growth. If a Project is likely to influence future growth, but no resources of concern will be affected, then state that here and indicate that no further growth analysis is necessary.**

   Based on the analysis described above, Alternative 4 would not result in any growth-related effects and, therefore, would not result in growth-related impacts on any resources of concern. No further analysis is necessary.

3.2.5 Cumulative Impacts

There are few cumulative development projects identified in Table 2.2 that would provide new housing opportunities; however, the projects with new housing opportunities would undergo discretionary environmental review as part of project development to ensure that cumulatively adverse growth impacts would not occur. The projects with new housing opportunities are

accounted for in local and regional planning documents. Therefore, development of the Build Alternatives and other planned projects, including those with new housing opportunities, would not result in unplanned and cumulatively considerable population growth. Although the transportation/street improvement projects in Table 2.2 would contribute to increased safety, capacity, alleviation of traffic concerns, and more accessible streets and regional throughfare for all street and freeway users, they are not anticipated to materially affect the demand for new development in the area. The I-5 Improvement Project (I-405 to SR-55), located immediately south of the Project limits and currently in the PS&E phase, may coincide with this Project's construction time frame, which may result in possible cumulative effects related to growth.

3.2.6 Direct Impacts

As discussed above, the proposed Project would not result in any growth-related effects and, therefore, would not result in direct growth-related impacts on any resources of concern. No further analysis is necessary.

3.2.7 Indirect Impacts

As discussed above, the proposed Project would not result in any growth-related effects and, therefore, would not result in indirect growth-related impacts on any resources of concern. No further analysis is necessary.

3.3 Avoidance, Minimization, and/or Mitigation Measures

The proposed Project would not result in a substantial growth-related impact. No further growth analysis is necessary. Therefore, no avoidance, minimization, or mitigation measures are proposed.

4. COMMUNITY CHARACTER

4.1 Population and Housing

4.1.1 Affected Environment

4.1.1.1 Regional Population Characteristics

Population

The DOF reports that the population of Orange County was 1,691,500 persons in 1975 (DOF 2022b). In the 47 years that followed, Orange County's population increased by approximately 87 percent to 3,162,245 in 2022.

SCAG provides current and projected population levels in the Demographics and Growth Forecast report prepared for the 2020–2045 Connect SoCal RTP/SCS. The adopted Demographics and Growth Forecast includes projected population levels in 2030 and 2045, which illustrate growth trends. It should be noted that SCAG is currently working to update these growth forecasts as it prepares the 2024 update to the RTP/SCS for the SCAG region. Although the updated growth forecast has not yet been released, recent DOF population estimates suggest that the overall region, including the Study Area cities and counties, generally experienced a minor decline in population from 2020 to 2022. While some of this population loss is likely attributed to COVID-19-related deaths, lower levels of international migration and declining birth rates also play a role. The key factor in the region's population loss over the past 2 years has been domestic out-migration (residents moving to other states). Assuming these trends continue, the 2024 RTP/SCS growth forecast is likely to anticipate less population, household, and employment growth in the SCAG region than previously forecast.

The 2055 projected population levels were forecasted by assuming straight-line population growth beyond 2045 based on the average annual growth rate forecast by SCAG for each city and county. Table 4.1 shows the 2016 population and projected 2055 population for Tustin, Santa Ana, Orange, Anaheim, Fullerton, Buena Park, La Mirada, Los Angeles County, and Orange County, as well as the 2020 populations and the projected 2030 and 2045 populations for the counties, as depicted in the 2020–2045 Connect SoCal RTP/SCS Demographics and Growth Forecast. As indicated in Table 4.1, Orange County's population is anticipated to grow 15.9 percent between 2016 and 2055, which is slightly higher than the 14.9 percent growth that is anticipated to occur within Los Angeles County during the same time period. Of the Study Area cities, the City of Anaheim's population is anticipated to increase the most between 2016 and 2055 (22.7 percent), and the City of Santa Ana's population is anticipated to grow the least (7.9 percent).

Table 4.1: Historical and Projected Population Growth

Jurisdiction	2016	2020	2030	2045	2055	Percent Increase 2016–2055
Orange County	3,180,000	3,268,000	3,441,000	3,535,000	3,684,088	15.9%
Los Angeles County	10,110,000	10,407,000	10,900,000	11,174,000	11,618,016	14.9%
Study Area Cities						
Tustin	82,100	N/A	N/A	92,600	96,221	17.2%
Santa Ana	340,200	N/A	N/A	360,100	366,962	7.9%
Orange	140,900	N/A	N/A	154,000	158,517	12.5%
Anaheim	356,700	N/A	N/A	416,800	437,524	22.7%
Fullerton	141,900	N/A	N/A	158,300	163,955	15.5%
Buena Park	83,400	N/A	N/A	96,200	100,614	20.6%
La Mirada	49,400	N/A	N/A	52,400	53,434	8.2%

Source: Southern California Association of Governments, 2020b;. Demographics and Growth Forecast. Website: https://scag.ca.gov/data-tools-socal-atlas (accessed September 2, 2022).
Note: The 2055 population projections assume straight-line population growth beyond 2045 based on the average annual growth rate forecast by the Southern California Association of Governments for each city and county.
N/A = Not Available

Race and Ethnicity

Table 4.2 provides the racial and ethnic composition of the Study Area counties, cities, and census tracts based on the 2016-2020 American Community Survey (ACS). As shown in Table 4.2, Orange County has a higher percentage of the population that identifies as White (57.6 percent) compared to Los Angeles County (47.8 percent). Orange County has a lower percentage of the population that identifies as Hispanic (33.8 percent) compared to Los Angeles County (48.3 percent). Census Tract 874.05 has the highest percentage of the population that identifies as White (84.7 percent). Census Tract 9800 has the highest percentage of the population that identifies as Black (20 percent). Census Tract 1104.01 has the highest percent of the population that identifies as American Indian/Alaska Native (8.1 percent). Census Tract 863.03 has the highest percentage of the population that identifies as Asian (38.41 percent), and Census Tract 874.03 has the highest percentage of the population that identifies as Hawaiian/Pacific Islander (4 percent). Census Tract 750.04 has the highest percentage of the population that identifies as Other or Two or More Races (78.2 percent) and the highest percentage of the population that identifies as Hispanic (96.4 percent).

Table 4.2: Racial and Ethnic Demographics

Area	Jurisdiction	White	Black	American Indian/ Alaska Native	Asian	Hawaiian/ Pacific Islander	Other and Two or More Races	Hispanic
Orange County	N/A	57.6%	1.7%	0.5%	21.1%	0.3%	18.8%	33.8%
Los Angeles County	N/A	47.8%	8.1%	0.8%	14.8%	0.2%	28.4%	48.3%
Cities								
Anaheim	Orange County	**60.0%**	**2.7%**	**0.7%**	17.3%	**0.5%**	18.8%	**53.3%**
Buena Park	Orange County	45.5%	**2.8%**	**0.9%**	**33.0%**	**0.5%**	17.3%	**37.9%**
Fullerton	Orange County	56.2%	**2.2%**	0.4%	**23.9%**	0.3%	17.0%	**36.8%**
La Mirada	Los Angeles County	50.6%	1.3%	**0.7%**	21.0%	0.1%	**26.3%**	**42.0%**
Orange	Orange County	**68.6%**	1.5%	**0.6%**	12.5%	**0.4%**	16.3%	**38.2%**
Santa Ana	Orange County	35.6%	1.0%	**0.6%**	12.1%	0.2%	**50.4%**	**76.0%**
Tustin	Orange County	47.4%	**2.5%**	0.4%	**25.0%**	0.2%	**24.5%**	**39.1%**
Census Tract								
18.01	Buena Park/ Fullerton	**59.7%**	**2.6%**	0.0%	11.9%	**0.4%**	**25.4%**	**64.1%**
18.02	Buena Park/ Fullerton	**60.5%**	**1.9%**	0.0%	8.0%	0.0%	**29.6%**	**71.9%**
19.03	Fullerton/Anaheim	47.0%	1.7%	0.2%	14.5%	0.0%	**36.6%**	**58.2%**
525.02	Irvine/Tustin	**63.2%**	0.2%	**0.7%**	19.6%	0.0%	16.3%	25.5%
525.24	Irvine/Tustin	42.0%	**7.0%**	0.5%	**38.1%**	0.0%	12.4%	20.8%
744.05	Santa Ana	31.3%	0.2%	**2.1%**	1.0%	0.1%	**65.3%**	**87.9%**
744.06	Santa Ana/Tustin	23.5%	**1.9%**	**1.1%**	2.8%	**0.4%**	**70.2%**	**90.8%**
744.07	Santa Ana/Tustin	39.6%	0.7%	0.0%	4.0%	0.0%	**55.6%**	**84.9%**
744.08	Tustin	40.2%	**3.3%**	**0.8%**	5.6%	0.0%	**50.1%**	**78.7%**
750.03	Santa Ana	20.2%	0.8%	**1.3%**	0.6%	0.0%	**77.1%**	**95.2%**
750.04	Santa Ana	20.2%	0.9%	0.1%	0.5%	0.0%	**78.2%**	**96.4%**
753.01	Santa Ana/Orange	41.1%	1.4%	0.0%	20.6%	0.0%	**36.9%**	**60.0%**
753.03	Santa Ana	**65.7%**	**3.6%**	0.4%	4.6%	0.2%	**25.4%**	35.8%
754.01	Santa Ana	**59.8%**	1.4%	**0.8%**	7.4%	0.0%	**30.6%**	**47.3%**
754.03	Santa Ana/Tustin	47.8%	0.8%	0.3%	14.0%	0.0%	**37.1%**	**62.5%**
754.04	Santa Ana/Orange	53.5%	**8.2%**	0.4%	4.9%	0.0%	**32.9%**	**50.9%**
755.05	Santa Ana/Tustin	**70.6%**	**3.0%**	0.7%	7.4%	**3.6%**	14.8%	**36.5%**
755.07	Tustin	51.5%	**2.9%**	0.1%	16.1%	0.0%	**29.4%**	**50.1%**

Table 4.2: Racial and Ethnic Demographics

Area	Jurisdiction	White	Black	American Indian/ Alaska Native	Asian	Hawaiian/ Pacific Islander	Other and Two or More Races	Hispanic
755.12	Tustin	28.5%	**6.0%**	0.0%	17.6%	1.0%	**46.9%**	**60.0%**
755.13	Tustin	51.1%	1.3%	**1.1%**	16.3%	0.0%	**30.1%**	**59.0%**
755.14	Tustin	36.7%	**2.7%**	0.1%	17.2%	0.0%	**43.2%**	**72.7%**
755.17	Santa Ana/Tustin	35.6%	**5.4%**	0.6%	14.3%	0.0%	**44.1%**	**57.3%**
760.01	Santa Ana/Orange	**62.4%**	**4.5%**	0.1%	14.9%	0.0%	18.1%	**48.8%**
760.02	Santa Ana/Orange	**82.6%**	1.5%	0.0%	11.8%	**3.2%**	0.9%	**34.5%**
761.02	Santa Ana/Orange/ Anaheim	**58.0%**	**5.2%**	0.7%	14.2%	0.0%	**21.8%**	**49.5%**
761.04	Anaheim/Orange	**60.3%**	**3.2%**	0.0%	17.6%	**3.2%**	15.7%	**31.2%**
761.05	Orange	**67.1%**	**2.0%**	0.5%	7.1%	**0.5%**	**22.6%**	**48.0%**
863.03	Anaheim/Orange	45.6%	1.5%	0.0%	**38.4%**	0.0%	14.4%	29.5%
867.01	Anaheim/Fullerton	56.5%	0.8%	0.0%	**23.7%**	0.0%	19.0%	**52.8%**
867.02	Anaheim	44.3%	**4.3%**	**1.4%**	11.2%	0.0%	**38.7%**	**72.7%**
868.01	Anaheim/Fullerton/ Buena Park	**66.4%**	**4.1%**	0.0%	9.4%	**1.3%**	18.7%	**48.5%**
868.02	Anaheim/Fullerton	50.5%	1.5%	0.0%	**25.6%**	0.3%	**22.1%**	**50.9%**
871.02	Anaheim	**58.8%**	**8.7%**	**3.6%**	12.3%	0.0%	16.7%	**63.8%**
871.05	Anaheim	**58.1%**	0.8%	0.3%	16.2%	0.0%	**24.6%**	**61.0%**
871.06	Anaheim	53.2%	**6.3%**	0.1%	12.7%	0.0%	**27.7%**	**66.4%**
872	Anaheim	**69.7%**	1.6%	**1.5%**	15.1%	**0.4%**	11.8%	**59.2%**
874.01	Anaheim	55.6%	1.1%	0.3%	**30.7%**	0.0%	12.2%	**42.0%**
874.03	Anaheim	**76.8%**	0.4%	**1.6%**	3.5%	**4.0%**	13.7%	**83.0%**
874.05	Anaheim	**84.7%**	0.4%	0.0%	3.5%	0.0%	11.4%	**85.2%**
875.04	Anaheim	**60.4%**	0.3%	0.1%	10.9%	**1.1%**	**27.0%**	**83.9%**
1104.01	Buena Park/ Anaheim/Fullerton	41.6%	**2.4%**	**8.1%**	**29.4%**	**1.2%**	17.3%	**39.4%**
1105	Buena Park/ Cerritos/Fullerton/La Mirada	36.7%	**5.7%**	**1.8%**	**29.1%**	**2.6%**	**24.2%**	**47.2%**
1106.03	Buena Park/ Fullerton	45.8%	0.9%	0.2%	19.4%	0.0%	**33.7%**	**63.0%**

Table 4.2: Racial and Ethnic Demographics

Area	Jurisdiction	White	Black	American Indian/ Alaska Native	Asian	Hawaiian/ Pacific Islander	Other and Two or More Races	Hispanic
1106.06	Buena Park/La Mirada	35.6%	**8.6%**	0.0%	**35.1%**	0.0%	**20.6%**	**51.4%**
9800	Anaheim	**60.0%**	**20.0%**	0.0%	20.0%	0.0%	0.0%	**80.0%**

Source: United States Census Bureau. 2016-2020 American Community Survey. Demographic and Housing Estimates. Table DP05.
Note: **Bolding** indicates the value is higher than the Orange County average.
-"White" includes individuals who identify themselves as White Non-Hispanics.
-"Other and Two or more Races" includes inviduals who identify themselves as Some Other Race, or two or more races.
-"Hispanic" is considered an ethnicity and is selected in conjunction with a racial identity. Therefore, each jurisidction's percentages will exceed a value of 100%.

Household Size and Composition

Table 4.3 provides information on average household size and composition for the Study Area counties, cities, and census tracts based on the 2016–2020 ACS. The average household sizes in Orange County (3.0 persons) and Los Angeles County (3.0 persons) are generally similar. Of the Study Area census tracts, Census Tract 744.06 reported the largest average household size (4.5 persons) and Census Tract 760.02 reported the lowest average household size (1.9 persons). Table 4.3 also summarizes the percentage breakdown of household composition across the Study Area.

Table 4.3: Household Size and Composition

Area	Jurisdiction	Average Persons per Household	Total Households (%)			
			Family			Nonfamily
			Married-Couple Family Household	Male Householder, No Spouse Present, Family Household	Female Householder, No Spouse Present, Family Household	Nonfamily Household
Orange County	N/A	3.0	55%	5%	12%	29%
Los Angeles County	N/A	3.0	45%	7%	15%	34%
Cities						
Anaheim	Orange County	**3.4**	51%	**6%**	**16%**	27%
Buena Park	Orange County	**3.5**	**59%**	**7%**	**16%**	17%
Fullerton	Orange County	**3.1**	54%	5%	11%	29%
La Mirada	Los Angeles County	**3.1**	**61%**	5%	**13%**	21%
Orange	Orange County	3.0	55%	5%	12%	28%
Santa Ana	Orange County	**4.2**	55%	**9%**	**17%**	19%

Table 4.3: Household Size and Composition

Area	Jurisdiction	Average Persons per Household	Total Households (%)			
			Family			Nonfamily
			Married-Couple Family Household	Male Householder, No Spouse Present, Family Household	Female Householder, No Spouse Present, Family Household	Nonfamily Household
Tustin	Orange County	3.0	53%	**6%**	**13%**	29%
Census Tract						
18.01	Buena Park/Fullerton	**3.4**	42%	**17%**	**18%**	24%
18.02	Buena Park/Fullerton	**3.5**	42%	**8%**	**25%**	25%
19.03	Fullerton/Anaheim	**3.6**	**65%**	**7%**	12%	16%
525.02	Irvine/Tustin	2.9	**67%**	**6%**	10%	17%
525.24	Irvine/Tustin	2.9	55%	**6%**	9%	**31%**
744.05	Santa Ana	**3.8**	44%	**8%**	**30%**	18%
744.06	Santa Ana/Tustin	**4.5**	**67%**	**8%**	**14%**	11%
744.07	Santa Ana/Tustin	**3.8**	49%	**7%**	**24%**	20%
744.08	Tustin	**3.9**	44%	**12%**	**23%**	21%
750.03	Santa Ana	**4.3**	50%	**11%**	**26%**	13%
750.04	Santa Ana	**3.9**	46%	**12%**	**20%**	22%
751	Santa Ana	**3.9**	**58%**	**6%**	**15%**	21%
753.01	Santa Ana/Orange	**3.5**	**60%**	5%	**14%**	21%
753.03	Santa Ana	2.9	**62%**	**8%**	8%	23%
754.01	Santa Ana	**3.2**	**57%**	2%	11%	**31%**
754.03	Santa Ana/Tustin	2.9	44%	5%	10%	**42%**
754.04	Santa Ana/Orange	**3.1**	55%	**9%**	**13%**	22%
755.05	Santa Ana/Tustin	2.5	41%	**10%**	8%	**41%**
755.07	Tustin	2.7	33%	**8%**	**16%**	**43%**
755.12	Tustin	**3.4**	49%	**6%**	**19%**	26%
755.13	Tustin	**3.4**	52%	**8%**	**20%**	21%
755.14	Tustin	**3.8**	43%	**6%**	**24%**	27%
755.17	Santa Ana/Tustin	**3.9**	52%	4%	**15%**	29%
760.01	Santa Ana/Orange	2.8	39%	3%	**19%**	**40%**
760.02	Santa Ana/Orange	1.9	51%	2%	0%	**48%**
761.02	Santa Ana/Orange/ Anaheim	2.8	41%	**8%**	9%	**42%**
761.04	Anaheim/Orange	2.2	25%	**6%**	**14%**	**55%**

Table 4.3: Household Size and Composition

Area	Jurisdiction	Average Persons per Household	Total Households (%)			
			Family			Nonfamily
			Married-Couple Family Household	Male Householder, No Spouse Present, Family Household	Female Householder, No Spouse Present, Family Household	Nonfamily Household
761.05	Orange	**3.2**	**57%**	**6%**	**28%**	9%
863.03	Anaheim/Orange	2.8	44%	1%	**13%**	**42%**
867.01	Anaheim/Fullerton	**4.0**	52%	**7%**	**22%**	18%
867.02	Anaheim	**3.8**	52%	**8%**	**25%**	15%
868.01	Anaheim/Fullerton/ Buena Park	**3.4**	44%	5%	**23%**	27%
868.02	Anaheim/Fullerton	**3.8**	54%	**7%**	**21%**	19%
871.02	Anaheim	**3.9**	43%	**7%**	**24%**	25%
871.05	Anaheim	3.0	33%	**7%**	12%	**48%**
871.06	Anaheim	**3.2**	38%	**10%**	**21%**	**30%**
872	Anaheim	2.7	30%	**13%**	**17%**	**41%**
874.01	Anaheim	**3.1**	**59%**	**7%**	7%	27%
874.03	Anaheim	**4.2**	48%	**13%**	**28%**	12%
874.05	Anaheim	**4.2**	45%	3%	**30%**	22%
875.04	Anaheim	**4.4**	54%	**11%**	**20%**	15%
1104.01	Buena Park/ Anaheim/Fullerton	**3.5**	**63%**	4%	**13%**	19%
1105	Buena Park/Cerritos/ Fullerton/La Mirada	**3.7**	55%	**6%**	**22%**	17%
1106.03	Buena Park/Fullerton	**3.5**	50%	**13%**	**17%**	19%
1106.06	Buena Park/La Mirada	**3.4**	42%	**10%**	**23%**	25%
9800	Anaheim	N/A	N/A	N/A	N/A	N/A

Source: United States Census Bureau. 2016-2020 American Community Survey, Table S1101.
Note: **Bolding** indicates the value is higher than the Orange County average.
N/A = Not Applicable

Income and Poverty Status

To determine the income and poverty characteristics for the Study Area, data was obtained from the 2016–2020 ACS for the Study Area counties, cities, and census tracts.

Table 4.4 provides income and poverty level characteristics for the Study Area counties, cities, and census tracts, as reported in the 2016–2020 ACS. The United States Census Bureau determines the number of persons living below poverty based on its poverty thresholds, which

differ slightly from the poverty guidelines defined by the HHS. For 2021, the United States Census Bureau's preliminary weighted average poverty threshold for a family of four was $27,741 (United States Census Bureau 2022). For 2021, the HHS established a poverty guideline of $26,500 for a family of four (HHS 2022). Therefore, because the available census data related to persons living below the poverty level are based on the United States Census Bureau's poverty thresholds, as recommended in the CEQ guidance, the United States Census Bureau's poverty thresholds rather than the HHS poverty guidelines was utilized. The year 2020 was used here to correspond with the ACS 2016–2020 5-year estimates. As shown in Table 4.4, Orange County reported a median household income of $94,441, which is notably higher than Los Angeles County. Table 4.4 also shows that Census Tract 750.03 reported a median household income of $40,183, which is notably lower than the other census tracts in the Study Area. By comparison, Census Tract 753.03 reported the highest median household income, $123,654.

As shown in Table 4.4, Census Tract 750.03 has a higher percentage of residents living below the poverty level (29.1 percent) than Orange County and the Study Area cities. It is important to note here that Orange County has a lower percentage of persons living in poverty compared to the State of California (12.6 percent) as a whole; however, Los Angeles County has a higher percentage of persons living in poverty (14.2 percent).[13] Thus, Census Tract 750.03 has a higher percentage of persons living in poverty than the State. Census Tract 753.03 reported the lowest percentage of persons living in poverty than Orange County and the State (2.2 percent).

Age Distribution

The median age and age distribution patterns of the population in the Study Area counties, cities, and census tracts are provided in Table 4.5. As shown in Table 4.5, Orange and Los Angeles Counties have similar percentages of their population under the age of 15 (approximately 18 percent). As shown in Table 4.5, Census Tract 744.07 reported the highest percentage of population under the age of 15 (33 percent). Census Tract 9800 reported the highest percentage of population between the ages of 15 and 64 (100 percent). Census Tract 754.01 reported the highest percentage of population over the age of 64 (24.4 percent). Census Tract 755.05 reported the highest median age (45.1 years old) among the Study Area census tracts.

[13] United States Census Bureau. 2016-2020 American Community Survey. Table S1701.

Table 4.4: Income and Poverty Level

Area	Jurisdiction	Total Population for Whom Poverty Status Is Determined	Median Household Income (dollars)	Persons Living in Poverty (%)
Orange County	N/A	317,682	$ 94,441	10.1%
Los Angeles County	N/A	1,401,656	$ 71,358	14.2%
Cities				
Anaheim	Orange County	48,347	$ 76,723	**13.8%**
Buena Park	Orange County	8,400	$ 84,680	**10.3%**
Fullerton	Orange County	17,473	$ 85,471	**12.7%**
La Mirada	Los Angeles County	2,307	$ 92,493	5.1%
Orange	Orange County	13,641	**$ 96,605**	**10.3%**
Santa Ana	Orange County	43,975	$ 72,406	**13.4%**
Tustin	Orange County	8,750	$ 88,386	**10.9%**
Census Tract				
18.01	Buena Park/Fullerton	617	$ 54,750	**11.5%**
18.02	Buena Park/Fullerton	1,516	$ 55,144	**20.1%**
19.03	Fullerton/Anaheim	331	$ 86,685	**10.4%**
525.02	Irvine/Tustin	336	**$ 116,083**	5.9%
525.24	Irvine/Tustin	239	**$ 112,014**	3.1%
744.05	Santa Ana	1,271	$ 47,425	**18.7%**
744.06	Santa Ana/Tustin	655	$ 54,948	**18.0%**
744.07	Santa Ana/Tustin	1,046	$ 50,969	**15.2%**
744.08	Tustin	389	$ 54,988	6.8%
750.03	Santa Ana	2,079	$ 40,183	**29.1%**
750.04	Santa Ana	1,272	$ 45,288	**25.3%**
753.01	Santa Ana/Orange	552	$ 76,147	**10.3%**
753.03	Santa Ana	80	**$ 123,654**	2.2%
754.01	Santa Ana	417	$ 80,651	8.0%
754.03	Santa Ana/Tustin	535	$ 73,194	6.6%
754.04	Santa Ana/Orange	1,050	**$ 95,851**	**14.4%**
755.05	Santa Ana/Tustin	423	$ 71,667	**12.8%**
755.07	Tustin	801	$ 66,628	**15.6%**
755.12	Tustin	267	$ 82,656	7.3%
755.13	Tustin	423	$ 76,588	8.6%
755.14	Tustin	969	$ 56,375	**23.7%**

Table 4.4: Income and Poverty Level

Area	Jurisdiction	Total Population for Whom Poverty Status Is Determined	Median Household Income (dollars)	Persons Living in Poverty (%)
755.17	Santa Ana/Tustin	933	$ 71,389	**15.3%**
760.01	Santa Ana/Orange	985	$ 65,814	**13.1%**
760.02	Santa Ana/Orange	55	$ 89,281	4.9%
761.02	Santa Ana/Orange/Anaheim	710	$ 60,365	**14.5%**
761.04	Anaheim/Orange	623	$ 90,000	**12.2%**
761.05	Orange	626	$ 92,434	**15.0%**
863.03	Anaheim/Orange	1,085	$ 76,641	**12.0%**
867.01	Anaheim/Fullerton	1,215	$ 86,922	**13.4%**
867.02	Anaheim	1,166	$ 63,429	**14.1%**
868.01	Anaheim/Fullerton/Buena Park	287	$ 85,246	8.5%
868.02	Anaheim/Fullerton	687	$ 92,628	**12.0%**
871.02	Anaheim	1,408	$ 64,621	**20.4%**
871.05	Anaheim	622	**$ 100,088**	**10.5%**
871.06	Anaheim	543	$ 45,327	**11.4%**
872	Anaheim	1,493	$ 66,154	**19.5%**
874.01	Anaheim	244	**$ 120,375**	4.6%
874.03	Anaheim	508	$ 56,063	**17.1%**
874.05	Anaheim	1,410	$ 51,763	**28.1%**
875.04	Anaheim	1,733	$ 53,904	**23.4%**
1104.01	Buena Park/Anaheim/Fullerton	566	**$ 99,875**	**12.1%**
1105	Buena Park/Cerritos/Fullerton/ La Mirada	1,185	$ 60,801	**14.2%**
1106.03	Buena Park/Fullerton	1,595	$ 56,563	**20.5%**
1106.06	Buena Park/La Mirada	538	$ 65,682	**13.8%**
9800	Anaheim	0	N/A	N/A

Source: United States Census Bureau. 2016-2020 American Community Survey. Tables S1701 and DP03.
Note: **Bolding** indicates the value is higher than the Orange County average.
-"Persons living in poverty" percentage is based on United States Census Bureau thresholds rather than United States Department of Health and Human Services guidelines. In 2020, the poverty threshold for a household of four people was $26,496.
N/A = Not Applicable

Table 4.5: Age Distribution

Area	Jurisdiction	Median Age	Percent (%)		
			Population <15	Population 15–64	Population >64
Orange County	N/A	38.3	18.1%	67.1%	14.8%
Los Angeles County	N/A	36.7	18.0%	68.3%	13.7%
Cities					
Anaheim	Orange County	34.8	**19.4%**	**68.7%**	11.8%
Buena Park	Orange County	36.7	**19.1%**	66.5%	14.2%
Fullerton	Orange County	35.2	**19.6%**	67.1%	13.2%
La Mirada	Los Angeles County	**41.8**	14.5%	66.3%	**19.2%**
Orange	Orange County	36.2	16.9%	**69.2%**	13.8%
Santa Ana	Orange County	32.6	**20.8%**	**69.4%**	9.8%
Tustin	Orange County	35.5	**20.8%**	66.8%	12.3%
Census Tracts					
18.01	Buena Park/Fullerton	31.6	**19.6%**	**73.6%**	6.6%
18.02	Buena Park/Fullerton	31.9	**25.7%**	66.7%	7.6%
19.03	Fullerton/Anaheim	35.7	**23.9%**	65.0%	11.1%
525.02	Irvine/Tustin	**44.8**	14.1%	65.5%	**20.6%**
525.24	Irvine/Tustin	35	**22.9%**	**69.8%**	7.4%
744.05	Santa Ana	27.2	**27.9%**	64.3%	8.0%
744.06	Santa Ana/Tustin	30.5	**23.6%**	**71.4%**	5.0%
744.07	Santa Ana/Tustin	26.7	**33.0%**	61.1%	5.8%
744.08	Tustin	28	**27.8%**	65.8%	6.5%
750.03	Santa Ana	24.8	**31.4%**	65.1%	3.4%
750.04	Santa Ana	25.4	**29.8%**	66.8%	3.4%
753.01	Santa Ana/Orange	35.7	**18.6%**	**67.6%**	14.0%
754.01	Santa Ana	**43.3**	17.0%	58.6%	**24.4%**
754.03	Santa Ana/Tustin	33.2	**20.4%**	**71.7%**	7.9%
754.04	Santa Ana/Orange	31.5	**19.6%**	**69.5%**	10.8%
754.05	Santa Ana	**39.5**	**18.2%**	66.6%	**15.2%**
755.04	Santa Ana/Tustin	**40.6**	16.9%	64.4%	**18.8%**
755.05	Santa Ana/Tustin	**45.1**	11.7%	**71.0%**	**17.4%**
755.07	Tustin	32.5	15.4%	**76.8%**	7.8%

Table 4.5: Age Distribution

Area	Jurisdiction	Median Age	Percent (%)		
			Population <15	Population 15–64	Population >64
755.12	Tustin	31	**24.2%**	**72.2%**	3.6%
755.13	Tustin	34.1	**18.2%**	**71.9%**	9.8%
755.14	Tustin	29.9	**24.0%**	**67.8%**	8.4%
755.17	Santa Ana/Tustin	27.0	**32.5%**	61.1%	6.3%
760.01	Santa Ana/Orange	**38.4**	16.5%	**69.5%**	14.0%
760.02	Santa Ana/Orange	**40.6**	9.5%	66.2%	**24.3%**
761.02	Santa Ana/Orange/Anaheim	30.8	12.1%	**79.6%**	8.3%
761.04	Anaheim/Orange	31.8	10.7%	**82.2%**	7.2%
761.05	Orange	**39.4**	16.1%	**70.4%**	13.6%
863.03	Anaheim/Orange	31.5	**19.7%**	**69.6%**	10.6%
867.01	Anaheim/Fullerton	36.6	**18.3%**	66.2%	**15.4%**
867.02	Anaheim	32.4	**20.8%**	**72.4%**	6.7%
868.01	Anaheim/Fullerton/Buena Park	35.3	17.4%	**68.6%**	14.0%
868.02	Anaheim/Fullerton	34	16.8%	**68.8%**	14.4%
871.02	Anaheim	27.1	**30.7%**	65.1%	4.1%
871.05	Anaheim	34.8	**21.8%**	58.3%	**20.0%**
871.06	Anaheim	36.4	**20.5%**	59.2%	**20.5%**
872	Anaheim	37.8	14.1%	**73.7%**	12.2%
874.01	Anaheim	34.7	**18.2%**	**74.7%**	7.0%
874.03	Anaheim	33.3	**20.9%**	**72.2%**	6.8%
874.05	Anaheim	27.8	**23.5%**	**70.3%**	6.2%
875.04	Anaheim	30.9	**24.9%**	**68.3%**	6.8%
1104.01	Buena Park/Anaheim/Fullerton	36.2	**19.0%**	**68.5%**	12.4%
1105	Buena Park/Cerritos/Fullerton/La Mirada	35.7	**19.4%**	**68.6%**	11.8%
1106.03	Buena Park/Fullerton	33.1	**21.1%**	**69.7%**	9.2%
1106.06	Buena Park/La Mirada	34.9	**24.4%**	63.0%	12.6%
9800	Anaheim	19.8	0.0%	**100.0%**	0.0%

Source: United States Census Bureau. 2016-2020 American Community Survey. Table DP05.
Note: **Bolding** indicates the value is higher than the Orange County average.

