San Clemente Vision Plan

HIGH QUALITY TRANSIT AREA PILOT PROJECT

Southern California Association of Governments

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SCAG

Acknowledgments

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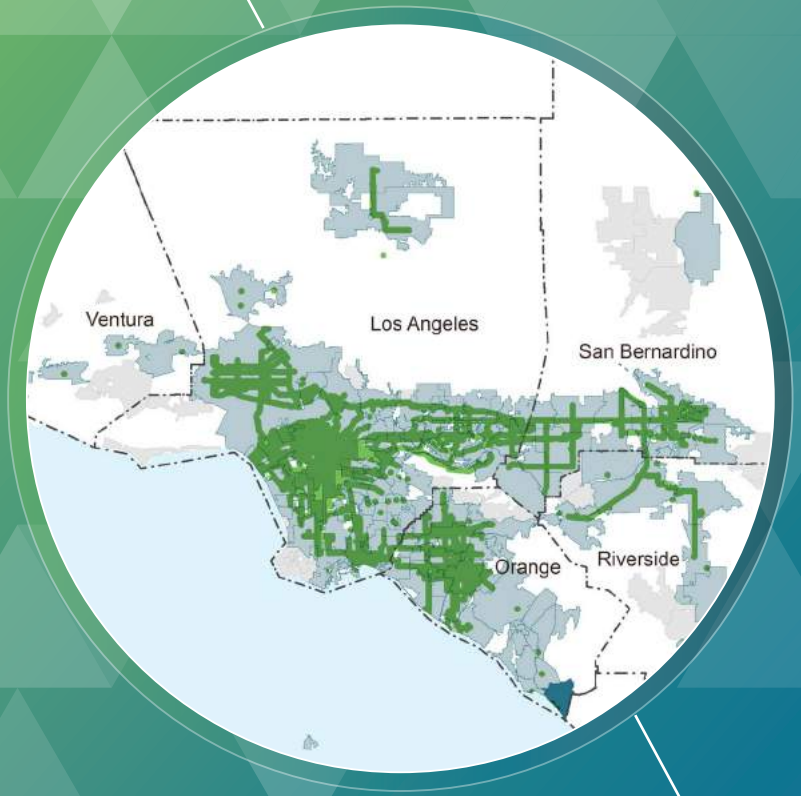
Part 1

Executive Summary

The Executive Summary provides background on the HQTA Pilot Program, the structure of the Vision Plan, and a brief summary of the project goals and proposed developments.

High Quality Transit Area (HQTA) Analysis Pilot Program

San Clemente HQTA - 2048 Vision



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High Quality Transit Area (HQTA) Analysis Pilot Program

Pilot Program Overview

The High Quality Transit Area (HQTA) Analysis program was created by SCAG in 2017 to help implement the goals and objectives of the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). The 2016 RTP/SCS, the 30-year plan for the Southern California Region, forecasts that 46% of future household growth will be located in HQTAs, which comprise just 3% of land area. HQTAs are areas within easy walking distance to current or anticipated transit service with 15-minute or better service. The three main goals of the HQTA Analysis program are as follows:

- Implement the RTP/SCS for future job and housing near high quality transit through actionable transit-oriented development (TOD) projects
- Promote development and active transportation within HQTAs
- Reduce Greenhouse Gases (GHG) and Vehicle Miles Traveled (VMT) by 21% over 2005 levels

Benefits of Transit-Oriented Development

Transit-Oriented Development (TOD) is a vibrant, mixed-use form of urban development that clusters a variety of housing types, employment opportunities, and community amenities at or near major transit stations. Integrated clusters of TODs establish a multi-modal network of public and private realm improvements that allow residents to walk, bike, or take transit to major attractions, which results in several environmental, economic, and social benefits:

Environment

- Increased transit ridership
- Reduced VMT
- Improved air quality through reduced GHG emissions
- Conservation of land and open space

Social

- Increased housing and employment choices
- Greater mobility choices
- Health benefits
- Enhanced sense of community
- Enhanced public safety
- Increased quality of life

Economic

- Catalyst for economic development
- Redevelopment of vacant and underutilized properties
- Increased property value
- Decreased infrastructure costs
- Revenue for transit systems
- Reduced household spending on transportation
- Increase in housing opportunities

What is a Vision Plan?

The Vision Plan for each HQTA Pilot Project is an illustrative tool that provides city staff, elected officials, and community stakeholders with a high-level analysis of the HQTA's existing conditions, TOD opportunity sites, and potential public realm improvements that could catalyze future development activity. The plans include a long-term buildout scenario and a phasing and financial strategy for identified priority projects. HQTA Vision Plans are not regulatory documents and do not need to be adopted. Pilot Project Cities will use the Vision Plans to start discussions with SCAG and community stakeholders in future efforts to update adopted general and specific plans. The main sections of this Vision Plan are as follows:

Part 2: Station Area Profile

The Station Area Profile describes the current planning, urban design, socioeconomic, and transportation context within the San Clemente HQTA Study Area. The Profile also includes a summary of previous planning efforts.

Part 3: Outreach

Outreach efforts included a public meeting and reoccurring correspondence with City of San Clemente staff members.

Part 4: Opportunities & Constraints Analysis

This analysis includes a summary of urban design, land use, and mobility constraints and identifies potential investments that will support walking, biking, and the use of transit.

Part 5: Vision

The Vision presents a 30-year vision for a transit-supportive San Clemente HQTA. It includes a redevelopment strategy, specific infrastructure investments, active transportation projects, and placemaking amenities that will help to make the area more livable, walkable, and accessible to transit and boost the economic vitality.

Part 6: Implementation Plan

Policies, programs, initiatives, and partnerships will be key to the success of the plan. In addition, a customized financial strategy is included that targets funding streams to specific projects outlined in the Vision Plan. SCAG will partner with the City to help secure funding for the projects. A Metrics Worksheet establishes a baseline and long-term targets for jobs, housing, the modal shift to non-motorized forms of transportation, and other key metrics that will be tracked by SCAG and the City over the next several years.

HQTA Toolkit (Appendix)

The development strategy and priority projects outlined in the Vision Plan are tied to the HQTA Toolkit, which will give the City a range of options for meeting the goals and objectives set forth in the Vision Plan. The Toolkit includes transportation investments with cost estimates, TOD precedent projects, open space typologies, and other components of an innovative HQTA.

San Clemente HQTA - 2048 Vision

Vision Plan Goals

Goal #1: Promote safety, collision reduction, and expanded economic vitality with pedestrian improvements to critical corridors

Goal #2: Encourage economic development through focused redevelopment projects

Goal #3: Identify select locations where infill housing may be incorporated to balance commercial and non-commercial uses in the downtown area

Major Development Areas (MDA)

Focused areas of development proposed in the buildout scenario with clusters of complementary priority projects which may catalyze the envisioned development.

- MD 1 Transit Station Area Infill
- MD 2 El Camino Real Infill
- MD 3 Los Molinos Industrial Village
- MD 4 Pico Plaza Infill
- MD 5 Outlets Infill

Corridors

Roadways with envisioned traffic calming, pedestrian amenities, or other improvements.

- C 1 El Camino Real
- C 2 Calle de Los Molinos
- C 3 Via Pico Plaza

See “Public Realm Improvements Map” on page 54 for full priority project legend.

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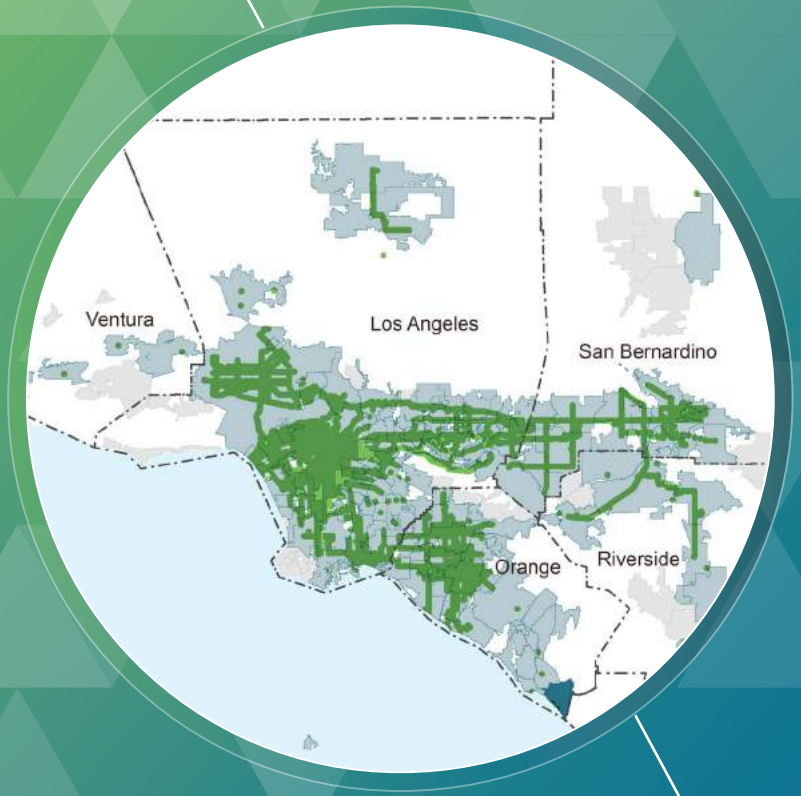
Part 2
Station Area Profile

The Station Area Profile is a summary of the existing physical and socioeconomic conditions, as well as previously completed plans for the Pilot Project Area.



Overview
- San Clemente HQTA Project Area
- San Clemente Metrolink Station

Socioeconomic Profile
- Demographic Profile
- Employment Profile
- Employment Trends

Previous Planning Efforts
- City of San Clemente General Plan
- West Pico Corridor Specific Plan
- Marblehead Coastal Specific Plan

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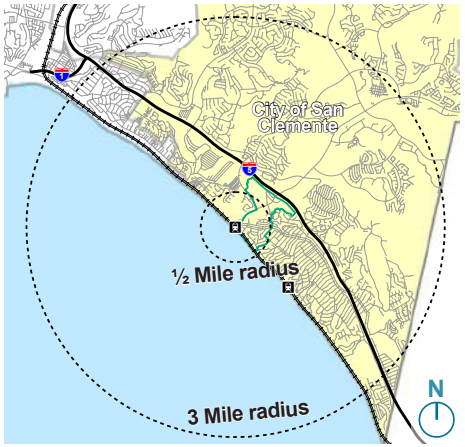
San Clemente HQTA Project Area

High Quality Transit Areas (HQTA) are typically within walking distance to a transit station, approximately within a half-mile radius. In coordination with the City, the San Clemente Metrolink HQTA Study Area (study area) has been modified to exclude the protected canyon areas and new housing north of the station, however it is expanded to the east to include recently constructed retail outlets and the West Pico Corridor Specific Plan area.



Metrolink Station and Corridor

City of San Clemente Boundary

Pilot Project Area

½ Mile Radius: Typical comfortable walkable distance, not considering barriers

San Clemente Metrolink Station sign

Architectural character of area

The Outlets at San Clemente

San Clemente Metrolink Station

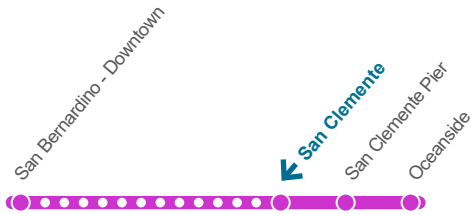
The study area is anchored by the San Clemente Metrolink Station, one of two Metrolink stations in the City. The other Metrolink station, located at the San Clemente Pier roughly 3/4 mile to the south, operates only on Saturdays and Sundays.

The station is on two Metrolink service lines: Inland Empire-Orange County Line and Orange County Line. The Inland Empire-Orange County Line provides connections northward to Downtown San Bernardino and southward to Oceanside. The Orange County Line provides connections northward to Los Angeles Union Station and southward to Oceanside. A parking lot adjacent to the station provides 142 parking spaces for commuters and offers annual parking passes for residents.

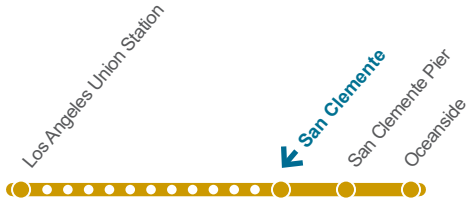
In addition to being serviced by Metrolink, the station is also serviced by the Orange County Transportation Authority's (OCTA) Route 91 StationLink 191. The station is also serviced by the City's seasonal local trolley line which travels along Avenida Pico to connect to the Outlets to the north and southward down El Camino Real to connect to the San Clemente Pier.

Metrolink station

Metrolink:



Inland Empire-Orange County Line



Orange County Line

Service Type

Local Bus / Express Bus | Rapid Bus / Transitway Bus | Commuter Rail | BRT | Local Rail

Average Peak Period Frequency (minutes)

> 25 | 15 - 25 | 10 - 15 | 5 - 10 | < 5

Transit Routes within ½ mile

0 | 1 - 2 | 3 - 4 | 5 - 6 | 6 +

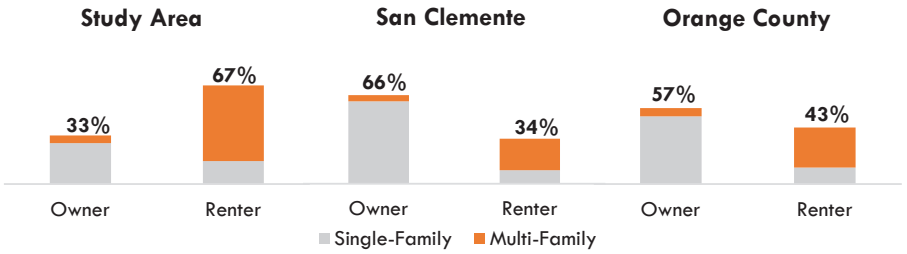
Demographic Profile

- The City of San Clemente constitutes 2.1% of the land area of Orange County and accounts for 2.0% of its population. The Study Area is home to 2.6% of San Clemente's population.
- According to SCAG's growth projections, San Clemente will continue to lag Orange County's population growth rate. Historically, the Study Area has grown faster than both the City and County.
- Median household income in the City is significantly higher than the County's median income. The study area has a much lower median income than both the City and the County.
- Unlike the City, the Study Area is mostly renters. The Study Area is two-thirds renters, whereas the City is two-thirds owners. The County has a more even split of renters and owners.
- Nearly 50% of the City's population has higher education degrees, which is significantly higher than the 30% in the Study area and 40% in the County.
- The population of San Clemente is nearly three fourths white, though the Study Area has a much higher proportion of its population that identifies as Hispanic or Latino.

DEMOGRAPHICS (2018)	Study Area	San Clemente	Orange County
Total Population (2018)[1]	1,714	65,045	3,164,182
Population Density (Per Sq. Mile)	3,571	3,405	3,338
Annual Growth Rate[2]			
Historic (2012-2020)*	1.3%	0.4%	0.8%
Projected (2020-2040)	-	0.1%	0.3%
Total Households (2018) [1]	766	24,530	1,032,373
Average HH Size	2.47	2.65	3.06
Annual Growth Rate[2]			
Historic (2012-2020)	1.3%	0.4%	0.9%
Projected (2020-2040)	-	0.1%	0.3%
Median Age[3]			
0-17 Years	22%	21%	23%
18-64 Years	69%	61%	64%
64 Years and Over	9%	17%	14%
Jobs per Household[4]	1.3	0.9	1.5
Unemployment Rate[3]	5.9%	4.7%	5.1%
Median Household Income[3]	$62,573	$105,812	$85,398

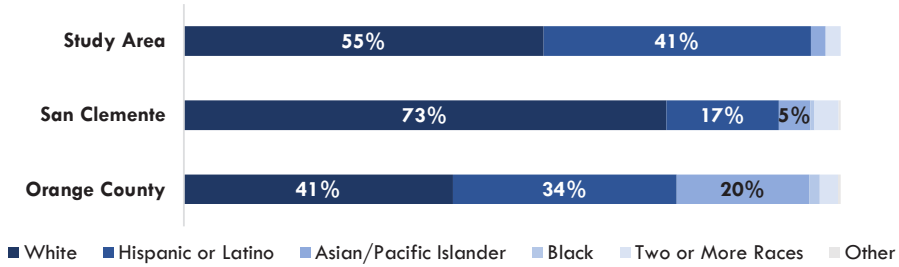
1 ESRI/ACS 5 Year Estimates for 2018
2 SCAG 2040 Projections
3 ACS 5 Year Estimates for 2018
4 HR&A Advisors, Inc.
*Historic Population Growth Calculated using ESRI estimated population between 2010-2020

HOUSING TENURE (2018)

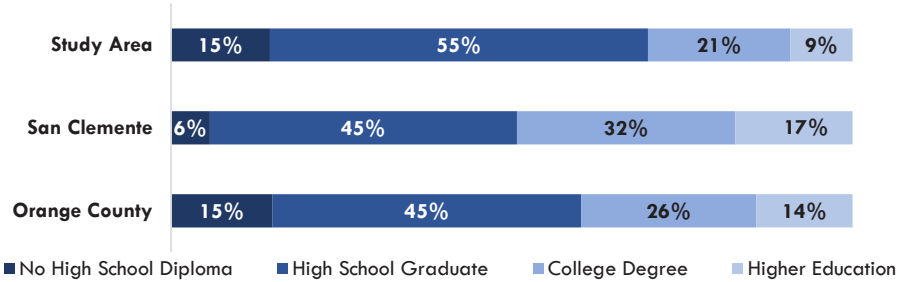


MOBILITY (2018)	Study Area	San Clemente	Orange County
Average Commute Time	-	30	28
Cars per household	1.9	2.1	2.0
Public Transit users	4%	2%	2%
Solo Drivers	72%	75%	79%
Other	25%	23%	19%