Disability Status

Table 4.6 provides the percentage of individuals reporting some sort of disability, self-care limitation, or low-mobility issue in the Study Area counties, cities, and census tracts (based on 2016–2020 ACS data). The data shows that the percentage of persons with reported disabilities is higher for people ages 65 and above than for people under the age of 65. As shown in Table 4.6, Orange County reported a lower percentage of population 65 and older with a disability status (64 percent) than Los Angeles County (74.4 percent).

Table 4.6: Disability Status

Area	Jurisdiction	Percent of Population with Disability Status	
		Age 0 to 64	Age 65+
Orange County	N/A	16.2%	64.0%
Los Angeles County	N/A	18.2%	74.4%
Cities			
Anaheim	Orange County	16.0%	76.4%
Buena Park	Orange County	**19.0%**	**77.3%**
Fullerton	Orange County	N/A	N/A
La Mirada	Los Angeles County	15.9%	54.8%
Orange	Orange County	15.1%	63.1%
Santa Ana	Orange County	17.5%	70.8%
Tustin	Orange County	13.7%	58.9%
Census Tracts			
18.01	Buena Park/Fullerton	**30.4%**	57.8%
18.02	Buena Park/Fullerton	**30.1%**	**81.5%**
19.03	Fullerton/Anaheim	**22.6%**	**66.8%**
525.02	Irvine/Tustin	**16.3%**	55.8%
525.24	Irvine/Tustin	5.1%	42.3%
744.05	Santa Ana	16.1%	106.3%
744.06	Santa Ana/Tustin	**19.3%**	126.6%
744.07	Santa Ana/Tustin	**17.3%**	104.0%
744.08	Tustin	**19.2%**	86.5%
750.03	Santa Ana	**26.6%**	34.0%
750.04	Santa Ana	**25.0%**	95.8%
753.01	Santa Ana/Orange	14.0%	73.0%
753.03	Santa Ana	10.9%	51.8%
754.01	Santa Ana	10.6%	109.9%
754.03	Santa Ana/Tustin	8.6%	70.0%

Table 4.6: Disability Status

Area	Jurisdiction	Percent of Population with Disability Status	
		Age 0 to 64	Age 65+
754.04	Santa Ana/Orange	**22.7%**	45.7%
755.05	Santa Ana/Tustin	**24.8%**	119.4%
755.07	Tustin	**19.3%**	68.2%
755.12	Tustin	8.5%	28.3%
755.13	Tustin	11.8%	90.0%
755.14	Tustin	9.2%	97.9%
755.17	Santa Ana/Tustin	15.3%	100.0%
760.01	Santa Ana/Orange	13.8%	89.0%
760.02	Santa Ana/Orange	3.2%	73.0%
761.02	Santa Ana/Orange/Anaheim	11.9%	77.5%
761.04	Anaheim/Orange	14.8%	141.3%
761.05	Orange	14.5%	97.0%
863.03	Anaheim/Orange	7.6%	63.3%
867.01	Anaheim/Fullerton	**17.7%**	108.1%
867.02	Anaheim	**26.4%**	97.5%
868.01	Anaheim/Fullerton/Buena Park	**38.2%**	52.2%
868.02	Anaheim/Fullerton	**19.9%**	85.5%
871.02	Anaheim	**22.2%**	83.3%
871.05	Anaheim	**19.4%**	85.5%
871.06	Anaheim	8.5%	92.5%
872	Anaheim	16.3%	105.7%
874.01	Anaheim	15.0%	94.5%
874.03	Anaheim	10.9%	90.0%
874.05	Anaheim	22.4%	88.8%
875.04	Anaheim	15.4%	80.0%
1104.01	Buena Park/Anaheim/Fullerton	14.7%	52.4%
1105	Buena Park/Cerritos/Fullerton/La Mirada	**32.7%**	90.7%
1106.03	Buena Park/Fullerton	**23.5%**	93.9%
1106.06	Buena Park/La Mirada	**22.7%**	110.1%
9800	Anaheim	0.0%	0.0%

Source: United States Census Bureau. 2016-2020 American Community Survey. Table S1810.
Note: **Bolding** indicates the value is higher than the Orange County average.

Several Study Area census tracts reported a higher percentage of the population 65 years and over with a reported disability than both Orange County and Los Angeles County. Census tracts with reported values for 65+ that exceed 100 percent may indicate elderly persons with worsening conditions or persons with a combination of physical disability, self-care limitation, or low-mobility issues.

4.1.1.2 Neighborhoods/Communities/Community Character

Community character encompasses many attributes, including social and economic characteristics, and assets that make a community unique and that establish a sense of place for its residents. As described in Chapter 2, Land Use, the Study Area consists of varying densities of residential uses, commercial land uses, mixed-use areas consisting of retail/housing, open space, public and institutional land uses, and I-5.

Community cohesion is the degree to which residents have a sense of belonging to their neighborhood, a level of commitment to the community, or a strong attachment to neighbors, groups, and institutions, usually due to continued association over time.

Demographic data compiled by the United States Census Bureau, including the 2016–2020 ACS 5-year estimates and the 2020 Decennial Census, may be used to measure a community's level of cohesion. The following demographic indicators tend to correlate with a higher degree of community cohesion and are used to determine the degree of community cohesion in the Study Area cities and census tracts.

- **Ethnicity:** In general, homogeneity of the population contributes to higher levels of community cohesion. Communities that are ethnically homogeneous often speak the same language, hold similar beliefs, and share a common culture and, therefore, are more likely to engage in social interaction on a routine basis. The United States Census Bureau compiles limited data regarding ethnicity. While the United States Census Bureau provides data regarding Hispanic/Latino origin, the language spoken at home, and ancestry, the Census Bureau does not provide data regarding religion. Although the Census data provides an incomplete picture of ethnic identity, Table B16001 of the 2011–2015 ACS,[14] which provides data regarding the primary language spoken at home by residents 5 years and over, can be used to isolate discernable ethnically homogenous communities[15] within the general population by identifying large groups of people that share a common language and, presumably, many shared cultural characteristics.

[14] Prior to 2016, Table B16001 provided data points for 42 non-English-language categories. Since 2016, geographic restrictions have been placed on the 5-year estimates to protect the privacy of speakers of smaller languages (County and census tract-level data are no longer available for Table B16001). Thus, the 2011–2015 ACS was utilized for the purpose of this analysis.

[15] An ethnically homogenous community is a geographic area with a high population concentration of a particular ethnic group. Ethnically homogenous communities often possess a strong cultural identity, are frequently home to places of worship and other cultural institutions that reflect local ethnic traditions, and feature a cluster of businesses that cater to the local ethnic group by providing familiar goods and services. Due to their shared cultural background, residents of ethnically homogenous communities often demonstrate a strong sense of community cohesion.

- **Household Size:** In general, communities with a high percentage of families with children are more cohesive than communities consisting largely of single people. This appears to be because children tend to establish friendships with other children in their community. The social networks of children often lead to the establishment of friendships and affiliations among parents in the community. Table S1101 of the 2016-2020 ACS 5-Year Estimates provide data regarding the average household sizes across different household characteristics.
- **Housing Occupancy:** Communities with a high percentage of owner-occupied residences are typically more cohesive because their populations tend to be less mobile. Because they have a financial stake in their community, homeowners often take a greater interest in what is happening in their community than renters do. This means they often have a stronger sense of belonging to their community. Table B07013 of the 2016-2020 ACS 5-Year Estimates provide data regarding the number of housing units in the Study Area that are owner-occupied.
- **Elderly Residents:** In general, communities with a high percentage of elderly residents (65 years or older) tend to demonstrate a greater social commitment to their community. This is because the elderly population, which includes retirees, often tends to be more active in the community since they have more time available for volunteering and participating in social organizations. Table B01001 of the 2016-2020 ACS 5-Year Estimates provides data regarding the age of the population in the Study Area.
- **Transit-Dependent Population**: Communities with a high percentage of residents who are dependent on public transportation typically tend to be more cohesive than communities that are dependent on automobiles for transportation. This is because residents who tend to walk or use public transportation for travel tend to engage in social interaction with each other more frequently than residents who travel by automobile. Although the United States Census Bureau does not provide specific data regarding the percentage of the population that is dependent on public transportation for travel, the 2016-2020 ACS 5-Year Estimates do provide a series of demographic data that can be used to serve as a proxy for the transit-dependent population. For purposes of this analysis, the transit-dependent population was calculated by taking the number of residents aged 15 and over (as reported in Table B01001 of the 2016-2020 ACS 5-Year Estimate data), subtracting the number of persons living in group quarters (e.g., college residence halls, skilled nursing facilities, correctional facilities, and other group living environments where driving is not typically required, as reported in Table B26001 of the 2016-2020 ACS 5 Year Estimate data), subtracting the number of vehicles available (as reported in Table B25046 of the 2016-2020 ACS 5-Year Estimate data), and then dividing the difference by the population aged 15 and over.
- **Housing Tenure:** Communities with a high percentage of long-term residents are typically more cohesive because a greater proportion of the population has had time to establish social networks and develop an identity within the community. Tables B07013 and B25026 of the 2016–2020 ACS 5-Year Estimate data provide data regarding the year that each householder in the Study Area moved into their current housing unit, as well as owner or renter household data. For this analysis, those households that moved into their current residence in 2014 or earlier are considered long-term residents since they have lived in their current residence for more than 8 years.

These indicators of community cohesion in the Study Area are described in greater detail below.

Ethnicity

Table 4.7 provides data regarding the language spoken in residences in the Study Area counties, cities, and census tracts as reported in the 2011–2015 ACS from Table B16001. Prior to 2016, Table B16001 provided data points for 42 non-English-language categories. Since 2016, geographic restrictions have been placed on the 5-year estimates to protect the privacy of speakers of smaller languages (County and census tract-level data are no longer available for Table B16001). For the Study Area, the ACS estimates now reflect more generalized language data by collapsing 42 language groups that had 200,000 or more speakers nationwide in 2016 into four broad language categories (Spanish, Other Indo-European languages, Asian and Pacific Island languages, and all other languages). To appropriately identify the likelihood that an ethnically homogenous community may exist, more detailed data is required than the four broad language categories provided in the most recent 2016–2020 ACS. Therefore, Table 4.7 relies on the version of Table B16001 compiled with 2011–2015 ACS data, which provides data regarding all 42 languages. The data was then reorganized to report only the languages that could potentially identify an ethnically homogenous community.

Additionally, the United States Census Bureau redetermined census tract boundaries in 2020. At the time of the 2011–2015 ACS, the census tracts included in Table 4.7 occupied the same geographical area as those identified in Section 1.5, Study Area (2016–2020 ACS).

Table 4.7 identifies whether ethnically homogenous communities are likely to exist in the Study Area. Ethnically homogenous communities were identified in cities when 2,000 or more residents speak a language other than English at home. This criterion was developed based on a reasonable estimate of the minimum number of residents required before ethnic places of worship, cultural institutions, and/or business districts were established in the community. Ethnically homogenous communities were identified in a census tract when both of the following criteria were met: (1) 500 or more residents speak a language other than English at home; *and* (2) at least 5 percent of the population in that census tract speaks that language at home. Similar to the criteria developed for the cities, these criteria were based on a reasonable estimate of the minimum number of residents required before ethnic places of worship, cultural institutions, and/or business districts are established in close proximity to the census tract.

Many Study Area cities reported Spanish or Spanish Creole as the most spoken language at home. As shown in Table 4.7, at least one potentially ethnically homogenous community was identified in most Study Area cities. Communities speaking Spanish or Spanish Creole at home was the most often reported potentially ethnically homogenous community, Korean was the second most often reported, and Vietnamese was the third. The Study Area city with the most potential ethnically homogenous communities was Anaheim, which includes four ethnically homogenous communities.

Table 4.7: Language Spoken at Home

Area	Jurisdiction	Total:	Speak Only English[1]	Spanish or Spanish Creole[2]	Armenian:	Persian:	Chinese:	Japanese:	Korean:	Vietnamese:	Tagalog:	Arabic:	Other and Unspecified Languages[3]	Ethnically Homogenous
Orange County	N/A	2,924,969	1,587,426	770,012	3,396	31,593	71,112	15,440	76,934	172,876	48,176	21,792	126,212	**N/A**
Los Angeles County	N/A	9,396,753	4,062,062	3,703,685	171,297	74,136	364,931	52,243	183,717	80,051	230,956	43,908	429,767	**N/A**
Cities														
Anaheim	Orange County	320,603	124,319	***141,145**	416	2,116	3,946	823	***5,807**	***15,454**	***9,087**	3,831	13,659	**4**
Buena Park	Orange County	77,102	35,186	***20,932**	61	92	1,177	167	***8,225**	1,034	***5,348**	400	4,480	**3**
Fullerton	Orange County	130,239	67,986	***32,704**	51	498	4,692	489	***13,510**	1,635	2,219	536	5,919	**2**
La Mirada	Los Angeles County	46,474	26,316	***11,789**	16	54	448	98	3,726	222	1,942	104	1,759	**1**
Orange	Orange County	131,147	78,090	***36,615**	152	654	1,926	543	1,622	3,423	2,283	928	4,911	**1**
Santa Ana	Orange County	306,235	53,954	***219,778**	49	321	2,132	399	688	***21,888**	1,928	330	4,768	**2**
Tustin	Orange County	72,787	33,911	***24,411**	160	775	2,634	269	1,946	3,053	1,432	229	3,967	**1**
Census Tracts														
18.01	Buena Park/ Fullerton	4,451	1,508	***2,194**	0	1	98	0	263	142	136	0	109	**1**
18.02	Buena Park/ Fullerton	7,540	3,046	***3,759**	0	0	43	24	471	1	23	31	142	**1**
19.03	Fullerton/ Anaheim	3,240	1,367	***1,417**	0	0	34	35	78	64	152	0	93	**1**
525.02	Irvine/Tustin	6,004	3,479	***1,198**	78	7	94	19	149	336	167	55	422	**1**
525.24	Irvine/Tustin	8,379	4,371	***2,160**	69	179	299	13	***500**	373	67	73	275	**2**
744.05	Santa Ana	5,284	521	***4,571**	0	5	4	17	14	83	45	0	24	**1**

Area	Jurisdiction	Total:	Speak Only English[1]	Spanish or Spanish Creole[2]	Armenian:	Persian:	Chinese:	Japanese:	Korean:	Vietnamese:	Tagalog:	Arabic:	Other and Unspecified Languages[3]	Ethnically Homogenous
744.06	Santa Ana/Tustin	3,110	387	***2,688**	0	0	0	0	0	5	4	0	26	**1**
744.07	Santa Ana/Tustin	5,710	836	***4,588**	0	42	0	0	42	28	10	31	133	**1**
744.08	Tustin	5,149	965	***3,963**	0	0	15	0	92	41	44	0	29	**1**
750.03	Santa Ana	6,430	274	***6,026**	0	0	0	0	0	84	0	0	46	**1**
750.04	Santa Ana	4,569	383	***4,158**	0	0	0	0	0	28	0	0	0	**1**
753.01	Santa Ana/ Orange	5,788	2,094	***3,138**	0	0	20	0	11	461	19	0	45	**1**
753.03	Santa Ana	3,035	1,629	***1,119**	0	0	0	0	0	92	139	0	56	**1**
754.01	Santa Ana	3,618	1,764	***1,493**	0	0	0	0	0	165	56	32	108	**1**
754.03	Santa Ana/Tustin	7,084	2,532	***3,910**	0	49	47	16	18	119	115	0	278	**1**
754.04	Santa Ana/ Orange	5,733	1,893	***3,498**	0	0	182	0	0	124	16	0	20	**1**
755.05	Santa Ana/Tustin	3,396	1,963	***1,017**	0	10	141	0	128	30	10	0	97	**1**
755.07	Tustin	5,314	2,547	***1,720**	0	37	82	7	178	71	99	0	573	**1**
755.12	Tustin	3,559	1,164	***1,695**	0	27	119	0	14	99	55	12	374	**1**
755.13	Tustin	5,343	1,421	***2,766**	0	7	9	0	73	237	250	0	580	**1**
755.14	Tustin	3,660	817	***2,258**	0	0	21	7	0	276	100	0	181	**1**
761.02	Santa Ana/ Orange/Anaheim	7,489	2,955	***3,179**	0	25	50	7	462	314	138	97	262	**1**
863.03	Anaheim/Orange	6,257	2,994	***1,898**	0	0	39	0	144	138	170	171	703	**1**
867.01	Anaheim/ Fullerton	8,402	3,116	***3,381**	0	0	61	21	245	***671**	286	0	621	**2**

Area	Jurisdiction	Total:	Speak Only English[1]	Spanish or Spanish Creole[2]	Armenian:	Persian:	Chinese:	Japanese:	Korean:	Vietnamese:	Tagalog:	Arabic:	Other and Unspecified Languages[3]	Ethnically Homogenous
867.02	Anaheim	6,294	1,749	***3,528**	0	111	31	0	50	110	204	122	389	**1**
868.01	Anaheim/ Fullerton/Buena Park	3,342	1,710	***1,096**	0	9	0	23	5	77	140	7	275	**1**
868.02	Anaheim/ Fullerton	5,596	1,415	***2,934**	0	14	105	70	82	404	240	8	324	**1**
871.02	Anaheim	5,030	1,826	***2,442**	0	0	8	0	246	123	101	99	185	**1**
871.05	Anaheim	4,090	1,634	***1,394**	0	0	179	4	72	368	137	122	180	**1**
871.06	Anaheim	4,867	1,641	***2,752**	0	0	0	0	82	202	59	0	131	**1**
872	Anaheim	7,914	3,430	***3,947**	0	11	63	0	49	75	183	39	117	**1**
874.01	Anaheim	3,919	1,397	***2,016**	0	0	87	16	137	170	90	0	6	**1**
874.03	Anaheim	2,833	342	***2,374**	0	0	0	5	14	43	26	0	29	**1**
874.05	Anaheim	5,447	822	***4,334**	0	14	40	0	19	34	134	50	0	**1**
875.04	Anaheim	7,111	1,113	***5,377**	0	0	0	11	56	375	80	47	52	**1**
1104.01	Buena Park/ Anaheim/ Fullerton	4,993	2,410	***1,377**	0	19	80	0	32	0	***709**	37	329	2
1105	Buena Park/ Cerritos/ Fullerton/La Mirada	7,759	2,992	***3,477**	0	0	43	0	***581**	22	440	74	130	2
1106.03	Buena Park/ Fullerton	8,214	2,944	***3,993**	0	1	101	0	***905**	0	129	0	141	2

Area	Jurisdiction	Total:	Speak Only English[1]	Spanish or Spanish Creole[2]	Armenian:	Persian:	Chinese:	Japanese:	Korean:	Vietnamese:	Tagalog:	Arabic:	Other and Unspecified Languages[3]	Ethnically Homogenous Communities[4]
1106.06	Buena Park/La Mirada	4,274	1,190	***2,096**	0	0	26	0	248	2	480	0	232	1
9800	Anaheim	30	21	9	0	0	0	0	0	0	0	0	0	0

Source: United States Census Bureau, ACS 2015 5-year Estimates; Table B16001.

Source Note: In the 5 years that have passed since the 2011–2015 ACS sample data were collected, population sizes have slightly increased, but not substantially (please refer to Section 3.1 for a detailed discussion of population growth). Therefore, the 2011–2015 ACS data provided here likely reflect the current general demographics of the Study Area and represent the best available information regarding demographics in that area.

Note: **Bold numbers** indicate the values are higher than the total for Orange County as a whole.

Numbers marked with an asterisk (*) indicate the likely presence of an ethnically homogenous community.

[1] English only.

[2] Includes Spanish Creole.

[3] Includes French (Patois, Cajun), French Creole, Italian, Portuguese or Portuguese Creole, German, Yiddish, Other West Germanic Languages, Scandinavian Languages, Greek, Russian, Polish, Serbo-Croatian, Other Slavic Languages, Gujarati, Hindi, Urdu, Other Indic Languages, Other Indo-European Languages, Mon-Khmer, Cambodian, Hmong, Thai, Laotian, Other Asian Languages, Other Pacific Island Languages, Navajo, Other Native North American Languages, Hungarian, Hebrew, and African Languages.

[4] An ethnically homogenous community is likely to exist in a city when 2,000 or more residents speak a language other than English at home. Ethnically homogenous communities are likely to exist in a census tract when both of the following criteria are met: (1) 500 or more residents speak a language other than English at home; and (2) at least 5 percent of the population in that census tract speaks that language at home.

ACS = American Community Survey

Household Size

Table 4.8 provides a summary of the community cohesion indicators for the Study Area counties, cities, and census tracts based on 2016–2020 ACS data, including the average household size. Census Tract 744.06 reported the largest average household size within the entire study area (4.5 persons), and Census Tract 760.02 reported the smallest average household size (2.0 persons).

Elderly Residents

Table 4.8 also provides the percentage of the population that is elderly (65 years or older) in the Study Area counties, cities, and census tracts based on 2016–2020 ACS data. Census Tract 760.02 reported the highest percentage of elderly residents (24.3 percent). Census Tracts 750.03 and 750.04 reported the smallest percentage of elderly residents (3.4 percent).

Table 4.8: Community Cohesion Indicators

Area	Jurisdiction	Average Household Size (persons)[1]	Owner Occupied Residences[2]	Elderly Residents (>64 years old)[3]	Long Term Residents (Moved in 2014 or Earlier)[4]	Ethnically Homogenous Communities	Transit Dependent Population (%)[4]
Orange County	N/A	3.0	57.1%	14.8%	68.7%	N/A	0.2%
Los Angeles County	N/A	3.0	49.3%	13.7%	73.0%	N/A	0.2%
Cities							
Anaheim	Orange County	**3.4**	45.0%	11.8%	**69.8%**	4	0.7%
Buena Park	Orange County	**3.5**	58.0%	14.2%	**71.5%**	3	0.0%
Fullerton	Orange County	**3.1**	52.8%	13.2%	66.0%	2	0.6%
La Mirada	Los Angeles County	**3.1**	**79.7%**	19.2%	**81.3%**	1	N/A
Orange	Orange County	3.0	**58.6%**	13.8%	**71.2%**	1	N/A
Santa Ana	Orange County	4.2	46.2%	9.8%	**75.1%**	2	N/A
Tustin	Orange County	3.0	49.1%	12.3%	61.9%	1	N/A
Census Tracts							
18.01	Buena Park/ Fullerton	**3.4**	19.4%	6.6%	60.3%	1	0.2%
18.02	Buena Park/ Fullerton	**3.5**	32.3%	7.6%	**71.1%**	1	0.2%
19.03	Fullerton/ Anaheim	**3.6**	55.5%	11.1%	**69.7%**	1	**0.6%**
525.02	Irvine/Tustin	3.0	**83.7%**	**20.6%**	**83.8%**	1	**0.5%**
525.24	Irvine/Tustin	2.9	51.4%	7.4%	53.4%	2	**0.5%**
744.05	Santa Ana	**3.8**	13.4%	8.0%	**70.8%**	1	**0.5%**

Table 4.8: Community Cohesion Indicators

Area	Jurisdiction	Average Household Size (persons)[1]	Owner Occupied Residences[2]	Elderly Residents (>64 years old)[3]	Long Term Residents (Moved in 2014 or Earlier)[4]	Ethnically Homogenous Communities	Transit Dependent Population (%)[4]
744.06	Santa Ana/Tustin	**4.5**	45.2%	5.0%	**81.1%**	1	**0.3%**
744.07	Santa Ana/Tustin	**3.8**	16.2%	5.8%	56.7%	1	0.2%
744.08	Tustin	**3.9**	26.1%	6.5%	45.9%	1	**0.5%**
750.03	Santa Ana	**4.3**	2.5%	3.4%	**73.2%**	1	**0.4%**
750.04	Santa Ana	**3.9**	4.9%	3.4%	**74.9%**	1	0.0%
753.01	Santa Ana/Orange	**3.5**	55.8%	14.0%	68.6%	1	0.1%
753.03	Santa Ana	2.9	**80.2%**	**20.4%**	62.7%	1	0.1%
754.04	Santa Ana/Orange	3.1	44.5%	10.8%	48.6%	1	-0.02%
755.05	Santa Ana/Tustin	2.5	43.9%	17.4%	67.6%	1	**0.6%**
755.07	Tustin	2.7	22.8%	7.8%	51.8%	1	**0.5%**
755.12	Tustin	3.4	33.4%	3.6%	40.7%	1	**0.4%**
755.13	Tustin	**3.4**	35.2%	9.8%	68.0%	1	**0.4%**
755.14	Tustin	**3.8**	23.3%	8.4%	61.3%	1	0.0%
755.17	Santa Ana/Tustin	**3.92**	12.9%	6.3%	67.6%	N/A	0.0%
760.01	Santa Ana/Orange	2.8	50.0%	14.0%	68.4%	N/A	0.0%
760.02	Santa Ana/Orange	2.0	37.1%	**24.3%**	42.4%	N/A	0.2%
761.02	Santa Ana/ Orange/Anaheim	2.8	12.3%	8.3%	41.9%	N/A	**0.4%**
761.04	Anaheim/Orange	2.2	7.3%	7.2%	30.7%	1	**0.6%**
761.05	Orange	**3.2**	**59.8%**	13.6%	77.4%	N/A	**0.5%**
863.03	Anaheim/Orange	2.8	24.0%	10.6%	39.1%	1	0.03%
867.01	Anaheim/ Fullerton	**4.0**	**66.3%**	**15.4%**	**75.0%**	2	0.02%
867.02	Anaheim	**3.8**	35.1%	6.7%	59.6%	1	**0.3%**
868.01	Anaheim/ Fullerton/Buena Park	**3.4**	66.1%	14.0%	**82.2%**	1	**0.6%**
868.02	Anaheim/ Fullerton	**3.8**	37.8%	14.4%	61.9%	1	**0.4%**
871.02	Anaheim	**3.9**	14.1%	4.1%	54.1%	1	**0.4%**
871.05	Anaheim	**3.0**	47.4%	**20.0%**	60.6%	1	0.0%
871.06	Anaheim	**3.2**	34.3%	**20.5%**	**70.4%**	1	0.0%
872	Anaheim	2.7	48.2%	12.2%	**74.8%**	1	0.4%

Table 4.8: Community Cohesion Indicators

Area	Jurisdiction	Average Household Size (persons)[1]	Owner Occupied Residences[2]	Elderly Residents (>64 years old)[3]	Long Term Residents (Moved in 2014 or Earlier)[4]	Ethnically Homogenous Communities	Transit Dependent Population (%)[4]
874.01	Anaheim	**3.1**	86.1%	7.0%	68.4%	1	0.0%
874.03	Anaheim	**4.2**	33.8%	6.8%	**77.4%**	1	0.0%
874.05	Anaheim	**4.2**	19.5%	6.2%	**86.8%**	1	0.4%
875.04	Anaheim	**4.4**	15.5%	6.8%	**76.5%**	1	N/A
1104.01	Buena Park/ Anaheim/ Fullerton	**3.5**	78.1%	12.4%	**74.0%**	2	N/A
1105	Buena Park/ Cerritos/Fullerton/ La Mirada	**3.7**	29.9%	11.8%	68.1%	2	0.0%
1106.03	Buena Park/ Fullerton	**3.5**	14.5%	9.2%	58.8%	2	0.0%
1106.06	Buena Park/La Mirada	**3.4**	28.1%	12.6%	67.7%	1	0.0%
9800	Anaheim	N/A	N/A	0.0%	N/A	0	0.0%

Note: **Bolding** indicates the value is higher than the Orange County average.
[1] US Census. 2016-2020 American Community Survey, Table S1101.
[2] US Census. 2016-2020 American Community Survey, Table B07013.
[3] US Census. 2016-2020 American Community Survey, Table DP05.
[4] US Census. 2016-2020 American Community Survey, Table B25026.
ACS = American Community Survey
N/A = Not Available
US Census = United States Census Bureau

Housing Tenure

Table 4.8 also provides the percentage of the population that moved into their current residences in 2014 or earlier in the Study Area counties, cities, and census tracts. Of the Study Area census tracts, Census Tract 874.05 (86.8 percent) has the highest percentage of long-term residents. Census Tract 761.04 reported the lowest percentage of long-term residents (30.7 percent).

Transit Dependent Population

Table 4.8 also provides the percentage of the population that is transit-dependent in the Study Area counties, cities, and census tracts. The transit-dependent population comprises a very small portion of the Study Area cities and census tracts, which can be attributed to the combination of the built environment and the essential need of non-transit options to travel within the Study Area.

Summary

As shown in Table 4.8, most of the Study Area census tracts appear to have at least one ethnically homogenous community (primarily a Spanish-, Korean-, or Vietnamese-speaking community).

As shown in Table 4.8, about half of the Study Area census tracts reported higher average household size than Orange County. Very few Study Area census tracts reported a higher percentage of elderly residents than Orange County. Few of the Study Area census tracts reported higher percentages of residents who own their homes than Orange County, and few Study Area census tracts reported higher percentages of long-term residents than Orange County.

According to the methodology used in this CIA, almost all of the Study Area census tracts exibit at least one to three community cohesion indicators in comparison to the overall Orange County population. Four of the Study Area census tracts did not exhibit any community cohesion indicators in comparison to the overall Orange County population (Census Tracts 525.24, 755.07, 761.02, and 761.04). Based on these factors, the Study Area appears to exhibit a low to moderate degree of community cohesion.

4.1.1.3 Housing

Households

Table 4.9 shows the number of existing and projected households based on the 2020–2045 Connect SoCal RTP/SCS, respectively. The 2055 projected households were forecasted using existing trends. As seen in Table 4.9, the number of households in Orange County is projected to increase by approximately 17.9 percent between 2016 and 2055. Table 4.9 also shows that the number of households in Los Angeles County is projected to increase by approximately 33.2 percent during the same time period. Of the Study Area cities, the City of Anaheim is projected to have the highest household increase (28.7%) in comparison to the other Study Area cities. The City of Santa Ana is projected to have the lowest household increase (11.3%) in comparison to the other Study Area cities.

Table 4.10 provides information regarding the types of housing, vacancy rate, and median home price/rent in the Study Area counties, cities, and census tracts based on 2016–2020 ACS data.

Table 4.9: Existing and Projected Households

Jurisdiction	2016	2030	2035	2045	2055	Percent Increase 2016 to 2055
Orange County	1,025,000	1,104,000	1,125,000	1,154,000	1,208,099	17.9%
Los Angeles County	3,319,000	3,749,000	3,885,000	4,119,000	4,420,622	33.2%
Study Area Cities						
Anaheim	101,100	N/A	N/A	122,700	130,148	28.7%
Buena Park	24,200	N/A	N/A	28,600	30,117	24.5%
Fullerton	46,400	N/A	N/A	52,900	55,141	18.8%
La Mirada	14,700	N/A	N/A	16,200	16,717	13.7%
Orange	43,700	N/A	N/A	48,700	50,424	15.4%
Santa Ana	73,900	N/A	N/A	80,100	82,237	11.3%
Tustin	26,500	N/A	N/A	30,600	32,013	20.8%

Source: Southern California Association of Governments, 2020 b.
Note: The Southern California Association of Governments 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy Draft Growth Forecast does not include forecasts for census tracts.