RACIAL DEMOGRAPHICS (2018)



EDUCATIONAL ATTAINMENT (2018)

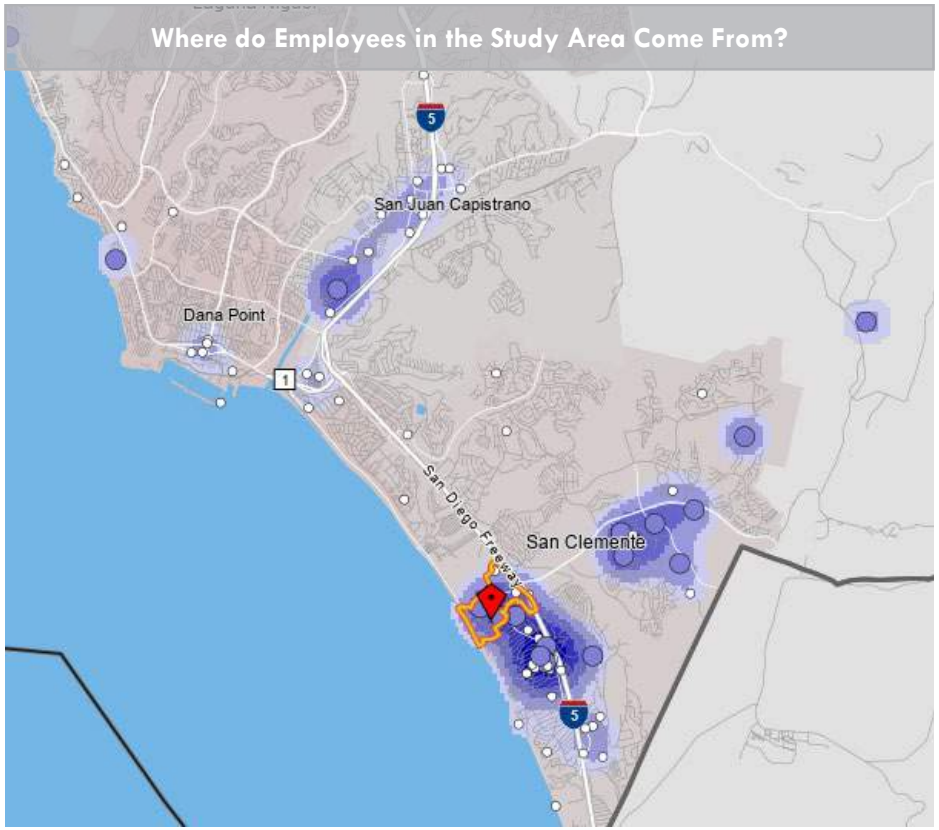


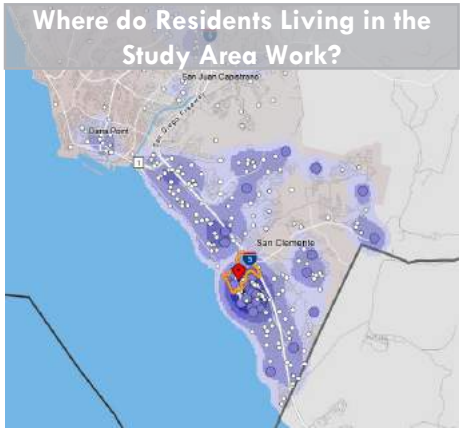
Employment Profile

- The City has several dense employment centers, which are mostly retail and industrial. Two centers are in the Study Area: the San Clemente Outlets and the industrial park between Avenida Pico and El Camino Real.
- The El Camino Real corridor has significant retail activity, especially food and beverage.
- Of all jobs in Orange County, 1.4% are located in San Clemente. Of those jobs, 4.4% are located in the Study Area.
- According to SCAG employment forecasts, job growth in the City is likely to lag the County's rates. This trend is on par with historic growth trends.
- Residents of the Study Area are mostly employed in and around the City. Most people who work in the Study Area commute in from other areas.
- In the Study area, just over 50% of the population travels under 30 minutes to work. This is on par with commute times at the County level, though the City's population tends to have longer commutes.
- Employment in the Study Area is primarily Accommodation and Food Services, which is prominent in the City and County as well.

EMPLOYMENT (2018)	Study Area	San Clemente	Orange County
Total Worker Population	983	22,072	1,536,307
Job Density (per sq. mile)	2,050	1,160	1,620
Annual Growth Rate			
Historic (2012-2020)*	5.7%	1.4%	1.6%
Projected (2020-2040)	-	0.3%	0.5%
Top Three Industry Clusters	Accommodation and Food Services (18.5%)	Administration & Support, Waste Management and Remediation(16.4%)	Health Care and Social Assistance (11.1%)
	Professional, Scientific, and Technical Services (15.9%)	Accommodation and Food Services (11.4%)	Manufacturing (10.1%)
	Retail Trade (13.8%)	Construction (10.6%)	Accommodation and Food Services (9.5%)

Source: LEHD
Growth projections from SCAG
*Historic Growth for Study Area Calculated using LEHD Employment Data between 2010-2018.





Employment Trends

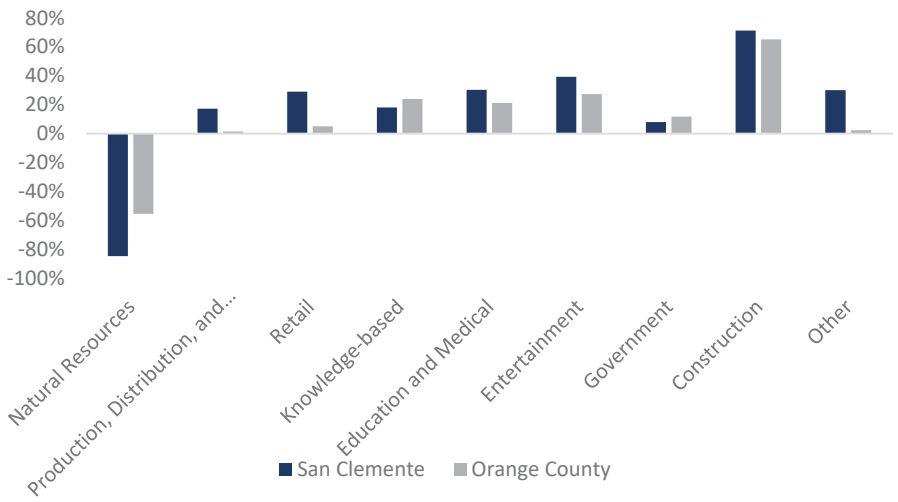
- Orange County, the City, and the Study Area all experienced significant growth in number of jobs between 2010 and 2018.
- The County lost the highest percentage of jobs in the Natural Resources industry cluster, as did the City.
- Construction experienced the most growth in the City and County, followed by Entertainment and Education and Medical.
- The City's growth most significantly outpaced the County's growth in Production, Distribution, and Repair, Retail, and Entertainment. It lagged the County's growth in Government and Knowledge-Based jobs.

HQTA Opportunities

- Through infill development, the Study Area, particularly along El Camino Real and Avenida Pico offer opportunities for unique, dynamic street front development with a mix of retail, office, and residential opportunities.
  - The Study Area's current mix of businesses broken up by parking lots could be used for infill development, but small parcel size is likely a limiting factor.
- With the growth in medical employment, medical office could be an important tenant for commercial spaces on main streets.
- With limited access to existing residential, the Study Area would benefit from innovative ways to increase foot traffic. These could include tourism initiatives and programming based around the bike trail.
- There are currently a number of proposed projects along El Camino Real, which include "The Gallery," a commercial center, new restaurant construction, and new mixed-use development.
  - Development of one or more of these projects could help to create an anchor closer to the ocean and along El Camino Real to attract new visitors.
- There are potential opportunities for redevelopment of the underutilized industrial sites and self-storage site on Avenida Pico near its intersection with El Camino Real, though that redevelopment is unlikely to occur in the near future. There may be more near-term opportunities for redevelopment within the Calle de Los Molinos and Calle Valle industrial area.

Employment Growth in Industry Clusters (2010-2018)	Study Area	San Clemente	Orange County
Natural Resources	-23	-33	-2,852
Production, Distribution, and Repair	55	537	4,195
Retail	62	459	6,908
Knowledge-based	121	536	63,176
Education and Medical	55	603	49,293
Entertainment	10	810	40,849
Government	-10	327	19,307
Construction	8	972	40,632
Other	24	179	983
Total	302	4,390	222,491

Percentage Change in Employment by Industry Clusters (2010-2018)



EMPLOYMENT INDUSTRY CLUSTER CLASSIFICATION
The classification is based on Center for Transit-Oriented Development 2010 Report. Natural Resources includes agriculture and mining; Production, Distribution, and Repair ("PD&R") includes manufacturing, wholesale trade, transportation and warehousing; Knowledge-based includes information, finance and insurance, real estate, scientific, professional, and technical services, and management of companies; Entertainment includes arts, entertainment, and recreation, and accommodation and food services, Government includes utilities, public administration and other administrative and support services, Other includes other services (excluding public administration).

Source: LEHD

City of San Clemente General Plan (Adopted 2014, Amended 2016)

The San Clemente General Plan provides comprehensive, long-term goals and policies for achieving San Clemente's Vision. It guides growth and development to achieve optimum results from the City's physical, economic, environmental and human resources. See the Appendix for the General Plan land use map.

The General Plan identifies eight Focus Areas considered to have the most potential for change. Focus Area policies provide specific direction above and beyond those policies that are applicable Citywide. Additional direction is provided in the Zoning Code, Design Guidelines and applicable Specific Plans, and the California Coastal Act. The goals of the focus areas which overlap with the HQTA study area are summarized below:

Los Molinos Focus Areas

Los Molinos is primarily an industrial and commercial neighborhood located north of the western end of North El Camino Real, bounded on the east by Interstate 5, on the west by the Avenida Pico and Marblehead Coastal, on the north by Marblehead Coastal, and on the south by Los Obreros lane and residential neighborhoods. The area generally west of Calle Industrias and southeast of Avenida Pico is primarily an industrial area. It is envisioned as the heart of a thriving, creative business incubator district that builds upon its industrial and surf heritage. The largely commercial area east of Calle Industrias and adjacent to Interstate 5 is envisioned as an institution-anchored employment center offering learning, employment and housing opportunities.

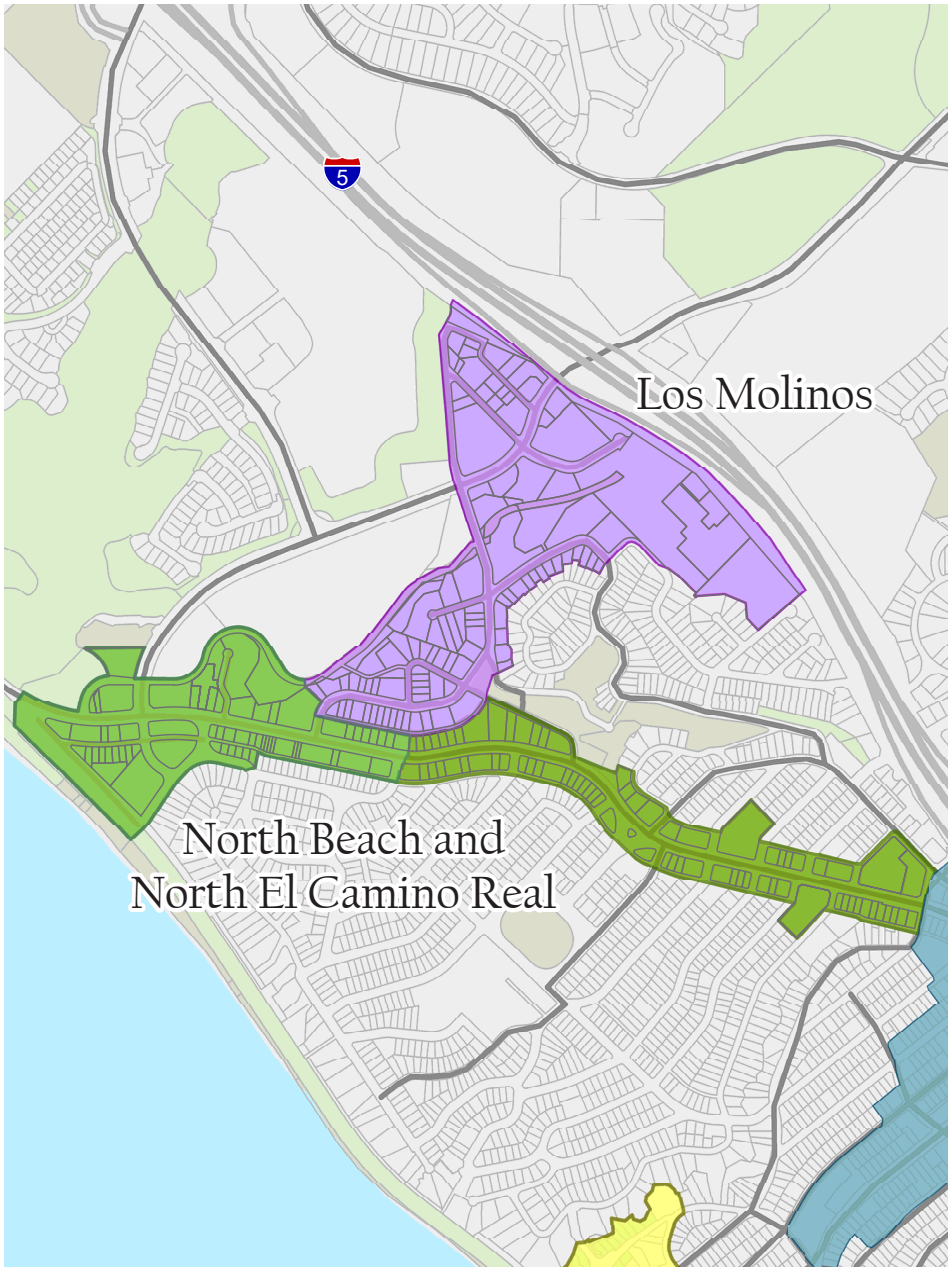
- **Goal:** A vibrant business incubator district that respects, protects, and builds upon the area's eclectic character and land uses, and that provides new educational and employment opportunities for San Clemente's residents and employees.

North Beach/North El Camino Real Focus Area

The North Beach/North El Camino Real Focus Area is a unique, community- and coastal visitor-oriented entertainment hub and recreation area. It is an important City gateway along the historic El Camino Real/Pacific Coast Highway from beach cities to the north. The area's on-going revitalization is based on the community's desire to preserve and enhance its key assets. The Area's assets include: views of the ocean, convenient beach access, a rich inventory of historic buildings, access to passive and active recreational amenities and numerous visitor-serving shops and services.

- **Goal:** Re-establish and maintain a vibrant community- and visitor-serving, mixed use entertainment center which capitalizes on its proximity to the beach and significant historic resources.

Focus Areas



Source: City of San Clemente General Plan

West Pico Corridor Specific Plan (Adopted 1997, Revised 2016)

The West Pico Corridor is an area stretching from the northern edge of North Beach Village to the San Diego Freeway (I-5). The West Pico Corridor encompasses approximately 80 acres of various land use designations, mostly developed with public and private land uses and structures. The Avenida Pico/I-5 interchange provides the primary access to the West Pico Corridor. Avenida Pico is heavily used by tourists and beach-users, and therefore, is significant in the public's perception of the quality and character of the City. The Pico commercial and Los Molinos industrial areas are planned to develop into an integrated commercial, business and industrial hub, providing an employment center and tax base for the City. The majority of individually owned land parcels range in size from 5,000 to 20,000 square feet. The irregularity of the parcels, combined with the multiple ownerships presents a challenge to new development or re-use of the properties in the area.

Three distinct areas comprise the West Pico Corridor: 1) the Pico Community Commercial Area; 2) the Los Molinos Industrial Area; and 3) the City Corporate Yard/Water Reclamation Plant.

West Pico Corridor Areas

Pico Community Commercial Area

Both sides of Avenida Pico from Calle de Los Molinos to the I-5 freeway are included in this area which contains approximately twenty-four (24) acres of land. It is chiefly comprised of mixed commercial uses with some vacant parcels, light industrial land uses, and the San Clemente Post Office.