Table 4.10: Housing Profile

Area	Median Home Value[1]	Median Gross Rent[2]	Homeowner Vacancy Rate[3]	1 Unit Detached (% of total)[4]	1 Unit Attached (% of total)[4]	2 4 Units (% of total)[4]	5 or More Units (% of total)[4]	Mobile Homes (% of total)[4]
Orange County	$703,800	$1,928	1	74.6%	14.9%	2.3%	4.6%	3.5%
Los Angeles County	$615,500	$1,534	1	81.5%	6.7%	2.2%	7.3%	2.5%
Cities								
Anaheim	$602,400	$1,743	0.9	**75.3%**	14.2%	**2.4%**	3.5%	**4.6%**
Buena Park	$608,800	$1,723	0.6	**87.9%**	8.5%	0.8%	0.6%	2.1%
Fullerton	$667,300	$1,718	0.6	**82.5%**	10.4%	1.3%	3.2%	2.6%
La Mirada	$606,200	$1,555	0.3	**90.9%**	3.5%	1.2%	3.7%	0.7%
Orange	$680,300	$1,857	**1.4**	**79.6%**	10.5%	**3.0%**	3.7%	3.2%
Santa Ana	$525,900	$1,626	0.6	**76.6%**	7.9%	**2.6%**	**6.2%**	**6.8%**
Tustin	$693,000	$1,885	**1.1**	63.4%	**21.6%**	**4.2%**	**5.6%**	**5.2%**

Table 4.10: Housing Profile

Area	Median Home Value[1]	Median Gross Rent[2]	Homeowner Vacancy Rate[3]	1 Unit Detached (% of total)[4]	1 Unit Attached (% of total)[4]	2 4 Units (% of total)[4]	5 or More Units (% of total)[4]	Mobile Homes (% of total)[4]
Census Tracts								
18.01	$528,800	$1,506	0	**88.4%**	11.6%	0.0%	0.0%	0.0%
18.02	$484,800	$1,407	**4**	73.6%	8.0%	**5.7%**	1.5%	**11.2%**
19.03	$558,200	$1,736	0	**90.6%**	1.7%	**2.6%**	2.0%	3.1%
525.02	$655,900	**$2,478**	0	**81.0%**	8.3%	0.7%	0.0%	**10.0%**
525.24	**$753,500**	**$2,482**	0	71.9%	**22.0%**	**3.0%**	3.1%	0.0%
525.33	**$851,500**	**$2,678**	0	**86.8%**	11.1%	0.0%	2.1%	0.0%
525.34	N/A	**$2,349**	N/A	N/A	N/A	0.0%	0.0%	N/A
744.05	$466,400	$1,280	**9.4**	52.8%	**29.0%**	0.0%	**18.3%**	0.0%
744.06	$571,300	$1,363	0	**87.0%**	9.6%	1.5%	1.9%	0.0%
744.07	$173,900	$1,711	**3.5**	2.4%	6.3%	**34.0%**	**6.1%**	**51.1%**
744.08	N/A	$1,702	0	7.2%	**26.5%**	**15.7%**	4.1%	**46.4%**
750.03	$450,000	$1,358	0	**100.0%**	0.0%	0.0%	0.0%	0.0%
750.04	$410,900	$1,299	0	70.7%	0.0%	0.0%	**29.3%**	0.0%
753.01	$690,400	$1,620	0	**98.2%**	1.2%	0.6%	0.0%	0.0%
753.03	**$869,100**	$1,460	0	**94.1%**	2.0%	0.7%	3.2%	0.0%
754.01	$657,600	$1,392	0	**99.3%**	0.7%	0.0%	0.0%	0.0%
754.03	$476,200	**$2,071**	0.5	57.0%	11.1%	**5.1%**	**26.8%**	0.0%
754.04	$596,700	$1,855	0	**86.4%**	5.2%	0.0%	0.0%	**8.5%**
754.05	$589,700	$1,886	**1.9**	70.4%	**22.6%**	**4.7%**	2.4%	0.0%
755.04	$765,400	$1,660	**1.9**	**82.8%**	10.8%	**2.9%**	3.5%	0.0%
755.05	$564,700	$1,636	**8.2**	56.7%	21.5%	**7.5%**	8.7%	**5.6%**
755.07	$608,400	$1,828	**9**	58.7%	**18.1%**	**9.9%**	**13.4%**	0.0%
755.12	$617,600	$1,776	0	**88.3%**	5.4%	0.0%	6.2%	0.0%
755.13	$392,700	$1,862	**7.6**	23.0%	**32.6%**	**6.9%**	**17.3%**	**20.2%**
755.14	$533,000	$1,604	0	47.0%	**16.4%**	**25.5%**	6.5%	**4.7%**
755.17	$548,800	$1,792	0	38.9%	**30.3%**	**30.8%**	0.0%	0.0%
760.01	$480,200	$1,816	0	48.4%	**27.8%**	1.6%	**22.2%**	0.0%
760.02	$628,400	**$2,221**	0	11.0%	**66.2%**	0.0%	**22.8%**	0.0%
761.02	$350,000	$1,793	0	23.8%	**21.5%**	0.0%	**15.7%**	**39.0%**
761.04	$59,600	**$2,398**	0	0.0%	0.0%	0.0%	0.0%	**100.0%**
761.05	$627,500	$1,841	0	**100.0%**	0.0%	0.0%	0.0%	0.0%

Table 4.10: Housing Profile

Area	Median Home Value[1]	Median Gross Rent[2]	Homeowner Vacancy Rate[3]	1 Unit Detached (% of total)[4]	1 Unit Attached (% of total)[4]	2 4 Units (% of total)[4]	5 or More Units (% of total)[4]	Mobile Homes (% of total)[4]
863.03	$487,600	**$2,113**	**4.5**	45.5%	12.2%	0.0%	**20.7%**	**21.6%**
867.01	$482,700	$1,614	**2.9**	63.5%	14.7%	**3.3%**	0.0%	**18.5%**
867.02	$509,300	$1,636	0	51.9%	**29.6%**	**14.3%**	4.2%	0.0%
868.01	$527,600	$1,508	0	**76.0%**	**15.7%**	**7.6%**	0.6%	0.0%
868.02	$598,800	$1,833	0	**100.0%**	0.0%	0.0%	0.0%	0.0%
871.02	$484,900	$1,774	0	64.3%	**18.1%**	**11.6%**	**6.1%**	0.0%
871.05	$606,800	$1,546	0	**98.0%**	2.0%	0.0%	0.0%	0.0%
871.06	$591,000	$1,302	0	**93.5%**	4.0%	**2.5%**	0.0%	0.0%
872	$549,500	$1,687	**4.1**	71.5%	1.8%	**5.1%**	**21.6%**	0.0%
874.01	$582,900	**$2,225**	0.9	62.3%	**32.1%**	**2.4%**	3.2%	0.0%
874.03	$340,800	$1,581	0	51.4%	4.0%	**4.7%**	1.6%	**38.3%**
874.05	$429,200	$1,413	0	55.4%	**19.8%**	0.0%	**24.8%**	0.0%
875.04	$462,800	$1,649	0	50.0%	12.0%	**11.6%**	0.0%	**26.4%**
1104.01	$601,400	**$1,996**	**1.4**	**92.2%**	7.8%	0.0%	0.0%	0.0%
1105	$511,300	$1,423	0	**92.8%**	5.0%	2.2%	0.0%	0.0%
1106.03	$589,600	$1,693	**20.8**	**100.0%**	0.0%	0.0%	0.0%	0.0%
1106.06	$548,600	$1,588	0	**84.9%**	10.3%	0.0%	**4.7%**	0.0%
9800	N/A	N/A	N/A	N/A	N/A	0.0%	0.0%	N/A

Note: **Bolding** indicates the value is higher than the Orange County average.

[1] US Census. 2016–2020 American Community Survey. Table B25077 – Median Value (Dollars): Owner-Occupied Housing Units

[2] US Census. 2016–2020 American Community Survey. Table B25064 – Median Gross Rent (Dollars)

[3] US Census. 2016–2020 American Community Survey. Table DP04 – Selected Housing Characteristics

[4] US Census. 2016–2020 American Community Survey. Table S2504 – Physical Housing Characteristics for Owner-Occupied Housing Units

N/A = Not Available

US Census = United States Census Bureau

Of the Study Area census tracts, Census Tract 753.03 reported the highest median home value ($869,100) and Census Tract 761.04 reported the lowest median home value ($59,600). Of the Study Area census tracts, Census Tract 525.26 reported the highest median gross rent ($3,054) and Census Tract 744.05 reported the lowest median gross rent ($1,280). Notably, Census Tract 1106.03 reported the highest homeowner vacancy rates (20.8 percent).

4.1.2 Environmental Consequences

4.1.2.1 Regional Population Characteristics

Regional population characteristics provide important data for the assessment of impacts to community character and cohesion. Refer to Section 4.1.2.2, below, for a discussion of how the physical changes associated with the No Build Alternative and the Build Alternatives would impact community character and cohesion.

4.1.2.2 Neighborhoods/Communities/Community Character

Temporary Impacts

Alternative 1 (No Build Alternative)

The No Build Alternative proposes no improvements to I-5. No new GP lanes, ELs, and other improvements would be built. The existing freeway facility would remain as is, except for other proposed projects that are either under development or currently under construction. There would be no temporary impacts to community character and cohesion.

Alternative 2 (Build Alternative: Modify Existing HOV 2+ Lanes to HOV 3+ Lanes)

Alternative 2 does not include roadway improvements, except for the modification of the minimum HOV-lane occupancy requirement from two-plus (2+) to three-plus (3+) passengers within the current HOV lanes in each direction between Red Hill Avenue and the OC/LA County line. Potential signage replacements and HOV lane repainting may occur, which may result in temporary construction equipment noise and emissions. However, construction activity would be limited to the existing HOV lanes on I-5 and on specific local arterials where existing HOV lane signage is located. Alternative 2 also includes the construction of two park-and-ride facilities, but these would be located within Caltrans existing ROW of the Project limits.

Access would be maintained for residents and businesses in areas where arterial HOV lane signage may require improvements. The I-5 GP lanes would remain operational, with potential HOV lane restrictions on segments where repainting is required. Application of PF-TR-1 (TMP) would minimize or reduce temporary impacts to community character and cohesion.

Alternative 3 (Build Alternative: Convert Existing HOV Lanes to Express Lanes)

Alternative 3 identifies several construction staging areas that may be adjacent to residential properties (refer to Figure 4.1 and Table 4.21 in Section 4.4, Relocations and Real Property Acquisition). Construction activities related to Alternative 3 would result in temporary impacts to businesses and residents in the Study Area, including construction equipment noise and emissions. I-5 serves as a major thoroughfare into and out of California through the Study Area. Temporary access restrictions and detours may impact nearby businesses and residents who commute into and out of the Study Area cities for work.

Access would be maintained for residents and businesses affected by Alternative 3 via designated detours for affected roads and intermittent closure scheduling of affected ramps. Application of PF-TR-1 (TMP) would minimize or reduce temporary impacts to community character and

cohesion (please refer to the other sections of Chapter 4 for discussion of impacts pertaining to delay, commute times, and businesses, and to Section 5.3 for discussion of PF-TR-1 (TMP).

Alternative 4 (Build Alternative: Convert Existing HOV Lanes to Express Lanes and Construct Additional Expresss Lanes)

Temporary impacts under Alternative 3 would be similar to those for Alternative 4. In addition, Alternative 4 would include construction of ELs between SR-57 and SR-91. Like Alternative 3, staging areas and construction activities may result in temporary access restrictions and detours that may impact nearby businesses and residents who commute into and out of the Study Area cities for work. Application of PF-TR-1 (TMP) would minimize or reduce temporary impacts to community character and cohesion, including the area of additional ELs construction between SR-57 and SR-91. Refer to the Temporary Impacts discussion of Alternative 3 above.

Permanent Impacts

Alternative 1 (No Build Alternative)

The No Build Alternative proposes no improvements to I-5. No new GP lanes or ELs on I-5 or new connections would occur. The freeway facility would remain as is, with the exception of other proposed projects that are either under development or currently under construction. Although the No Build Alternative would not create a physical or geographic barrier between communities, the continuance or worsening of HOV degradation and congestion levels along I-5 could negatively affect the ability of the public to travel easily within Orange and Los Angeles counties and may result in other permanent impacts to community character and cohesion factors.

Alternative 2 (Build Alternative: Modify Existing HOV 2+ Lanes to HOV3+ Lanes)

The Alternative 2 improvements do not include roadway improvements except for the modification of the minimum HOV-lane occupancy requirement from two-plus (2+) to three-plus (3+) passengers within the current HOV system in each direction between Red Hill Avenue and the OC/LA County line. Two additional park-and-ride facilities would be accessible to motorists. Alternative 2 would address HOV lane degradation along the I-5 corridor within the Study Area. Alternative 2 would not create a physical or geographic barrier between communities.

Alternative 3 (Build Alternative: Convert Existing HOV Lanes to Express Lanes)

Alternative 3 would not displace any residents or businesses. Alternative 3 would not divide an existing neighborhood or fragment a cohesive community.

In addition, Alternative 3 would address HOV lane degradation along I-5 within the Study Area. Alternative 3 would positively affect community character and cohesion in the Study Area by improving trip reliability in the I-5 HOV lanes for local residents and commuters, as well as making it easier for local residents to reach community services and facilities.

Alternative 4 (Build Alternative: Convert Existing HOV Lanes to Express Lanes and Construct Additional Express Lanes)

Although Alternative 4 would include the construction of additional ELs between SR-57 and SR-91, Alternative 4 would not displace any residents or businesses. Alternative 4 would not divide an existing neighborhood or fragment a cohesive community. Alternative 4 would also positively

affect community character and cohesion in the Study Area by improving trip reliability in the I-5 HOV lanes for local residents and commuters. The addition of ELs would allow easier accessibility for the public to reach community services and facilities in the Study Area.

4.1.2.3 Housing

Temporary Impacts

Alternative 1 (No Build Alternative)

Under the No Build Alternative, there would be no action, and the improvements associated with the Build Alternatives would not be constructed. The freeway facility would remain as is, with the exception of other proposed projects that are either under development or currently under construction. There would be no temporary impacts to housing.

Alternative 2 (Build Alternative: Modify Existing HOV 2+ Lanes to HOV3+ Lanes)

Alternative 2's project improvements do not include roadway improvements except for the modification of the minimum HOV-lane occupancy requirement from two-plus (2+) to three-plus (3+) passengers within the current HOV system in each direction between Red Hill Avenue and the OC/LA County line. Two park-and-ride facilities are also proposed. The potential repainting of HOV lanes, changes to HOV signage on the mainline and local arterial streets, and construction of two park-and-ride facilities would not entail relocation of residences; however, the proximity of construction vehicle noise and activities on the local arterials may cause a slight disruption in residential areas or result in a slight increase in travel times during construction activities.

Alternative 3 (Build Alternative: Convert Existing HOV Lanes to Express Lanes)

Alternative 3 may impact residences on or near the parcels identified for construction staging areas in Section 4.4, Relocations and Real Property Acquisition. While residential relocation is not anticipated, the proximity of construction vehicle noise and activities may disrupt residential areas during construction hours. Alternative 3 construction activity impacts would be minimized through compliance with Caltrans standards for noise (Caltrans 2022 Standard Specifications, Section 14-8.02), emission control (Caltrans 2022 Standard Specifications, Section 14-9), and management of construction staging areas; compliance with Study Area cities' standards for construction noise; and implementation of PF-TR-1 (TMP).

Alternative 4 (Build Alternative: Convert Existing HOV Lanes to Express Lanes and Construct Additional Express Lanes)

Alternative 4 may impact residences on or near the parcels identified for construction staging areas in Section 4.4, Relocations and Real Property Acquisition. Alternative 4 includes the additional construction of ELs on the mainline between SR-57 and SR-91. Residential relocation is not anticipated; however, the proximity of construction vehicle noise and activities along the mainline, arterials, and ramps may disrupt residential areas during construction hours. Alternative 4 construction activity impacts would be minimized through compliance with Caltrans standards for noise (Caltrans 2022 Standard Specifications, Section 14-8.02), emission control (Caltrans 2022 Standard Specifications, Section 14-9), management of construction staging areas, Study Area cities' standards for construction noise, as well as implementation of PF-TR-1 (TMP).

Permanent Impacts

Alternative 1 (No Build Alternative)

Under the No Build Alternative, there would be no action, and the improvements associated with the Build Alternatives would not be constructed. The facility would remain as is, with the exception of other proposed projects that are either under development or currently under construction. There would be no permanent impacts to housing.

Alternative 2 (Build Alternative: Modify Existing HOV 2+ Lanes to HOV 3+ Lanes)

No residential displacements are anticipated in implementing Alternative 2. Alternative 2 would not result in adverse community character and cohesion impacts due to residential displacements.

Alternative 3 (Build Alternative: Convert Existing HOV Lanes to Express Lanes)

No residential displacements are anticipated in implementing the Alternative 3. Alternative 3 would not result in adverse community character and cohesion impacts due to residential displacements.

Alternative 4 (Build Alternative: Convert Existing HOV Lanes to Express Lanes and Construct Additional Express Lanes)

No residential displacements are anticipated in implementing the Alternative 4. Alternative 4 would not result in adverse community character and cohesion impacts due to residential displacements.

4.1.2.4 Cumulative Impacts

None of the projects listed in Table 2.2 would result in acquisition of property or the displacement of existing residential and nonresidentual uses on those properties. The transportation projects in Table 2.2 are roadway improvements to existing facilities that would not divide or fragment an existing cohesive neighborhood. The cumulative transportation projects in Table 2.2 were considered as part of the future No Build environmental analysis for various studies prepared for the proposed Project, including the traffic, noise, and air quality analyses. The cumulative transportation projects in Table 2.2 are not anticipated to contribute to cumulative adverse effects related to community cohesion.

None of the redevelopment projects in Table 2.2 are expected to generate additional traffic volumes within the Project Area and other nearby roadways within the Study Area cities or contribute to existing congested conditions. The transportation projects, including the Build Alternatives, would improve existing traffic operations and roads at intersections and interchanges. Therefore, the cumulative development projects listed in Table 2.2 would not adversely affect community cohesion or generate more traffic in the Study Area.

The cumulative projects listed in Table 2.2 would not affect the City's jobs/housing ratio, and the projects would also hire from the local population. Cumualtively, construction jobs are expected to be filled by existing residents in the Study Area cities and counties and are not anticipated to result in demand for increased housing in the area. As a result, the cumulative projects listed in Table 2.2 would not result in cumulatively considerable impacts related to population or housing

in the Study Area. However, the I-5 Improvement Project (I-405 to SR-55), located immediately south of the Project limits and currently in the PS&E phase, may coincide with this Project's construction time frame, which may result in possible cumulative effects related to population and housing.

Direct Project Impacts

The Build Alternatives would not result in direct impacts related to community character and cohesion and, therefore, would not result in direct impacts that would contribute to cumulative adverse effects related to community character and cohesion.

Although the Build Alternatives would require construction staging areas, they are not anticipated to result in any residential acquisitions or displacements, and, therefore, would not contribute to cumulative adverse effects related to community cohesion because of property acquisitions.

Indirect Project Impacts

Construction of the Build Alternatives would result in temporary indirect impacts to residential and nonresidential uses near improvements for the interchanges with I-5 at SR-22, SR-91, SR-57, and SR-55. Impacts would include construction equipment noise and air emissions, access restrictions, and detours. However, these effects would be substantially avoided, minimized, and/or mitigated; would occur only during construction (off-peak hours); and would cease when construction is complete. As a result, construction of the Build Alternatives would not result in adverse impacts related to community cohesion and would not contribute to cumulative adverse impacts related to community cohesion.

4.1.3 Avoidance, Minimization, and/or Mitigation Measures

The proposed Project would not result in substantial population or housing and community cohesion-related impacts. Therefore, no avoidance, minimization, or mitigation measures are proposed.

Please refer to Section 5.3 for PF-TR-1 (TMP), which would alleviate temporary impacts to access, circulation, and transportation facilities as a result of construction activities. The TMP will also include information on construction acitivites that would occur under the Build Alternatives and would include pertinent travel information, including detour information, closures, and other relevant information as it relates to the public.

Construction impacts to properties that are adjacent to identified construction staging areas would be minimized through compliance with Caltrans standards for air quality, noise abatement, emission control, and the management of construction staging areas. Applicable avoidance/ minimization/mitigation measures and regulatory standards from the Project Air Quality Report and the Noise Study Report include Caltrans Standard Specifications Section 14-9 (AQ-1) and Caltrans Standard Specifications Section 14-8.02 (Noise Control).

4.2 Economic Conditions

Economics is defined as the study of how the productive and distributive aspects of human life are organized. An assessment of economics within a CIA typically focuses on evaluating the impacts a project would have on the economic well-being of the community. The resultant

impacts can be characterized in terms of changes in community demographics, housing demand, employment and income, market effects, public services, and the aesthetic qualities of the community. Assessing developments within an economic context helps to identify potential social equity issues, evaluate the adequacy of social services, and determine whether a project may affect overall social well-being.

Transportation projects can have important effects on the community and the regional economy. This section provides a general economic overview of the Study Area and a broad discussion of business activities, employment, and fiscal conditions. Additionally, it includes a detailed examination of the businesses located in and immediately adjacent to the Study Area.

Variables and data used in this economic evaluation include land use designations and employment and income data from the United States Census Bureau.

4.2.1 Affected Environment

4.2.1.1 Regional Economy

Table 4.11 provides employment percentages by economic sector for the Study Area counties, cities, and census tracts. According to the 2016–2020 ACS, both Orange County and Los Angeles County reported the Educational Services/Health Care and Social Assistance sector, and the Professional, Scientific, Management, and Administrative and Waste Management Services sector as the largest and second-largest industry sectors in terms of employment. Across the Study Area cities, the Educational Services/Health Care and Social Assistance sector represented the highest percentage compared to other economic sectors within each respective city, followed by either Manufacturing, Retail Trade, and Professional Scientific/Management, Administrative, and Waste Management Services sectors. The trend of economic sector sizes differs among the Study Area census tracts, as summarized below in Table 4.11.

Table 4.11: Employment by Economic Sector (in %)

Area	Jurisdiction	Agriculture, Forestry, Fishing and Hunting, and Mining	Construction	Manufacturing	Wholesale Trade	Retail Trade	Transportation and Warehousing, and Utilities	Information	Finance and Insurance, and Real Estate and Rental and Leasing	Professional, Scientific, and Management, and Administrative and Waste Management Services	Educational Services, and Health Care and Social Assistance	Arts, Entertainment, and Recreation, and Accommodation and Food Services	Other Services, Except Public Administration	Public Administration
Orange County	N/A	0.6%	5.9%	11.9%	3.5%	10.4%	3.9%	1.9%	8.7%	14.6%	19.7%	10.6%	5.3%	3.0%
Los Angeles County	N/A	0.4%	5.9%	19.0%	3.3%	10.0%	6.2%	4.5%	6.0%	13.2%	21.1%	11.1%	5.7%	3.5%
Cities														
Anaheim	Orange County	**0.7%**	**7.5%**	**12.8%**	**3.7%**	**10.7%**	**4.5%**	1.7%	6.1%	11.7%	19.6%	**13.0%**	5.0%	**3.1%**
Buena Park	Orange County	**0.8%**	4.8%	**13.1%**	**4.5%**	**10.7%**	**6.3%**	1.9%	6.6%	9.7%	**22.1%**	**11.0%**	5.2%	**3.4%**
Fullerton	Orange County	0.3%	**6.4%**	**13.1%**	3.2%	**10.7%**	3.7%	1.8%	6.8%	13.1%	**22.0%**	10.6%	4.9%	**3.5%**
La Mirada	Los Angeles County	0.2%	5.6%	10.6%	**4.4%**	**10.6%**	**5.9%**	**2.2%**	8.4%	10.0%	**25.2%**	8.3%	4.7%	**3.7%**
Orange	Orange County	0.5%	**7.0%**	10.3%	2.9%	9.1%	3.0%	**2.1%**	8.4%	**14.9%**	**22.9%**	10.6%	4.5%	**3.8%**
Santa Ana	Orange County	**1.5%**	**7.8%**	**14.2%**	2.6%	**11.2%**	**4.0%**	1.2%	5.1%	14.4%	15.6%	**13.2%**	**6.7%**	2.4%
Tustin	Orange County	**0.7%**	4.7%	10.5%	**4.0%**	10.1%	**4.0%**	**2.2%**	**9.6%**	**16.7%**	19.5%	**10.7%**	**5.5%**	2.1%
Census Tracts														
18.01	Buena Park/Fullerton	0.5%	**9.4%**	**12.0%**	2.9%	8.1%	**7.7%**	0.0%	7.8%	12.8%	15.9%	**15.5%**	**6.2%**	1.1%
18.02	Buena Park/Fullerton	0.0%	**9.4%**	**22.8%**	1.8%	**14.6%**	1.3%	0.0%	5.7%	10.7%	15.7%	**14.2%**	2.8%	0.9%
19.03	Fullerton/Anaheim	0.0%	**7.4%**	**16.4%**	2.3%	10.0%	**5.7%**	0.3%	5.6%	10.0%	**21.2%**	**12.4%**	4.6%	**4.0%**
525.02	Irvine/Tustin	**0.7%**	3.7%	**15.1%**	**5.4%**	9.9%	2.7%	1.8%	**9.5%**	12.5%	**19.8%**	9.7%	**6.8%**	2.4%
525.24	Irvine/Tustin	**1.3%**	1.7%	7.6%	**3.8%**	6.5%	3.4%	**4.2%**	**9.8%**	**22.1%**	**26.1%**	8.4%	3.3%	1.8%
744.05	Santa Ana	0.4%	**6.9%**	**12.4%**	2.8%	**11.1%**	1.2%	0.7%	5.8%	**16.7%**	17.1%	**14.9%**	**7.9%**	2.1%
744.06	Santa Ana/Tustin	**2.2%**	**7.9%**	11.7%	3.0%	**10.9%**	2.5%	**3.3%**	6.1%	**15.7%**	10.7%	**16.8%**	5.1%	**4.2%**
744.07	Santa Ana/Tustin	**1.3%**	5.4%	**19.1%**	3.4%	**10.6%**	**6.1%**	1.9%	4.0%	12.0%	8.3%	**19.7%**	7.5%	0.7%
744.08	Tustin	**0.9%**	**13.5%**	11.6%	0.4%	**12.8%**	**5.1%**	**2.0%**	3.6%	12.9%	12.9%	**13.2%**	**10.4%**	0.6%
750.03	Santa Ana	**2.9%**	**13.5%**	9.1%	0.4%	10.0%	**4.3%**	0.5%	4.9%	**15.7%**	10.2%	**19.2%**	**8.3%**	0.7%
750.04	Santa Ana	0.6%	**14.3%**	9.6%	3.5%	9.1%	2.6%	**2.7%**	4.2%	**17.4%**	7.3%	**20.5%**	5.1%	**3.1%**
753.01	Santa Ana/Orange	**1.9%**	4.6%	6.5%	2.5%	**16.9%**	3.9%	1.1%	6.9%	**15.5%**	19.3%	**10.7%**	**8.2%**	2.0%
753.03	Santa Ana	**1.4%**	**6.0%**	10.5%	**5.0%**	**11.1%**	0.0%	**2.1%**	**11.5%**	14.0%	**20.7%**	10.5%	5.0%	2.2%
754.01	Santa Ana	**0.7%**	2.8%	11.0%	3.2%	**11.8%**	**7.1%**	0.7%	4.5%	10.4%	**28.7%**	**12.4%**	4.9%	1.8%
754.03	Santa Ana/Tustin	**1.7%**	3.0%	**12.3%**	3.1%	**12.4%**	**4.4%**	0.0%	**13.9%**	5.4%	17.1%	**17.1%**	**7.1%**	2.8%
754.04	Santa Ana/Orange	**0.7%**	2.9%	8.4%	**4.0%**	9.4%	**7.3%**	**9.5%**	5.3%	**17.4%**	18.2%	**12.4%**	2.2%	2.4%
755.05	Santa Ana/Tustin	0.0%	5.5%	11.4%	**4.0%**	**13.4%**	2.%	**2.3%**	**8.9%**	**15.0%**	**21.6%**	4.8%	6.5%	**3.8%**
755.07	Tustin	0.0%	5.7%	8.2%	2.5%	**13.5%**	2.1%	**2.9%**	7.9%	**16.5%**	17.8%	**14.5%**	5.3%	3.0%
755.12	Tustin	0.0%	5.4%	7.1%	0.5%	**11.7%**	**7.2%**	0.0%	4.1%	**16.9%**	**22.7%**	**16.2%**	**6.2%**	2.0%
755.13	Tustin	**1.3%**	**7.2%**	9.1%	2.4%	**18.2%**	**4.5%**	1.4%	4.8%	**17.8%**	15.1%	**13.5%**	3.8%	0.9%

Table 4.11: Employment by Economic Sector (in %)

Area	Jurisdiction	Agriculture, Forestry, Fishing and Hunting, and Mining	Construction	Manufacturing	Wholesale Trade	Retail Trade	Transportation and Warehousing, and Utilities	Information	Finance and Insurance, and Real Estate and Rental and Leasing	Professional, Scientific, and Management, and Administrative and Waste Management Services	Educational Services, and Health Care and Social Assistance	Arts, Entertainment, and Recreation, and Accommodation and Food Services	Other Services, Except Public Administration	Public Administration
755.14	Tustin	**1.8%**	5.8%	**16.5%**	**4.0%**	**12.0%**	1.5%	**2.1%**	3.8%	**15.4%**	12.0%	**14.3%**	**8.4%**	2.6%
755.17	Santa Ana/Tustin	**2.7%**	5.9%	6.2%	1.4%	4.4%	**8.8%**	**5.2%**	7.4%	14.1%	**20.5%**	**22.2%**	1.2%	0.0%
760.01	Santa Ana/Orange	**1.1%**	4.0%	11.0%	**4.3%**	8.0%	3.7%	**2.0%**	8.1%	**17.1%**	**22.0%**	8.8%	6.1%	**3.7%**
760.02	Santa Ana/Orange	0.0%	**8.3%**	**13.9%**	0.0%	**29.1%**	2.7%	0.0%	**13.4%**	5.7%	**25.5%**	1.4%	0.0%	0.0%
761.02	Santa Ana/Orange/ Anaheim	**2.3%**	**8.9%**	10.5%	1.8%	6.9%	1.8%	1.0%	**13.6%**	**15.4%**	16.9%	**12.0%**	5.1%	**3.9%**
761.04	Anaheim/Orange	0.0%	4.7%	6.0%	0.9%	**11.3%**	0.6%	1.5%	7.1%	14.2%	**37.2%**	**15.9%**	0.0%	0.4%
761.05	Orange	0.0%	**12.8%**	**13.9%**	3.2%	7.4%	7.7%	0.0%	7.2%	**19.1%**	12.8%	10.2%	4.4%	1.4%
863.03	Anaheim/Orange	**1.3%**	**6.3%**	10.9%	**3.8%**	**14.4%**	2.1%	0.6%	4.8%	**18.8%**	19.0%	**11.6%**	3.5%	3.0%
867.01	Anaheim/Fullerton	**0.8%**	**6.6%**	**15.5%**	**5.5%**	**14.0%**	3.4%	0.8%	6.3%	10.3%	15.5%	**13.1%**	**6.3%**	1.8%
867.02	Anaheim	**3.0%**	**9.4%**	**22.9%**	2.0%	9.5%	2.5%	0.4%	1.9%	8.7%	19.2%	**15.6%**	3.9%	1.0%
868.01	Anaheim/Fullerton/ Buena Park	**0.9%**	2.8%	**15.6%**	3.0%	8.5%	**6.9%**	1.6%	6.5%	12.0%	16.7%	**15.5%**	**7.7%**	2.3%
868.02	Anaheim/Fullerton	0.0%	**10.6%**	9.6%	3.0%	**15.3%**	2.3%	**3.9%**	**9.0%**	6.7%	**20.7%**	**11.4%**	**6.2%**	1.4%
871.02	Anaheim	0.0%	**7.5%**	11.6%	**3.8%**	**11.9%**	**4.8%**	0.5%	8.0%	11.4%	16.6%	**13.3%**	**6.2%**	**4.3%**
871.05	Anaheim	0.4%	2.8%	10.2%	2.4%	**27.9%**	2.0%	**3.4%**	5.0%	9.0%	15.7%	**14.2%**	4.5%	2.5%
871.06	Anaheim	**0.9%**	**8.2%**	**24.4%**	1.60%	7.6%	2.9%	0.9%	2.1%	7.8%	13.4%	**22.8%**	4.7%	2.6%
872	Anaheim	**1.4%**	**8.6%**	9.7%	3.5%	**10.8%**	3.0%	0.9%	6.7%	11.1%	**27.9%**	8.5%	**6.3%**	1.5%
874.01	Anaheim	**0.7%**	2.5%	11.1%	**4.2%**	5.9%	3.4%	**2.9%**	8.6%	8.8%	**25.2%**	**15.0%**	**6.1%**	**5.7%**
874.03	Anaheim	**2.5%**	**11.7%**	11.6%	**5.0%**	5.6%	2.6%	0.0%	5.5%	13.0%	18.0%	**19.1%**	4.9%	0.4%
874.05	Anaheim	0.5%	5.7%	**13.8%**	3.3%	**14.2%**	1.0%	1.8%	0.0%	13.7%	12.1%	**18.8%**	**13.5%**	1.7%
875.04	Anaheim	**2.9%**	**11.6%**	**15.6%**	3.2%	8.3%	**4.5%**	0.8%	4.7%	8.2%	17.0%	**15.2%**	**7.4%**	0.7%
1104.01	Buena Park/Anaheim/ Fullerton	**1.4%**	5.0%	**14.4%**	0.6%	**12.3%**	**4.0%**	1.0%	7.3%	12.8%	**23.3%**	**12.9%**	2.4%	2.5%
1105	Buena Park/Cerritos/ Fullerton/La Mirada	**1.8%**	**7.3%**	**16.6%**	2.8%	**16.2%**	**10.3%**	0.0%	5.4%	7.6%	14.3%	9.4%	**5.4%**	2.9%
1106.03	Buena Park/Fullerton	**0.9%**	5.2%	**16.5%**	**4.2%**	9.4%	**8.0%**	0.3%	3.7%	8.8%	17.9%	**15.9%**	**8.5%**	0.5%
1106.06	Buena Park/La Mirada	0.0%	**6.5%**	**14.2%**	**10.0%**	9.8%	3.1%	**2.3%**	8.3%	7.2%	18.1%	10.1%	**7.3%**	**3.1%**
9800	Anaheim	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%

Source: United States Census Bureau. 2016–2020 American Community Survey, Table DP03.
Note: **Bolding** indicates the value is higher than the Orange County average.

Table 4.12 provides the existing and projected employment in the Study Area cities and counties. The 2055 projected employment was forecasted using existing trends. As shown, employment in Orange County is projected to increase by approximately 22 percent between 2016 and 2055. Employment in the Los Angeles County is projected to increase by approximately 18 percent during the same period. Of the Study Area cities, Tustin's employed population is projected to increase the highest by approximately 59 percent between 2016 and 2055.

Table 4.12 Existing and Projected Employment

Jurisdiction	Employed Population					Percent Increase 2016 to 2055
	2016	2030	2035	2045	2055	
Orange County	1,710,000	1,886,000	1,928,000	1,980,000	2,098,847	22%
Los Angeles County	4,743,000	5,060,000	5,172,000	5,382,000	5,608,320	18%
Cities						
Anaheim	197,200	N/A	N/A	250,500	268,879	36%
Buena Park	33,600	N/A	N/A	38,200	39,786	18%
Fullerton	63,200	N/A	N/A	85,400	93,055	47%
La Mirada	18,000	N/A	N/A	19,600	20,152	12%
Orange	123,000	N/A	N/A	131,300	134,162	9%
Santa Ana	162,900	N/A	N/A	172,400	175,676	7%
Tustin	49,200	N/A	N/A	70,800	78,248	59%

Source: Southern California Association of Governments 2020b.
Note: The Southern California Association of Governments 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy Draft Growth Forecast does not include forecasts for census tracts.
N/A = Not Available

Please refer to Section 4.2.1.2 and to Tables 4.13 and 4.14 therein for a discussion of labor force characteristics and commuting patterns for the Study Area counties, cities, and census tracts.

4.2.1.2 Employment and Income

Table 4.13 provides demographic characteristics for the Study Area counties, cities, and census tracts related to income level, educational attainment, and employment, as reported in the 2016–2020 ACS and the 2020 Census. As shown in Table 4.13, the cities of Fullerton, La Mirada, Orange, Tustin, and nine Census Tracts reported a higher percentage of residents who are high school graduates or higher than Orange County overall (86 percent). The cities of Fullerton, Tustin, and six Census Tracts reported a higher percentage of residents who are college graduates or higher than Orange County (41.2 percent). The cities of Fullerton and La Mirada reported a lower employed civilian labor force percentage compared to Orange County and the other Study Area cities.

Table 4.13: Employment, Income, and Education

Area	Jurisdiction	Total Population[1]	Median Household Income [2]	Persons Living in Poverty (%)[2]	High School Graduate or Higher Over Age 25 (%)[2]	Bachelor's Degree or Higher Over Age 25 (%)[2]	Employed Civilian Labor Force (%)[2]
Orange County	N/A	3,186,989	$ 94,441	10.1%	86.0%	41.2%	62.3%
Los Angeles County	N/A	10,014,009	$ 71,358	14.2%	79.8%	33.5%	60.5%
Cities							
Anaheim	Orange County	346,824	$ 76,723	**13.8%**	77.9%	26.6%	**63.5%**
Buena Park	Orange County	84,034	$ 84,680	**10.3%**	85.2%	30.5%	**64.3%**
Fullerton	Orange County	143,617	$ 85,471	**12.7%**	**89.7%**	**42.9%**	60.9%
La Mirada	Los Angeles County	48,008	$ 92,493	5.1%	**90.0%**	36.0%	57.4%
Orange	Orange County	139,911	**$ 96,605**	**10.3%**	**87.2%**	38.9%	**62.8%**
Santa Ana	Orange County	310,227	$ 72,406	**13.4%**	61.3%	16.8%	**64.3%**
Tustin	Orange County	80,276	$ 88,386	**10.9%**	**87.8%**	**44.8%**	**66.5%**
Census Tracts							
18.01	Buena Park/Fullerton	5,275	$ 54,750	**11.5%**	77.9%	21.1%	**65.3%**
18.02	Buena Park/Fullerton	7,488	$ 55,144	**20.1%**	75.9%	13.6%	**68.4%**
19.03	Fullerton/Anaheim	3,539	$ 86,685	**10.4%**	77.5%	25.3%	**63.1%**
525.02	Irvine/Tustin	6,132	**$116,083**	5.9%	**93.3%**	**48.2%**	**62.4%**
525.24	Irvine/Tustin	8,020	**$112,014**	3.1%	**94.3%**	**66.4%**	**76.4%**
744.05	Santa Ana	6,091	$ 47,425	**18.7%**	62.5%	19.5%	**66.5%**
744.06	Santa Ana/Tustin	3,789	$ 54,948	**18.0%**	54.8%	7.2%	59.8%
744.07	Santa Ana/Tustin	6,024	$ 50,969	**15.2%**	55.7%	12.9%	**63.6%**
744.08	Tustin	5,453	$ 54,988	6.8%	68.4%	16.0%	61.8%
750.03	Santa Ana	6,493	$ 40,183	**29.1%**	44.4%	6.2%	**64.3%**

Table 4.13: Employment, Income, and Education

Area	Jurisdiction	Total Population[1]	Median Household Income [2]	Persons Living in Poverty (%)[2]	High School Graduate or Higher Over Age 25 (%)[2]	Bachelor's Degree or Higher Over Age 25 (%)[2]	Employed Civilian Labor Force (%)[2]
750.04	Santa Ana	4,765	$ 45,288	**25.3%**	47.2%	4.0%	62.2%
753.01	Santa Ana/Orange	5,512	$ 76,147	**10.3%**	75.9%	28.2%	61.2%
753.03	Santa Ana	3,357	**$123,654**	2.2%	83.7%	**51.3%**	**65.1%**
754.01	Santa Ana	3,859	$ 80,651	8.0%	77.4%	32.4%	61.1%
754.03	Santa Ana/Tustin	7,707	$ 73,194	6.6%	78.4%	25.1%	**72.1%**
754.04	Santa Ana/Orange	6,362	**$ 95,851**	**14.4%**	**87.8%**	31.6%	**76.2%**
755.05	Santa Ana/Tustin	3,763	$ 71,667	**12.8%**	**88.6%**	31.9%	**63.5%**
755.07	Tustin	5,476	$ 66,628	**15.6%**	**88.1%**	37.4%	**71.5%**
755.12	Tustin	3,719	$ 82,656	7.3%	84.7%	33.0%	**78.0%**
755.13	Tustin	5,071	$ 76,588	8.6%	76.4%	20.2%	**72.4%**
755.14	Tustin	3,553	$ 56,375	**23.7%**	69.5%	18.3%	**72.4%**
755.17	Santa Ana/Tustin	6,809	$ 71,389	**15.3%**	79.7%	32.9%	**73.7%**
760.01	Santa Ana/Orange	7,901	$ 65,814	**13.1%**	**88.2%**	29.5%	**63.7%**
760.02	Santa Ana/Orange	1,994	$ 89,281	4.9%	**98.3%**	**57.4%**	62.2%
761.02	Santa Ana/Orange/Anaheim	8,150	$ 60,365	**14.5%**	78.4%	23.6%	34.1%
761.04	Anaheim/Orange	6,189	$ 90,000	**12.2%**	**92.8%**	**54.2%**	**81.7%**
761.05	Orange	4,697	$ 92,434	**15.0%**	84.0%	32.8%	**67.7%**
863.03	Anaheim/Orange	11,758	$ 76,641	**12.0%**	**87.7%**	39.8%	**66.3%**
867.01	Anaheim/Fullerton	8,776	$ 86,922	**13.4%**	74.1%	20.2%	**62.7%**
867.02	Anaheim	7,200	$ 63,429	**14.1%**	68.8%	10.2%	**65.9%**
868.01	Anaheim/Fullerton/Buena Park	3,593	$ 85,246	8.5%	78.7%	19.5%	**63.3%**

Table 4.13: Employment, Income, and Education

Area	Jurisdiction	Total Population[1]	Median Household Income [2]	Persons Living in Poverty (%)[2]	High School Graduate or Higher Over Age 25 (%)[2]	Bachelor's Degree or Higher Over Age 25 (%)[2]	Employed Civilian Labor Force (%)[2]
868.02	Anaheim/Fullerton	5,640	$ 92,628	**12.0%**	80.8%	32.2%	62.1%
871.02	Anaheim	6,613	$ 64,621	**20.4%**	81.2%	20.1%	**66.9%**
871.05	Anaheim	4,729	**$100,088**	**10.5%**	78.4%	23.1%	**65.5%**
871.06	Anaheim	4,793	$ 45,327	**11.4%**	63.1%	14.7%	50.1%
872	Anaheim	7,538	$ 66,154	**19.5%**	76.3%	28.6%	**62.5%**
874.01	Anaheim	5,110	**$120,375**	4.6%	84.0%	**43.0%**	**76.7%**
874.03	Anaheim	3,144	$ 56,063	**17.1%**	54.6%	8.1%	58.2%
874.05	Anaheim	5,509	$ 51,763	**28.1%**	60.6%	16.7%	58.9%
875.04	Anaheim	7,109	$ 53,904	**23.4%**	56.4%	9.2%	61.8%
1104.01	Buena Park/Anaheim/Fullerton	5,704	**$ 99,875**	**12.1%**	**89.8%**	29.2%	**68.8%**
1105	Buena Park/Cerritos/Fullerton/La Mirada	8,557	$ 60,801	**14.2%**	68.9%	17.8%	60.8%
1106.03	Buena Park/Fullerton	8,556	$ 56,563	**20.5%**	69.4%	12.2%	**67.8%**
1106.06	Buena Park/La Mirada	4,991	$ 65,682	**13.8%**	81.5%	26.7%	**66.8%**
9800	Anaheim	30	N/A	N/A	N/A	N/A	22.9%

Note: **Bolding** indicates the value is higher than the Orange County.

[1] United States Census Bureau. 2020. Table P1.

[2] United States Census Bureau. 2016–2020 American Community Survey, Tables DP03, S1701, and S1501.

N/A = Not Applicable

Table 4.14: Commuter Travel

Area	Jurisdiction	Worked in County of Residence (%)	Worked Outside County of Residence (%)	Worked Outside State of Residence (%)	Worked in Place of Residence (%)	Worked Outside Place of Residence (%)	Not Living in a Place (%)	Travel Time to Work			
								<30 minutes	30–44 minutes	45–59 minutes	>60 minutes
Orange County	N/A	85.0%	14.5%	0.4%	25.8%	73.4%	0.8%	57.7%	24.4%	8.3%	9.5%
Los Angeles County	N/A	92.7%	7.0%	0.4%	39.5%	59.8%	0.8%	49.0%	25.7%	10.8%	14.6%
Cities											
Anaheim	Orange County	84.2%	**15.6%**	0.2%	**27.5%**	72.5%	0.0%	54.4%	**25.1%**	**9.3%**	**11.1%**
Buena Park	Orange County	69.7%	**29.8%**	**0.5%**	15.2%	**84.8%**	0.0%	51.8%	**25.3%**	**9.4%**	**13.6%**
Fullerton	Orange County	76.3%	**23.1%**	**0.5%**	21.0%	**79.0%**	0.0%	51.7%	24.1%	**10.5%**	**13.7%**
La Mirada	Los Angeles County	64.4%	**35.4%**	0.2%	16.6%	**83.4%**	0.0%	48.2%	23.4%	**14.3%**	**14.0%**
Orange	Orange County	**87.7%**	11.9%	0.4%	25.4%	**74.6%**	0.0%	**58.6%**	**26.3%**	7.6%	7.5%
Santa Ana	Orange County	**91.9%**	7.9%	0.2%	**26.7%**	73.3%	0.0%	**62.6%**	**25.3%**	5.6%	6.6%
Tustin	Orange County	**91.1%**	8.8%	0.2%	19.5%	**80.5%**	0.0%	**66.7%**	23.0%	4.3%	5.9%
Census Tract											
18.01	Buena Park/Fullerton	80.8%	**19.2%**	0.0%	13.3%	**86.7%**	0.0%	**61.1%**	23.2%	5.9%	**9.8%**
18.02	Buena Park/Fullerton	82.9%	**17.1%**	0.0%	16.7%	**83.3%**	0.0%	55.9%	21.4%	**9.2%**	**13.5%**
19.03	Fullerton/Anaheim	76.6%	**23.4%**	0.0%	11.4%	**88.6%**	0.0%	50.9%	**28.0%**	7.5%	**13.6%**
525.02	Irvine/Tustin	**93.7%**	6.3%	0.0%	22.8%	**77.2%**	0.0%	**69.5%**	21.8%	2.6%	6.2%
525.24	Irvine/Tustin	**92.7%**	7.3%	0.0%	23.6%	**76.4%**	0.0%	**74.9%**	15.7%	3.5%	5.9%
744.05	Santa Ana	**95.5%**	4.3%	0.3%	**36.1%**	63.9%	0.0%	**68.6%**	21.1%	5.3%	5.1%
744.06	Santa Ana/Tustin	**93.8%**	6.2%	0.0%	22.3%	77.7%	0.0%	**66.2%**	22.3%	5.0%	6.6%
744.07	Santa Ana/Tustin	**89.3%**	10.7%	0.0%	14.4%	**85.6%**	0.0%	**67.7%**	22.4%	4.6%	5.3%
744.08	Tustin	**90.4%**	7.7%	**1.9%**	13.6%	**86.4%**	0.0%	50.7%	**37.7%**	6.1%	5.6%
750.03	Santa Ana	**88.4%**	9.4%	**2.2%**	**27.7%**	72.3%	0.0%	**58.0%**	**27.1%**	7.9%	7.0%
750.04	Santa Ana	**89.4%**	10.6%	0.0%	**28.5%**	71.5%	0.0%	52.6%	**38.5%**	0.4%	8.5%
753.01	Santa Ana/Orange	**92.9%**	6.8%	0.3%	**27.4%**	72.6%	0.0%	56.8%	**27.0%**	3.2%	**13.0%**
753.03	Santa Ana	**89.7%**	9.8%	**0.5%**	24.3%	**75.7%**	0.0%	**58.9%**	23.1%	7.3%	**10.7%**
754.01	Santa Ana	**91.2%**	8.3%	**0.5%**	**28.6%**	71.4%	0.0%	51.8%	**30.0%**	6.7%	**11.5%**
754.03	Santa Ana/Tustin	**89.2%**	10.8%	0.0%	**27.4%**	72.6%	0.0%	**67.5%**	15.7%	**13.7%**	3.0%
754.04	Santa Ana/Orange	**92.8%**	6.5%	**0.7%**	**30.9%**	69.1%	0.0%	**69.5%**	20.1%	4.3%	6.1%
755.05	Santa Ana/Tustin	**93.6%**	6.4%	0.0%	15.3%	**84.7%**	0.0%	**70.7%**	15.7%	5.9%	7.7%
755.07	Tustin	**92.5%**	7.3%	0.2%	21.7%	**78.3%**	0.0%	**74.0%**	16.5%	0.9%	8.6%
755.12	Tustin	**94.0%**	6.0%	0.0%	24.6%	**75.4%**	0.0%	**75.7%**	16.2%	3.7%	4.4%
755.13	Tustin	**93.5%**	6.3%	0.2%	13.9%	**86.1%**	0.0%	**74.5%**	21.5%	2.7%	1.4%
755.14	Tustin	**95.9%**	4.1%	0.0%	11.9%	**88.1%**	0.0%	**68.1%**	21.9%	3.0%	7.0%

Table 4.14: Commuter Travel

Area	Jurisdiction	Worked in County of Residence (%)	Worked Outside County of Residence (%)	Worked Outside State of Residence (%)	Worked in Place of Residence (%)	Worked Outside Place of Residence (%)	Not Living in a Place (%)	Travel Time to Work			
								<30 minutes	30–44 minutes	45–59 minutes	>60 minutes
755.17	Santa Ana/Tustin	**94.0%**	6.0%	0.0%	15.2%	**84.8%**	0.0%	54.6%	**39.6%**	4.9%	0.8%
760.01	Santa Ana/Orange	**87.9%**	12.1%	0.0%	21.1%	**78.9%**	0.0%	54.1%	**29.6%**	6.6%	**9.8%**
760.02	Santa Ana/Orange	78.5%	**21.5%**	0.0%	**37.4%**	62.6%	0.0%	50.7%	**43.7%**	5.6%	0.0%
761.02	Santa Ana/Orange/Anaheim	84.5%	**15.1%**	0.4%	20.4%	**79.6%**	0.0%	**59.2%**	**25.3%**	7.1%	8.4%
761.04	Anaheim/Orange	83.1%	**16.9%**	0.0%	**27.6%**	72.4%	0.0%	56.8%	21.4%	**11.1%**	**10.7%**
761.05	Orange	80.1%	**17.6%**	**2.3%**	21.9%	**78.1%**	0.0%	40.6%	**27.0%**	**21.4%**	**11.0%**
863.03	Anaheim/Orange	80.5%	**18.8%**	**0.7%**	21.8%	**78.2%**	0.0%	49.4%	21.3%	**12.5%**	**16.8%**
867.01	Anaheim/Fullerton	77.8%	**21.0%**	**1.2%**	22.3%	**77.7%**	0.0%	53.1%	**27.3%**	7.2%	**12.4%**
867.02	Anaheim	**86.2%**	13.8%	0.0%	20.5%	**79.5%**	0.0%	49.7%	**29.6%**	**9.2%**	**11.5%**
868.01	Anaheim/Fullerton/Buena Park	82.5%	**17.5%**	0.0%	19.2%	**80.8%**	0.0%	55.2%	**26.0%**	**10.7%**	8.2%
868.02	Anaheim/Fullerton	**86.5%**	13.5%	0.0%	**29.3%**	70.7%	0.0%	55.3%	22.7%	**11.3%**	**10.6%**
871.01	Anaheim	76.4%	**22.6%**	**1.0%**	23.7%	67.6%	**8.7%**	40.3%	23.7%	**19.2%**	**16.8%**
871.02	Anaheim	82.2%	**17.8%**	0.0%	25.6%	**74.4%**	0.0%	47.5%	23.4%	**8.6%**	**20.6%**
871.06	Anaheim	**96.1%**	3.9%	0.0%	**33.3%**	66.7%	0.0%	35.6%	**43.1%**	6.7%	**14.7%**
872	Anaheim	**90.3%**	9.6%	0.1%	**30.8%**	69.2%	0.0%	**69.4%**	17.8%	**10.7%**	2.1%
874.01	Anaheim	76.5%	**23.1%**	0.4%	23.7%	**76.3%**	0.0%	47.2%	26.2%	8.3%	**18.3%**
874.03	Anaheim	**93.2%**	6.1%	**0.6%**	**35.5%**	64.5%	0.0%	**62.1%**	25.5%	3.4%	9.0%
874.05	Anaheim	**95.6%**	4.4%	0.0%	**34.7%**	65.3%	0.0%	**61.9%**	26.9%	5.4%	5.8%
875.04	Anaheim	**86.5%**	13.5%	0.0%	**25.9%**	**74.1%**	0.0%	**57.8%**	28.1%	3.1%	**10.9%**
1104.01	Buena Park/Anaheim/Fullerton	72.6%	**27.4%**	0.0%	17.2%	**82.8%**	0.0%	**58.4%**	21.4%	9.6%	**10.7%**
1105	Buena Park/Cerritos/Fullerton/La Mirada	67.6%	**32.4%**	0.0%	21.3%	**78.7%**	0.0%	**59.7%**	24.2%	5.7%	**10.4%**
1106.03	Buena Park/Fullerton	81.9%	**18.1%**	0.0%	16.9%	**83.1%**	0.0%	52.5%	27.0%	6.8%	**13.6%**
1106.06	Buena Park/La Mirada	58.2%	**39.9%**	**1.8%**	8.5%	**91.5%**	0.0%	43.6%	26.7%	**15.1%**	**14.7%**
9800	Anaheim	**100.0%**	0.0%	0.0%	0.0%	**100.0%**	0.0%	0.0%	**100.0%**	0.0%	0.0%

Sources: United States Census Bureau and 2016–2020 American Community Survey, Tables B08007, B08008, and B08303.
Note: According to the United States Census Bureau, a "place" may be an incorporated city or an unincorporated Census-designated place.
Note: **Bolding** indicates the value is higher than the Orange County.

4.2.1.3 Commuter Travel

Table 4.14 summarizes commuter travel patterns in the Study Area counties, cities, and census tracts based on the 2016–2020 ACS. As described in Table 4.14, every jurisdiction reported that majority of residents worked in the county in which they resided. Orange, Tustin, and Santa Ana reported higher percentages of residents who worked in the county they resided in compared to the Study Area counties and the other Study Area cities.

4.2.1.4 Business Activity

The Study Area is highly developed and therefore contains many businesses and places that conduct commercial and industrial business. Within the Study Area, business varies greatly, including large-scale and small-scale retail, production, restaurants, grocery stores, and recreational businesses.

4.2.1.5 Fiscal Conditions

Property Tax

Property taxes are levied on the assessed value of privately owned property. Property taxes for properties in the Study Area are collected by the respective county assessor/tax collector and apportioned to the incorporated cities. The amount levied is no more than 1 percent of the assessed property value and is divided among each of the local taxing agencies (i.e., cities, the counties, special districts, successor agencies to former redevelopment agencies, school districts, and community college districts) that are authorized to receive a portion of the 1 percent basic property tax levy. The distribution to each taxing agency is based on allocation factors that are established pursuant to State law (Assembly Bill 8). Table 4.15 presents the total revenues received by the Study Area cities and counties in Fiscal Year 2020–2021, which is the most recent year for which such data were available, including a breakout of the property and sales tax revenues received by the jurisdictions.

In Fiscal Year 2020-2021, the City of Anaheim generated the greatest amount of property tax revenue compared to the other Study Area cities, and the City of Buena Park generated the least amount of property tax revenue compared to the other Study Area cities.

Sales Tax

Table 4.16 demonstrates the sales tax rate for the cities and counties in the Study Area.

Effective October 1, 2022, the sales tax rate in Orange County is 7.75 percent (California Department of Tax and Fee Administration n.d.), of which 6 percent is allocated to the State, 1 percent is allocated to the City for public services, 0.25 percent is allocated to the County transportation fund, and 0.5 percent is used to fund transportation improvements in Orange County via OC Go (formerly known as Measure M).

Table 4.15: Local Government Revenues

Jurisdiction	Property Tax Revenue	Sales Tax Revenue	Total Revenue[1]
Orange County	$1,062,873,000	$127,791,0002	$5,596,641,000
Los Angeles County	$7,989,552,000	$562,628,000	$31,698,208,000
Cities			
Anaheim	$90,222,000	$76,811,000	$1,174,924,000
Buena Park	$12,016,000	$27,472,000	$93,374,000
Fullerton	$50,238,000	$25,571,000	$203,310,000
La Mirada	$14,439,302	$13,820,590	$47,390,617
Orange	$48,273,000	$47,214,000	$212,764,000
Santa Ana	$88,100,000	$57,400,000	$622,700,000
Tustin	$29,142,850	$30,753,042	$167,902,623

[1] Includes revenues from other sources, such as taxes and miscellaneous revenues.
[2] Includes all other taxes beyond property taxes.

Sources:

County of Orange. Comprehensive Annual Financial Report, FY 2020-2021.
Los Angeles County. Annual Comprehensive Financial Report, FY 2020-2021
City of Anaheim. Annual Comprehensive Financial Report, FY 2020-2021.
City of Buena Park. Annual Comprehensive Financial Report, FY 2020-2021
City of Fullerton. Annual Comprehensive Financial Report, FY 2020-2021.
City of La Mirada. Annual Comprehensive Financial Report, FY 2020-2021
City of Orange. Annual Comprehensive Financial Report, FY 2020-2021
City of Santa Ana. Annual Comprehensive Financial Report, FY 2020-2021
City of Tustin. Annual Comprehensive Financial Report, FY 2020-2021

Table 4.16: Sales Tax Rate Per Jurisdiction

Jurisdiction	Sales Tax Rate
Orange County	7.75%
Los Angeles County	9.5%
Cities	
Anaheim	7.75%
Buena Park	7.75%
Fullerton	7.75%
La Mirada	9.5%
Orange	7.75%
Santa Ana	9.25%
Tustin	7.75%

Source: Department of Tax and Fee Administration. 2022.

Effective October 1, 2022, the sales tax rate in Los Angeles County is 9.5 percent (California Department of Tax and Fee Administration n.d.), of which 6 percent is allocated to the State, 1 percent is allocated to the City for public services, and 0.25 percent is allocated to the County transportation fund. The remainder of the sales tax revenue is allocated to transportation improvements in Los Angeles County under voter-approved sales tax measures.

The Department of Tax and Fee Administration tabulates sales tax transactions for each city and county in California on a quarterly and yearly basis. As summarized in Table 4.15, the City of Anaheim generated the greatest amount of sales tax revenue compared to the other Study Area cities, and the City of La Mirada generated the least amount of sales tax revenue compared to the other Study Area cities.

4.2.1.6 Toll Projects

The FHWA-HOP-13-033, dated April 2013, is an FHWA-sponsored primer on tolling and addressing equity impacts titled, "Guidebook for State, Regional, and Local Governments on Addressing Potential Impacts of Road Pricing." It is "designed to assist transportation agencies to better assess and mitigate perceived and potential equity impacts of road pricing projects on local communities, commuters, and system users." This guidebook identifies different types of equity that may be affected by introduction of tolling systems. Vertical equity, or outcome equity, is the most relevant for the purposes of a CIA. Vertical or outcome equity refers to the distribution of both cost and benefit across social groups that differ in ability and/or need. It is important to consider whether the impacts of a project will affect groups disproportionately and implement measures to reduce or remove any advantages or disadvantages introduced by the proposed Project.

Horizontal equity means each group of the same class is treated the same. However, horizontal equity does not make any assertions about distribution between different classes. Opportunity equity requires that costs and benefits be assigned in proportion to the size of the group without regard to any other group characteristics. In the case of road pricing, opportunity equity means that the costs and benefits of a new transportation project should be divided proportionately among social groups. For example, a user traveling south on I-405 from La Mirada would pay the same rate as a user traveling south from Santa Ana. Market equity in toll pricing would mean that the price charged is in direct proportion to the costs imposed and the benefits received, as in the case of implanting a congestion charge for using a toll facility while the freeway is congested. Both market equity and opportunity equity are types of horizontal equity.

Spatial equity refers to the extent to which benefits and costs are distributed equally over space; intergenerational equity refers to the extent to which impacts are distributed to the present or the future; and social equity refers to the extent to which resource allocation is proportionate to needs that exist. Operational equity refers to the extent to which impacts are distributed among system users for different operational strategies. A facility with dynamic tolls that vary from day to day and by time of day would exhibit operational equity.

According to the National Cooperative Highway Research Program's Assessing the Environmental justice Effects of Toll Implementation or Rate Changes: Guidebook and Toolbox, there are four factors that must be considered when determining the impact of a tolling project: cost, change in

cost, uncertainty of cost, and change in access. These four factors can affect users of a facility in several ways, including:

- Changes in road use patterns (diversions to alternative routes or modes)
- Changes in mobility
- Changes in accessibility
- Changes in travel reliability
- Changes in trip-making behavior and trip purposes
- Changes in household disposable income and, subsequently, changes in household financial burden
- Change in “disposable time”

The Assessing the Environmental justice Effects of Toll Implementation or Rate Changes: Guidebook and Toolbox outlines eight steps to conducting an analysis, not all of which may be necessary:

- Step 1: Frame the Project
- Step 2: Identify the Applicable Requirements Governing Decisions
- Step 3: Recognize the Relevant Decision-Makers and Stakeholders
- Step 4: Scope Approach to Measure and Address Impacts
- Step 5: Conduct Impact Analysis and Measurement
- Step 6: Identify and Assess Mitigation Strategies
- Step 7: Document Results for Decision-Makers and the Public
- Step 8: Conduct Post-Implementation Monitoring

Toll implementation introduces the potential of an impact on users of the tolled facilities. To determine the potential effects of the conversion of HOV lanes to ELs or the addition of EL lanes to I-5, several factors of toll implementation will be examined. The aspects of cost, change in cost, uncertainty of cost, and change in access can have direct effects on users of the facility, either individually or combined. These effects could result in a change in road use patterns, in the form of diversions to alternative routes or modes, or a change in mobility, accessibility, or travel reliability. They may change trip frequency and timing. Financially, they could change household disposable income and increase financial burden, and could change a facility user’s "disposable time.”