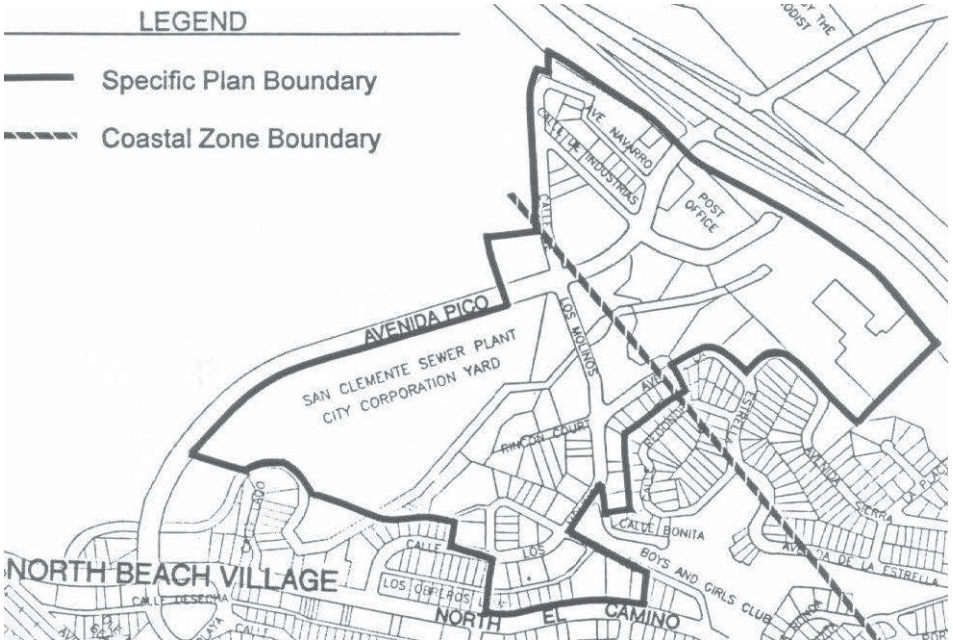
Los Molinos Industrial Area

This area, located between North Beach Village and the Pico Community Commercial Area, encompasses approximately thirty-five (35) acres of land. Existing land uses include a variety ranging from heavy industrial (auto towing, auto wrecking, and a concrete batch plant) to light industrial (predominantly manufacturing, auto repair, trades, and contracting), and some retail businesses.

City Corporate Yard/Water Reclamation Plant

This 20 acre area west of the Los Molinos Industrial Area along Avenida Pico is owned by the City of San Clemente and is occupied by the City's maintenance yard and water reclamation plant.

West Pico Specific Plan Area Boundary



Land Use Table

LAND USE	TYPICAL PRINCIPAL USES	FAR	HEIGHT
NC2 Neighborhood Commercial	Retail commercial, eating and drinking establishments, household goods, food sales, building materials, professional offices, personal services, recreational commercial, tourist, and cultural facilities	0.35	2 Stories
CC2 Community Commercial	Same uses as NC2 with possible auto center	0.50	3 stories
I2 Light Industrial	Light manufacturing, business park, professional offices, supporting retail, restaurants, financial	0.50	3 Stories if third is limited to office only
I3 Heavy Industrial	Heavy manufacturing and related uses	0.75	2 Stories
P Public	Governmental, utilities, schools, parking, parks	NA	NA

Source: West Pico Corridor Specific Plan

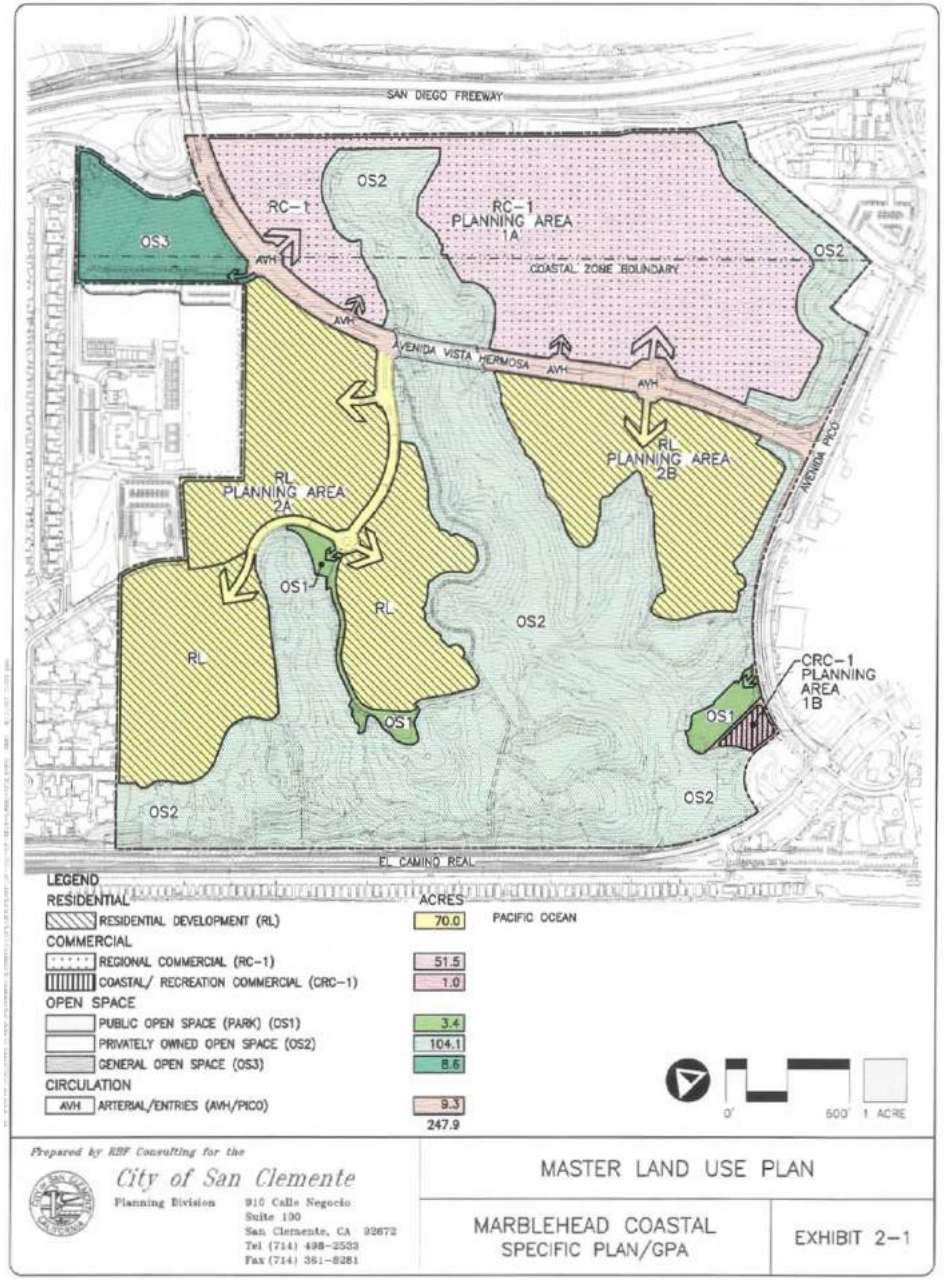
Marblehead Coastal Specific Plan (Adopted 1998, Revised 2007)

The purpose of this Specific Plan is to implement the City's General Plan and be responsive to the goal of preserving San Clemente's unique atmosphere, historical identity, and significant natural features. The portion of this specific plan area which overlaps with the HQTA study area has been identified as a regional commercial shopping center along Avenida Vista Hermosa, with some privately-owned open space along Avenida Pico.

Objectives

- Provide for a variety of land uses within the Specific Plan area capable of generating significant new tax revenues to the City.
- Promote regional commercial uses to generate sales tax revenues.
- Enhance existing and future public access to the coast
- Enhance future public recreation opportunities along the shoreline by providing upland recreation and visitor-serving areas designed to support recreational use of public beaches in the City
- Provide for new or future residential development
- Provide for viable long-term protection and enhancement of on-site wetlands and native vegetation
- Manage on-site habitat resources restored and protected as a part of the specific plan
- Design new land uses and related infrastructure in a manner that will protect nearby marine resources and beaches
- Assure long-term bluff stability to protect public safety and the public access function of El Camino Real
- Phase new development in step with provision for infrastructure facilities and services needed to support this development, to protect public access to the coast, and to fund long-term management of preserved and restored on-site habitat resources

Specific Plan Map



Source: Marblehead Coastal Specific Plan

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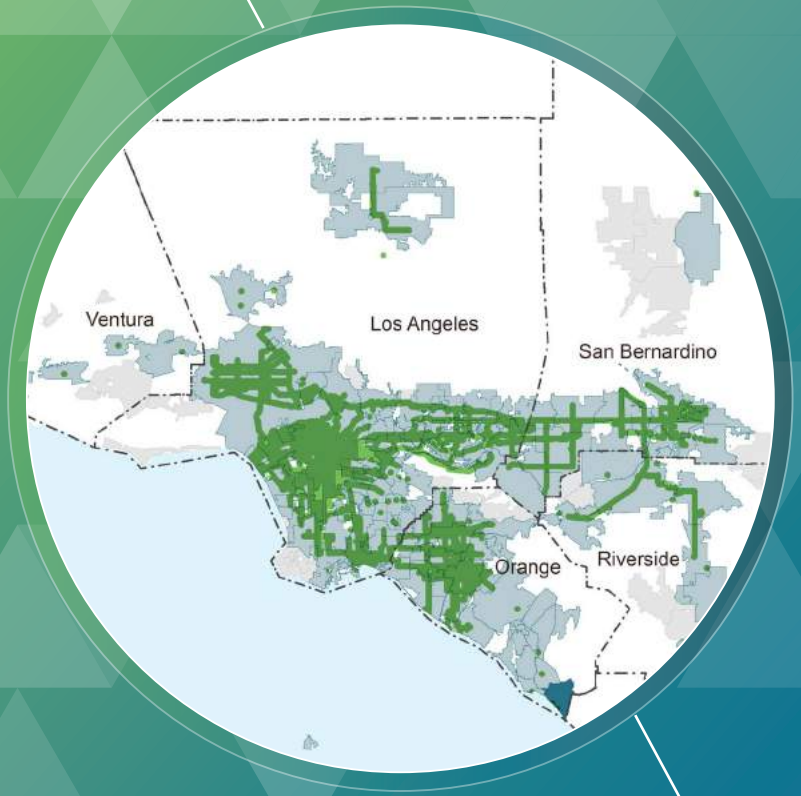
Part 3
Outreach

Input from key stakeholders was an essential component of the research and analysis presented in Part 4 (Opportunities and Constraints), and ultimately Part 5 (Vision).



Stakeholder Interviews

Outreach Presentation: September 1, 2021

On September 1, 2021 the Project Team and City of San Clemente gave a presentation to local stakeholders on the planing process for the HQTA program and presented the existing conditions. In accordance with social distancing guidelines in response to the Covid-19 pandemic, this meeting was conducted virtually. Much of the content presented at this meeting has been summarized in Parts 1, 2, and 4 of this document.

The consultant team facilitated a design charrette that captured feedback from the community and the City of San Clemente on existing conditions, opportunities and constraints, and the overall vision for the HQTA study area, with the primary objective being to continue community discussion regarding development opportunities for the defined HQTA study area, its character, and sense of place.

Gruen prepared and delivered a 1.5-hour virtual presentation to discuss project goals, findings from the Opportunities and Constraints Analysis, and engaged participants for the virtual visioning exercise for the proposed Major Development Areas (MDA) defined in the opportunity and constraints analysis. The participants were key stakeholders and community members identified by the City. The exercise was presented in the following format:

Introduction

- Introduction to the HQTA Analysis program including SCAG's goals for reducing VMT and GHG emissions, boosting transit ridership, walking and biking, and encouraging the intensification of jobs and housing within HQTAs.
- Overview of existing planning documents for the HQTA study area.
- Identification of MDAs around which the interactive charrette was focused.

Interactive Charrette

Part A

- For each MDA, participants were shown photos of existing conditions followed by a map which synthesizes key opportunities and constraints.
- Participants will be invited to suggest any opportunities/constraints not shown on the maps. As new items are suggested, a consultant team member will annotate the map and take notes.
- Participants will be shown potential improvements illustrated using components from the HQTA Toolkit and keyed to a Synthesis Map, exploring a range of considerations about density, land use, economic feasibility, infrastructure investments, and traffic and parking implications.

Part B

- After the MDAs have been introduced, the Consultant led a discussion encouraging the group to consider the constraints and opportunities identified in each component when exploring land use alternatives.
- Questions were posed to the community to efficiently solicit input on the various components (land use, density, etc.) of each MDA categorically to confirm assumptions, proposed conditions, and open up discussion on opportunities and constraints.
- The outreach strategies and input from community members are summarized below per each MDA:

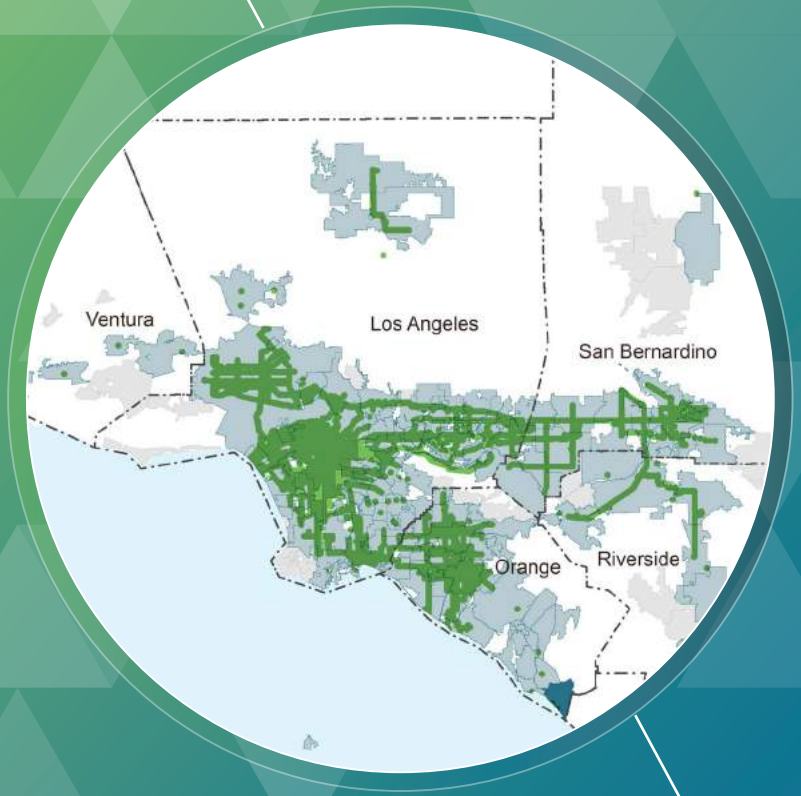
North Beach Train Station Area

- It is considered a higher-growth area for medical and industrial related uses.
- The local trolley service restarted in the summer of 2021.
- There is a potential for additional entertainment in support of economic development.
- The area should support the existing arts and historic cultures.
- Recreation is a critical component in the community which should be further enhanced throughout the MDAs.
- Breweries and bars should be considered.

El Camino Real & Calle de los Molinos

- Additional crosswalks, including mid-block crossings are needed along El Camino Real for stronger pedestrian connections.
- The south side of El Camino Real has on-street parallel parking but there is a concern for safety due to tight dimensions and blurred relationship to adjacent traffic lane. Bulb outs or clearly marked parking spaces would help reinforce public safety and streetscape improvements.

Part 4
Opportunities and Constraints Analysis



The opportunities and constraints are viewed through the lens of High Quality Transit Areas and the principles of transit-oriented communities.

Mobility

Land Use

Urban Design

SCAG

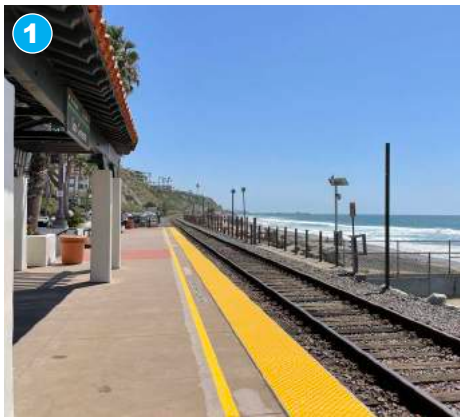
Mobility

Constraints

Physical Barriers: Major physical barriers are the railroad tracks adjacent to the ocean, the protected canyons to the north of Avenida Pico, hilly terrain throughout the area, and the flood control channel.

Superblock: Blocks that are over 300 feet long in at least one dimension are not pedestrian friendly for adjacent properties as it takes much longer for pedestrians to reach their destination on-foot. Although the pedestrian environment within the Outlets at San Clemente (Outlets) is pleasant and inviting, the Outlets parking lot is a barrier for pedestrians walking from the Outlets to other uses in the study area.

High Traffic Volume Corridors: These corridors have high traffic volumes and vehicle-pedestrian/cyclist collisions. Improvements have been made to Avenida Pico and Avenida Vista Hermosa to traffic calm these areas and improve the bicycle environment. Additional pedestrian improvements are needed along Avenida Pico. To incorporate bike lanes along El Camino Real, the tight right-of-way and narrow adjacent properties may require trade-offs such as repurposing travel lanes and on-street parking.



San Clemente Metrolink Station and Tracks

San Clemente Trail

Opportunities

Regional Access: The Metrolink station is served by the Orange County Line from Oceanside to Los Angeles and the Inland Empire-Orange County Line that terminates in San Bernardino providing access to many points in Southern California. Union Station in downtown Los Angeles, which is projected to have over 200,000 passengers, can be reached in a little over 2 hours from San Clemente.

North Beach Trail and the San Clemente Beach Trail: North of the station, the North Beach Trail and the Class I bike lanes along both sides of the two lane El Camino Real enhance recreational character and mobility by providing excellent pedestrian and bicycle access to the Metrolink station and visitor serving uses along the beach. The San Clemente Trail provides pedestrian access south of the station. There is potential to connect pathways through the station parking lot and to new bike lanes on El Camino Real South. The study area can be transformed further into a multimodal facility.

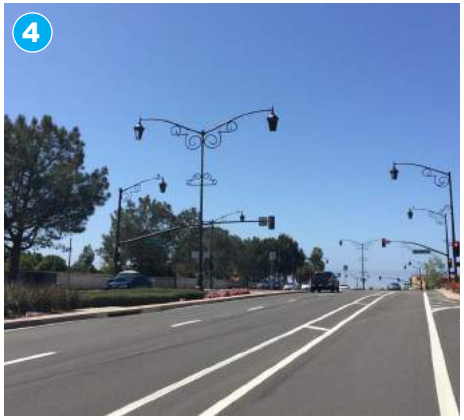
Pedestrian and bike improvements along major vehicular streets: The HQTA station area has excellent vehicular and pedestrian access from major roadways including Avenida Pico, El Camino Real, and Avenida Vista Hermosa. Avenida Pico has Class II bike lanes leading to the transit station while Avenida Vista Hermosa has buffered bike lanes leading from the Outlets to Avenida Pico. Although bike lanes are missing from the southern portion of the four lane El Camino Real, potential exists for including these to further enhance access. Additional pedestrian crossings would also improve access.

Transit Priority Corridors and Stops: Avenida Pico, Avenida Vista Hermosa, and El Camino Real have existing local bus and trolley services and have the potential for transit amenities (i.e. bus shelters, signage, etc.) that raise the convenience and appeal of public transit. The existing trolley that connects the transit station with the Outlets has the potential to also connect other uses in the corridor.

Flood Control Channel: A pedestrian or bicycle pathway may be feasible with this channel to further connect existing and future land uses.

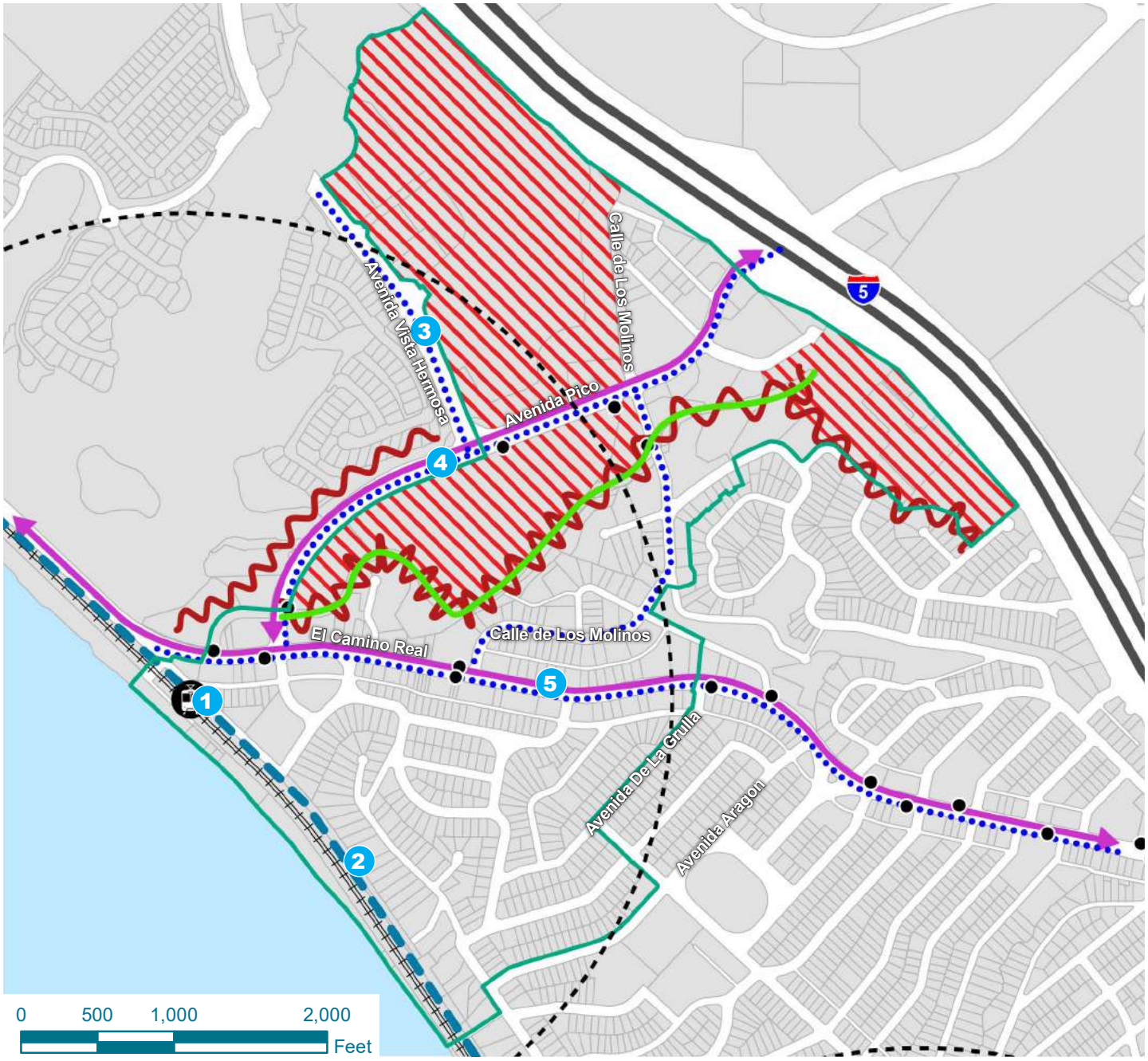
Mobility

Bicycle lanes and pedestrian improvements on Avenida Vista Hermosa



Streetscape along Avenida Pico

Pedestrian environment along El Camino Real varies



Data Sources: Orange County, SCAG, City of San Clemente

Land Use

Constraints

Coastal Zone Requirements: Most of the study area is within the coastal zone which historically gives priority to visitor serving uses around the station and beach area instead of traditional transit oriented development such as housing, retail, and other uses. These coastal requirements also add additional regulatory review to those of the City.

Limited area for development: The potential protected area to the north and the Pacific Ocean to the south limits the land available for development within walking distance to the station. In addition there are few vacant parcels in the study area. The reclamation plant which occupies a large part of the frontage along Avenida Pico can not be relocated.

City Plans and Requirements: In addition to the coastal requirements, there are multiple specific plans and overlay districts in the study area plus parking requirements not consistent with transit oriented development which could give priority to transit and active transportations in order to reduce driving, reduce green house gases, and promote healthy living. Some of these planning and parking requirements need updating. A proposed hotel was challenged by Coastal restrictions for blocking views to the ocean.

Specific Plans: Marblehead Coastal SP, West Pico Corridor SP

Overlay Zones: Architectural-Pedestrian, Architectural, Architectural-Affordable Housing, Professional Business, Architectural-Mixed Use-Pedestrian, Pedestrian

3 **Transit Parking Area:** The City owns the transit parking lot and station. In the early 2000s there was a proposal for underground parking and commercial uses but this was rejected at that time. There are view corridor, height, and connectivity considerations for development at this lot.

4 **Small Parcels:** Small parcels along Calle de Los Molinos and El Camino Real make mixed use development difficult unless multiple parcels are consolidated and parking regulations are reduced.

5 **Historic District:** In December 2020 an area near the transit station was designated as a historic district which may limit new development but will add to the unique character and visibility of this district.

Protected land and housing along Avenida Pico & Vista Hermosa

Water reclamation plant

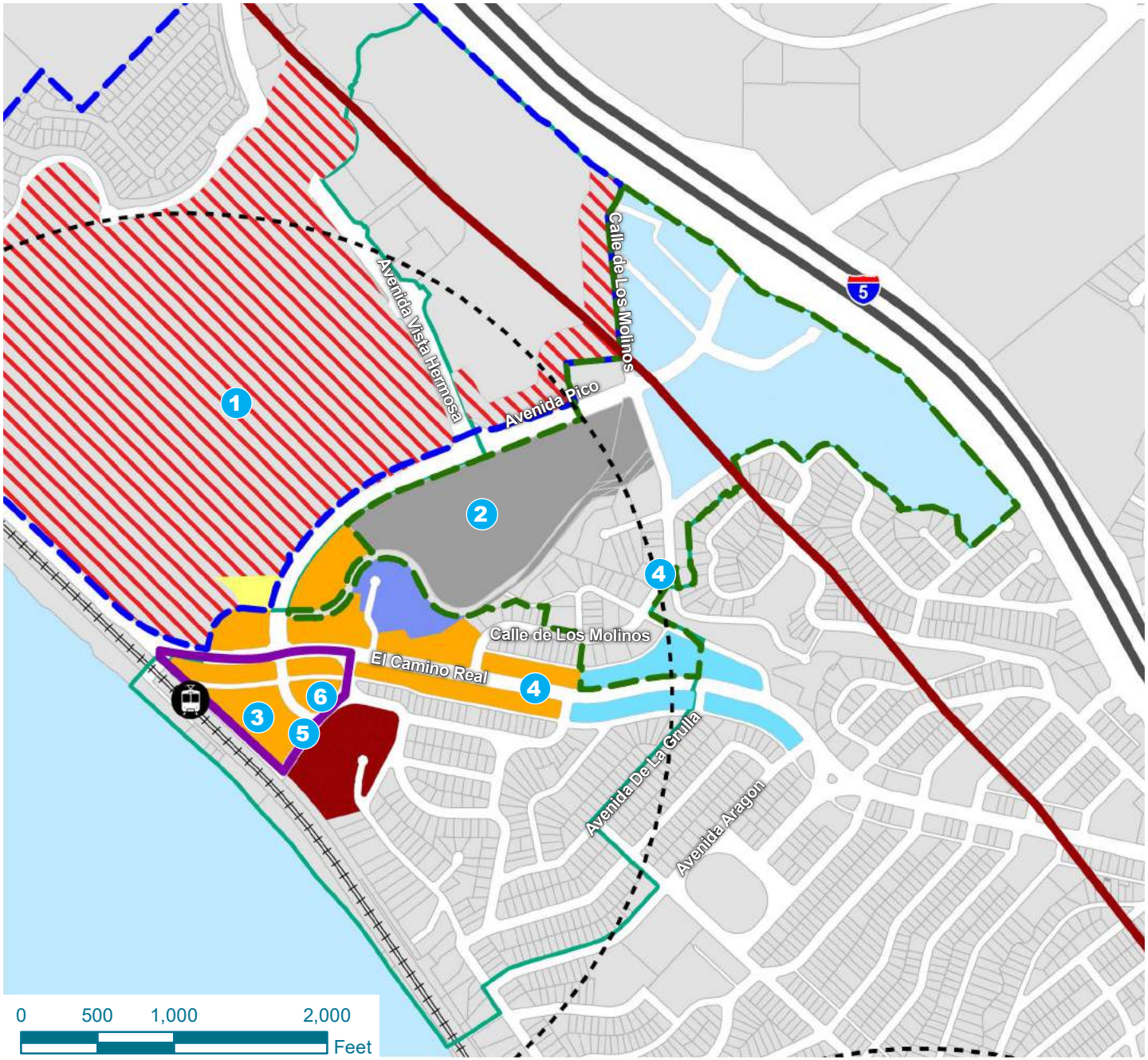
Transit parking area

Land Use

Call de Los Molinos: small parcels with a mix of industrial and residential uses

Historic character: Ole Hanson Beach Club

Historic character: Casino San Clemente



Data Sources: Orange County, SCAG, City of San Clemente

Opportunities

Regional and Local Facilities: The station, beach, and Outlets are all regional destinations/attractions accessible by train, bike, pedestrian, and bicycle modes. Local mix of uses including visitor serving uses, housing, live/work, retail, restaurants, and other uses can add to the walkability, livability, and economic health of the study area.

Major Development Opportunity Sites: These sites and parking lots offer opportunities to provide a mix of uses and transit oriented development.

(1) Outlets parking lot; **(2)** Pico Plaza and lots adjacent to Avenida Pico; **(3)** Farmer's market site in historic area; **(4)** U-Haul; **(5)** Site at El Camino Real & Avenida Pico

Secondary Redevelopment Opportunities: These sites along El Camino Real and within the Los Molinos area offer opportunities for smaller scale infill development.

Planned / In Construction Uses: Uses planned or under construction in the study area include a food hall, converted theater event space, and a bed and breakfast.

Park / Community Institutions: These existing neighborhood serving uses increase the social capital of the area and should be preserved.

(6) Pico Park on Avenida Pico has ocean views; **(7)** Ole Hansen Beach Club: public pool and event space in afternoons and evenings; **(8)** Sea Summit Ocean View Park provides a bicycle trail and private trail open to the public that provides access from the Outlets to the station; **(9)** San Clemente Beach Trail

10 **West Pico Specific Plan and Pico Plaza Rehabilitation:** This auto-oriented subarea needs more integrated pedestrian-friendly development that connects uses to pedestrian pathways and bike lanes along Avenida Pico and the flood control channel leading to the station. Transit supportive uses could include destinations such as a food hall, multi-family residential with a park-like character, employment, and retail/entertainment. The entrance roadway needs a redesign to provide bike and pedestrian links.

11 **El Camino Real Infill:** Small parcels fronting on El Camino Real can be selectively infilled with new developments through lot consolidation and reduced parking requirements. The area already contains restaurants with outdoor spaces, small hotels, some retail and offices located along the sidewalks. There are opportunities to reducing the auto-oriented uses such as sites with parking along the sidewalk and auto/industrial uses.

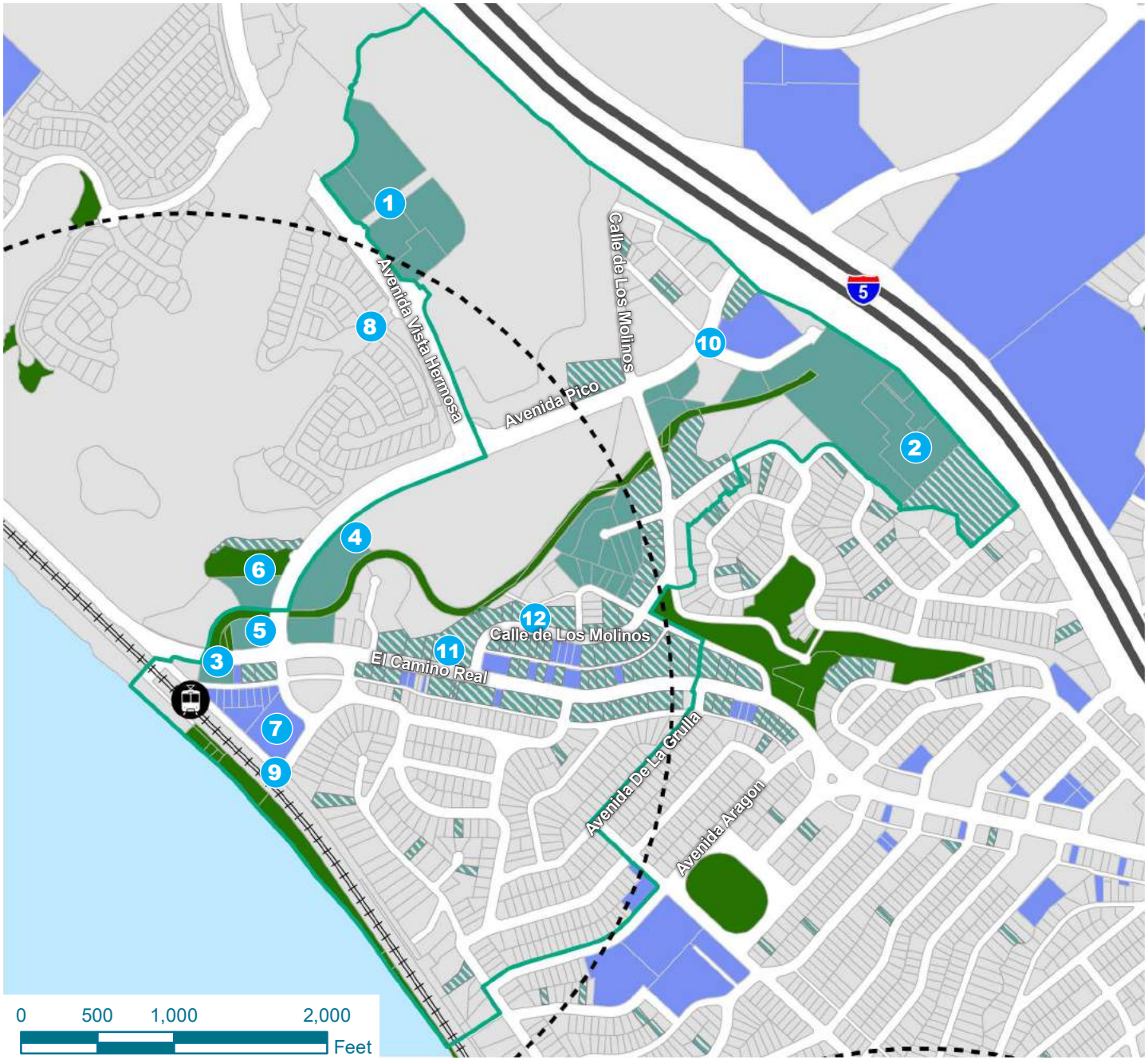
12 **Calle de Los Molinos Infill:** This area is primarily light and heavy industrial with some retail, office, and residential. There are opportunities for lot consolidation, though additional shared parking may be needed.

Land Use

Pico Plaza

El Camino Real

Calle de Los Molinos



Data Sources: Orange County, SCAG, City of San Clemente

Urban Design

Constraints

Constrained ROW: Calle de Los Molinos has constrained ROW, lots of occupied on-street parking, and a variety of uses not always compatible with each other, making it difficult to include an attractive streetscape and active transportation.