EO 12898 – Environmental Justice, requires the proposed Project to analyze and address whether disproportionately high and adverse impacts may result on any minority or low-income populations. Additionally, it must be determined if the proposed Project would produce denial of, reduction in, or significant delay in the receipt of benefits.

Analysis of potential equity impacts of the proposed Project can be found in Section 4.6, Equity, of this document.

4.2.2 Environmental Consequences

4.2.2.1 Regional Economy

Temporary Impacts

Alternative 1 (No Build Alternative)

The No Build Alternative proposes no improvements to I-5, maintaining the existing four GP lanes throughout the Project limits in the northbound and the southbound directions. The freeway facility would remain as is, with the exception of other proposed projects that are either under development or currently under construction. The No Build Alternative would not cause adverse temporary impacts to the regional economy of Orange County.

Alternative 2 (Build Alternative: Modify Existing HOV 2+ Lanes to HOV3+ Lanes)

Alternative 2's improvements would potentially include HOV lane repainting and signage changes on the I-5 mainline and in specific local arterial locations throughout the Study Area. Alternative 2 includes the construction of two park-and-ride facilities within Caltrans existing ROW of the Project limits. However, these improvement activities are not anticipated to cause major disruptions to regional business patterns, as I-5 and surrounding local arterials would remain operational during the construction of Alternative 2. Alternative 2 would not cause adverse temporary impacts to the regional economy of Orange County.

Alternative 3 (Build Alternative: Convert Existing HOV Lanes to Express Lanes)

Potential impacts to regional business patterns are anticipated under Alternative 3 due to the temporary ramp closures, congestion, and detours that may temporarily limit access to businesses that rely on pass-by traffic for clientele or discourage visitors to popular attractions such as Disneyland. Passersby or visitors not willing to accommodate potential detour delays and construction-related congestion may instead frequent neighboring counties such San Diego County and Los Angeles County, or temporarily avoid traveling on I-5 between Red Hill Avenue and the OC/LA County Line during Alternative 3 construction.

Except for gas stations, fast-food restaurants, and retail uses near the identified ramp reconstructions of the northbound on-ramp from eastbound 17th Street in Santa Ana, and the northbound on-ramp from westbound 17th Street in Santa Ana, most of the surrounding businesses can be accessed via local roadways from other ramps. Businesses in proximity to affected ramp facilities identified for improvements would remain accessibile via measures identified in PF-TR-1 (TMP) to be prepared for the Build Alternatives.

Conversion of the existing HOV lanes to ELs may shift lane capacity that normally would be on the HOV lanes to the GP lanes during ELs conversion, which would temporarily increase congestion frequency and result in additional travel times through the Project Area.

Alternative 4 (Build Alternative: Convert Existing HOV Lanes to Express Lanes and Construct Additional Express Lanes)

Temporary impacts to regional business patterns under Alternative 3 would apply under Alternative 4. In addition, Alternative 4 includes construction of additional ELs on I-5 between SR-57 and SR-91, which would further affect travel times and movement of goods along the I-5

corridor during construction. Like Alternative 3 above, access to local businesses would be maintained under avoidance/minimization/mitigation measures and regulatory standards identified in PF-TR-1 (TMP) to be prepared for the Build Alternatives. Most businesses do not solely rely on pass-by traffic and can be accessed from local arterials and other off-ramps along I-5. Regional truck transport may experience temporary congestion and delay increases during construction activities of Alternative 4 improvements.

Permanent Impacts

Alternative 1 (No Build Alternative)

The No Build Alternative proposes no improvements to I-5, maintaining the existing four GP lanes throughout the Project limits in the northbound and southbound directions. The freeway facility would remain as is, with the exception of other proposed projects that are either under development or currently under construction. However, continuance and worsening of I-5 operations and HOV lane degradation may contribute to growth pressures on the regional economy due to worsening traffic conditions on I-5. Increased commute times and unpredictable travel conditions equate to more time spent in traffic, increased noise pollution, driver stress, decreased mental satisfaction, additional transportation costs, additional fuel consumption, and increased vehicle operating costs, which negatively affects regional growth and the economy.

Alternative 2 (Build Alternative: Modify Existing HOV 2+ Lanes to HOV 3+ Lanes)

Alternative 2 would facilitate travel along the existing HOV lanes through I-5. Alternative 2 would not result in permanent adverse impacts to the regional economy.

Alternative 3 (Build Alternative: Convert Existing HOV Lanes to Express Lanes)

Alternative 3 would facilitate travel along the I-5 corridor via the ELs and other improvements to the freeway, such as signage and ramp improvements. Alternative 3 would not result in permanent adverse impacts to the regional economy.

Alternative 4 (Build Alternative: Convert Existing HOV Lanes to Express Lanes and Construct Additional Express Lanes)

Alternative 4 would facilitate travel along the I-5 corridor due to the additional length of the ELs between SR-57 and SR-91, in addition to the improvements described as part of Alternative 3. Alternative 4 would not result in permanent adverse impacts to the regional economy.

Cumulative Impacts

The improvements under the Build Alternatives are not dependent on other current or planned development and transportation improvement projects in the Study Area and Orange County as a whole. Many factors are taken into consideration when discerning how the regional economy of Orange County can be affected by projects such as the proposed Project, including growth pressures, economic conditions, housing conditions, and other demographic and economic factors. The Build Alternatives alone are a small portion of the many projects that contribute to the overall economy of the region and Southern California at large. The improvements under the Build Alternatives benefit not only locals and passersby within the Study Area, but also influence the movement of people across the larger freeway network (I-5 connects Orange County to Los Angeles County to the north and San Diego County to the south). The I-5 Improvement Project

(I-405 to SR-55), located immediately south of the Project limits and currently in the PS&E phase, may coincide with this Project's construction time frame, which may result in possible cumulative effects on the regional economy.

Direct Project Impacts

The improvements included in the Build Alternatives would lead to a positive impact on the regional economy by reducing HOV lane/EL congestion and improving HOV lane/EL operation along I-5, which would allow improved accessibility and more predictable travel times to and from regional destinations, thus contributing to the regional economy. Alternative 4 would provide improved traffic and intersection operations overall compared to the Alternatives 2 and 3 and the No Build Alternative (except for intersection delay). Alternative 3 would provide slightly improved traffic and intersection operations compared to the No Build Alternative and Alternative 2. Alternative 2's traffic and intersection operations would be worse than the No Build Alternative conditions (Traffic Operations Analysis Report 2023).

Indirect Project Impacts

During construction of the Build Alternatives, some businesses in the Study Area may be affected by construction activities, which may influence whether customers would be willing to travel on I-5 and in the surrounding area. However, access to businesses would be maintained throughout construction duration, and temporary closures to facilities and roadways would be done in a manner where access would be maintained, would not occur consecutively, and would not occur during peak hours. Therefore, indirect Project impacts on the regional economy would be limited.

4.2.2.2 Employment and Income

Temporary Impacts

Alternative 1 (No Build Alternative)

The No Build Alternative proposes no improvements to I-5, maintaining the existing four GP lanes throughout the Project limits in the northbound and southbound directions. The freeway facility would remain as is, with the exception of other proposed projects that are either under development or currently under construction. There would be no temporary impacts to employment and income. The No Build Alternative would not preclude any planned improvement projects within the Study Area.

Alternative 2 (Build Alternative: Modify Existing HOV 2+ Lanes to HOV 3+ Lanes)

Construction of Alternative 2 would provide short-term construction jobs. The construction jobs would be temporary and would be specific to the variety of construction activities. The workforce would include a mix of craftspeople and engineers related to the proposed construction activities. Construction workers are only at a job site for the time frame in which their specific skills are needed to complete that phase of construction. Therefore, the Project-related construction workers would not be expected to relocate their household's place of residence because of working on Alternative 2. The construction employment associated with Alternative 2 would be a net benefit for the region as it would spur additional economic activities, including increased fuel sales at local gas stations, dining at local restaurants, and business at local motels and hotels if necessary.

For local businesses, the associated ramp closures, replacement of identified bridges, and detours may temporarily impact commute times for employees coming to their workplace in the Study Area. However, implementation of PF-TR-1 (TMP) for Alternative 2 would minimize potential adverse impacts to employment and income for workers and businesses not directly involved in Project construction.

Alternative 3 (Build Alternative: Convert Existing HOV Lanes to Express Lanes)

Construction of Alternative 3 would provide more short-term construction jobs than Alternative 2. The construction jobs would be temporary and would be specific to the variety of construction activities. The workforce would include a mix of craftspeople and engineers related to the proposed construction activities. Construction workers are only at a job site for the time frame in which their specific skills are needed to complete that phase of construction. Therefore, the Project-related construction workers would not be expected to relocate their household's place of residence because of working on Alternative 3. The construction employment associated with Alternative 3 would be a net benefit for the region as it would spur additional economic activities, including increased fuel sales at local gas stations, dining at local restaurants, and business at local motels and hotels if necessary.

For local businesses, the associated ramp closures, and detours may temporarily impact commute times for employees coming to their workplace in the Study Area. However, implementation of PF-TR-1 (TMP) for Alternative 3 would minimize potential adverse impacts to employment and income for workers and businesses not directly involved in Alternative 3 construction.

Alternative 4 (Build Alternative: Convert Existing HOV Lanes to Express Lanes and Construct Additional Express Lanes)

Temporary impacts under Alternative 3 would apply to Alternative 4. In addition, Alternative 4 includes the construction of additional ELs between SR-57 and SR-91, which may create additional temporary jobs compared to Alternative 3. Like Alternative 3, PF-TR-1 (TMP) would minimize potential adverse impacts to employment and income for workers and businesses not directly involved in Alternative 4 construction.

Permanent Impacts

Alternative 1 (No Build Alternative)

The No Build Alternative proposes no improvements to I-5, maintaining the existing four GP lanes throughout the Project Area in the northbound and southbound directions. The freeway facility would remain as is, with the exception of other proposed projects that are either under development or currently under construction. There would be no permanent impacts to employment and income. The No Build Alternative would not preclude any planned improvement projects within the Study Area.

Alternative 2 (Build Alternative: Modify Existing HOV 2+ Lanes to HOV 3+ Lanes)

Alternative 2 would not result in business displacements, and no permanent employment impacts would occur. Temporary increases in economic activities associated with construction workers near businesses may cease.

Alternative 3 (Build Alternative: Convert Existing HOV Lanes to Express Lanes)

Alternative 3 would not result in business displacements, and no permanent employment impacts would occur. Temporary increases in economic activities associated with construction workers near businesses may cease.

Alternative 4 (Build Alternative: Convert Existing HOV Lanes to Express Lanes and Construct Additional Express Lanes)

Permanent impacts under Alternative 4 are similar to those of Alternative 3. Refer to the Temporary Impacts discussion of Alternative 3, above.

Cumulative Impacts

The cumulative development and transportation projects listed in Table 2-2 would provide temporary construction jobs and spur a temporary increase in economic activity in certain parts of the Study Area. As a result, those cumulative projects would result in beneficial effects related to employment and the local economy in cities along the freeway corridors and northern Orange County. The I-5 Improvement Project (I-405 to SR-55), located immediately south of the Project limits and currently in the PS&E phase, may coincide with this Project's construction time frame, which may result in possible cumulative effects related to employment and income.

Direct Project Impacts

As noted above, the Build Alternatives would have a marginal effect on temporary jobs and no effect on permanent jobs. Therefore, construction of the Build Alternatives, in conjunction with the temporary construction and permanent jobs associated with the cumulative development and transportation projects, would not result in cumulative adverse impacts related to employment.

Indirect Project Impacts

Construction of the Build Alternatives would provide an undetermined number of indirect jobs resulting from Project-related expenditures in the local community, which would benefit the local and regional economies. Therefore, the Build Alternatives, in conjunction with the indirect temporary construction and permanent jobs associated with the cumulative development and transportation projects, would not result in cumulative adverse impacts related to employment.

4.2.2.3 Business Activity

Temporary Impacts

Alternative 1 (No Build Alternative)

Under the No Build Alternative, there would be no action, and the improvements associated with the Build Alternatives would not be constructed. Other current and planned projects in the Study Area would occur under the No Build Alternative. There would be no temporary impacts to business activities within the Study Area.

Alternative 2 (Build Alternative: Modify Existing HOV 2+ Lanes to HOV 3+ Lanes)

The passenger minimum increase for existing HOV lanes would not affect business activities within the Study Area. There would be no temporary impacts to business activities within the Study Area.

Alternative 3 (Build Alternative: Convert Existing HOV Lanes to Express Lanes)

Construction of Alternative 3 would spur additional economic activities, including increased fuel sales at local gas stations, dining at local restaurants, and businesses at local motels and hotels by construction workers. Construction of Alternative 3's improvements may necessitate traffic detours for staging and construction activities, which would be minimized by implementation of PF-TR-1 (TMP). Bicycle and pedestrian facilities on arterial interchanges with ramps identified for improvements under Alternative 3 may be affected by temporary lane or facility restrictions/closures. The TMP would require detour routes in a manner that would minimize potential impacts to business activities during construction.

Alternative 4 (Build Alternative: Convert Existing HOV Lanes to Express Lanes and Construct Additional Express Lanes)

The same temporary Impacts that would occur under Alternative 3 would occur under Alternative 4, but over a larger area due to the additional of ELs that would be constructed between the SR-57 and SR-91. Like Alternative 3 above, a TMP will be prepared which would include construction information and applicable detour routes and travel directions. Businesses within proximity to the additional ELs construction areas would remain operational and provided access that would be maintained throughout construction duration.

Permanent Impacts

Alternative 1 (No Build Alternative)

Under the No Build Alternative, there would be no action, and the improvements associated with the Build Alternatives would not be constructed. There would be no permanent impacts to business activities within the Study Area.

Alternative 2 (Build Alternative: Modify Existing HOV 2+ Lanes to HOV 3+ Lanes)

The passenger minimum increase for existing HOV lanes would not affect business activities within the Study Area. Therefore, implementation of Alternative 2 would not result in any adverse permanent impacts to business activities within the Study Area.

Alternative 3 (Build Alternative: Convert Existing HOV Lanes to Express Lanes)

Alternative 3 would improve regional operation of the ELs along I-5, which would allow improved regional access to business activities that were difficult to reach under existing conditions. Therefore, implementation of Alternative 3 would not result in any adverse permanent impacts to business activities within the Study Area.

Alternative 4 (Build Alternative: Convert Existing HOV Lanes to Express Lanes and Construct Additional Express Lanes)

Beneficial permanent impacts under Alternative 3 would occur under Alternative 4. The additional ELs length between SR-57 and SR-91 would further improve the regional operation and capacity of I-5. Implementation of Alternative 4 would not result in adverse permanent impacts to business activities within the Study Area.

Cumulative Impacts

The cumulative development and transportation projects listed in Table 2-2 are not anticipated to displace any existing businesses and would provide a number of temporary and permanent jobs. Each individual project would require discretionary environmental review to ensure that the project would not adversely affect existing businesses or result in displacements. As a result, those projects would benefit the local and regional economies based on worker salaries; expenditures for materials, fuels, and other supplies; and property and sales taxes. The I-5 Improvement Project (I-405 to SR-55), located immediately south of the Project limits and currently in the PS&E phase, may coincide with this Project's construction time frame, which may result in possible cumulative effects on business activity.

Direct Project Impacts

The Build Alternatives may result in increased travel times and construction-related delays to regional access to businesses in proximity to I-5 within the Study Area. However, implementation of PF-TR-1 (TMP) would include maintaining access and minimizing the extent of travel delays during the duration of construction. No businesses are identified to be adversely affected by potential modifications of a nearby ramp or from construction-related activities. Therefore, there would be no direct impacts that would contribute to cumulative adverse effects related to businesses.

Indirect Project Impacts

Construction of the Build Alternatives would result in minor temporary impacts to local businesses, including regional freeway access restrictions that could result in traffic delays. However, any required freeway lanes and road closures would be relatively short in duration, and the additional travel times associated with the freeway facility improvements and anticipated detour routes would be minimal. Consecutive roadways would not be closed, as closures would alternate. Therefore, throughout construction, timely access to nearby businesses would be maintained and a significant decrease in traffic volumes would not occur. The construction of the Build Alternatives would provide construction jobs, which in turn would benefit the local and regional economies based on worker salaries; expenditures for materials, fuels, and other supplies; and lodging and sales taxes. Implementation of PF-TR-1 (TMP) and maintaining access to affected businesses throughout construction of the Build Alternatives would minimize adverse indirect impacts. As a result, construction of the Build Alternatives would not result in short-term impacts related to adverse effects on businesses and would not contribute to cumulative adverse impacts related to businesses.

4.2.2.4 Fiscal Conditions

Temporary Impacts

No Build Alternative

Under the No Build Alternative, there would be no action, and the improvements associated with the Build Alternatives would not be constructed. There would be no temporary gains or losses in sales tax revenues.

Alternative 2 (Build Alternative: Modify Existing HOV 2+ Lanes to HOV 3+ Lanes)

The passenger minimum increase for existing HOV lanes would not affect business activities within the Study Area. There would be no temporary gains or losses in sales tax revenue.

Alternative 3 (Build Alternative: Convert Existing HOV Lanes to Express Lanes)

It is anticipated that implementation of PF-TR-1 (TMP) would maintain access to all businesses during construction of Alternative 3. As discussed above, temporary freeway lane and road detours and access restrictions during construction may result in traffic delays that could affect how customers access local businesses and services in the Study Area. However, the construction staging approach for Alternative 3 would ensure that the regional circulation system and local roadways remain operational during freeway and roadway facility construction work. Therefore, although road closures and restrictions associated with Alternative 3 could result in temporary reductions in sales tax revenues, these losses would be limited because the Project-related road closures would not result in substantial traffic volume decreases in the vicinity of any businesses that depend on pass-by traffic.

Any sales tax losses that would occur during construction are likely to be offset by the boost in sales tax revenues generated through the purchase of fuel, meals, and other supplies from local businesses. Detour information would be provided in advance to minimize impacts related to delayed commute time. Construction is anticipated to last approximately 3 to 4 years. Thus, the short-term impacts of Alternative 3 on local businesses would not be substantial. The construction of Alternative 3 would provide local businesses the purchase of fuel, meals, and other supplies, much of which would be purchased in the Study Area cities along the regional freeway network. Therefore, construction of Alternative 3 is anticipated to result in a short-term increase in sales tax revenues for the Study Area cities.

Alternative 4 (Build Alternative: Convert Existing HOV Lanes to Express Lanes and Construct Additional Express Lanes)

Temporary impacts for Alternative 4 are similar to Alternative 3. Refer to the Alternative 3 discussion above.

Permanent Impacts

Alternative 1 (No Build Alternative)

No property acquisitions or relocations would be required under the No Build Alternative; therefore, there would be no direct effect on property tax revenues under the No Build Alternative. The No Build Alternative would not result in the permanent loss of sales tax revenues.

Alternative 2 (Build Alternative: Modify Existing HOV 2+ Lanes to HOV 3+ Lanes)

No property acquisitions or relocations would be required under Alternative 2; therefore, there would be no direct effect on property tax revenues under Alternative 2. Alternative 2 would not result in the permanent loss of sales tax revenues.

Alternative 3 (Build Alternative: Convert Existing HOV Lanes to Express Lanes)

No property acquisitions or relocations would be required under Alternative 3; therefore, there would be no direct effect on property tax revenues under Alternative 3. Alternative 3 would not result in the permanent loss of sales tax revenues.

Alternative 4 (Build Alternative: Convert Existing HOV Lanes to Express Lanes and Construct Additional Express Lanes)

Temporary impacts for Alternative 4 are similar to Alternative 3. Refer to the Alternative 3 discussion above.

Cumulative Impacts

The cumulative development projects in Table 2-2 include improvements that would generate property taxes for the Study Area cities and Orange County. As a result, those projects would result in beneficial effects related to tax revenues in the Study Area cities and the County. The land occupied by the Capital Improvement Projects in Table 2-2 would not generate property or sales tax revenues.

Direct Project Impacts

The Build Alternatives would result in minimal property tax revenue losses due to acquisitions or relocations; therefore, the Build Alternatives would not contribute to a cumulative adverse effect related to the loss of property or sales tax revenues.

Indirect Project Impacts

Construction of the Build Alternatives would not result in indirect impacts related to tax revenues, and therefore would not result in indirect impacts that would contribute to cumulative adverse effects related to tax revenues.

4.2.3 Avoidance, Minimization, and/or Mitigation Measures

As previously mentioned, PF-TR-1 (TMP) will be prepared for the Build Alternatives, which may include, but not be limited to, public information strategies, motorist information strategies, construction information, worker/user safety and detour information, information about roads and lane closures/restrictions, and maintenance of access throughout Project construction and operation. No business displacements are identified under the Build Alternatives. The Build Alternatives would not result in a substantial economic-related impact. Therefore, no avoidance, minimization, or mitigation measures are proposed.

4.3 Community Facilities and Services

4.3.1 Affected Environment

4.3.1.1 Community Facilities

Accessibility of community facilities and services enhances the quality of life in the community and contributes to the sense of community cohesion. Below is a discussion regarding the community facilities within the Study Area.

Community Centers

Community centers in the Study Area are listed below in Table 4.17.

Table 4.17: Community Centers in the Study Area

Facility Name	Address	Distance from Proposed Project Area (miles)
Anaheim		
Brookhurst Community Center	2271 W. Crescent Ave., Anaheim	0.35
Ponderosa Park Family Resource Center	2100 S. Haster St., Anaheim	0.43
Buena Park		
Buena Park Community Center	6688 Beach Blvd., Buena Park	0.18
Fullerton		
Gilbert Neighborhood Center	2120 W. Orangethorpe Ave., Fullerton	0.29
Santa Ana		
Garfield Community Center	501 N. Lacy St., Santa Ana	0.48
Jack Fisher Park Log Cabin	2501 N. Flower St., Santa Ana	0.25
Logan Center	1009 N. Custer St., Santa Ana	0.24
Roosevelt/Walker Community Center	816 E. Chestnut Ave., Santa Ana	0.84
Santiago Park Log Cabin	2535 N. Main St., Santa Ana	0.18
Tustin		
Clifton C. Miller Community Center	300 Centennial Wy., Tustin	0.43
The Market Place Community Center	2961 El Camino Real, Tustin	0.33
Tustin Family and Youth Center	14722 Newport Ave., Tustin	0.25

Note: Facility distance measurement using ruler tool in Google Earth.

Senior Centers

The Tustin Area Senior Center is the only senior center in the Study Area and is approximately 0.44 mile northeast of the I-5/SR-55 interchange at 200 S. C Street in Tustin.

Libraries

The following libraries are located in the Study Area:

- The Tustin Library is approximately 0.37 mile northeast of the I-5/Newport Avenue interchange at 345 E. Main Street in Tustin.
- The Central Library is approximately 0.55 mile northeast of the I-5/W. Broadway interchange at 500 W. Broadway in Anaheim.
- The Ponderosa Joint-Use Branch is approximately 0.39 mile southwest of the I-5/Gene Autry Way interchange at 240 E. Orangewood Avenue in Anaheim.
- A self-service book vending machine (Books on the Go!) maintained by the Anaheim Public Library is located approximately 0.24 mile southeast of the SR-57/Katella Avenue interchange inside ARTIC at 2626 E. Katella Avenue in Anaheim.

While not a library facility, the Anaheim Public Library identifies Founders' Park among its library locations, approximately 0.26 mile northeast of the I-5/Lincoln Avenue interchange at 400 N. West Street in Anaheim.

Hospitals

The following hospitals are located within the Study Area:

- The UCI Medical Center is adjacent to I-5 at 101 The City Drive S. in Orange.
- The Providence St. Joseph Hospital Orange is approximately 0.45 mile east of the I-5/SR-22 interchange at 1100 W. Stewart Drive in Orange.
- The Orange County Global Medical Center is approximately 0.5 mile northeast of the I-5/Fourth Street interchange at 1001 N. Tustin Avenue in Santa Ana.
- The Foothill Regional Medical Center is approximately 0.25 mile east of the SR-55/McFadden Avenue interchange at 14662 Newport Avenue in Tustin.
- The Children's Hospital of Orange is approximately 0.36 mile east of the SR-22/I-5 interchange at 1201 W. La Veta Avenue in Orange.
- The Anaheim Regional Medical Center is approximately 0.57 mile southeast of the SR-91/ Euclid Street interchange at 1111 W. La Palma Avenue in Anaheim.
- The Anaheim Global Medical Center is approximately 0.37 mile east of the I-5/Ball Road interchange at 1025 S. Anaheim Boulevard in Anaheim.

Schools

The public school districts and associated schools within the Study Area are listed below in Table 4.18. There are no public schools in La Mirada, Orange, and Fullerton that are located within the Study Area; thus, those facilities and their associated public school districts are excluded.

Table 4.18: Public Schools in the Study Area

Facility Name	Address	Distance from Proposed Project Area (miles)
Anaheim Elementary School District (AESD)		
Adelaide Price Elementary School	1516 W. North St., Anaheim	0.33
Benjamin Franklin Elementary School	521 W. Water St., Anaheim	0.36
Betsy Ross Elementary School	535 S. Walnut St., Anaheim	0
Gauer Elementary School	810 N. Gilbert St., Anaheim	0.37
John Marshall Elementary School	2066 W. Falmouth Ave., Anaheim	0.25
Loara Elementary School	1601 W. Broadway, Anaheim	0.28
Orange Grove Elementary School	1000 S. Harbor Blvd., Anaheim	0.21
Paul Revere Elementary School	140 W. Guinida Ln., Anaheim	0.19
Westmont Elementary School	1525 W. Westmont Dr., Anaheim	0.23
Anaheim Union High School District (AUHSD)		
Anaheim High School	811 W. Lincoln Ave., Anaheim	0.28
Brookhurst Junior High School	601 N. Brookhurst St., Anaheim	0.24
Buena Park School District (BPSD)		
Carl E. Gilbert Elementary School	7255 8th St., Buena Park	0.14
Mabel L. Pendleton Elementary School	7101 Stanton Ave., Buena Park	0.1
Santa Ana Unified School District (SAUSD)		
Davis Elementary School	1405 French St., Santa Ana	0
Garfield Elementary School	850 Brown St., Santa Ana	0.5
Sierra Preparatory Academy	2021 N. Grand Ave, Santa Ana	0.5
Tustin Unified School District (TUSD)		
Benjamin Beswick Elementary School	1362 Mitchell Ave., Tustin	0.29
Robert P. Heideman Elementary School	15571 Williams St., Tustin	0.5
Tustin Connect High School (Online)	1151 San Juan St., Tustin	0.31
*Tustin High School	1171 El Camino Real, Tustin	0
Utt Middle School	13601 Browning Ave., Tustin	0.25
W.R. Nelson Elementary School	14392 Browning Ave., Tustin	0.39

Note: School distance measurement with ruler tool in Google Earth.
Section 4(f) facilities are marked with an asterisk (*).

According to the California Department of Education, the following private schools are within the Study Area and are listed below in Table 4.19. There are no private schools in La Mirada, Orange, and Fullerton that are located within the Study Area; thus, those facilities are excluded.

Table 4.19: Private Schools in the Study Area

Facility Name	Address	Distance from Proposed Project Area (miles)
Anaheim		
Acaciawood Preparatory Academy	2530 W. La Palma Ave., Anaheim	0.39
digiTIES	1136 N. Brookhurst St., Anaheim	0.13
Fairmont Historic Anaheim	1575 W. Mable St., Anaheim	0.17
Fairmont Preparatory Academy	2200 W. Sequoia Ave., Anaheim	0
Guide Academy	121 S. Citron St., Anaheim	0.46
Islamic Education School	1136 N. Brookhurst St., Anaheim	0.13
Montessori Education Center	1658 W. Broadway, Anaheim	0.37
Servite High School	1952 W. La Palma Ave., Anaheim	0.3
Buena Park		
Buena Park Christian Learning Center	7142 Thomas St., Buena Park	0
St. Pius V Catholic School	7691 Orangethorpe Ave., Buena Park	0.25
Santa Ana		
Irvine Hebrew Day School	1500 E. 17th St., Santa Ana	0.4
St. Joseph Catholic School (Santa Ana)	608 E. Civic Center Dr., Santa Ana	0.48
University High School of Business and Leadership International	2130 E. 4th St., Santa Ana	0.18
Tustin		
Newport Avenue Preschool and Kindergarten	13682 Newport Ave., Tustin	0.36
Saint Jeanne de Lestonnac School	16791 E. Main St., Tustin	0

Source: California Department of Education. 2022.
Note: School distance using ruler tool in Google Earth.

Public Parks and Recreation Facilities

Please refer to Table 2.3 in Section 2.3, Parks and Recreation, for a list of parks and recreation facilities in the Study Area.

4.3.1.2 Emergency Services

Fire

Study Area cities with no municipal fire departments are served by the Orange County Fire Authority (OCFA). Three OCFA divisions serve four of the seven cities within the Study Area: Operations Division 7 serves the cities of Buena Park and La Palma; Operations Division 4 serves the City of Tustin; and Operations Division 6 serves the City of Santa Ana.

- OCFA Station #62 is approximately 0.4 mile northeast of I-5 at 7780 Artesia Boulevard in Buena Park.

- OCFA Station #70 is approximately 0.77 mile northeast of I-5 at 2301 Old Grande Street N. in Santa Ana.
- OCFA Station #72 is adjacent to I-5 at 1668 E. 4th Street in Santa Ana.
- OCFA Station #79 is approximately 0.34 mile northwest of SR-55 at 1320 E. Warner Avenue in Santa Ana.

The Cities of Anaheim, Fullerton, and Orange are served by their respective municipal fire departments but also have mutual aid agreements with OCFA and adjacent jurisdictions.

- Orange City Fire Department Station #6 is approximately 0.31 mile southwest of I-5 at 345 The City Drive in Orange.
- Anaheim Fire Station #2 is approximately 0.19 mile southwest of I-5 at 2141 W. Crescent Avenue in Anaheim.
- Anaheim Fire Station #3 is approximately 0.21 mile southwest of I-5 at 1717 S. Clementine Street in Anaheim.

Fire protection and emergency medical services for the City of La Mirada are provided by the Los Angeles County Fire Department (LACoFD). La Mirada is served by LACoFD Station 49 (13820 La Mirada Blvd) and Station 194 (13540 S. Beach Blvd). There are no LACoFD stations within the Study Area boundaries.

Police

Each jurisdiction within the Study Area is served by its respective police department. Of the Study Area cities, only the City of Buena Park and the City of Tustin have police stations located within the Study Area boundaries. The Buena Park Police Department is approximately 0.15 mile southeast of the I-5/Beach Boulevard interchange at 6640 Beach Boulevard in Buena Park. The Tustin Police Department is approximately 0.43 mile north of the I-5/Newport Avenue interchange at 300 Centennial Way in Tustin.

California Highway Patrol

The CHP has patrol jurisdiction on freeways in the State of California, including I-5, SR-55, SR-57, SR-91, and SR-22. Although there are no CHP offices in the Study Area, the CHP operates an office at 2031 E. Santa Clara Avenue in Santa Ana, which is approximately 0.38 mile east of the Study Area.

4.3.1.3 Utilities

The utility service providers in the Study Area are summarized in Table 4.20.

Landfills

The Frank R. Bowerman Landfill is the nearest active and permitted Class III landfill facility, with the Bee Canyon Greenery on site. The landfill is approximately 4.05 miles east of the easternmost boundary of the Study Area, at 11002 Bee Canyon Road in Irvine.