Access and Visibility to Pico Plaza: The entrance roadway Via Pico Plaza from Avenida Pico into Pico Plaza Shopping Center has narrow sidewalks and is not inviting. The two story vacant building and post office do not reflect the character of the shopping center.

Entrance road to Pico Plaza

Vacant office

Post office fencing Avenida Pico

Pico Plaza sign & landscaping on Avenida Pico

Limited Pedestrian Crossings: Large heavily traveled streets with narrow sidewalks and difficult pedestrian crossings at Avenida Pico and El Camino Real. The intersetcion of Avenida Pico and El Camino Real with its four travel lanes and three turn lanes could use a pedestrian refuge.

Architecture Overlay: New structures in the area have design guidelines to encourage traditional architecture.

Opportunities

Transit Station Environment: The transit station has seating and other amenities but could include more information about the Metrolink access and a neighborhood map to attractions in the area. This could be accomplished with a digital kiosk.

Historic Resources: Preserving the historic buildings in the recently designated historic district and reusing them for cultural and business activities including events adds to the vitality of the station area.

Restaurant with historic character

Casino

Streetscape Improvements and Greening / Environmental Benefits: Street trees implemented near the sidewalk curb along major streets, wherever possible, provide a sense of protection for the pedestrian and shade the pathway. Landscaping and park-like atmosphere throughout can provide environmental benefits. Additional marked pedestrian crossings and wider sidewalks along major arterials to calm traffic and for safety should be considered.

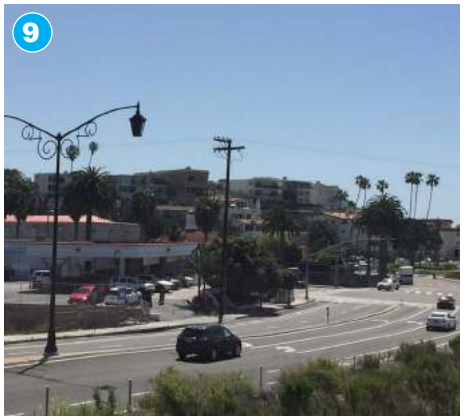
Sea Summit

Avenida Vista Hermosa

Gateways: Key entry points into the area that, if enhanced, can distinguish the area from surrounding neighborhoods with a greater sense of place.

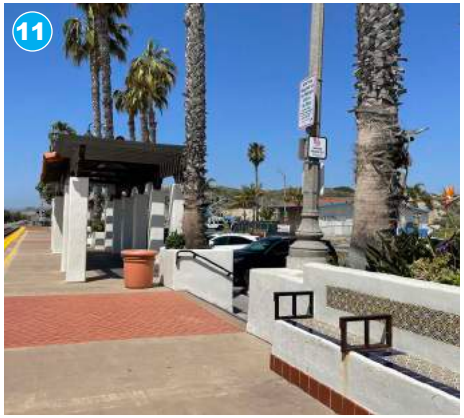
Quality of New Development: New developments such as the Sea Summit Housing, its open space, and landscaping of the streetscapes as well as the outdoor malls at the Outlets can set the character for new projects in the study area but with a more compact character reflective of a transit-oriented area.

Opportunities

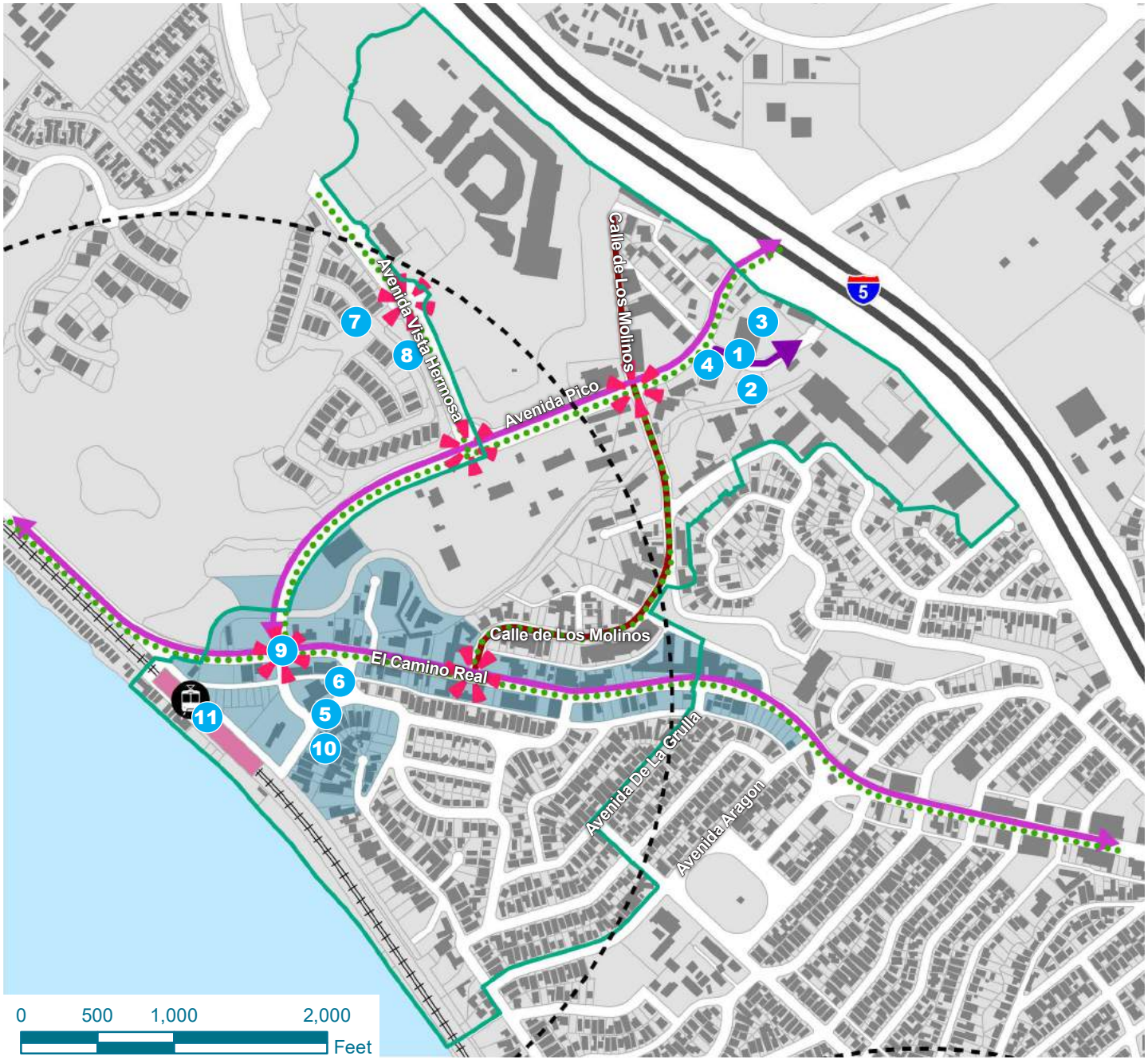


Avenida Pico is a wide street at intersection

Housing character near transit station



Transit Station Environment



Data Sources: Orange County, SCAG, City of San Clemente

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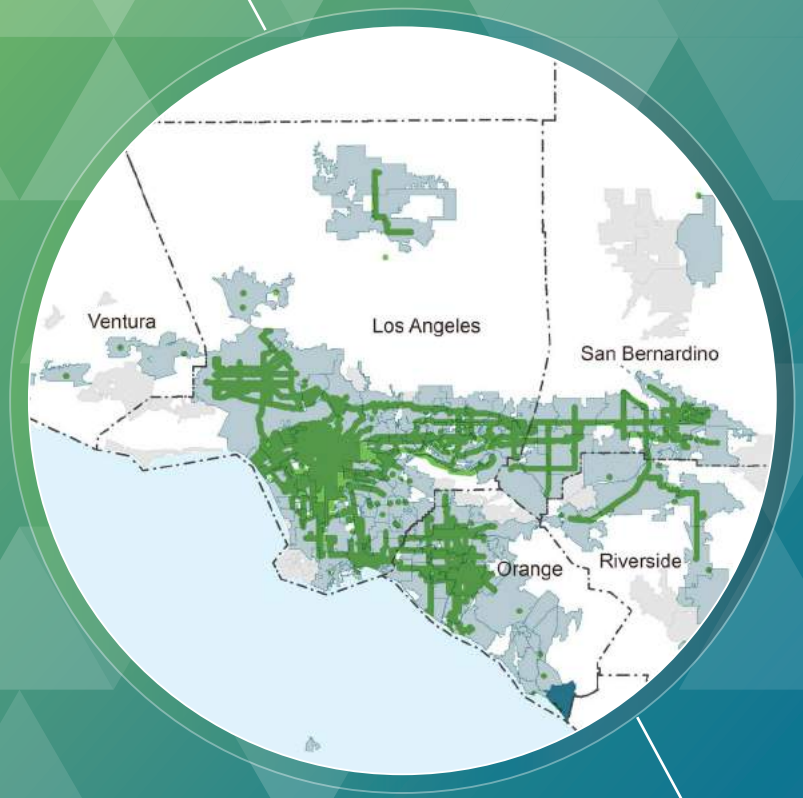
Part 5
Vision



SCAG

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Part 5

Vision

A - OVERVIEW

Vision Plan Goals

Framework Plan

Pilot Project Area - 2048 Potential Buildout

Priority Projects

Vision Plan Goals

The San Clemente HQTA Vision Plan will compliment the excellent historic urban fabric to foster an economically vibrant, attractive neighborhood centered around the Metrolink station. To ensure the appropriate balance of neighborhood preservation, environmental sustainability, and promote walking, biking, and the use of transit, the plan is founded on the goals described below. These goals were developed through a synthesis of adopted City initiatives, stakeholder interviews, and the opportunities and constraints analysis outlined in Parts 2 through 4 of this document. Initiatives and next steps that will help to carry through the goals of the plan are presented in Part 6 (Implementation Plan).

Goal #1: Promote safety, collision reduction, and expanded economic vitality with pedestrian improvements to critical corridors

El Camino Real is a busy corridor lined with various commercial uses, with blocks that have long spans between pedestrian crossing points. Introducing new mid-block crossings will make it easier for visitors to patronize businesses on either side of El Camino Real, and are a first step to creating a “park once” district, where key destinations are within walking distance from each other. Additionally, the street could be improved by the inclusion of pedestrian amenities such as curb extensions and additional landscaping.

Goal #2: Encourage economic development through focused redevelopment projects

With limited vacant parcels and because many parcels along major streets are relatively narrow, future development in the HQTA will likely be infill development or repurposing of surface parking lots.

Goal #3: Identify select locations where infill housing may be incorporated to balance commercial and non-commercial uses in the downtown area

Housing would be focused in areas that are further inland, and would be near activity centers to provide the necessary customer and employee demand to support new commercial and office development.

Portion of El Camino Real with landscaped parkway, on-street parking, and engaging building frontages

Framework Plan

The Vision Plan enhances HQTA's sense of place through development, streetscape, and infrastructure improvements in four unique districts: Transit Station District, Pico Plaza District, Central District, and Outlets District. These investments aim to boost ridership, create livable, walkable neighborhoods, and reduce congestion and greenhouse gas emissions.

New developments and streetscape enhancements will be oriented toward the critical gateways identified at the intersections shown in the figure to the right. These gateways could include landscaping, public art installations, and signage to welcome visitors to the area, and will serve as visual markers to reinforce the HQTA as a walkable destination within the City.

Districts

Areas within the Pilot Project Area that are envisioned in the buildout scenario to contain similar building densities and typologies.

- Transit Station District
- Pico Plaza District
- Central District
- Outlets District

Major Development Areas (MDA)

Focused areas of development proposed in the buildout scenario with clusters of complementary priority projects which may catalyze the envisioned development.

- MD 1 Transit Station Area Infill
- MD 2 El Camino Real Infill
- MD 3 Los Molinos Industrial Village
- MD 4 Pico Plaza Infill
- MD 5 Outlets Infill

Corridors

Roadways with envisioned traffic calming, pedestrian amenities, or other improvements.

- C 1 El Camino Real
- C 2 Calle de Los Molinos
- C 3 Via Pico Plaza

Pilot Project Area - 2048 Potential Buildout

The Land Use Strategy details an illustrative development buildout scenario that takes into account adopted land use regulations and parking requirements, and modifies densities and typologies when necessary to achieve SCAG's TOD goals for HQTAs. This 30-year Vision Plan presents a buildout scenario that allows for flexibility and recognizes that a number of factors will affect type and location of future developments. The ultimate buildout will be determined through a specific plan(s) update and further discussions with property owners and interested developers.

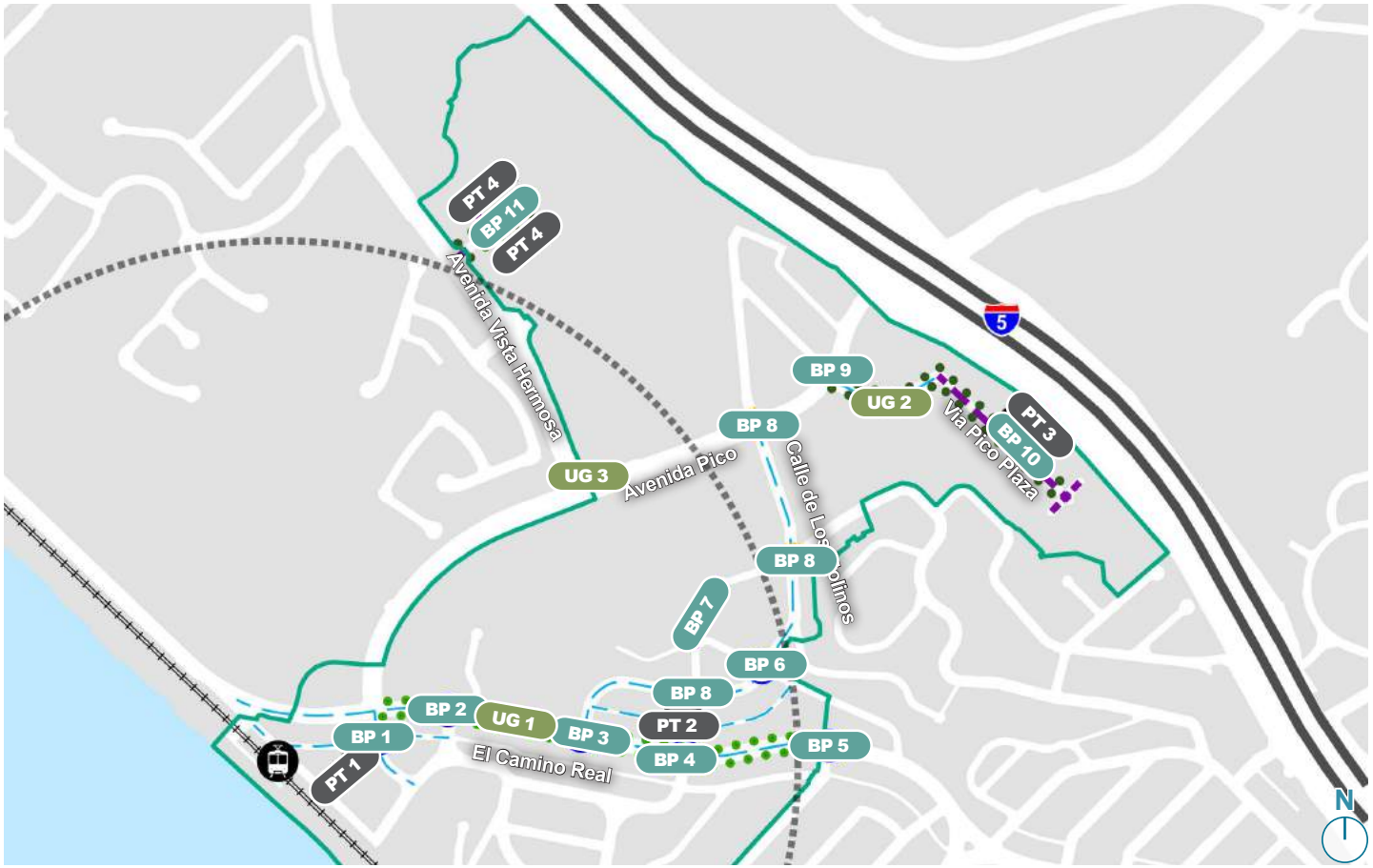
Cumulative Land Use Mix and Buildout Potential

Major Development Area		Total	Retail	Office	Residential		Parking
		Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.	Units	Stalls
MD 1	Transit Station Area Infill	15,800	7,900	7,900	-	-	TBD
MD 2	El Camino Real Infill	30,600	15,300	15,300	-	-	75 - 100 stalls
MD 3	Los Molinos Industrial Village	141,300	21,195	84,780	35,325	39	TBD
MD 4	Pico Plaza Infill	192,800	48,200	48,200	96,400	88	450 -500 stalls
MD 5	Outlets Infill	231,100	34,665	69,330	127,105	116	350 - 400 stalls

* These numbers represent the square footage and units proposed by this Vision Plan by the year 2048 and does not include existing square footages or units.

Priority Projects

Priority projects are targeted infrastructure or public realm improvements that could catalyze development and private investment in the Pilot Project Area. Most projects would be completed as part of a Corridor improvement, though some projects may be on private property. Funding sources for each priority project type and a priority project phasing strategy are provided in Part 6 (Implementation).