Table 4.20: Study Area Utility Providers

Utility	Owner
Water and Sewer	City of Anaheim, City of Buena Park, City of Fullerton, City of Orange, Santa Ana Municipal Utility Services, City of Tustin Water Services, Irvine Ranch Water District, Golden State Water Company, Suburban Water
Storm Drain	Los Angeles County Department of Public Works, Orange County Flood Control District, City of Tustin, City of Santa Ana, City of Buena Park, City of Fullerton, City of Anaheim, City of Orange
Gas	Southern California Gas Company
Electricity	Southern California Edison, City of Anaheim
Telecom	AT&T, Time Warner Cable
Cable	Time Warner Cable, Comcast, Cox, DirecTV, Frontier, Spectrum
Trash Service	Anaheim Solid Waste Collection & Disposal, Park Waste & Recycling Services, MG Disposal, CR & R Disposal and Recycling, Waste Management Inc, EDCO Disposal

Sources: Utilities information from respective jurisdiction's General Plans, municipal websites, and utility provider websites. Service Providers determined by office location and service area information.

4.3.2 Environmental Consequences

4.3.2.1 Community Facilities

Temporary Impacts

Alternative 1 (No Build Alternative)

The No Build Alternative proposes no improvements to I-5. The freeway facility would remain as is, with the exception of other proposed projects that are either under development or currently under construction. There would be no temporary impacts on community facilities.

Alternative 2 (Build Alternative: Modify Existing HOV 2+ Lanes to HOV 3+ Lanes)

Alternative 2 would not result in the temporary use of land, nor would it result in temporary closures of the previously identified community facilities. The existing HOV lane orientation would remain as is except for the increase in the minimum requirement for ridership. Construction of two park-and-ride facilities and signage work may result in temporary delays in travel time to and from community facilities, but would be minimized through transportation management strategies in PF-TR-1 (TMP). There would be no temporary impacts on community facilities.

Alternative 3 (Build Alternative: Convert Existing HOV Lanes to Express Lanes)

Alternative 3 would not result in the temporary use of land, nor would it result in temporary closures of the previously identified community facilities. Adherence to PF-TR-1 (TMP) for Alternative 3 would include the maintenance of pedestrian and bike traffic access throughout the construction duration. Access to nearby community facilities would be maintained throughout the duration of construction. Vehicular traffic detours are anticipated to be needed during construction around emergency access points, which may be limited to nighttime or off-peak hours.

Alternative 4 (Build Alternative: Convert Existing HOV Lanes to Express Lanes and Construct Additional Express Lanes)

Alternative 4 would not result in the temporary use of land, nor would it result in temporary closures of the previously identified community facilities. Adherence to PF-TR-1 (TMP) for Alternative 4 would include the maintenance of pedestrian and bike traffic access throughout the construction duration. Delays in travel time may occur during construction, but access to nearby community facilities would be maintained via implementation of PF-TR-1 (TMP). Vehicular traffic detours are anticipated to be needed during construction around emergency access points, which may be limited to nighttime or off-peak hours.

Permanent Impacts

Alternative 1 (No Build Alternative)

The No Build Alternative proposes no improvements to I-5. The freeway facility would remain as is, with the exception of other proposed projects that are either under development or currently under construction. There would be no permanent impacts on community facilities.

Alternative 2 (Build Alternative: Modify Existing HOV 2+ Lanes to HOV 3+ Lanes)

Alternative 2 would not result in the permanent use of land, nor would it result in closures of the previously identified community facilities. The existing HOV lane orientation would remain as is except for the increase in the minimum requirement for ridership. There would be no permanent impacts on community facilities.

Alternative 3 (Build Alternative: Convert Existing HOV Lanes to Express Lanes)

Alternative 3 does not change accessibility to community facilities within the Study Area. There would be no adverse permanent impacts on community facilities that serve the Study Area.

Alternative 4 (Build Alternative: Convert Existing HOV Lanes to Express Lanes and Construct Additional Express Lanes)

Permanent impacts under Alternative 4 are similar to those of Alternative 3. Refer to the Permanent Impacts discussion for Alternative 3 above.

Cumulative Impacts

Few of the planned or current transportation or development projects listed in Table 2.2 are near the existing community facilities within the Study Area. However, the projects in Table 2.2 are subject to discretionary environmental review by the applicable agencies for avoiding, minimizing, and/or mitigating potential impacts. The I-5 Improvement Project (I-405 to SR-55), located immediately south of the Project limits and currently in the PS&E phase, may coincide with this Project's construction time frame, which may result in possible cumulative effects on community facilities.

Direct Project Effects

As discussed above, the Build Alternatives and necessary construction staging areas would not impair or result in closure of Study Area community facilities. Therefore, the Build Alternatives would not result in direct impacts to community facilities.

Indirect Project Effects

The Build Alternatives may result in indirect, albeit temporary, air quality and noise impacts on surrounding community facilities during construction. These impacts would be reduced with compliance with Caltrans standards, State, and federal regulations; and avoidance, minimization, and mitigation measures. Therefore, the Build Alternatives would not result in permanent impacts on said facilities after completion.

4.3.2.2 Emergency Services

Temporary Impacts

Alternative 1 (No Build Alternative)

Per analysis presented in the Study Area cities' General Plan EIRs, circulation improvements under the recommended circulation plans would be designed to adequately address potential hazardous conditions, potential conflicting uses, and emergency access.[16] In addition, pursuant to environmental review, local and regional agencies, such as municipal fire departments, may require review to ensure that adequate emergency accessibility is provided based on local and State guidance.

Under the No Build Alternative, there would be no action, and the improvements associated with the Build Alternatives would not be constructed. Based on the above analysis of current regulations regarding emergency access in the Study Area jurisdictions, the No Build Alternative would not affect emergency access or response times in the Study Area.

Alternative 2 (Build Alternative: Modify Existing HOV 2+ Lanes to HOV 3+ Lanes)

The HOV passenger minimum improvements associated with Alternative 2, including two park-and-ride facilities, would not impact emergency service providers. Alternative 2's construction and signage work may result in temporary delays and increase in response times in the Study Area. Implementation of PF-TR-1 (TMP) would include maintenance of access for emergency responders, which would minimize potential delays in emergency response times.

Alternative 3 (Build Alternative: Convert Existing HOV Lanes to Express Lanes)

During construction of Alternative 3, emergency service providers may experience temporary delays as they travel within and through the Study Area. Implementation of PF-TR-1 (TMP) would include maintenance of access for emergency responders, which would minimize potential delays in emergency response times. Implementation of Measure UES-2 would also supplement the TMP strategies to ensure that disruptions in emergency service during construction would be minimal (Section 4.3.3).

[16] City of Orange General Plan PEIR (2010), The Fullerton Plan FEIR (2012), Buena Park 2035 General Plan Update (2010), Final Anaheim General Plan and Zoning Code Update EIR No. 330 (2004), Santa Ana General Plan Update Final Recirculated DPEIR (2021).

Alternative 4 (Build Alternative: Convert Existing HOV Lanes to Express Lanes and Construct Additional Express Lanes)

During construction of Alternative 4, emergency service providers may experience temporary delays as they travel within and through the Study Area. Implementation of PF-TR-1 (TMP) would include maintenance of access for emergency responders, which would minimize potential delays in emergency response times. Implementation of Measure UES-2 would also supplement the TMP strategies to ensure that disruptions in emergency service during construction would be minimized (Section 4.3.3).

Permanent Impacts

Alternative 1 (No Build Alternative)

Under the No Build Alternative, there would be no action, and the improvements associated with the Build Alternatives would not be constructed. The No Build Alternative would not result in permanent adverse impacts to emergency services and response times in the Study Area. However, continued degradation of I-5 operations under this alternative could adversely affect emergency services providers' response times in the Study Area.

Alternative 2 (Build Alternative: Modify Existing HOV 2+ Lanes to HOV 3+ Lanes)

Alternative 2 would not affect emergency service providers as the raised passenger minimum to access the existing HOV facilities applies to the public. The I-5 facility orientation would remain as is. The addition of two park-and-ride facilities would be within Caltrans existing ROW of the Project limits and would not affect emergency service access. Therefore, there would be no permanent impacts to emergency services.

Alternative 3 (Build Alternative: Convert Existing HOV Lanes to Express Lanes)

Alternative 3 would improve operation on the freeway facilities in the Study Area, which would benefit emergency service providers as they travel within and through the Study Area. There would be no permanent impacts to emergency services.

Alternative 4 (Build Alternative: Convert Existing HOV Lanes to Express Lanes and Construct Additional Express Lanes)

Alternative 4 would improve capacity and operation on the freeway facilities in the Study Area, which would benefit emergency service providers as they travel within and through the Study Area. There would be no permanent impacts to emergency services.

Cumulative Impacts

The projects identified in Table 2.2 would not result in adverse impacts on emergency services, as each project would be subject to review by applicable agencies to ensure that such impacts are minimized or mitigated via environmental regulations. The I-5 Improvement Project (I-405 to SR-55), located immediately south of the Project limits and currently in the PS&E phase, may coincide with this Project's construction time frame, which may result in possible cumulative effects on emergency services.

Direct Project Effects

During construction, emergency service providers may experience temporary delays as they travel in and through the Study Area. Those impacts would be short-term and would cease upon completion of construction. In the long term, the Build Alternatives would improve operations on I-5 and other freeways, which would benefit emergency service providers as they travel in and through the Study Area. As a result, the Build Alternatives would not contribute to cumulative adverse impacts on emergency services.

Indirect Project Effects

The Build Alternatives would not result in indirect impacts on emergency services and therefore would not result in indirect impacts that would contribute to cumulative adverse effects related to emergency services.

4.3.2.3 Utilities

Temporary Impacts

Alternative 1 (No Build Alternative)

The No Build Alternative proposes no improvements to I-5. The freeway facility would remain as is, with the exception of other proposed projects that are either under development or currently under construction. There would be no temporary impacts on utilities.

Alternative 2 (Build Alternative: Modify Existing HOV 2+ Lanes to HOV 3+ Lanes)

Alternative 2 would not require relocation or construction of utility infrastructure. There would be no temporary impacts on utilities.

Alternative 3 (Build Alternative: Convert Existing HOV Lanes to Express Lanes)

Alternative 3 would impact various utilities, requiring utility relocations and adjustments to surface and/or subsurface utility infrastructure. Other utilities would be protected in place during construction activities. Impacted utilities may include storm drains, sanitary sewers, waterlines, overhead power lines, electrical duct banks, lighting, irrigation conduits, fiber-optic lines, telephone lines, and communication lines. To the extent possible, all proposed Project improvements are proposed to avoid conflicts with the space occupied by major utilities to the extent feasible. Nevertheless, in certain instances, some improvements would require that conflicting utilities be relocated, modified, or protected in place.

Table 4.21 shows the utilities that may be affected during construction of Alternative 3:

All utility relocations would be coordinated with the affected utility providers to ensure minimal disruptions to utility users in the area (Measure UES-1). With implementation of Measure UES-1, no substantial impacts to utilities and community facilities would occur.

Table 4.21 Potentially Affected Utilities

Location	Utility Owner	Wet (W) or Dry (D)	Utility Type	Conflict Description
N. Main St. SB on-ramp	AT&T	D	Telecom	Roadway Conflict
North of N. State College Blvd.	PacBell	D	Telecom	Overhead Sign Conflict
North of N. State College Blvd.	SCE	D	Electric	Overhead Sign Conflict

Source: *Draft Project Report* (November 2022).
PacBell = Pacific Bell Telephone Company
SB = southbound
SCE = Southern California Edison

Alternative 4 (Build Alternative: Convert Existing HOV Lanes to Express Lanes and Construct Additional Express Lanes)

Alternative 4 would impact various utilities, requiring utility relocations and adjustments to surface and/or subsurface utility infrastructure. Other utilities would be protected in place during construction activities. Impacted utilities may include storm drains, sanitary sewers, water lines, overhead power lines, electrical duct banks, lighting, irrigation conduits, fiber-optic lines, telephone lines, and communication lines. To the extent possible, all proposed Project improvements are proposed to avoid conflicts with the space occupied by major utilities. Nevertheless, in certain instances, some improvements would require that conflicting utilities be relocated, modified, or protected in place.

Table 4.22 shows the utilities that may be affected during construction of Alternative 4:

Table 4.22 Potentially Affected Utilities

Location	Utility Owner	Wet (W) or Dry (D)	Utility Type	Conflict Description
N. Main St. SB on-ramp	AT&T	D	Telecom	Roadway Conflict
North of N. State College Blvd.	Pacbell	D	Telecom	Overhead Sign Conflict
North of N. State College Blvd.	SCE	D	Electric	Overhead Sign Conflict
N. Euclid St. off-ramp	City of Anaheim	W	Water	Roadway Conflict
N. Euclid St. SB off-ramp	City of Anaheim	W	Water	Roadway Conflict
N. Euclid St. SB	Sprint	D	Telecom	Roadway Conflict
North of N. Euclid St. SB	Sprint	D	Telecom	Roadway Conflict

Source: *Draft Project Report* (November 2022).
AT&T: American Telephone and Telegraph Company
SCE: Southern California Edison

All utility relocations would be coordinated with the affected utility providers to ensure minimal disruptions to utility users in the area (Measure UES-1). With implementation of Measure UES-1, no substantial impacts to utilities and community facilities would occur.

Permanent Impacts

Alternative 1 (No Build Alternative)

The No Build Alternative proposes no improvements to I-5. The freeway facility would remain as is, with the exception of other proposed projects that are either under development or currently under construction. There would be no permanent impacts on utilities.

Alternative 2 (Build Alternative: Modify Existing HOV 2+ Lanes to HOV 3+ Lanes)

Alternative 2 would not require relocation or construction of utility infrastructure. There would be no permanent impacts on utilities.

Alternative 3 (Build Alternative: Convert Existing HOV Lanes to Express Lanes)

Relocation of impacted utilities would be completed as part of construction of Alternative 3. There would be no increase in the need for utilities, and no permanent impacts to utilities would occur.

Alternative 4 (Build Alternative: Convert Existing HOV Lanes to Express Lanes and Construct Additional Express Lanes)

Relocation of impacted utilities would be completed as part of construction of Alternative 4. There would be no increase in the need for utilities, and no permanent impacts to utilities would occur.

Cumulative Impacts

During construction of the projects listed in Table 2.2, there may be temporary disruptions to existing utilities around project construction areas. Those effects would be short-term and would cease upon completion of construction. Although some of the development projects described in Table 2.2 would result in an increased demand for utilities, impacts on local utility service providers would be identified and mitigated during the environmental review process for each of those projects. The I-5 Improvement Project (I-405 to SR-55), located immediately south of the Project limits and currently in the PS&E phase, may coincide with this Project's construction time frame, which may result in possible cumulative effects related to utilities on I-5 and in the immediate vicinity.

Direct Project Impacts

During construction of Alternatives 3 and 4, existing utility facilities may need to be relocated or protected in place. Implementation of Measure UES-1 would avoid and/or minimize impacts. No new utilities would be necessary under Alternatives 3 and 4. As a result, Alternatives 3 and 4 would not contribute to cumulative adverse impacts on utilities.

Indirect Project Impacts

The Build Alternatives would not result in indirect impacts on utilities and, therefore, would not result in indirect impacts that would contribute to cumulative adverse effects related to utilities.

4.3.3 Avoidance, Minimization, and/or Mitigation Measures

Project Feature PF-TR-1 (TMP) will be prepared for the Build Alternatives, which may include, but not be limited to, public information strategies, motorist information strategies, construction strategies, worker/user safety and detour information, information about road and lane closures,

and maintenance of access throughout construction and operation of the Build Alternatives. Access to community facilities and emergency services would be maintained throughout construction of the Build Alternatives.

In addition, Measure UES-1 will be incorporated to minimize impacts related to utilities.

UES-1 During final design, the Project engineer(s) shall prepare utility relocation plans in consultation with the affected utility providers/owners for those utilities that will need to be relocated, removed, or protected in-place. If relocation is necessary, the final design shall focus on relocating utilities within the State right-of-way (ROW) or other existing public ROWs and/or easements. If relocation outside of existing or the additional public ROWs and/or easements required for the project is necessary, the final design shall focus on relocating those facilities to minimize environmental impacts as a result of Project construction and ongoing maintenance and repair activities. The utility relocation plans shall be included in the Project specifications.

Prior to and during construction, the Project engineer(s) shall ensure that the components of the utility relocation plans provided in the Project specifications are properly implemented by the contractor.

Prior to utility relocation activities, the contractor shall coordinate with affected utility providers regarding potential utility relocations and inform affected utility users in advance about the date and timing of potential service disruptions.

UES-2 All temporary closures and detour plans would be coordinated with Study Area law enforcement, fire protection, and emergency medical service providers to minimize temporary delays in emergency response times, including the identification of alternate routes for emergency vehicles and routes across the construction areas that are developed in coordination with the affected agencies. To ensure that emergency response times are not disrupted, the emergency services and departments identified in Section 4.3.1.2 will be informed of the Project construction schedule, lane closures (if any), and detour plans well in advance of any detour plan or lane closure being implemented throughout the construction period.

4.4 Relocations and Real Property Acquisition

4.4.1 Affected Environment

Refer to Sections 4.2.1.3 and 4.1.1.3 for profiles of business activities and housing, respectively, in the Study Area. Figure 4-1, Property Acquisitions and Easements, illustrates the locations of the construction staging areas that would be required for Alternatives 3 and 4.

4.4.2 Environmental Consequences

4.4.2.1 Temporary Impacts

Alternative 1 (No Build Alternative)

The No Build Alternative proposes no improvements to I-5 and would preserve the existing lane configuration along this corridor. The freeway facility would remain as is, with the exception of other proposed projects that are either under development or currently under construction. Therefore, the No Build Alternative would not require construction staging areas. No temporary impacts related to relocations and real property acquisition would occur.

Alternative 2 (Build Alternative: Modify Existing HOV 2+ Lanes to HOV 3+ Lanes)

Alternative 2 proposes no improvements to I-5 and would preserve the existing lane configuration along this corridor. The freeway facility would remain as is, with only the minimum occupancy to utilize the existing HOV lanes raised from two passengers to three passengers; construction staging areas would be required for two park-and-ride facilities within Caltrans existing ROW of the Project limits. Therefore, Alternative 2 would not result in temporary impacts related to relocations and real property acquisition.

Alternative 3 (Build Alternative: Convert Existing HOV Lanes to Express Lanes)

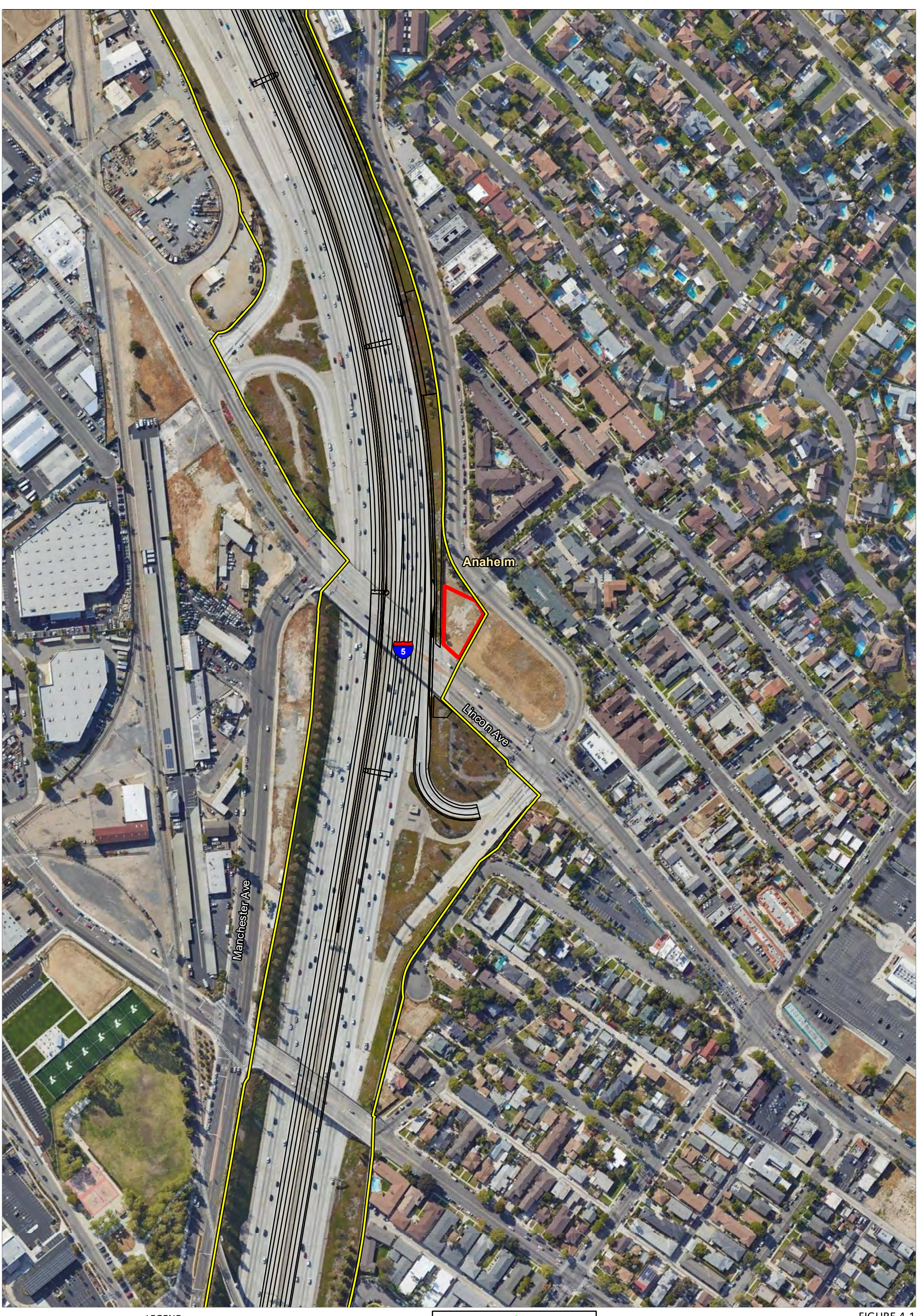
Alternative 3 would require six construction staging areas within the Study Area. Figure 4-1, Property Acquisitions and Easements, and Table 4.23 describe the staging areas that would be required within the Study Area. The staging areas include vacant or unused portions of land within the existing Caltrans existing ROW of the Project limits. None of the staging areas would displace existing residents or businesses. Abutting Section 4(f) resources discussed in Section 2.3 would not be impacted by adjacent construction activities. Therefore, Alternative 3 would not result in temporary impacts related to relocations and real property acquisition.

Table 4.23: Property Easements

APN	Type	Area Impacted (sq ft)	Property Type	Relocation?	Location
Caltrans ROW	Construction Staging Area	13,328 sq ft	Vacant	No	I-5/Lincoln Ave.
Caltrans ROW	Construction Staging Area	37,109 sq ft	Vacant	No	I-5/W. Ball Rd.
Caltrans ROW	Construction Staging Area	72,390 sq ft	Vacant	No	I-5/SR-22 interchange (above La Veta Ave.)
Caltrans ROW	Construction Staging Area	109,837 sq ft	Vacant	No	I-5/SR-22 interchange (southeast portion of the interchange area)
Caltrans ROW	Construction Staging Area	30,185 sq ft	Vacant	No	I-5/1st St.

Source: I-5 Managed Lanes Project Web Viewer (LSA 2022).

APN = Assessor's Parcel Number
Caltrans = California Department of Transportation
I = Interstate
ROW = right-of-way
sq ft = square feet
SR = State Route



LEGEND

- Project Area
- Advanced Signage Only
- City Boundary
- Proposed Plans
- Construction Staging Area

0 125 250
Feet

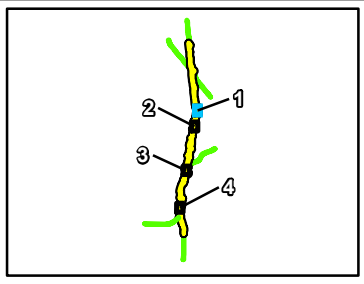


FIGURE 4-1
Sheet 1 of 4

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/Los Angeles County Line)
Construction Staging Areas
EA No. 0Q950

SOURCE: Google (2022)

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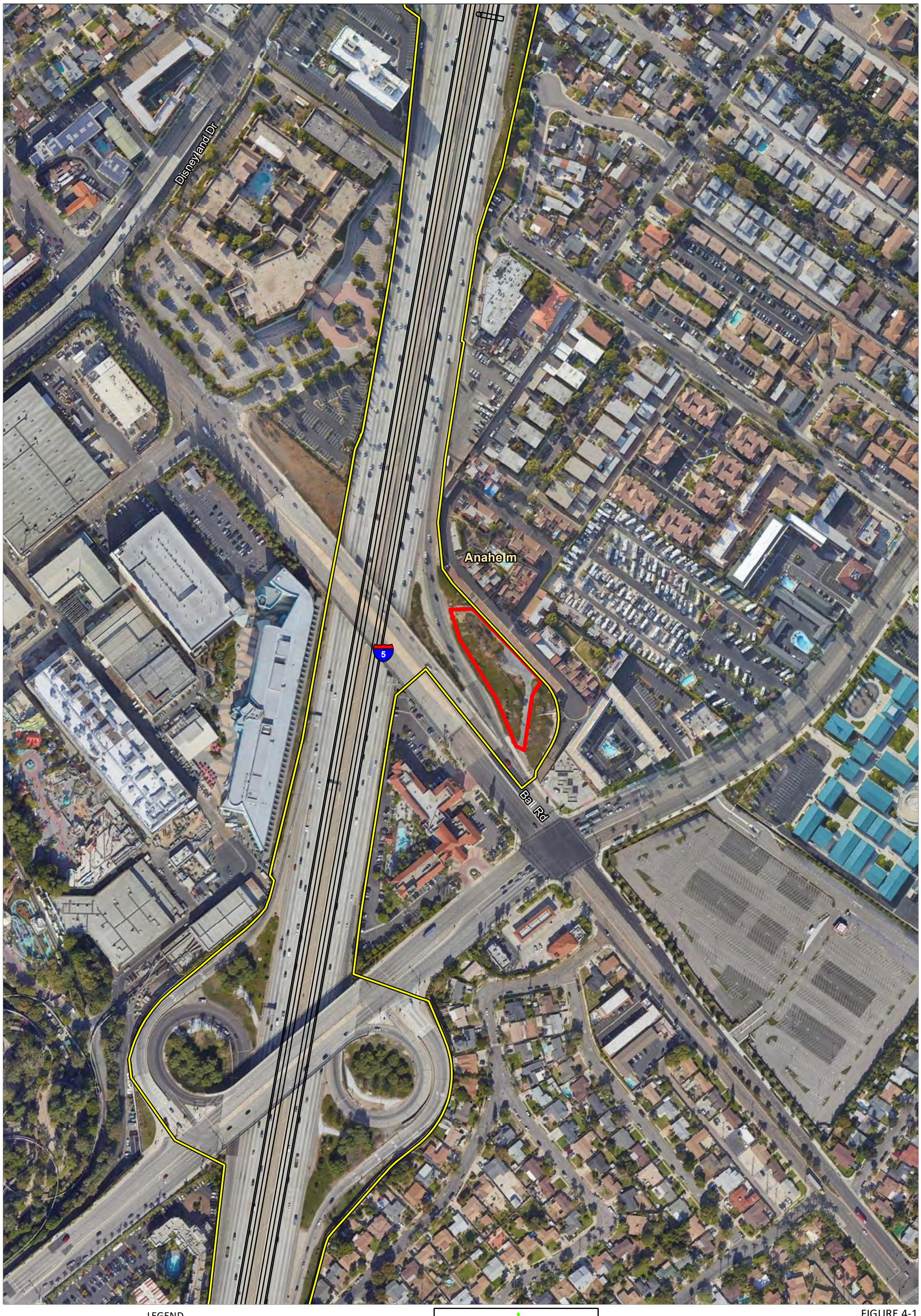

LEGEND

- Project Area
- Advanced Signage Only
- City Boundary
- Proposed Plans
- Construction Staging Area

0 125 250
Feet

SOURCE: Google (2022)

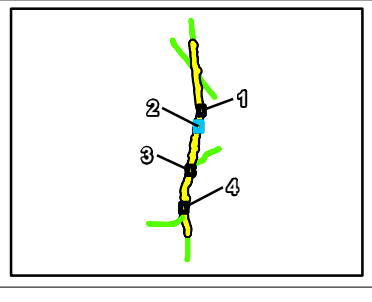

FIGURE 4-1
Sheet 2 of 4

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/Los Angeles County Line)

Construction Staging Areas

EA No. 0Q950

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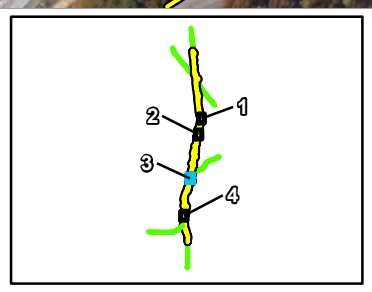
Santa Ana
Orange
La Veta Ave
5
22

LEGEND
- Project Area
- Advanced Signage Only
- City Boundary
- Proposed Plans
- Construction Staging Area

0 125 250
Feet



SOURCE: Google (2022)

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FIGURE 4-1
Sheet 3 of 4

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/Los Angeles County Line)

Construction Staging Areas

EA No. 0Q950

LEGEND

- Project Area
- Advanced Signage Only
- City Boundary
- Proposed Plans
- Construction Staging Area

0 125 250
Feet

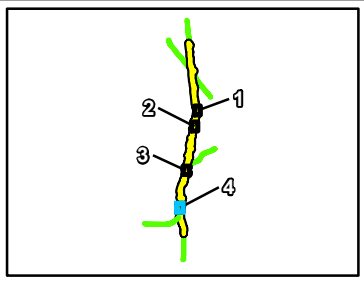

FIGURE 4-1
Sheet 4 of 4

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/Los Angeles County Line)
Construction Staging Areas
EA No. 0Q950

SOURCE: Google (2022)

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Alternative 4 (Build Alternative: Convert Existing HOV Lanes to Express Lanes and Construct Additional Express Lanes)

Temporary impacts under Alternative 3 will apply to Alternative 4. Alternative 4 includes the additional construction of ELs between SR-57 and SR-91; however, like Alternative 3, the same construction staging areas would be used for Alternative 4. All construction staging areas are located within Caltrans existing ROW of the Project limits. Therefore, Alternative 4 would not result in temporary impacts related to relocations and real property acquisition.

4.4.2.2 Permanent Impacts

Alternative 1 (No Build Alternative)

No property acquisitions or relocations would be required under the No Build Alternative.

Alternative 2 (Build Alternative: Modify Existing HOV 2+ Lanes to HOV 3+ Lanes)

No property acquisitions or relocations would be required under Alternative 2.

Alternative 3 (Build Alternative: Convert Existing HOV Lanes to Express Lanes)

No property acquisitions or relocations would be required under Alternative 3.

Alternative 4 (Build Alternative: Convert Existing HOV Lanes to Express Lanes and Construct Additional Express Lanes)

No property acquisitions or relocations would be required under Alternative 4.

Cumulative Impacts

The cumulative projects listed in Table 2-2 may have the potential to result in the acquisition of properties and the displacement of existing residential and nonresidential uses on those properties. However, each individual project would be reviewed and evaluated for potential property acquisition, relocation, and displacement impacts per the environmental review processes and would be required to mitigate as necessary. The I-5 Improvement Project (I-405 to SR-55), located immediately south of the Project limits and currently in the PS&E phase, may coincide with this Project's construction time frame, which may result in possible cumulative effects related to relocation and property acquisitions.

Direct Project Impacts

The Build Alternatives would not result in direct impacts related to relocations and real property acquisition and, therefore, would not result in direct impacts that would contribute to cumulative adverse effects related to relocations and real property acquisition.

Indirect Project Impacts

The Build Alternatives would not result in indirect impacts related to relocations and real property acquisition and, therefore, would not result in indirect impacts that would contribute to cumulative adverse effects related to relocations and real property acquisition.

4.4.3 Avoidance, Minimization, and/or Mitigation Measures

The Build Alternatives would not result in any relocations or property acquistions. All construction staging areas are identified within Caltrans existing ROW of the Project limits. Therefore, no avoidance, minimization, and or mitigation measures are required.

4.5 Environmental Justice

This proposed Project has been developed in accordance with Title VI of the Civil Rights Act of 1964, as amended, and EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*. Title VI states that "No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." EO 12898 requires each federal agency (or its designee) to take the appropriate and necessary steps to identify and address "disproportionately high and adverse" effects of federal or federally funded projects on minority and low-income populations.

FHWA defines a "disproportionately high and adverse effect" on minority and low-income populations as an adverse effect that either:

- Is predominantly borne by a minority population and/or a low-income population; or
- Will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the nonminority population and/nonlow-income population.

4.5.1 Affected Environment

CEQ, an advisory body that has oversight of the federal government's compliance with EO 12898 and NEPA, has developed guidance for implementing environmental justice under NEPA.[17] The CEQ guidance recommends identifying minority populations where either (a) the minority population of the affected area exceeds 50 percent or (b) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis. The CEQ guidance also recommends identifying low-income populations in an affected area by applying the annual statistical poverty thresholds from the United States Census Bureau Current Population Reports, Series P-60 on Income and Poverty.

In January 2003, Caltrans published the *Desk Guide, Environmental Justice in Transportation Planning and Investments* (Desk Guide), which provides information and examples of ways to promote environmental justice to those involved in making decisions about California's transportation system.[18] The Desk Guide notes that transportation agencies, particularly those in

[17] Council on Environmental Quality, "Environmental Justice under the National Environmental Policy Act," December 10, 1997. Website: https://www.energy.gov/sites/default/files/nepapub/nepa_documents/RedDont/G-CEQ-EJGuidance.pdf (accessed November 2022).

[18] California Department of Transportation, Desk Guide, Environmental Justice in Transportation Planning and Investments, January 2003. Website: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/ser/f0004172-ch8-ej-21102011-a11y.pdf (accessed November 2022).

a state as diverse as California, may need to adapt the regulatory definitions of low-income and minority populations to conduct a meaningful analysis. In regions with high minority and low-income populations, for example, use of the standard definitions to define such populations could result in selection of most of the region. Because most of the residential population in the Study Area lives in Orange County, a densely populated urban area that contains meaningfully greater Hispanic and low-income populations (42.4 percent minority population and 10.1 percent living below the poverty threshold established by the United States Census Bureau), a different standard is required to identify those census tracts in the Study Area where minority and low-income populations are present in meaningfully greater percentages than the general population in the larger community (this report uses Orange County as the "Reference Community" against which local demographics are compared to identify "meaningfully greater" environmental justice populations).

The Desk Guide also notes that the low-income or minority threshold may also be adapted to make use of available data. For example, the United States Census Bureau determines the number of persons living below poverty based on its poverty thresholds, which differ slightly from the poverty guidelines defined by the HHS. For 2021, the United States Census Bureau's preliminary weighted average poverty threshold for a family of four was $27,741 (United States Census Bureau 2022).[19] For 2021, the HHS established a poverty guideline of $26,500 for a family of four (HHS 2022).[20] Therefore, because the available census data related to persons living below the poverty level are based on the United States Census Bureau's poverty thresholds, as recommended in the CEQ guidance, this analysis identifies low-income populations that are meaningfully greater than the general population by applying the United States Census Bureau's poverty thresholds rather than the HHS poverty guidelines.

This environmental justice analysis applies the following methodology to identify minority and low-income populations in the County.

- Census tracts are considered to have meaningfully greater racial minority populations if the percentage of racial minority residents within them is more than 10 percentage points higher than the County as a whole (i.e., 52.4 percent or higher).
- Census tracts are considered to have meaningfully greater low-income populations if the percentage of residents within them who are living below the United States Census Bureau's defined poverty threshold is more than 5 percentage points higher than the County as a whole (i.e., 15.1 percent or higher).

The environmental justice analysis was conducted using demographic information from the 2016–2020 ACS. The following populations were considered in assessing whether the proposed Project would result in disproportionate impacts to environmental justice populations and whether those alternatives would result in benefits for those populations.

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[19] United States Census Bureau. Preliminary Estimate of Weighted Average Poverty Thresholds for 2021. Website: https://www.census.gov/data/tables/time-series/demo/income-poverty/historical-poverty-thresholds.html (accessed November 2022).

[20] United States Department of Health and Human Services. 2022. 2022 Poverty Guidelines. Website: https://aspe.hhs.gov/topics/poverty-economic-mobility/poverty-guidelines (accessed November 2022).

- **Racial Minority Population:** Defined as individuals who identify themselves as Black/African American, Asian, Native Hawaiian/Pacific Islander, Native American/Native Alaskan, Some Other Race, or Two or More Races. As described in the methodology set forth above, a census tract is considered to have meaningfully greater racial minority populations than the County if the aggregated percentage of racial minority residents within them is 52.4 percent or higher.
- **Low-Income Population**: Pursuant to the methodology outlined above, low-income populations are those persons living below the poverty level as defined as the United States Census Bureau's poverty threshold. As described above, the United States Census Bureau's preliminary weighted average poverty threshold for a family of four was $27,741 for 2021. As described in the methodology set forth above, Study Area census tracts are considered to have meaningfully greater low-income populations than the County if the percentage of persons living below the poverty level within them is 15.1 percent or higher.

The percentages of the racial minority and low-income populations in the Study Area census tracts; the cities of Tustin, Santa Ana, Orange, Anaheim, Fullerton, Buena Park, and La Mirada; and the County are provided in Table 4.24. As identified in Table 4.24, the cities of Buena Park, Santa Ana, and Tustin, as well as 20 of the 48 Study Area census tracts, have meaningfully greater minority populations than the County. Eighteen of the 48 Study Area census tracts have a meaningfully greater low-income population percentage than the County. The Study Area contains environmental justice populations (27 individual census tracts).

Table 4.24: Minority and Low-Income Demographics

Jurisdiction/Area	Percentage		Median Household Income[2]
	Minority Population[1]	Below Poverty Level[2]	
Orange County (Reference Community)	42.4%	10.1%	$94,441.00
Cities			
City of Anaheim	40.0%	13.8%	$76,723.00
City of Buena Park	***54.5%***	10.3%	$84,680.00
City of Fullerton	43.8%	12.7%	$85,471.00
City of La Mirada	49.4%	5.1%	$92,493.00
City of Orange	31.3%	10.3%	$96,605.00
City of Santa Ana	***64.3%***	13.4%	$72,406.00
City of Tustin	**52.6%**	10.9%	$88,386.00
Census Tracts			
18.01	40.3%	11.5%	$54,750.00
18.02	39.5%	***20.1%***	$55,144.00
19.03	***53.0%***	10.4%	$86,685.00
525.02	36.8%	5.9%	$116,083.00
525.24	***58.0%***	3.1%	$112,014.00
744.05	***68.7%***	***18.7%***	$47,425.00
744.06	***76.4%***	***18.0%***	$54,948.00

Table 4.24: Minority and Low-Income Demographics

Jurisdiction/Area	Percentage		Median Household Income[2]
	Minority Population[1]	Below Poverty Level[2]	
744.07	***60.3%***	***15.2%***	$50,969.00
744.08	***59.8%***	6.8%	$54,988.00
745.01	***83.3%***	***24.7%***	$41,745.00
750.02	***73.6%***	***26.9%***	$38,190.00
750.03	***79.8%***	***29.1%***	$40,183.00
750.04	***79.7%***	***25.3%***	$45,288.00
753.01	***58.9%***	10.3%	$76,147.00
753.03	34.2%	2.2%	$123,654.00
754.01	40.2%	8.0%	$80,651.00
754.03	52.2%	6.6%	$73,194.00
754.04	46.4%	14.4%	$95,851.00
755.05	29.5%	12.8%	$71,667.00
755.07	48.5%	***15.6%***	$66,628.00
755.12	***71.5%***	7.3%	$82,656.00
755.13	48.8%	8.6%	$76,588.00
755.14	***63.2%***	***23.7%***	$56,375.00
755.17	***64.4%***	***15.3%***	$71,389.00
760.01	37.6%	13.1%	$65,814.00
760.02	17.4%	4.9%	$89,281.00
761.02	41.9%	14.5%	$60,365.00
761.04	39.7%	12.2%	$90,000.00
761.05	32.7%	15.0%	$92,434.00
863.03	***54.3%***	12.0%	$76,641.00
867.01	43.5%	13.4%	$86,922.00
867.02	***55.6%***	14.1%	$63,429.00
868.01	33.5%	8.5%	$85,246.00
868.02	49.5%	12.0%	$92,628.00
871.02	41.3%	***20.4%***	$64,621.00
871.05	41.9%	10.5%	$100,088.00
871.06	46.8%	11.4%	$45,327.00
872	30.4%	***19.5%***	$66,154.00
874.01	44.3%	4.6%	$120,375.00
874.03	23.2%	***17.1%***	$56,063.00

Table 4.24: Minority and Low-Income Demographics

Jurisdiction/Area	Percentage		Median Household Income[2]
	Minority Population[1]	Below Poverty Level[2]	
874.05	15.3%	***28.1%***	$51,763.00
875.04	39.4%	***23.4%***	$53,904.00
875.05	39.4%	***21.3%***	$56,319.00
1104.01	***58.4%***	12.1%	$99,875.00
1105	***63.4%***	14.2%	$60,801.00
1106.03	***54.2%***	***20.5%***	$56,563.00
1106.06	***64.3%***	13.8%	$65,682.00
9800	40.0%	N/A	N/A

Note: ***Bold italicized*** numbers indicate that values are meaningfully greater than those for the County. For minority populations, "meaningfully greater" means 10 percentage points higher than the percentage for the County (i.e., 52.4% or higher). For low-income populations, "meaningfully greater" means the poverty level is 5 percentage points higher than the percentage for the County (i.e., 15.1% or higher).

[1] United States Census Bureau, 2016–2020 American Community Survey, Table B03002. Minorities include individuals who identify themselves as Black/African American, Asian, Native Hawaiian/Pacific Islander, Native American/Native Alaskan, Some Other Race, or two or more races on the American Community Survey. The Hispanic population is not considered a race but rather an ethnicity; therefore, Hispanics can be of any race.

[2] United States Census Bureau, 2016–2020 American Community Survey, Table S1701, DP03.

While regional air quality issues cannot be solely attributed to I-5, vehicle emissions from the highway are a contributing factor. There is a social element of "car culture" as well, where the dominant transportation mode is driving, infrastructure is designed to prioritize this mode, and there is a perception that car ownership creates a level of comfort, ease, and increased social status for the owner. As described in the *Draft Equity Study,* the Study Area census tracts immediately adjacent to I-5 experience poorer air quality; however, these census tracts do not have disproportionate concentrations of low-income households or minority populations (WSP 2023).

4.5.2 Environmental Consequences

Consistent with applicable guidance, the environmental justice analysis for the proposed Project describes (1) the existing population in the Study Area and the presence of minority and low-income population groups in the Study Area; (2) potential adverse effects and measures to avoid or minimize those effects for all population groups, including minority and low-income population groups in the Study Area; (3) potential disproportionately high and adverse effects on minority and low-income population groups; and (4) community outreach and public involvement efforts (see Chapter 6).

As discussed previously in Section 4.5.1, the Study Area contains environmental justice populations.

4.5.2.1 Adverse Effects on Overall Population

This section describes the adverse environmental effects on the overall population in the Study Area (environmental justice and non-environmental justice populations) under each alternative. This information is based on the various technical studies prepared for the proposed Project (refer to Section 1.3 for a list of these technical studies).

Temporary Impacts

Alternative 1 (No Build Alternative)

The No Build Alternative proposes no improvements to I-5. The freeway facility would remain as is, with the exception of other proposed projects that are either under development or currently under construction. Therefore, the No Build Alternative would not result in temporary adverse effects on the overall population in the Study Area (environmental justice and non-environmental justice populations).

Alternative 2 (Build Alternative: Modify Existing HOV 2+ Lanes to HOV 3+ Lanes)

Alternative 2 would include construction activities for two park-and-ride facilities, signage changes, and potential lane restriping, but the existing HOV facilities would remain. The passenger minimum changes are not a physical improvement and would not result in temporary adverse effects. Temporary closures associated with the construction of the park-and-ride facilities, signage changes, and potential lane restriping would not disproportionately affect environmental justice populations.

Alternative 3 (Build Alternative: Convert Existing HOV Lanes to Express Lanes)

Construction activities associated with Alternative 3 would temporarily affect residents and businesses in the Study Area. Such impacts may include temporary disruption of local traffic patterns, delay times, congestion, noise levels, vibration, and dust. However, impacts from dust and air pollution resulting from construction activities would be substantially minimized through applicable Caltrans and regional regulations to control excessive fugitive dust emissions, control emissions from construction vehicles, and adhere to Caltrans standard specifications for reducing air pollution during construction. Noise resulting from construction activities would be substantially minimized through compliance with federal and State noise regulations. Construction-related closures could temporarily impede movement in the Study Area, which would result in temporary effects to community character and cohesion. However, these temporary construction effects would be minimized through implementation of PF-TR-1 (TMP) (refer to Section 5.3). Therefore, Alternative 3 would not result in any temporary adverse effects on the overall population in the Study Area (environmental justice and non-environmental justice populations).

Alternative 4 (Build Alternative: Convert Existing HOV Lanes to Express Lanes and Construct Additional Express Lanes)

The same temporary impacts that would occur under Alternative 3 will occur under Alternative 4. In addition, Alternative 4 includes construction of ELs between SR-57 and SR-91; however, impacts from dust and air pollution resulting from construction activities would be substantially minimized through applicable Caltrans and regional regulations to control excessive fugitive dust emissions,

control emissions from construction vehicles, and adhere to Caltrans standard specifications for reducing air pollution during construction. Noise resulting from construction activities would be substantially minimized through compliance with federal and State noise regulations. Construction-related closures could temporarily impede movement in the Study Area, which would result in temporary effects to the Study Area population. However, these temporary construction effects would be minimized through implementation of PF-TR-1 (TMP) (refer to Section 5.3). Therefore, Alternative 4 would not result in any temporary adverse effects on the overall population in the Study Area (environmental justice and non-environmental justice populations).

Permanent Impacts

Alternative 1 (No Build Alternative)

The No Build Alternative proposes no improvements to I-5. The freeway facility would remain as is, with the exception of other proposed projects that are either under development or currently under construction. However, existing operation and capacity constraints on the current I-5 mainline and its HOV lanes would remain, which may affect the overall population in the Study Area, including environmental justice population groups.

Alternative 2 (Build Alternative: Modify Existing HOV 2+ Lanes to HOV 3+ Lanes)

Alternative 2 would raise passenger minimum requirements to access the existing HOV lane facilities in the Study Area from two passengers minimum to three. No other improvements besides potential signage, HOV lane repainting, and two park-and-ride facilities are proposed. There would be no permanent adverse effects to the Study Area population in implementing Alternative 2. Therefore, Alternative 2 would not result in any permanent adverse effects.

Alternative 3 (Build Alternative: Convert Existing HOV Lanes to Express Lanes)

The analyses conducted for the impacts on air quality/greenhouse gas, archaeological resources, traffic, water quality, noise, and relocations determined that impacts would not be adverse with compliance with Caltrans standards; State and federal regulations; and identified Project Features. Completion of Alternative 3 would contribute to improving trip reliability and EL operation along I-5 within the Study Area; however, those benefits would not extend to low-income and minority motorists under Alternative 3 if they are unable to purchase/obtain a FasTrak transponder and maintain funding in a FasTrak account in order to use the ELs. In recognition of the challenges that low-income and minority motorists may face in accessing these benefits, Caltrans would implement an Equity Assistance Plan (EAP) as part of Alternative 3 (Measure EQ-1). This EAP would provide assistance to individuals who meet certain income and demographic characteristics by providing them with free or low-cost FasTrak transponders and/or FasTrak account credits to assist with covering the cost of tolls incurred through the use of the I-5 ELs. Details on the EAP (e.g. eligibility requirements, implementation, etc.) will be developed in the future phases of the Project. With implementation of the EAP, Alternative 3 would not result in any permanent adverse effects to EJ populations.

Alternative 4 (Build Alternative: Convert Existing HOV Lanes to Express Lanes and Construct Additional Express Lanes)

The same permanent effects under Alternative 3 would also occur under Alternative 4, which includes additional lengths of ELs between SR-57 and SR-91. As with Alternative 3, Caltrans would implement an EAP as part of Alternative 4. With implementation of the EAP, Alternative 4 would not result in any permanent adverse effects to environmental justice populations.

4.5.2.2 Potential Disproportionately High and Adverse Effects

The determination of whether the effects of the proposed Project are disproportionately high and adverse depends on whether (1) the effects of the proposed Project would be predominantly borne by a minority or low-income population, or (2) the effects of the proposed Project would be appreciably more severe or greater in magnitude on minority or low-income populations compared to the effects on nonminority or nonlow-income populations.

Based on the demographic characteristics used for identifying environmental justice populations (minority groups and poverty level), the Study Area contains minority and/or low-income populations. The No Build Alternative and Alternative 2 would not result in disproportionately high and adverse effects on environmental justice populations as the existing HOV facility would remain.

Alternative 3 and Alternative 4 would result in noticeable changes as the existing HOV lane facility would be converted into a tolled ELs facility. The conversion may affect minority and low-income population groups who currently use the HOV lane facilities for travel on the I-5 Project corridor. However, the extent to which minority and low-income population groups would be disproportionately affected is unknown. As discussed above, Caltrans would implement an EAP (Measure EQ-1) as part of Alternatives 3 and 4. The EAP would provide assistance to individuals who meet certain income and demographic characteristics by providing them with free or low-cost FasTrak transponders and/or FastTrak account credits to assist with covering the cost of tolls incurred through the use of the I-5 ELs. Implementation of the EAP would address the barriers that low-income and minority motorists may face in using the ELs, thereby allowing them to also share in the transportation benefits that the new ELs would provide. Therefore, Alternatives 3 and 4 would not cause disproportionately high and adverse effects on minority or low-income populations.

4.5.2.3 Project Benefits

Alternatives 2, 3, and 4 would benefit certain population groups to various degrees. Current HOV lane users who commute with a minimum of three occupants would not be affected by the raised passenger minimums under Alternative 2. Alternatives 3 and 4 would benefit travelers who are able to procure a FasTrak transponder and utilize the ELs facility. Such travelers would benefit from the potential improvement in trip reliability within the I-5 corridor. The northern Orange County region and the southeastern Los Angeles County region would benefit from this corridor improvement as it would improve HOV/EL travel conditions along the I-5 corridor, which connects the two counties. Improvements to I-5 would reduce HOV/EL degradation. As discussed above, implementation of the EAP (Measure EQ-1) would address the barriers that low-income and

minority motorists may face in using the ELs, thereby allowing them to also share in the transportation benefits that the new ELs would provide.

4.5.2.4 Environmental Justice Determination

Alternative 1 (No Build Alternative)

The No Build Alternative proposes no improvements to I-5. The freeway facility would remain as is, with the exception of other proposed projects that are either under development or currently under construction. Existing operation and capacity constraints on the current HOV facilities would remain and affect all populations, including minority and low-income populations in the Study Area.

Alternative 2 (Build Alternative: Modify Existing HOV 2+ Lanes to HOV 3+ Lanes)

Alternative 2 proposes no improvements to I-5. The freeway facility would remain as is, with the exception of the minimum passenger count being raised to three or more to utilize the existing HOV lanes. No construction activity besides potential signage and HOV lane repainting work would occur under Alternative 2. There would be no disproportionately concentrated impacts on certain population groups as a result of Alternative 2 in the Study Area.

Alternative 3 (Build Alternative: Convert Existing HOV Lanes to Express Lanes)

All I-5, SR-22, SR-57, and SR-91 users, including travelers on identified local arterials for improvements, would be subjected to traffic congestion and detours during construction of Alternative 3, and all neighboring uses would experience temporary noise and dust impacts during construction; however, with compliance with State and federal regulations and implementation of the EAP (Measure EQ-1) and avoidance, minimization, and mitigation measures, Alternative 3 would not result in any adverse impacts. The proposed Project's purpose is to improve operational deficiencies of the I-5 HOV/ELs in the long term, which would benefit all local populations. No construction- or operations-related impacts would be disproportionately concentrated on certain population groups as a result of Alternative 3 in the Study Area.

All considerations under Title VI of the Civil Rights Act of 1964 and related statutes in the long term have been included in the proposed Project. Based on the above discussion and analysis, Alternative 3 would not cause disproportionately high and adverse effects on any minority or low-income populations per EO 12898 regarding environmental justice.

Alternative 4 (Build Alternative: Convert Existing HOV Lanes to Express Lanes and Construct Additional Express Lanes)

Alternative 4 would result in traffic congestion, detours, and temporary noise and dust impacts during construction similar to Alternative 3, including additional areas of effect due to the additional ELs construction between SR-57 and SR-91. However, with compliance with State and federal regulations and implementation of the EAP (Measure EQ-1) and avoidance, minimization, and mitigation measures, Alternative 4 would not result in any adverse impacts. The proposed Project's purpose is to improve operational and capacity conditions of the I-5 HOV/ELs in the long term, which would benefit all local populations. No construction-related impacts would be disproportionately concentrated on certain population groups as a result of Alternative 4 in the Study Area.

All considerations under Title VI of the Civil Rights Act of 1964 and related statutes in the long term have been included in the proposed Project. Based on the above discussion and analysis, Alternative 4 would not cause disproportionately high and adverse effects on any minority or low-income populations per EO 12898 regarding environmental justice.

Cumulative Impacts

The Build Alternatives, when cumulatively considered with other planned and ongoing development and transportation improvement projects in Orange County, would not result in disproprotionately high and adjverse effects on environmental justice populations. The Build Alternatives' anticipated construction activities and implementation are subject to discretionary project review under applicable federal, State, and regional regulations. Temporary construction jobs under the Build Alternatives may result in beneficial employment opportunities to local population groups, including environmental justice populations. The Build Alternatives involve coordination between multiple Study Area cities, which include in their respective General Plans that projects such as the Build Alternatives would have implications beyond their respective communities. However, the I-5 Improvement Project (I-405 to SR-55), which is located immediately south of the Project limits and currently in the PS&E phase, may coincide with this Project's construction timeframe, which may result in possible cumulative effects related to environmental justice issues across a longer distance of the I-5 corridor.

Direct Project Impacts

A preliminary determination was made that the effects of the proposed Project would not result in disproportionately high and adverse effects on environmental justice populations. The effects of the Project would not be predominantly borne by a minority or low-income population and would not be appreciably more severe or greater in magnitude on minority or low-income populations compared to the effects on nonminority or nonlow-income populations. The Project would benefit all populations, including environmental justice populations, because of short-term employment opportunities and improved traffic operations in the Study Area in the long term. As a result, the Project would not contribute to a cumulative adverse impact on environmental justice populations.

Indirect Project Impacts

The proposed Project would not result in indirect impacts related to environmental justice populations and therefore would not result in indirect impacts that would contribute to cumulative adverse effects on environmental justice populations.

4.5.3 Avoidance, Minimization, and/or Mitigation Measures

The following measure is included with the Project in recognition of the challenges that low-income and minority motorists may face in accessing the benefits that Alternatives 3 and 4 would provide. Implementation of Measure EQ-1 would minimize potential impacts on low-income and minority motorists.

Measure EQ-1 **Equity Assistance Plan (EAP):** The California Department of Transportation (Caltrans) would implement an EAP as part of Alternatives 3 and 4. The EAP would provide assistance to individuals

who meet certain income and demographic characteristics by providing them with free or low-cost FasTrak transponders and/or FasTrak account credits to assist with covering the cost of tolls incurred through the use of the Interstate 5 Express Lanes. **Details on the EAP (e.g. eligibility requirements, implementation, etc.) will be developed in the future phases of the project.**

4.6 Equity

Per EO 13985 (2021), federal agencies are required to conduct an equity assessment to determine whether underserved communities and their members face systemic barriers in accessing the benefits and opportunities available pursuant to applicable policies and programs. Caltrans acknowledges that communities of color and underserved communities experience fewer benefits and a greater share of negative impacts associated with the State's transportation system.

Discussion below is supplemented by information from the *Draft Equity Study* (WSP 2023) prepared for the proposed Project.

4.6.1 Affected Environment

As discussed in Section 4.5, Environmental Justice, the Study Area contains meaningfully greater low-income and minority populations than Orange County.

The *Draft Equity Study* (WSP 2023) prepared for the proposed Project includes a brief literature review, including case studies, academic research, and federal equity guidance. Most of the available literature examined equity through the lens of affordability and low-income pricing programs, and approaches to public engagement. The *Draft Equity Study* was supplemented by information gleaned from other recent projects in California that involved the conversion of free HOV facilities to tolled facilities, including projects in San Mateo County (U.S. Route 101) and Los Angeles County (I-10 and I-110).

4.6.1.1 Mobility

In addition to existing carpoolers in Orange County who do not have access to a personal vehicle, there are commuters who may rely on nonsingle-occupancy vehicle transportation, particularly bus transit. Communities that have a higher concentration of low single-occupancy vehicle drivers, higher rates of zero-car households, and high transit ridership are concentrated in transportation corridor-adjacent communities such as Anaheim, Santa Ana, and Fullerton. Although ELs can support longer-distance trips and provide communities access to opportunities like employment, it would be speculative to quantify how much ELs investments can support or elevate the quality of life for those with limited mobility options.

4.6.1.2 Affordability

An EL utilizes the FasTrak system, which offers a digital process of collecting payment and tracking compliant use of the EL, including vehicle occupancy. This technology requires users of the EL to purchase a FasTrak transponder, link a bank account to the FasTrak account, and maintain funds in the FasTrak account.

EL pricing models can impact affordability. For example, a traditional pay-per-trip model that charges based on distance can disproportionately impact equity communities who live farther away from their destinations, especially employment, due to rises in cost of living that draw them to areas with more affordable housing. Many of the communities in Orange County susceptible to displacement due to financial burdens are concentrated in proximity to the I-5 corridor in the cities of Buena Park, Anaheim, and Santa Ana, and the SR-91 corridor in the cities of Fullerton and Anaheim.

4.6.1.3 Environmental Exposure and Resiliency

While regional air quality issues cannot be solely attributed to I-5, vehicle emissions from the highway are a contributing factor. There is a social element of car culture as well, where the dominant transportation mode is driving, infrastructure is designed to prioritize this mode, and there is a perceived notion that car ownership creates a level of comfort, ease, and increased social status for the owner. As described in the *Draft Equity Study,* Study Area census tracts immediately adjacent to I-5 experience poorer air quality; however, these census tracts do not have disproportionate concentrations of high low-income households or minority populations (WSP 2023).

4.6.2 Environmental Consequences

Consistent with applicable guidance, the equity analysis for the proposed Project describes: (1) the existing population in the Study Area and the presence of underserved population groups in the Study Area; (2) potential adverse effects and measures to avoid or minimize those effects for all population groups, including underserved population groups in the Study Area; (3) potential disproportionately high and adverse effects on underserved population groups; and (4) community outreach and public involvement efforts (see Chapter 6).

4.6.2.1 Adverse Effects on Overall Population

This section describes the adverse environmental effects on the overall population in the Study Area (including underserved population groups) under each alternative. This information is based on the *Draft Equity Study* (WSP 2023).

Temporary Impacts

Alternative 1 (No Build Alternative)

The No Build Alternative proposes no improvements to I-5. The freeway facility would remain as is, with the exception of other proposed projects that are either under development or currently under construction. Therefore, the No Build Alternative would not result in temporary adverse effects on the overall population in the Study Area (including underserved population groups).

Alternative 2 (Build Alternative: Modify Existing HOV 2+ Lanes to HOV 3+ Lanes)

Alternative 2 would entail minor construction activities associated with updating existing signage and two park-and-ride facilities. However, these construction activities would not result in temporary adverse effects. Temporary closures due to signage changes and the construction of the park-and-ride facilities would not disproportionately burden underserved population groups.

Alternative 3 (Build Alternative: Convert Existing HOV Lanes to Express Lanes)

Construction activities associated with Alternative 3 would temporarily affect residents and businesses in the Study Area. Such impacts may include temporary disruption of local traffic patterns, delay times, congestion, noise levels, vibration, and dust. However, impacts from dust and air pollution resulting from construction activities would be substantially minimized through applicable Caltrans and regional regulations to control excessive fugitive dust emissions, control emissions from construction vehicles, and adhere to Caltrans Standard Specifications for reducing air pollution (Section 14-9 and 13 CCR § 2449) and noise (Section 14-8.02) during construction. Noise resulting from construction activities would be substantially minimized through compliance with federal and State noise regulations. Construction-related closures could temporarily impede movement in the Study Area, which would result in temporary effects to community character and cohesion for communities in the immediate vicinity of the proposed Project. However, these temporary construction effects would be minimized through implementation of PF-TR-1 (TMP) (refer to Section 5.3).

Alternative 4 (Build Alternative: Convert Existing HOV Lanes to Express Lanes and Construct Additional Express Lanes)

The same temporary impacts that would occur under Alternative 3 would also occur under Alternative 4. In addition, Alternative 4 includes construction of ELs between SR-57 and SR-91; however, impacts from dust and air pollution resulting from construction activities would be substantially minimized through applicable Caltrans and regional regulations to control excessive fugitive dust emissions, control emissions from construction vehicles, and adhere to Caltrans Standard Specifications Section 14-9 and 13 CCR § 2449 for reducing air pollution during construction. Noise resulting from construction activities would be substantially minimized through compliance with federal and State noise regulations (Caltrans Standard Specifications, Section 14-8.02). Construction-related closures could temporarily impede movement in the Study Area, which would result in temporary effects to the Study Area population. However, these temporary construction effects would be minimized through implementation of PF-TR-1 (TMP) (refer to Section 5.3).

Permanent Impacts

Alternative 1 (No Build Alternative)

The No Build Alternative proposes no improvements to I-5. The freeway facility would remain as is, with the exception of other proposed projects that are either under development or currently under construction. However, existing operation and capacity constraints on the current I-5 mainline and its HOV lanes would remain, which may affect the overall population in the Study Area, including underserved population groups. Current HOV lane users would continue to utilize the facility under the existing passenger minimums without tolls.

Alternative 2 (Build Alternative: Modify Existing HOV 2+ Lanes to HOV 3+ Lanes)

The raised passenger minimums would affect current HOV lane users by requiring, at minimum, three occupants to utilize the HOV facility. Current HOV lane users who are unable to accommodate the raised passenger minimums due to work/commute schedule or other factors would not be eligible to utilize the HOV lanes, thus potentially subjecting them to increased travel

times and/or reduced trip reliability, as they would be forced to use the GP lanes within the I-5 Project corridor. Those current HOV lane users who are able to meet the raised passenger minimums would benefit from the improved trip reliability provided by Alternative 2. The additional two park-and-ride facilities would not negatively affect current HOV users, who may utilize such facilities as part of their commute travel.

Alternative 3 (Build Alternative: Convert Existing HOV Lanes to Express Lanes)

Current HOV lane users would be unable to utilize the ELs without opening and procuring a FasTrak account and transponder, and maintaining adequate toll funds in their account balance. Current HOV lane users who are contrained by budget and other factors may be priced out from being able to utilize the ELs or unable to utilize the ELs to the fullest extent possible (low toll credits, violations, etc). Although EL tolls can be waived with minimum passenger occupancy during various times of the day (morning and afternoon rush hours), an account and transponder is needed. Communities and population groups who are not native English speakers may face communication difficulties in procuring and setting up a FasTrak account, transponder, and linking a valid banking account to maintain toll credits. Those current HOV lane users who are able to set up a FasTrak account, obtain a transponder, and link their bank accounts would benefit from the improved trip reliability provided by Alternative 3. As discussed above, certain underserved motorists may face challenges in accessing these benefits. Therefore, Caltrans would implement an EAP as part of Alternative 3 (Measure EQ-1). The EAP would provide assistance to individuals who meet certain income and demographic characteristics by providing them with free or low-cost FasTrak transponders and/or FasTrak account credits to assist with covering the cost of tolls incurred through the use of the I-5 ELs.