Bicycle and Pedestrian Projects

- **BP 1** Calle Deshecha / Avenida Pico Intersection Improvements
- **BP 2** El Camino Real / Boca de la Playa Intersection Improvements
- **BP 3** El Camino Real / Calle de Los Molinos Intersection Improvements
- **BP 4** El Camino Real / Calle Los Bolas Intersection Improvements
- **BP 5** El Camino Real / Avenida De La Grulla Intersection Improvements
- **BP 6** Calle de Los Molinos / Calle Valle Intersction Improvements
- **BP 7** Rincon Ct Extension
- **BP 8** Misc. Enhanced Crosswalk Improvements
- **BP9** Via Pico Plaza / Avenida Pico Intersection Improvements
- **BP 10** Via Pico Plaza Extension
- **BP 11** New Interior Roadways

Urban Greening & Environmental Projects

- **UG 1** El Camino Real Tree Canopy Gap Closure & Landscaping
- **UG 2** Via Pico Plaza Tree Canopy Gap Closure & Landscaping
- **UG 3** Wayfinding Signage on Avenida Pico

Parking and Transit Projects

- **PT 1** Shared Parking Structure at Transit Station
- **PT 2** Shared Parking Structure at near El Camino Real
- **PT 3** Parking Structure(s) at Pico Plaza
- **PT 4** Parking Structure(s) at Outlets at San Clemente

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Part 5

HQTA Vision

B - LAND USE STRATEGY

Development Opportunity Sites

Building Typologies Concept Plan

Major Development Areas

- MD 1 Transit Station Area Infill
- MD 2 El Camino Real Infill
- MD 3 Los Molinos Industrial Village
- MD 4 Pico Plaza Infill
- MD 5 Outlets Infill

Development Opportunity Sites

This Vision Plan takes a holistic view of the Pilot Project Area by incorporating planned development projects and projects that are under construction with additional lots that would add substantial value to the Pilot Project Area if redeveloped.

Primary Opportunity Sites

Primary sites will see the majority of development in the near future since they can be utilized for large-scale, catalytic projects due to limited on-site barriers.

Secondary Opportunity Sites

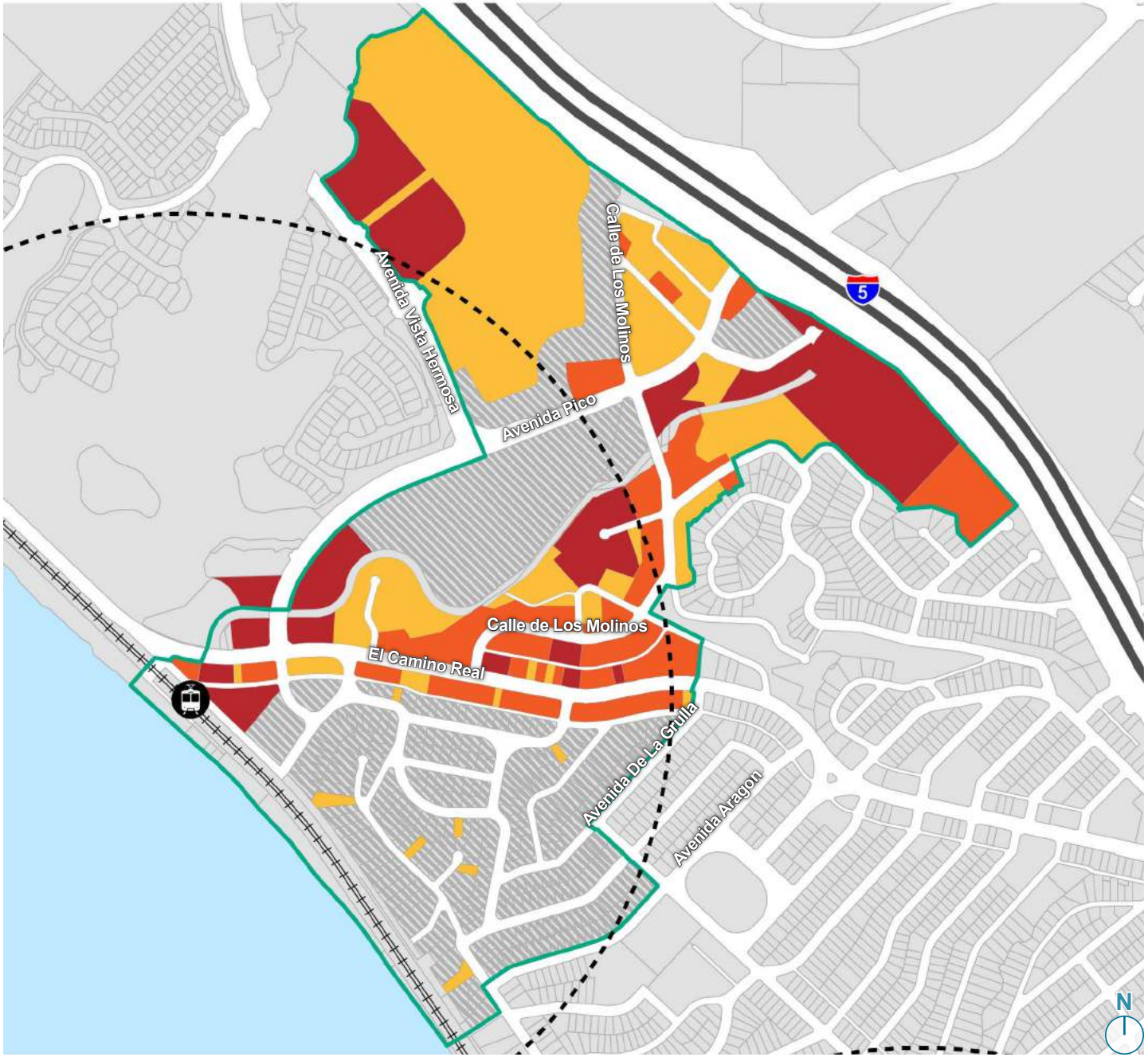
Secondary sites provide opportunities for smaller infill developments, especially on corner properties at key intersections, or the adaptive re-use of buildings with unique facades.

Tertiary Opportunity Sites

Tertiary sites have long-term potential for redevelopment, but have existing short-term barriers such as parcels requiring lot consolidation or negotiations amongst private property owners.

Areas Not Considered Opportunity Sites

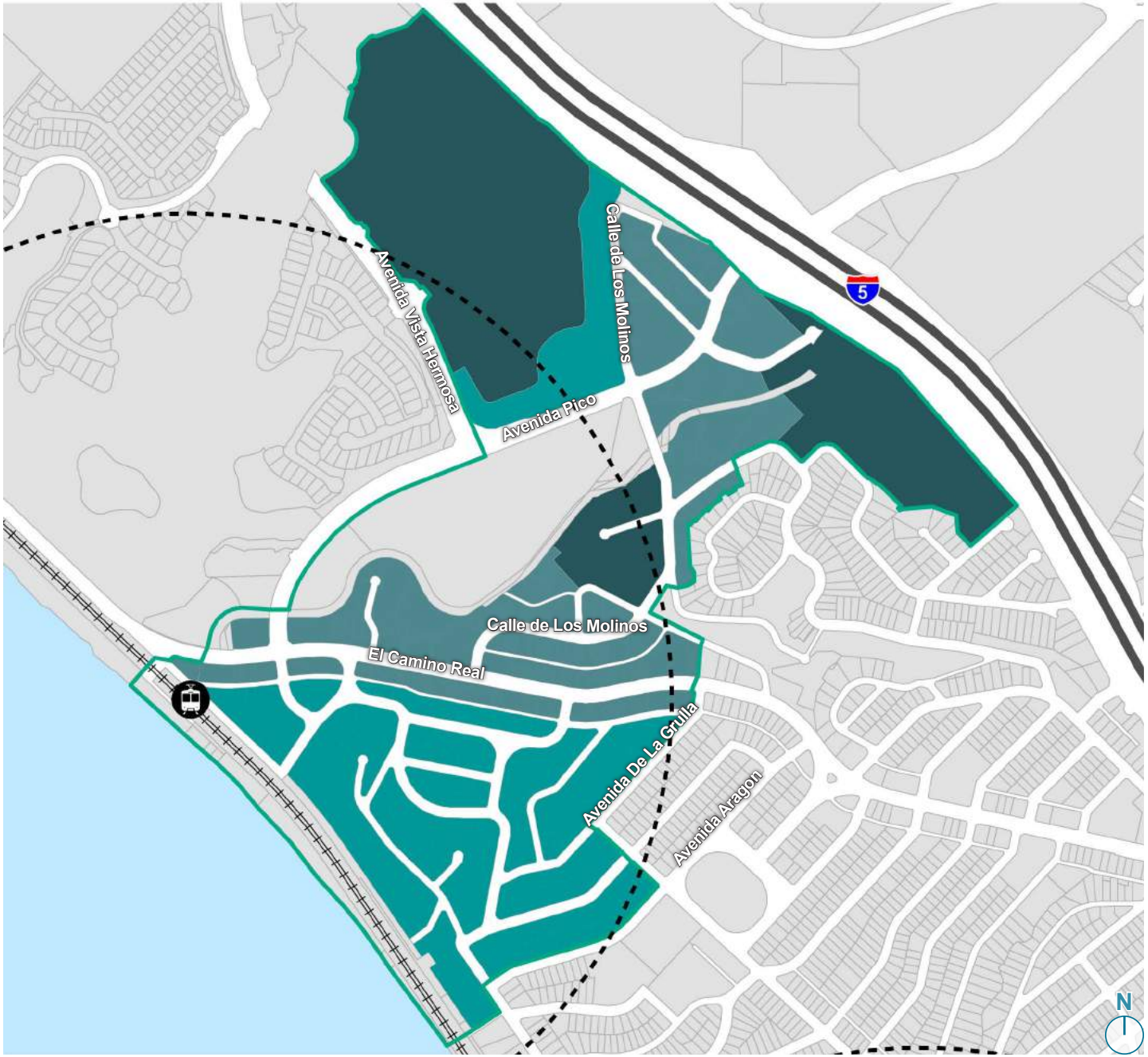
These sites would require drastic shifts in market or other conditions to support redevelopment, and as such are not considered suitable for redevelopment in the immediate future for the purposes of this plan.



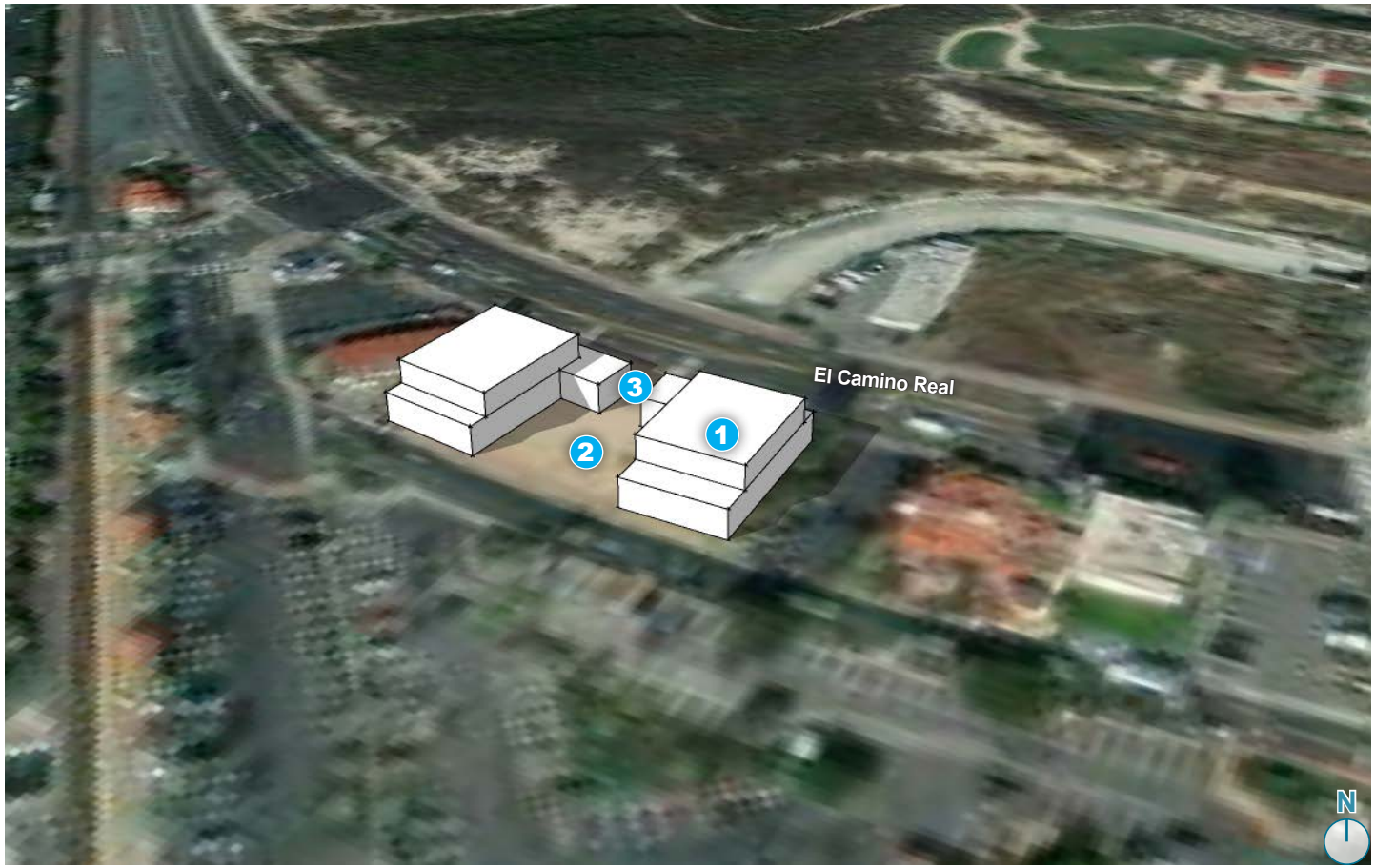
Building Typologies Concept Plan

The Building Typologies Concept Plan outlines the proposed height, density, intensity, and development guidelines for key redevelopment areas in the Pilot Project Area. Each of the building types below, keyed to the plan at right, has a more complete profile in the attached HQTA Toolkit that shows a target range of building mass and intensities. Additional building types or different configurations of the illustrative plan not listed below may be appropriate, as long as the massing, design, and density targets listed below are satisfied.

Appropriate Building Types	Bldg. Height (stories)	Toolkit Page
View the Toolkit to learn more about the following building types. PDF: click to navigate.		
Podium Mid-Rise	2-4+	II-C-D-2
Flex/ Hybrid	2-4+	II-C-C-3
Commercial Block/ Liner	1-3	II-C-C-3
Commercial Block/ Liner	up to 2	II-C-C-3
Townhouse/ Small Lot Subdivision	up to 2	II-C-B-2
Live/ Work	up to 3	II-C-B-3



MD 1 Transit Station Area Infill



2-story active use

Example open plaza with seating areas and public art

Illustrative Base Buildout Model

The area surrounding the transit station could see modest infill development in the future. To respect the southward views to the ocean and the topography of the area, the new development would be 1- to 2-stories and would occupy the vacant lots and parking lots near the station. Surface parking would be replaced with a shared public parking structure. Spaces between buildings should be designed with pedestrian amenities and landscaping to encourage longer visits.

New Buildings

Parking Structure

Residential Units*	**0 units**
Land Use Mix*	
Residential	**0 sq. ft.**
Office	**7,900 sq. ft.**
Retail	**7,900 sq. ft.**
Parking Capacity*	**TBD stalls**

* All numbers represent the square footage and units proposed by this Vision Plan by the year 2048 and does not include existing square footages or units.

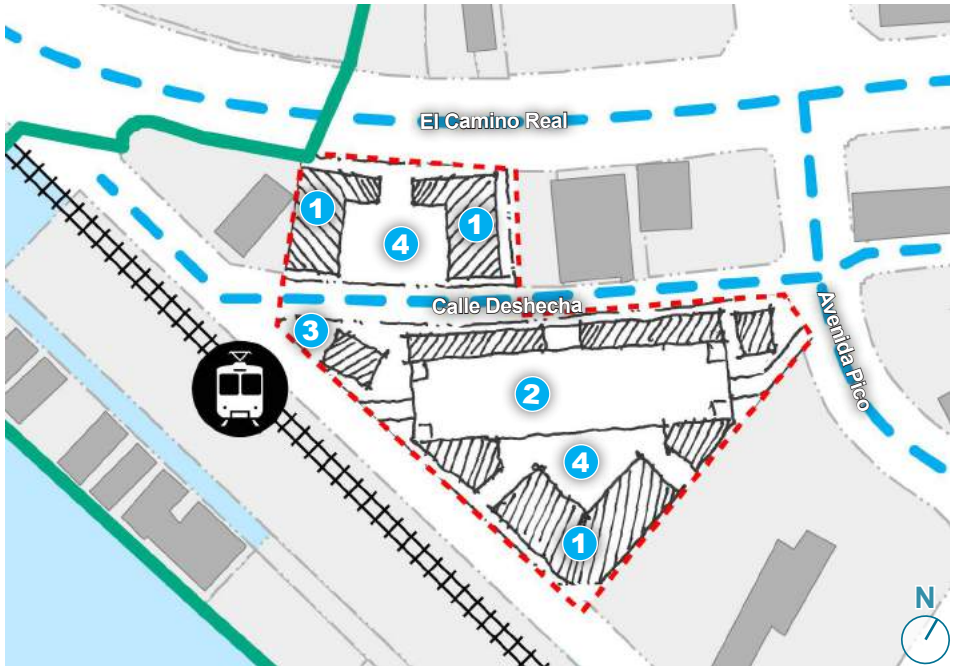
1. New Mixed-use (retail + office)
2. New Public Open Space (for multiple functions such as a farmer's market)
3. New Entry Forecourt (outdoor dining, sitting areas)

MD 1 Transit Station Area Infill

Illustrative Expanded Buildout Plan Option 1

- **MDA Boundary**
- **Streetscape/Pedestrian Improvements** (see "Infrastructure And Public Realm Strategy" on page 59)

1. New Mixed-use (retail + housing/office)
2. New Wrapped Parking Structure with Mixed-use (retail + housing/office)
3. New Transit Plaza
4. New Open Space serving Transit Supportive Uses (cafe, outdoor dining, restaurants, employment)



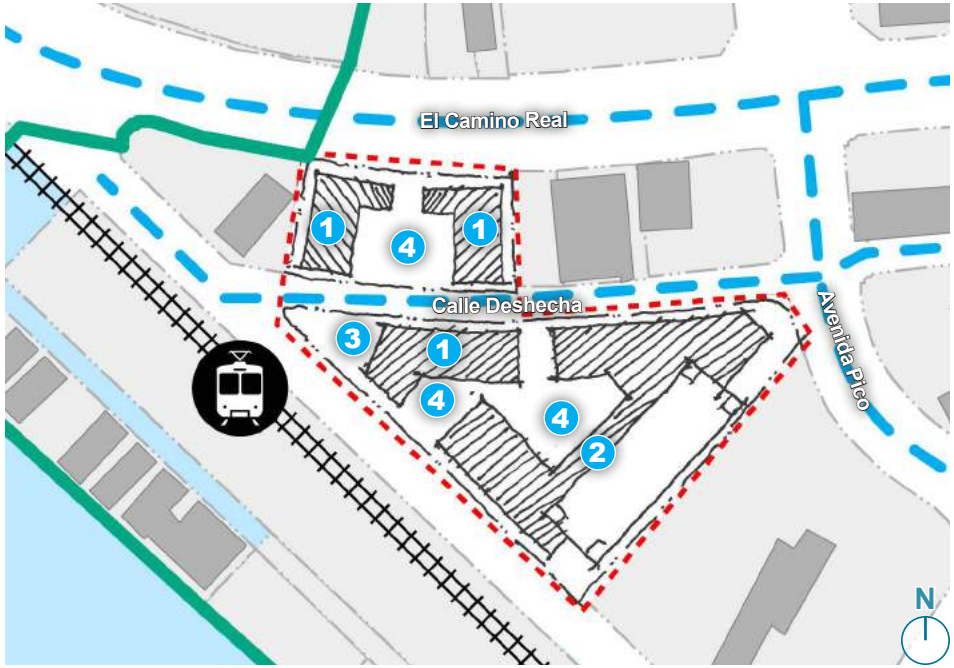
Landscaped curb extension

Example transit plaza

Illustrative Expanded Buildout Plan Option 2

- **MDA Boundary**
- **Streetscape/Pedestrian Improvements** (see "Infrastructure And Public Realm Strategy" on page 59)

1. New Mixed-use (retail + housing/office)
2. New Wrapped Parking Structure with Mixed-use (retail + housing/office)
3. New Transit Plaza
4. New Open Space serving Transit Supportive Uses (cafe, outdoor dining, restaurants, employment)



MD 2 El Camino Real Infill

Illustrative Base Buildout Model

Most of the parcels along El Camino Real have been built out, however there are a few vacant parcels and parking lots which could support infill development. These parcels are prime locations for new retail, restaurants, or office space in mixed use structures with some opportunity for housing on the second story. Like MD 1, development in this Major Development Area would be 1- or 2-stories.

New Buildings	
Parking Structure	
Residential Units*	**0 units**
Land Use Mix*	
Residential	0 sq. ft.
Office	15,300 sq. ft.
Retail	15,300 sq. ft.
Parking Capacity*	**75 - 100 stalls**

* All numbers represent the square footage and units proposed by this Vision Plan by the year 2048 and does not include existing square footages or units.

1. New Wrapped Parking Structure with Mixed-use (retail + housing/office). Parking Structure to serve New Infill along El Camino Real
2. New Mixed-use with Lot Consolidation (retail + housing/office) and Limited Surface Parking
3. New Open Space along El Camino Real to serve Mixed-uses (cafe, outdoor dining, restaurants, employment)

2-story development with rooftop amenity space

Landscaped setbacks and parkways along major street

Paklet to activate street frontages in curb space

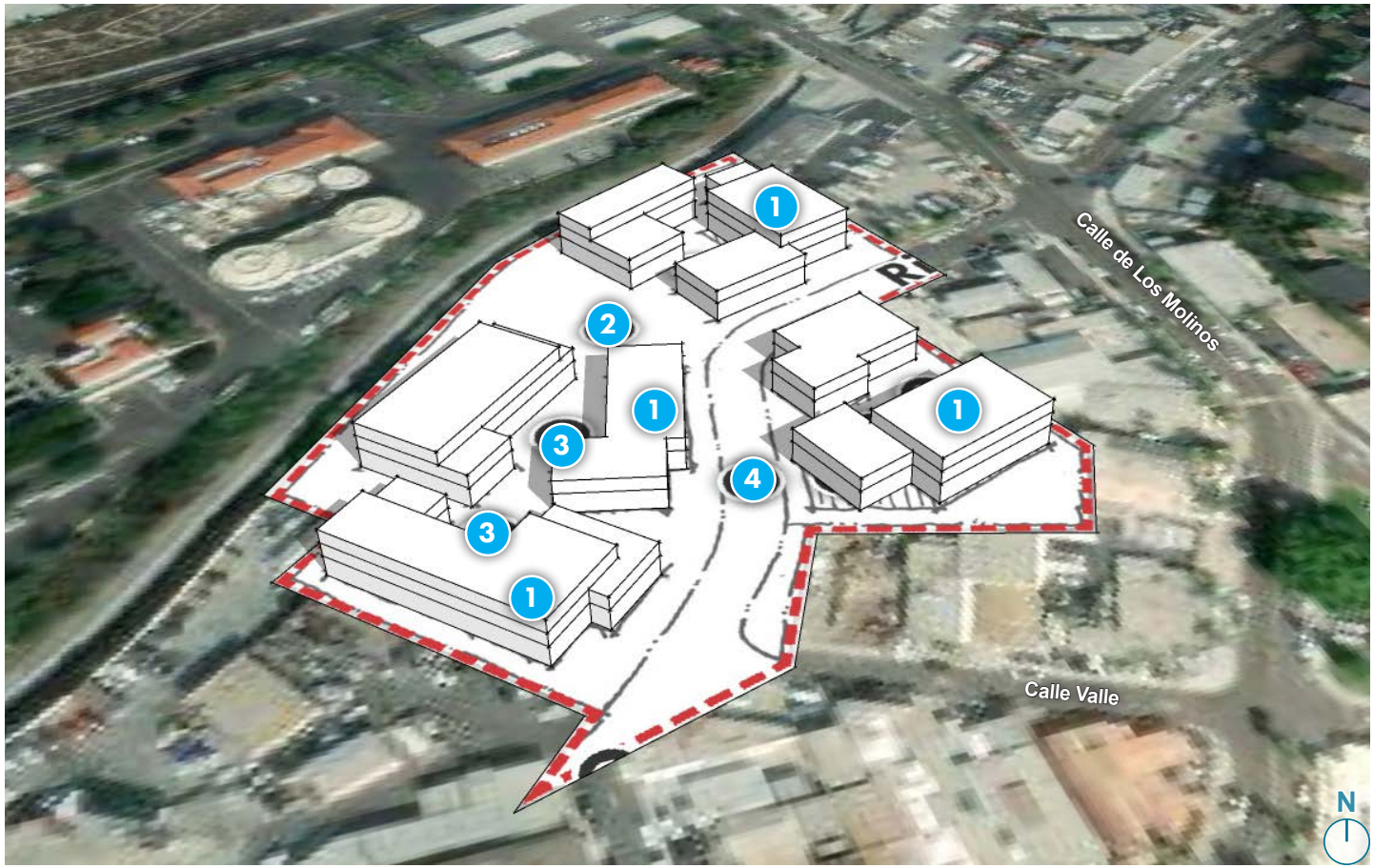
MD 2 El Camino Real Infill

Illustrative Expanded Buildout Plan

- **MDA Boundary**
- **Streetscape/Pedestrian Improvements** (see "Infrastructure And Public Realm Strategy" on page 59)

1. New Wrapped Parking Structure with Mixed-use (retail + housing/office). Parking Structure to serve New Infill along El Camino Real
2. New Mixed-use with Lot Consolidation (retail + housing/office) and Limited Surface Parking
3. New Open Space along El Camino Real to serve Mixed-uses (cafe, outdoor dining, restaurants, employment)

MD 3 Los Molinos Industrial Village



Illustrative Base Buildout Model

The industrial uses along Calle de Los Molinos are employment opportunities for nearby residents. This Vision Plan envisions most staying in place apart from several contiguous parcels which could be broken up to provide a roadway connection to Calle Valle. This new development could add additional greenspace to the area as well as new retail or housing opportunities to help activate the area.

New Buildings

Parking Structure

Residential Units*	**39 units**
Land Use Mix*	
Residential	**35,325 sq. ft.**
Office	**84,780 sq. ft.**
Retail	**21,195 sq. ft.**
Parking Capacity*	**TBD stalls**

* All numbers represent the square footage and units proposed by this Vision Plan by the year 2048 and does not include existing square footages or units.

1. New Wrapped Parking Structure with Mixed-use (retail + housing/office)
2. New Parking Court (serve Light Industrial Mixed-use)
3. New Open Space (serve Light Industrial Mixed-use)
4. New Street Connecting Calle Valle and Rincon Ct

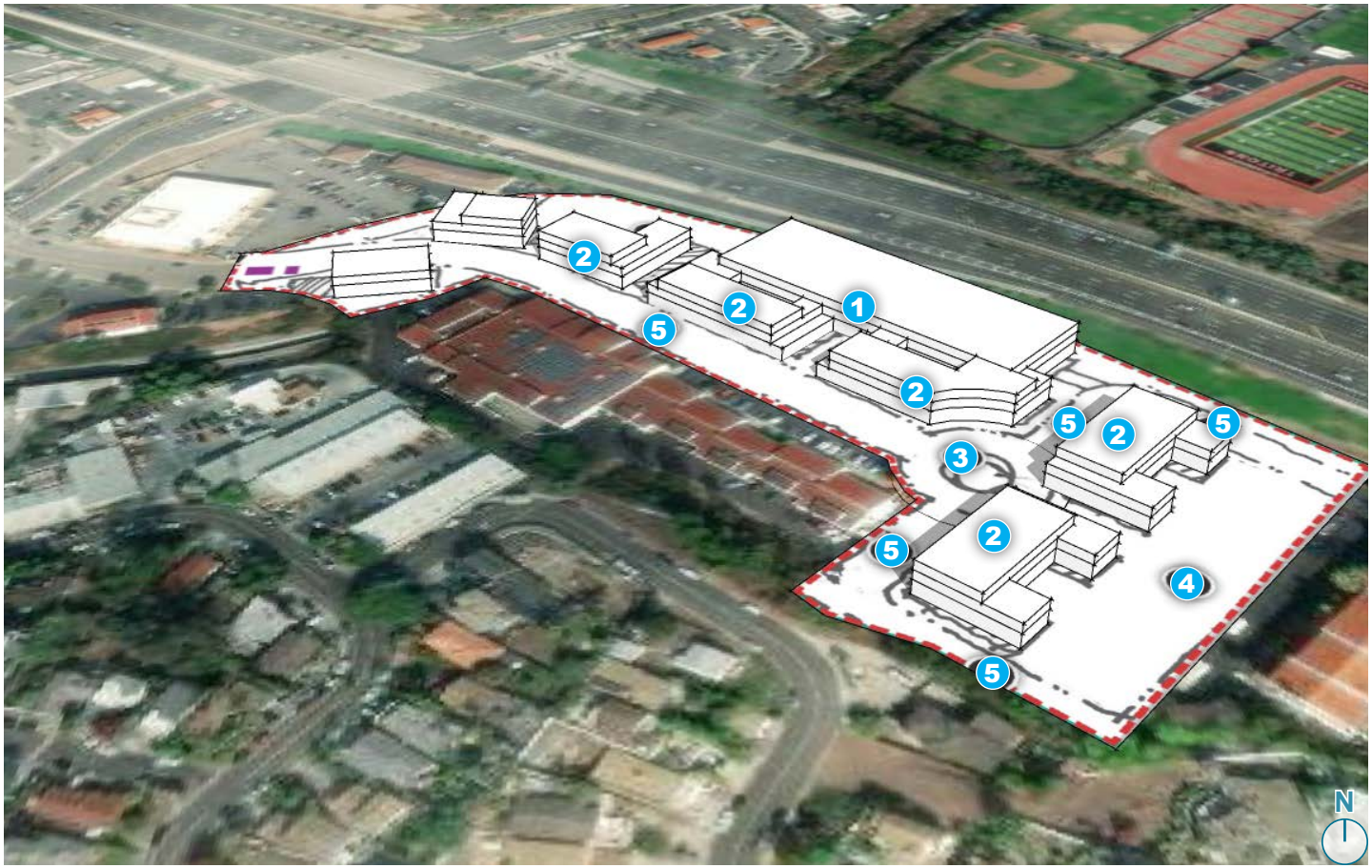
MD 3 Los Molinos Industrial Village

Illustrative Expanded Buildout Plan

- **MDA Boundary**
- **Streetscape/Pedestrian Improvements** (see "Infrastructure And Public Realm Strategy" on page 59)

1. New Mixed-use (light industrial + housing/creative office) Flex Buildings
2. New Parking Court (serve Light Industrial Mixed-use)
3. New Open Space (serve Light Industrial Mixed-use)
4. New Street Connecting Calle Valle and Rincon Ct

MD 4 Pico Plaza Infill



Illustrative Base Buildout Model

Pico Plaza could be reoriented to have a stronger presence along the street. By enhancing and extending Via Pico Plaza, the Pico Plaza shopping center could see increased traffic due to the improved visibility. New infill development would range from 2- to 3-stories and would include parking structures to replace the surface parking spaces lost; a parking study would determine whether the parking structure would be needed in the short term buildout.

- New Buildings
- Parking Structure

Residential Units*	**88 units**
Land Use Mix*	
Residential	96,400 sq. ft.
Office	48,200 sq. ft.
Retail	48,200 sq. ft.
Parking Capacity*	**450 - 500 stalls**

* All numbers represent the square footage and units proposed by this Vision Plan by the year 2048 and does not include existing square footages or units.

1. New Wrapped Parking Structure with Mixed-use (retail + housing/office)
2. New Mixed-use (retail + housing/office)
3. New Pico Plaza Park/Square
4. New Surface Lot/Open Space
5. New Streets & Loop Road

MD 4 Pico Plaza Infill

Illustrative Expanded Buildout Plan

- **MDA Boundary**
- **Streetscape/Pedestrian Improvements** (see "Infrastructure And Public Realm Strategy" on page 59)
1. New Wrapped Parking Structure with Mixed-use (retail + housing/office)
2. New Mixed-use (retail + housing/office)
3. New Pico Plaza Park/Square
4. New Townhouses/Work-live
5. New Streets & Loop Road
6. New Surface Lot (parking underground proposed at the existing hotel site)
7. New Open Space Courtyards serving Mixed-use (cafe, outdoor dining, restaurants, employment)

MD 5 Outlets Infill

Illustrative Base Buildout Model

The Outlets at San Clemente is a major destination in the area. This Vision Plan envisions the relatively new Outlets remaining intact, with additional development of a similar style in the surface parking lots along Avenida Vista Hermosa. Surface parking lost to enable this development could be replaced over time with additional parking structures.

New Buildings	
Parking Structure	
Residential Units*	**116 units**
Land Use Mix*	
Residential	127,105 sq. ft.
Office	69,330 sq. ft.
Retail	34,665 sq. ft.
Parking Capacity*	**350 - 400 stalls**

* All numbers represent the square footage and units proposed by this Vision Plan by the year 2048 and does not include existing square footages or units.

1. New Mixed-use (retail + housing/office)
2. New Retail Pad
3. New Surface Lot/Open Space
4. New Open Space Courtyards serving Mixed-use (cafe, outdoor dining, restaurants, employment)
5. New Streets

MD 5 Outlets Infill

Illustrative Expanded Buildout Plan

- **MDA Boundary**
- **Streetscape/Pedestrian Improvements** (see "Infrastructure And Public Realm Strategy" on page 59)
1. New Wrapped Parking Structure with Mixed-use (retail + housing/office)
2. New Mixed-use (retail + housing/office) with Parking in Podium Structure
3. New Plaza Park/Square
4. New Hotel
5. New Open Space Courtyards serving Mixed-use (cafe, outdoor dining, restaurants, employment)
6. New Streets & Loop Road

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Part 5

HQTA Vision

C - INFRASTRUCTURE AND PUBLIC REALM STRATEGY

Public Realm Improvements Map

Key Toolkit Components

Corridor Improvement Projects

- C1 El Camino Real
- C2 Calle de Los Molinos
- C3 Via Pico Plaza

Public Realm Improvements Map

The HQTA Vision Plan recommends several improvements to the public realm along major corridors and near activity centers. The improvements recommended in this HQTA Vision Plan compliment improvements previously recommended or constructed by other adopted or proposed public realm plans. The corridors this HQTA Vision Plan focuses on either currently have or have great potential for pedestrian and vehicular traffic that may spur economic development in the area. The types of improvements recommended will help to create a pedestrian-friendly, more walkable environment along major corridors to promote safety and encourage economic activity along major streets.