Alternative 4 (Build Alternative: Convert Existing HOV Lanes to Express Lanes and Construct Additional Express Lanes)

The same permanent impacts under Alternative 3 would also occur under Alternative 4. Current HOV lane users would be unable to utilize the longer length of the ELs without opening and procuring a FasTrak account and transponder and maintaining adequate toll funds in their account balance. As noted above, those current HOV lane users who are able to set up a FasTrak account, obtain a transponder, and link their bank accounts would benefit from the improved trip reliability provided by Alternative 4. Implementation of the EAP (Measure EQ-1) would ensure that Alternative 4 would deliver transportation benefits to all populations, including traditionally underserved populations.

4.6.2.2 Potential Disproportionately High and Adverse Effects

Under the No Build Alternative, existing HOV lane users can utilize the facility under the current 2-person minimum without a toll. Under Alternative 2, current HOV lane users would require an additional passenger to utilize the HOV lane without a toll; this would be considered a behavior change, and it is speculative to estimate to what extent current HOV lane users would conform to the new passenger minimum.

Under Alternative 3 and Alternative 4, existing HOV lane users would be unable to utilize the EL facility unless they open up a FasTrak account, procure a FasTrak transponder, and maintain adequate toll funds from a valid bank account to pay for EL toll fees. Current HOV users who are

not native English speakers may have difficulty in navigating the process of opening a FasTrak account and obtaining a transponder. Current HOV users who are constrained by limited budget may be priced out from being able to utilize the ELs and thus limited to utilizing GP lanes or forced to explore other carpooling/nonmotorized options.

4.6.2.3 Project Benefits

The raised passenger minimum under Alternative 2 and the ELs implementation under Alternative 3 and Alternative 4 are means to improve the current HOV lane degradation, alleviate existing HOV capacity issues, and address operational deficiencies on the HOV lanes. The improvements would result in more predictable travel and commute time for HOV/EL users. The northern Orange County region and the southeastern Los Angeles County region would benefit from this corridor improvement as it would improve travel conditions along the I-5 corridor, which connects the two counties.

4.6.2.4 Equity Effect Determination

Alternative 1 (No Build Alternative)

The No Build Alternative proposes no improvements to I-5. The freeway facility would remain as is, with the exception of other proposed projects that are either under development or currently under construction. Existing operation and capacity constraints on the current HOV facilities would remain and affect all populations, including underserved populations in the Study Area. However, current HOV facility users would continue to utilize the facility under the existing passenger minimum requirement without toll charges.

Alternative 2 (Build Alternative: Modify Existing HOV 2+ Lanes to HOV 3+ Lanes)

Alternative 2 proposes no improvements to I-5. The freeway facility would remain as is, with the exception of the minimum passenger requirement being raised to three or more to utilize the existing HOV lanes. No construction activity besides potential signage, lane repainting work, and park-and-ride facility construction would occur under Alternative 2. However, current HOV lane users would require an additional passenger to utilize the HOV lanes, which may limit certain users depending on work/commute schedules and other factors. As such, Alternative 2 could result in equity burdens to underserved Study Area communities. The *Draft Equity Study* identified several Equity Actions that will be undertaken as part of Alternative 2 to minimize those burdens (refer to Section 4.6.3 of this CIA). With implementation of these Equity Actions, Alternative 2 would deliver transportation benefits to all populations, including traditionally underserved populations, and would minimize equity burdens.

Alternative 3 (Build Alternative: Convert Existing HOV Lanes to Express Lanes)

Alternative 3 would result in the conversion of the existing HOV lanes to ELs, thus requiring current HOV lane users to open a FasTrak account, obtain a FasTrak transponder, and maintain adequate toll funds. Nonnative speakers who do not predominantly speak English may have difficulties navigating the process of opening and obtaining a FasTrak account and transponder. HOV lane users who are constrained by limited income may be priced out from utilizing the ELs, thus affecting their travel times or forcing behavioral changes in finding other travel alternatives, such as carpooling with other travelers or utilizing other nonmotorized options. Accordingly,

Alternative 3 could result in equity burdens to underserved Study Area communities. As discussed above, an EAP (Measure EQ-1) would be implemented as part of Alternative 3. In addition, the *Draft Equity Study* identified several Equity Actions that will be undertaken as part of Alternative 3 to minimize those burdens (refer to Section 4.6.3 of this CIA). With implementation of these Equity Actions and the EAP (Measure EQ-1), Alternative 3 would deliver transportation benefits to all populations, including traditionally underserved populations, and minimize equity burdens.

Alternative 4 (Build Alternative: Convert Existing HOV Lanes to Express Lanes and Construct Additional Express Lanes)

Similar to Alternative 3, there is a high potential of adverse impacts on underserved populations as a result of Alternative 4 in the Study Area. Income and language barriers would affect current HOV users in utilizing the ELs to the fullest degree. As with Alternative 3, the implementation of Alternative 4 could result in equity burdens to underserved Study Area communities. However, an EAP (Measure EQ-1) and several Equity Actions would be implemented as part of Alternative 4. With implementation of the EAP (Measure EQ-1) and Equity Actions, Alternative 4 would deliver transportation benefits to all populations, including traditionally underserved populations, and would minimize equity burdens.

4.6.3 Avoidance, Minimization, and/or Mitigation Measures

The Build Alternatives would potentially result in equity burdens to underserved Study Area communities as a result of HOV lane changes and ELs implementation. Implementation of the EAP (Measure EQ-1) would minimize such burdens to underserved Study Area communities as a result of proposed improvements.

5. TRAFFIC AND TRANSPORTATION/PEDESTRIAN AND BICYCLE FACILITIES

5.1 Affected Environment

Transportation projects may affect or disrupt circulation within a region and a more localized study area during both construction and operation. Therefore, it is important to describe types of transit facilities, highways, streets, and pedestrian facilities.

5.1.1 Access, Circulation, and Parking

As described elsewhere in this CIA, I-5 is a major freeway that provides access to the cities of Tustin, Santa Ana, Orange, Anaheim, Fullerton, Buena Park, and La Mirada, and the communities of Orange County and Los Angeles County. SR-91, SR-55, SR-22, and SR-57 are other major freeways that intersect I-5 in the Study Area. Within the Study Area, numerous arterials provide access within the Study Area, supplemented by secondary and residential roadways (OCTA 2022).

Parking within the Study Area consists of a mix of on- and off-street parking spaces. As the Study Area is urbanized, street parking is a valuable resource to residents and to visitors who may frequent businesses that lack their own parking lots. Off-street parking lots can be found throughout the Study Area. Study Area destinations with a considerable amount of off-street parking include Angel Stadium and Disneyland in Anaheim.

5.1.2 Public Transportation

5.1.2.1 Pedestrian Facilities

Within the Study Area, most areas are served by existing sidewalks (or do not warrant a sidewalk due to their surrounding context). Pending surrounding land uses, most arterials, residential streets, and collector streets within the Study Area have at least one sidewalk along the roadway. There are multiple trails and other pedestrian facilities throughout the Study Area, as identified in each city's respective general plan and similar planning documents. The Santa Ana River Trail is a major riding and hiking trail that follows the existing Santa Ana River alignment and intersects below I-5, south of W. Chapman Avenue and where the I-5/SR-22 westbound ramp begins (Orange County Parks 2021).

5.1.2.2 Bicycle Facilities

The Orange County Bikeways Map Guide (OCTA 2022) identifies existing bikeways throughout the Study Area.[21] Class I bikeways are physically separated from any street or highway. Class II bikeways share a portion of roadway that has been designated by striping, signaling, and pavement markings for the preferential or exclusive use of bicyclists. Class III bikeways share any road, street, or path that in some manner is specifically designated for bicycle travel regardless of whether such facilities are designated for the exclusive use of bicycles or are to be shared with

[21] Additional details on local bicycle facilities for the cities within the Study Area can be found in each city's respective general plan and other related planning documents.

other transportation modes. Class IV bikeways are cycle tracks,[22] which can be on-street and/or separated bikeways. Class II and Class III bikeways are common within the Study Area but do not continue for long distances due to surrounding context. OCTA identifies the Santa Ana River Trail and Santiago Creek Trail bikeways as Class I. The Santa Ana River Trail passes through the Study Area south of Chapman Avenue and intersects underneath I-5 where the I-5 to SR-22 westbound ramp begins. The Santiago Creek Trail's western access point occurs east of I-5 and adjacent to Mainplace Drive and N. Broadway, and is adjacent to the I-5/N. Broadway northbound off-ramp. There are no steep-grade bikeways within the Study Area.

5.1.2.3 Transit

Amtrak and Metrolink

Two major rail lines serve the Study Area and are used by Amtrak and Metrolink, a regional commuter rail service. The two railroad stations within the Study Area are ARTIC and the Santa Ana Regional Transportation Center (SARTC). As of May 2022, Amtrak's Pacific Surfliner makes 10 northbound and southbound stops at both ARTIC and SARTC daily. As of April 2022, Metrolink's Orange County Line provides daily service to both ARTIC and SARTC, and Metrolink's Inland Empire-Orange County Line provides daily service to SARTC.

OCTA

Bus service in the Study Area is primarily operated by OCTA and provides access to employment centers, shopping, and recreational areas throughout the Study Area. OCTA operates multiple bus routes within the Study Area jurisdictions (OCTA 2022). No Orange County Transit Centers are located within the Study Area. The two regional transportation centers where OCTA buses can be accessed within the Study Area are the ARTIC and SARTC.

Anaheim Regional Transportation

The City of Anaheim operates the Anaheim Regional Transportation (ART) system within the Anaheim Resort District and the surrounding areas. ART provides 19 public routes that connect to Knott's Berry Farm in Buena Park; Downtown Anaheim, Disneyland Resort, Anaheim Convention Center, Angel Stadium, ARTIC, and Honda Center in Anaheim; The Outlets in Orange; the Segerstrom Center in Costa Mesa; and Union Station in Los Angeles.

Los Angeles Metro

Metro Express Line 460 connects Downtown Los Angeles to the Disneyland Resort in Anaheim via I-110, I-105, and I-5.

[22] The National Association of City Transportation Officials (NACTO) defines a cycle track as a physically separated bike facility that is distinct from the sidewalk. Cycle tracks can be one-way or two-way, may be at street-level or raised, and may utilize various means of separation.

5.2 Environmental Consequences

5.2.1 Access, Circulation, and Parking

5.2.1.1 Temporary Impacts

Alternative 1 (No Build Alternative)

The No Build Alternative proposes no improvements to I-5 and would preserve the existing lane configuration along this corridor. The freeway facility would remain as is, with the exception of other proposed projects that are either under development or currently under construction. There would be no temporary impacts to access, circulation, and parking within the Study Area under the No Build Alternative.

Alternative 2 (Build Alternative: Modify Existing HOV 2+ Lanes to HOV 3+ Lanes)

The improvements proposed under Alternative 2 would not involve physical changes to existing freeway facilities and lane configurations except for the changes to passenger capacity minimums to access existing HOV lanes and the construction of two park-and-ride facilities. Temporary HOV lane disruptions may occur due to potential lane repainting and HOV signage changes by construction workers. HOV signage changes may occur on local arterials that have existing HOV lane signage. However, the freeway facility would remain as is, with the exception of other proposed projects that are either under development or currently under construction. A TMP will be prepared for the Build Alternatives (PF-TR-1 [TMP]), which would include information on HOV lane construction activity under Alternative 2.

Alternative 3 (Build Alternative: Convert Existing HOV Lanes to Express Lanes)

During construction of Alternative 3, temporary congestion and delays may affect access to parking, sidewalks, and bike lanes, but such facilities would remain open, and access to such facilities would be maintained throughout construction. No parking space reductions are identified as part of Alternative 3. Advance signage installation work and roadwork for the EL conversion would not close existing through lanes on the freeway corridors within the Project Area. All staging areas for construction equipment are anticipated to occur on State right-of-way within the I-5 corridor of the Project Area. A TMP will be prepared for the proposed Project (PF-TR-1 [TMP]).

Alternative 4 (Build Alternative: Convert Existing HOV Lanes and Construct Additional Express Lanes)

The same temporary impacts that would occur under Alternative 3 would occur under Alternative 4. In addition, under Alternative 4, the I-5 segment between SR-57 and SR-91 may experience lane restrictions and/or closures due to the construction of additional ELs. Ramp closures and restrictions would be done in a manner where access would be maintained, would not occur consecutively, and would not occur during peak hours. Delays as a result of intermittent closures and restrictions would not be substantial. A TMP will be prepared for the Build Alternatives (PF-TR-1 (TMP)) and would minimize these impacts.

5.2.1.2 Permanent Impacts

Alternative 1 (No Build Alternative)

The No Build Alternative proposes no improvements to I-5 and would preserve the existing lane configuration along this corridor. The freeway facility would remain as is, with the exception of other proposed projects that are either under development or currently under construction. However, capacity and operational deficiencies in the current HOV lanes would continue, and freeway speeds throughout the corridor would remain suboptimal.

Alternative 2 (Build Alternative: Mofify Existing HOV 2+ Lanes to HOV 3+ Lanes)

Upon implementation of Alternative 2, any construction activities associated with potential signage replacements, HOV lane repainting, and park-and-ride facilities would cease, which would return ease of access, circulation, and parking to pre-project levels or better. The freeway facility would remain as is, with the exception of other proposed projects that are either under development or currently under construction.

Alternative 3 (Build Alternaitve: Convert Existing HOV Lanes to Express Lanes)

Upon implementation of Alternative 3, construction-associated congestion and delays, and roadway/ramp closures would cease, which would return ease of access, circulation, and parking to pre-project levels or better. The installation of advance signage and conversion of the HOV lanes to ELs would improve MLs operation along I-5; therefore, Alternative 3 would result in beneficial impacts related to access and circulation.

Alternative 4 (Build Alternative: Convert Existing HOV Lanes to Express Lanes and Construct Additional Express Lanes)

Upon implementation of Alternative 4, construction-associated congestion and delays, and roadway/ramp closures would cease, which would return ease of access, circulation, and parking to pre-project levels or better. The installation of advance signage and conversion of the HOV lanes to ELs (including the addition of ELs between SR-57 and SR-91) would improve MLs operation and capacity along I-5; therefore, Alternative 4 would result in beneficial impacts related to access and circulation.

5.2.2 Public Transportation

5.2.2.1 Temporary Impacts

Alternative 1 (No Build Alternative)

The No Build Alternative proposes no improvements to I-5 and would preserve the existing lane configuration along this corridor. The freeway facility would remain as is, with the exception of other proposed projects that are either under development or currently under construction.

Alternative 2 (Build Alternative: Modify Existing HOV 2+ Lanes to HOV 3+ Lanes)

Alternative 2 proposes no other improvements to I-5 and would preserve the existing lane configuration along this corridor, except for the increased passenger minimum to access the existing HOV lane. The freeway facility would remain as is, with the exception of the construction

of two park-and-ride facilities and other proposed projects that are either under development or currently under construction. LA Metro Route 460 (from Downtown Los Angeles) and OCTA Route 83 (Between Anaheim and Laguna Hills via I-5),[23] which travel on I-5 to Disneyland Resort, would not be affected by the passenger minimum increases of the HOV lanes. However, both LA Metro Route 460 and OCTA Route 83 may be affected by temporary HOV lane restrictions if repainting is required. Project Feature PF-TR-1 (TMP) will be prepared, which would include traveler information on potential HOV lane closures. Local OCTA and ART bus routes would not be affected.

Alternative 3 (Build Alternative: Convert Existing HOV Lanes to Express Lanes)

Alternative 3 may potentially affect normal route service and/or travel times for LA Metro Route 460 and OCTA Route 83. Locally, OCTA and ART buses may be affected by potential detours and increased travel times. However, LA Metro, OCTA, and ART would be provided advance notice and would give notice to passengers throughout the construction duration of affected routes and temporary changes in service schedule and station stops. Any required closures and detours are not anticipated to hinder pedestrian and bicycle access to public transit facilities during construction. All temporary detours would be reconstructed in compliance with ADA requirements. A TMP will be prepared for the proposed Project (PF-TR-1 [TMP]) to minimize temporary impacts to public transportation.

Alternative 4 (Build Alternative: Convert Existing HOV Lanes to Express Lanes and Construct Additional Express Lanes)

The same temporary Impacts that would occur under Alternative 3 would apply to Alternative 4. In addition, the HOV lanes between SR-57 and SR-91 would experience construction-related closures due to the construction of the additional ELs. Similar to Alternative 3, public transit agencies with routes that travel between SR-57 and SR-91 would be provided advance notice. A TMP will be prepared for the Build Alternatives (PF-TR-1 [TMP]) to minimize temporary impacts to public transportation under Alternative 4.

5.2.2.2 Permanent Impacts

Alternative 1 (No Build Alternative)

The No Build Alternative proposes no improvements to I-5 and would preserve the existing lane configuration along this corridor. The freeway facility would remain as is, with the exception of other proposed projects that are either under development or currently under construction. However, capacity and operational deficiencies in the current HOV lanes would continue, and public transit routes that utilize the I-5 GP or HOV lanes would continue to experience suboptimal travel times and speeds.

Alternative 2 (Build Alternative: Modify Existing HOV 2+ Lanes to HOV 3+ Lanes)

Upon implementation of Alternative 2, public transit service would return to pre-project levels of service or better. The freeway facility would remain as is, with the exception of the two park-and-

[23] Disneyland Resort. 2022. Riding the Bus to the Disneyland Resort. Website: https://disneyland.disney.go.com/guest-services/getting-here/by-bus/ (accessed November 2022).

ride facilities and other proposed projects that are either under development or currently under construction. There would be no permanent impacts to public transit within the Study Area under Alternative 2.

Alternative 3 (Build Alternative: Convert Existing HOV Lanes to Express Lanes)

Upon implementation of the improvements under Alternative 3, public transit service would return to pre-project levels of service or better. There would be no permanent adverse impacts to public transportation due to Alternative 3.

Alternative 4 (Build Alternative: Convert Existing HOV Lanes to Express Lanes and Construct Additional Express Lanes)

Upon implementation of the improvements under Alternative 4, public transit service would return to pre-project levels of service or better. There would be no permanent adverse impacts to public transportation due to Alternative 4.

5.3 Avoidance, Minimization, and/or Mitigation Measures

A TMP will be prepared for the Build Alternatives to minimize potential circulation impacts.

PF-TR-1

Transportation Management Plan (TMP): A TMP will be developed during final design and will be implemented during Project construction to address short-term traffic circulation and access effects during Project construction. Specifically, during final design, a qualified traffic engineer will prepare the TMP, which will include, but not limited to, the elements described below to reduce traveler and emergency responder delays and enhance safety during project construction.

- During construction, the contractor shall be required to coordinate all temporary road closures and detour plans with applicable fire, emergency, medical, and law enforcement providers in order to minimize temporary delays in provider response times. Information shall be provided to the public and affected businesses in a timely manner.
- The TMP shall include construction staging, detours, and all applicable facility closures and closure periods for the proposed Project during all stages of construction. The TMP shall be reviewed and approved by the California Department of Transportation.
- The TMP shall develop and implement a construction management program that maintains access to and from the Project Area through signage, detours, flagmen, etc. This information shall also be provided to the public and affected businesses in a timely manner.

6. PUBLIC INVOLVEMENT

To avoid, where possible, unnecessary impacts to the character, businesses, residents, recreational uses, motorists, and public transportation uses of the Study Area cities, the Build Alternatives have been designed with input from the affected communities and local agencies. Public involvement would continue throughout the environmental and planning phases, and Caltrans would continue to coordinate with the affected communities and local agencies throughout the planning process to minimize disruptions to the communities.

The environmental scoping process to involve the public on the I-5 Managed Lanes Project Draft EIR/EA was initiated with two public scoping meetings held by Caltrans District 12 in May 2022. Due to the COVID-19 pandemic, an in-person meeting and a virtual meeting option were provided to the general public. The in-person public scoping meeting was held at the Downtown Anaheim Community Center, at 250 E. Center Street, Anaheim, CA, on May 24, 2022, from 5:30 to 7:30 p.m. The virtual public scoping meeting was held via Zoom on May 26, 2022, from 5:30 to 7:30 p.m.

Noticing for both of the public scoping meetings was prepared using several methods, such as postings on the Caltrans District 12 website and the external I-5 Managed Lanes Project website, social media postings, implementation of geofence ads that targeted a 1-mile radius surrounding the length of the proposed Project corridor, and a postcard mailer sent to those within a 300-foot radius of the proposed Project corridor. These notices explained that an in-person open house-format public scoping meeting would be held in addition to a virtual scoping meeting.

The in-person meeting included exhibits and informational handouts about the proposed Project to help participants understand the scope and schedule of the proposed Project and learn about the planning and environmental review process, as well as the proposed alternative concepts. The virtual meeting included the same information provided at the in-person meeting and featured four Zoom breakout rooms, which allowed participants to meet the proposed Project team members and learn more about the proposed Project. The breakout rooms covered the following topics: an overview of the proposed Project, the proposed Project alternatives, the proposed Project's environmental process, and a breakout room to provide public comments. The meetings were structured to encourage open discussion of issues and concerns. Although no written comment cards were received at the in-person meeting, one comment was provided to the court reporter located on site. During the virtual meeting, two comments were provided to the court reporter stationed in the public comment breakout room.

Attendance at the in-person meeting held on May 24, 2022, included 4 persons, and attendance at the virtual meeting held on May 26, 2022, included 51 persons.

Additional opportunities for public involvement will be available during the EIR/EA process, including the circulation of the Draft Environmental Document to solicit public input and public hearings per CEQA and NEPA requirements.

6.1 Community-Based Organizations

Outreach to community-based organizations is ongoing and would increase throughout the environmental and planning phases of the proposed Project.

6.2 Stakeholders

The formulation of proposed Project alternatives and mitigation has been carried out through a cooperative dialogue among representatives of the following agencies or organizations:

- Caltrans
- Cities of Irvine, Tustin, Santa Ana, Orange, Anaheim, Fullerton, Buena Park, La Mirada, and Santa Fe Springs
- Historic preservation groups
- Native American representatives
- Orange County Public Works
- OCTA
- SCAG
- SCAG Transportation Conformity Working Group (TCWG)
- State Historic Preservation Officer (SHPO)
- Transportation Corridor Agencies (TCA)

The results of the efforts of Caltrans District 12 to fully identify, address, and resolve Project-related issues through early and continuing coordination will be provided in Chapter 4 of the EIR/EA being prepared for the proposed Project.

6.3 Outreach to Minority and Low-Income Communities

In addition to the two public scoping meetings that were held for the proposed Project, two community equity workshops titled “Improving Your Commute on the I-5 in Orange County” were held on October 4, 2022, and March 1, 2023, from 6:00 p.m. to 7:30 p.m. Due to the COVID-19 pandemic, an in-person meeting and a virtual meeting option were provided to the general public. The in-person meeting was held at the Ponderosa Park Family Resource Center, at 320 E. Orangewood Avenue, Anaheim, CA 92802, and the virtual meeting option was provided via Zoom. A community survey was opened between October 2022 through January 2023, which recorded responses from 235 participants.

Noticing for both equity workshops was prepared using several methods, such as postings on the Caltrans District 12 website and the external I-5 Managed Lanes Project website, social media postings, implementation of geofence ads that targeted a 1-mile radius surrounding the length of the proposed Project corridor, and a postcard mailer sent to those within a 300-foot radius of the proposed Project corridor.

These workshops were specifically designed to welcome voices from the communities that have experienced disproportionate outcomes from past transportation projects in the community and to share how proposed changes to I-5 could impact and benefit day-to-day life so Caltrans can make recommendations to improve the proposed Project, if needed. Spanish and Vietnamese language interpreters were present at the in-person meeting location to provide options for non-English-speaking attendees, based on the local demographics of the proposed Project area. In addition, a community input survey was developed in English and Spanish in order to learn

more about local community travel experiences and preferences when traveling along the I-5 corridor. In both workshops, the attendance count was fewer than 15 public participants.

6.3.1 Workshop 1

The October 2022 workshop, which was promoted over a 3-week period through outreach from nine corridor cities and 12 community organizations in equity communities, presented an overview of the proposed Project, including the purpose and need, preliminary equity data maps, draft equity Project goals, and key case studies. In addition to the presentation, interactivity was facilitated by Poll Everywhere and discussion prompts to get feedback on the topics presented. Multiple moderators facilitated conversation while using a writing board to capture themes in feedback, showing real-time documentation to participants. Based on comments and key points received during the workshop, an inherent disconnect between the purpose of the Project and the community perception of the Project was noted by the workshop hosts. The common themes from the workshops are summarized below:

- Theme 1: Prove Purpose and Need
  - Workshop participants were interested in seeing evidence that the existing HOV2+ needs a solution at all; and if so, what is the evidence that an EL would help traffic conditions overall, not just in one lane. Workshop participants were also curious why this particular section of the I-5 corridor was selected for this Project.

- Theme 2: Further Explore the Root Causes of Traffic Patterns
  - Workshop participants expressed concern that local residents are not the only contributors to traffic, citing traffic for events and business. Workshop participants suggested that Caltrans should engage large businesses and discuss how they plan to contribute to improving traffic conditions, an idea they termed “business partnerships.”

- Theme 3: Affordability of Toll Costs and Access to Toll Transponders
  - Workshop participants expressed concern about the disproportionate economic impact on multi-generational households with multiple cars and low-income households that have cars out of necessity rather than comfort. In these cases, a toll would be perceived as increasing the cost of car ownership when car ownership is already an economic burden.
  - Workshop participants were curious about pricing models and an estimate of what they should expect to pay per trip. There was consensus that FasTrak transponders have proven difficult to procure in their neighborhoods and great interest expressed in case studies where transponders were available at common local retailers. Workshop participants indicated that robust engagement will be critical to making transponders and income-based programs accessible.

- Theme 4: Project Benefits for Local Communities
  - Workshop participants were curious what other benefits the proposed Project could provide in addition to travel time benefits that could be experienced by local communities along the corridor.

- Theme 5: Current and Future Enforcement of Lane Use
  - Workshop participants were curious about how FasTrak technology provides verification and whether the CHP plans to enforce EL rules.

6.3.2 Community Survey

The community survey was first announced at Workshop 1 to continue engaging the established base of participants and to leverage word-of-mouth promotion. The community survey was open for responses for4 months from October 2022 to January 2023. The survey was available in a digital format and promoted through the same network of city staff and community organizations as Workshop 1. This approach yielded a total of 235 survey participants. The survey was designed to fill data gaps in understanding unfilled by traditional data sources used by the Project's Equity Study, the CIA, and the Traffic Study. For example, the survey asked about trip purpose, common destination types, whether toll costs create economic burden, and perceived barriers to participating in income-based programs.

The survey participants were a demographically representative sample of Orange County, which gives confidence that the answers received are less likely to be skewed by overrepresentation of a homogenous group. The survey asked optional questions about race and income demographics. A total of 164 of 235 participants willingly answered those optional questions.

Results from the survey showed that the overwhelming majority of 235 survey respondents primarily drive alone (95 percent) and take an average of 7.8 trips on I-5 in 1 week. Most of those trips occurred in the "mornings 5-9 AM" (62 percent) and "late afternoon 3-6 PM" (59 percent). This baseline established that survey participants regularly use the corridor during times known for peak traffic and congestion and have the personal experience to respond thoughtfully to more in-depth questions. While most respondents (60 percent) "strongly agreed" or "agreed" they were interested in a more efficient trip on I-5, a significant number of respondents (40 percent) were less interested in the idea. Further, the majority of survey respondents (63 percent) selected "strongly disagree" that an EL would deliver a more efficient trip. The pattern of respondents selecting "strongly disagree" continued with "willingness to pay for a more efficient trip" (58 percent) and "interest for a toll lane access 7 days a week" (62 percent). These responses did not demonstrate public confidence in the efficacy of ELs as a way to improve traffic and congestion, which echoed the sentiment of Workshop 1 participants.

Trip purpose was another important consideration to understand what destinations require use of the corridor and whether those destinations are essential as discussed in the Equity Study (2023). Respondents were able to select multiple responses. "Work" (81 percent) and "leisure" (86 percent) were the most popular responses. However, the corridor is also used for "access to groceries" (42 percent) and "healthcare services" (33 percent), which are also essential destinations. Most respondents indicated having "no schedule flexibility" (48 percent) or "limited schedule flexibility" (40 percent) to avoid peak traffic and congestion periods, which increases the likelihood of experiencing travel time delays.

The survey results also indicated that a majority of respondents agreed that a toll was likely or very likely to result in an economic burden to lower-income households ($75,000 or less, based on optional survey demographic data) and a high interest in possible toll subsidies, particularly free transponders (waived start-up costs) and toll credits. Low-income participants noted that

they were more willing to register for subsidy programs and provide proof of income for eligibility; however, low-income participants also indicated less willingness and ability to buy a FasTrak transponder, connect their bank accounts to a FasTrak account, and maintain the required minimum balance in their FasTrak account.

The survey asked about the transportation benefits the community would be interested in if there were an opportunity to invest excess toll revenue. There was a clear preference for bus and rail transit development, while other respondents expressed equal interest in bus/rail and bike/pedestrian infrastructure.

6.3.3 Workshop 2

In the March 2023 workshop, which was promoted over a 2-week period through outreach from nine corridor cities and 12 community organizations in equity communities, the presentation focused on data visualizations in response to the request for evidence of carpool lane degradation from Workshop 1 and a presentation of the draft exploratory equity actions that may carry forth to the final Project implementation. There were five attendees who attended Workshop 2 who did not attend Workshop 1.

A main concern raised during the second workshop entailed the possibility of property acquisitions adjacent to the I-5 Project corridor. However, as discussed in Section 4.4.2 of this CIA, none of the Project alternatives would result in property acquisitions or relocations. The event concluded without further discussion or input from the public.

Efforts will continue to be made to ensure meaningful opportunities for public participation during the Project planning and development process. This may include, but not necessarily be limited to, additional community meetings, informational mailings, a Project website, and news releases to local media. The community outreach and public involvement programs for the proposed Project would seek to engage the affected community and include mechanisms to reduce cultural, language, and economic barriers to active and effective participation.

As described in further detail in Section 4.5, Environmental Justice, the Study Area does contain meaningfully greater minority and low-income populations in comparison to the general population in each of the Study Area counties.

6.4 Community Participation Program

The proposed Project includes other means for the community to participate in feedback and input via the proposed Project's external website,[24] which includes a community survey in English, Spanish, and Vietnamese. A Title VI survey is also available on the proposed Project's website for Caltrans compliance with Title VI of the Civil Rights Act of 1964, Nondiscrimination in Federally Assisted Programs. At this time, two equity workshops have been hosted; further workshops may be planned as the Project progresses.

As noted above, community involvement may include, but not necessary be limited to, the events described in Section 6.3. As mentioned above, there will be additional opportunities for public

[24] Project external website: https://storymaps.arcgis.com/stories/9178aef40e834432ae5241b5443c8fe2.

involvement during the CEQA and NEPA processes, where comments regarding the proposed Project can be made for consideration in the environmental documents being prepared.

6.5 Results

At this stage in the proposed Project, success would equate to the due diligence the Project outreach team performed in raising proposed Project awareness to the Study Area communities. The Project outreach team employed strateiges such as geofencing advertisements, postcard distribution, and online advertising via Project and agency websites to disclose to the community that opportunities for community participation were available and upcoming.

7. REFERENCES AND CONTACTS

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