- **Metrolink Station and Corridor**
- **½ Mile Radius** (Metrolink Station)
- **Pilot Project Area**
- **Potential Parking Structure Location** (not to scale)
- **Wayfinding Signage**
- **Curb Extension + New/Enhanced Crosswalk**
- **Curb Extension + Pedestrian Push Button** (mid-block crossing) **+ New/Enhanced Crosswalk**
- **New/Enhanced Crosswalk**
- **Miscellaneous Street Improvements**
- **New Street or Street Extension**
- **Street Trees, shade providing** (parkway, curb extension, or treelet)
- **Street Trees, accent** (i.e. Palms)

Key Toolkit Components

The recommended public realm improvement projects incorporate a variety of toolkit components from the HQTA Toolkit (see Appendix). These components, such as curb extensions, mid-block crossings, etc. can be added to public right-of-way to serve as traffic calming measures, beautification elements, and safety enhancements. The inclusion of these components could accomplish the following objectives:

- Provide more pedestrian crosswalks with curb extensions that are landscaped and have new ADA-compliant curb ramps.
- Provide more high visibility crosswalks at all intersections and at mid-block crossing points.
- Provide bus bulbouts or landscaped curb extensions at bus stops.
- Add street trees along major streets where there are gaps.
- Add pedestrian-scaled lighting along the street such as bell lighting as in Downtown or other lighting that is compatible with the Spanish Colonial architectural style of the area.
- Include pedestrian refuges at major intersections where center medians exist.

Lane Width Reduction
Toolkit page II-A-4

Bicycle Lane
Toolkit page II-A-6

Enhanced Bus Stop
Toolkit page II-A-8 & II-A-27

Pedestrian Refuge Islands
Toolkit page II-A-12

Curb Extensions
Toolkit page II-A-13

Enhanced Crosswalk
Toolkit page II-A-15

Pedestrian Push Button
Toolkit page II-A-16

Pedestrian Push Button
Toolkit page II-A-18

Street Trees & Greenways
Toolkit page II-A-20 & II-A-22

Wayfinding Signage
Toolkit page II-A-25

See the Appendix for the full HQTA Toolkit document with detailed information on the toolkit components listed to the left including example imagery and high-level cost estimates.

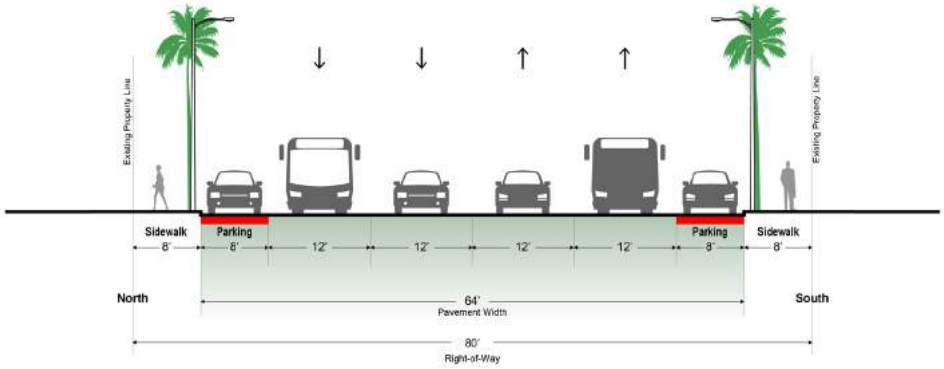
C1 El Camino Real

Existing Conditions

El Camino Real is a major east-west thoroughfare in the HQTA. The roadway has intermittent Washingtonia Robusta (Mexican Fan Palm) trees, but these trees are not placed consistently along the corridor's length and do not provide shade for pedestrians. The roadway contains 4 travel lanes (2 in each direction) with on-street parking on both sides of the street at the curb except in areas near intersections. Bus stops along the corridor include benches and trash receptacles but not shelters. There are long stretches of the roadway without pedestrian street crossings.

El Camino Real is lined with a mixture of Spanish Colonial buildings that are (a) built to the property line, (b) set back approximately 5 feet from the property lined with landscaping between the building and the sidewalk, and (c) set back from the property line with off-street parking lots along the sidewalk. Buildings that are buffered from the sidewalk with landscaping provide a more comfortable pedestrian environment than buildings that are buffered by parking lots.

Existing - Typical Section*



* Dimensions were estimated from aerial imagery. Official dimensions will require a street survey. Source: Google Maps.

Existing Condition: Decorated/brick sidewalk paving

Existing Condition: On-street parking with adjacent palm trees

C1 El Camino Real

Proposed Conditions

El Camino Real could be improved in a variety of ways. Existing on-street parking means that curb extensions can be introduced with limited disruption to existing street configuration except at key locations such as mid-block crossing points, intersections, and transit stops (see Base Alternative). Curb extensions may be simple extensions of the sidewalk to provide more area for a landscaped parkway, or treelets to introduce new, larger street trees where the 8 foot sidewalk would otherwise not permit, or bus bulbouts to provide more transit amenities at bus stops. Similarly, portions of the parking lane may be used for parklets in front of restaurants or other active uses to provide areas of outdoor dining or seating. Other considerations for El Camino Real may introduce bicycle lanes by re-striping the existing roadways (see Options 1 and 2). This may reduce on-street parking but would not necessarily require any adjustments to the curbs, and may increase foot traffic.

Base Alternative

- (4) travel lanes (10ft - 12ft each)
- (2) 8 ft on-street parking lanes
- Curb extensions at mid-block crossing points, intersections, and transit stops

Option 1

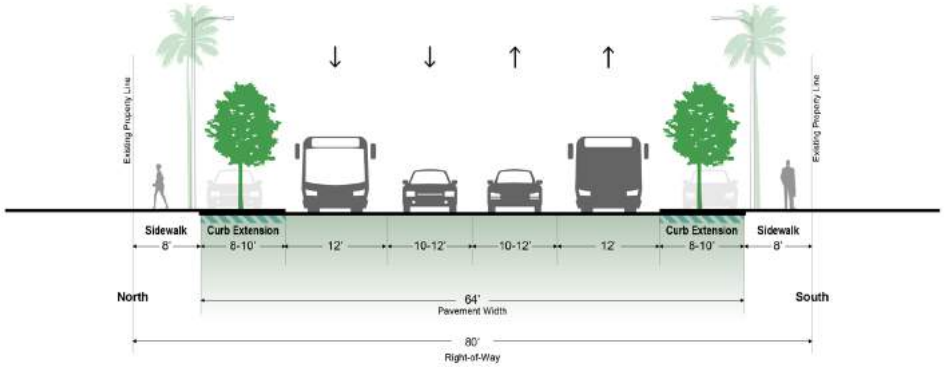
- (4) travel lanes (10ft - 12ft each)
- (2) 6 ft class II bike lanes
- (1) 8 ft on-street parking lane

Option 2

- (2) 12 ft travel lanes
- (1) 10 ft center turn lane
- (2) 9 ft on-street parking lanes
- (2) 6 ft class II buffered bike lanes

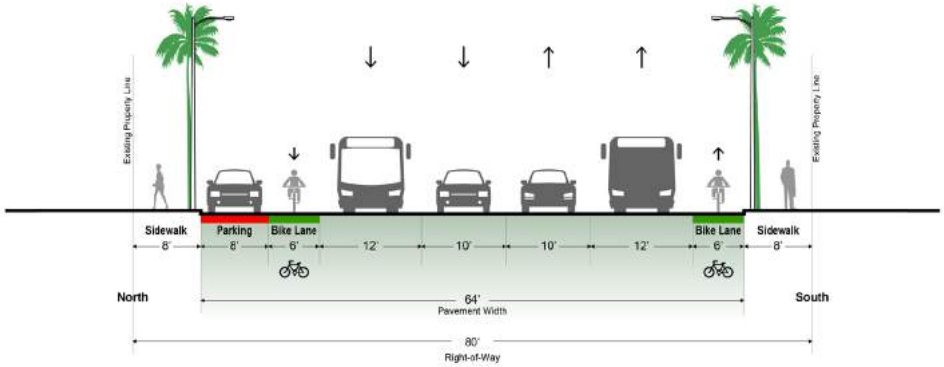
Precedent: Washington Boulevard, Whittier, CA

Proposed - Base Alternative, Key Locations Section**



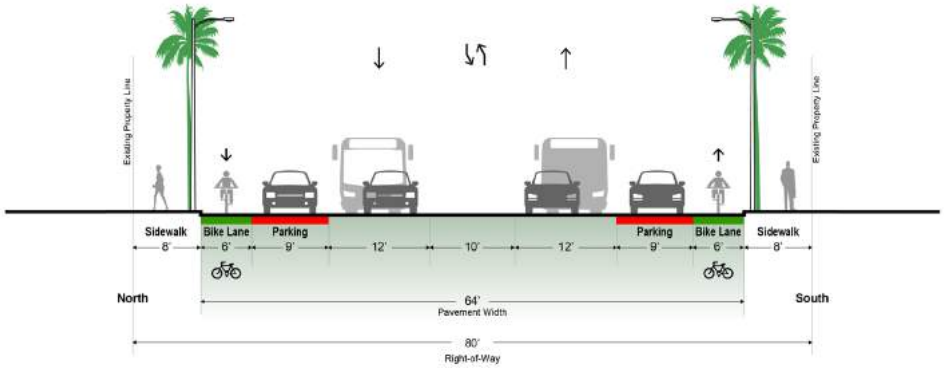
** All cross sections to be refined through public/city input.

Proposed - Option 1, Typical Section**



** All cross sections to be refined through public/city input.

Proposed - Option 2, Typical Section**



** All cross sections to be refined through public/city input.

C 2 Calle de Los Molinos

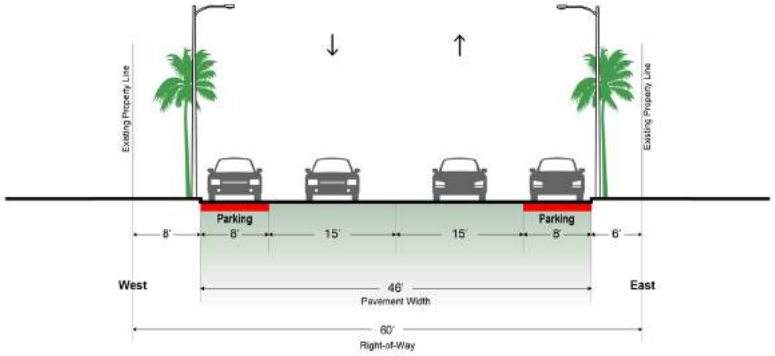
Existing Conditions

Calle de Los Molinos is a 2-lane north-south roadway which connects El Camino Real to Avenida Pico. There is on-street parking along both sides of the street and relatively narrow sidewalks on both sides of the street. The street has palm trees on either side but not at regular intervals. Filling in the gaps between the trees may be difficult due to the narrow width of the sidewalks.

Proposed Conditions

With limited potential right-of-way and pavement configurations, the envisioned improvements along Calle de Los Molinos focus on intersection improvements to promote walkability. The street houses many employment uses (light industrial) as well as a park, so improving crossing conditions would be critical for connectivity in this area of the HQTA. By painting continental crossings at intersections with key cross streets such as Calle Valle (near the park) and Rincon Ct, pedestrians would be more visible to motorists as they cross the street. Additionally, the intersection Calle Valle / Calle de Los Molinos intersection could benefit from curb extensions and a pedestrian push button to warn oncoming traffic along Calle de Los Molinos of pedestrians since north/southbound traffic do not have a stop sign. These pedestrian improvements will promote connectivity through the area and to the proposed redevelopment described in MD 3.

Existing - Typical Section*



* Dimensions were estimated from aerial imagery. Official dimensions will require a street survey. Source: Google Maps.

C 3 Via Pico Plaza

Existing Conditions

Via Pico Plaza is the roadway which provides access to the Pico Plaza shopping center and the Holiday Inn Hotel. The roadway has narrow sidewalks with little room for expansion into either the roadway or onto adjacent private property. With no on-street parking, there is limited space to include street amenities in the curb space area.

Proposed Conditions

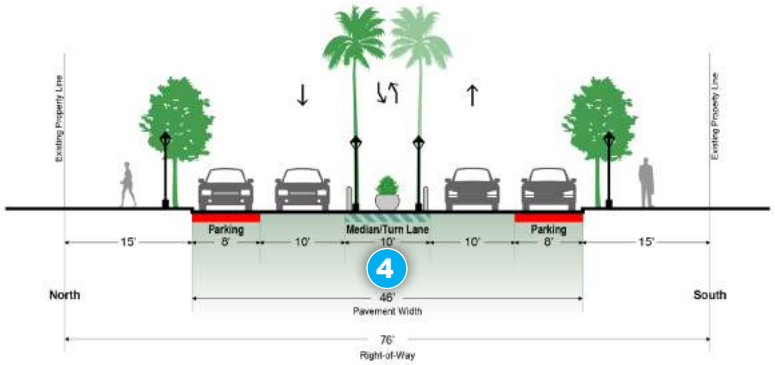
The envisioned redevelopment of the Pico Plaza shopping center (MD 4) would include an extension of Via Pico Plaza. The portion of the roadway that extends into the new Pico Plaza would employ traffic calming techniques such as the following key elements:

1. **15' sidewalks:** Widened sidewalks in this area will provide the space necessary for increased foot traffic to adjacent shops as well as missing street furniture such as pedestrian-scale lighting and shade trees.
2. **On-Street Parking:** On-street parking will allow for pick-up and drop-off areas as well as convenient access to storefronts along Via Pico Plaza.
3. **Reduced Travel Lanes:** Reducing the number of travel lanes in this section from two in each direction to one in each direction will help to slow traffic and increase pedestrian safety.
4. **Flexible Median:** As this area would be an active mixed-use shopping district, the center lane would be flush to the pavement as opposed to a raised median like the existing condition of western portions of Via Pico Plaza. A staggered double row of palm trees could increase the visibility of the entrance to Pico Plaza. This will allow temporary road closures for events to utilize the entire paved area. Much of the center median would be decorated with pedestrian-scale lighting fixtures, movable planters and furniture. The center area would function similar to a parklet and would be protected form the adjacent travel lanes with removable bollards. Near intersections the median would become a turn lane.

These improvements would help to make the approach from Avenida Pico into an improved Pico Plaza more visible and inviting for both pedestrians and motorists.

Existing - Typical Conditions Photo

Proposed - Street Extension, Typical Section**



** All cross sections to be refined through public/city input.

Example roadway with a single lane of traffic in each direction, on-street parking, and a flexible center median

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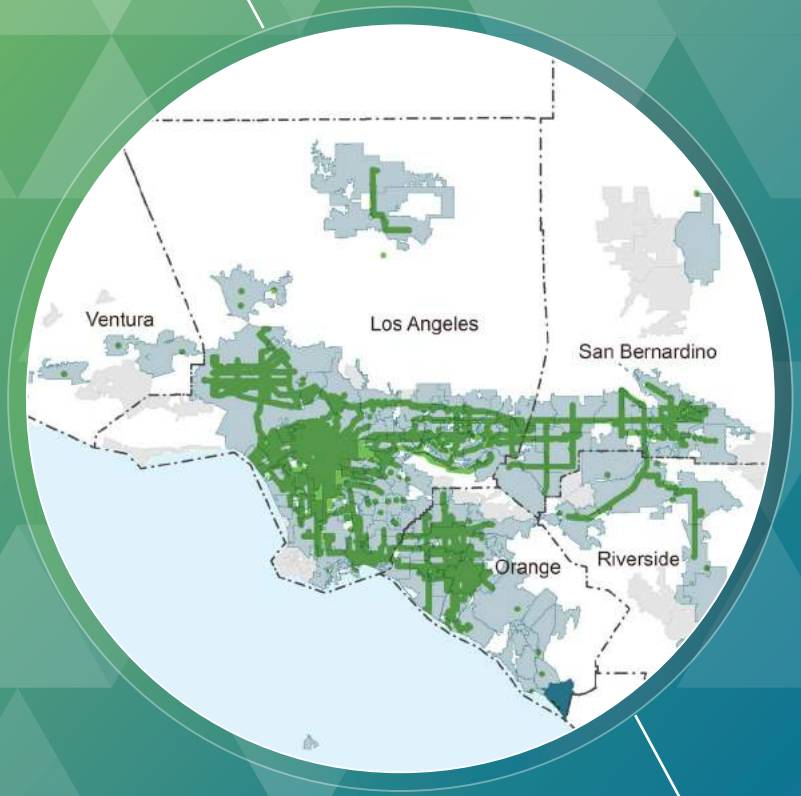
Part 6

Implementation Plan

Policies, programs, initiatives, and partnerships will be key to the success of the plan. In addition, a customized financial strategy is included that targets funding streams to specific priority projects outlined in the Vision Plan.

Phasing and Financial Strategy

Metrics



SCAG

Overview

Phasing and Financial Strategy

Priority projects have been organized by Major Development Area (MDA) and relevant corridor (if applicable). Priority projects fall in the following categories:

- BP - Bicycle and Pedestrian
- UG - Urban Greening & Environmental
- PT - Parking and Transit

Phasing Strategy

The Implementation Plan generally identifies the order by which priority projects, grouped by MDA, can be approached between 2018 and 2048.

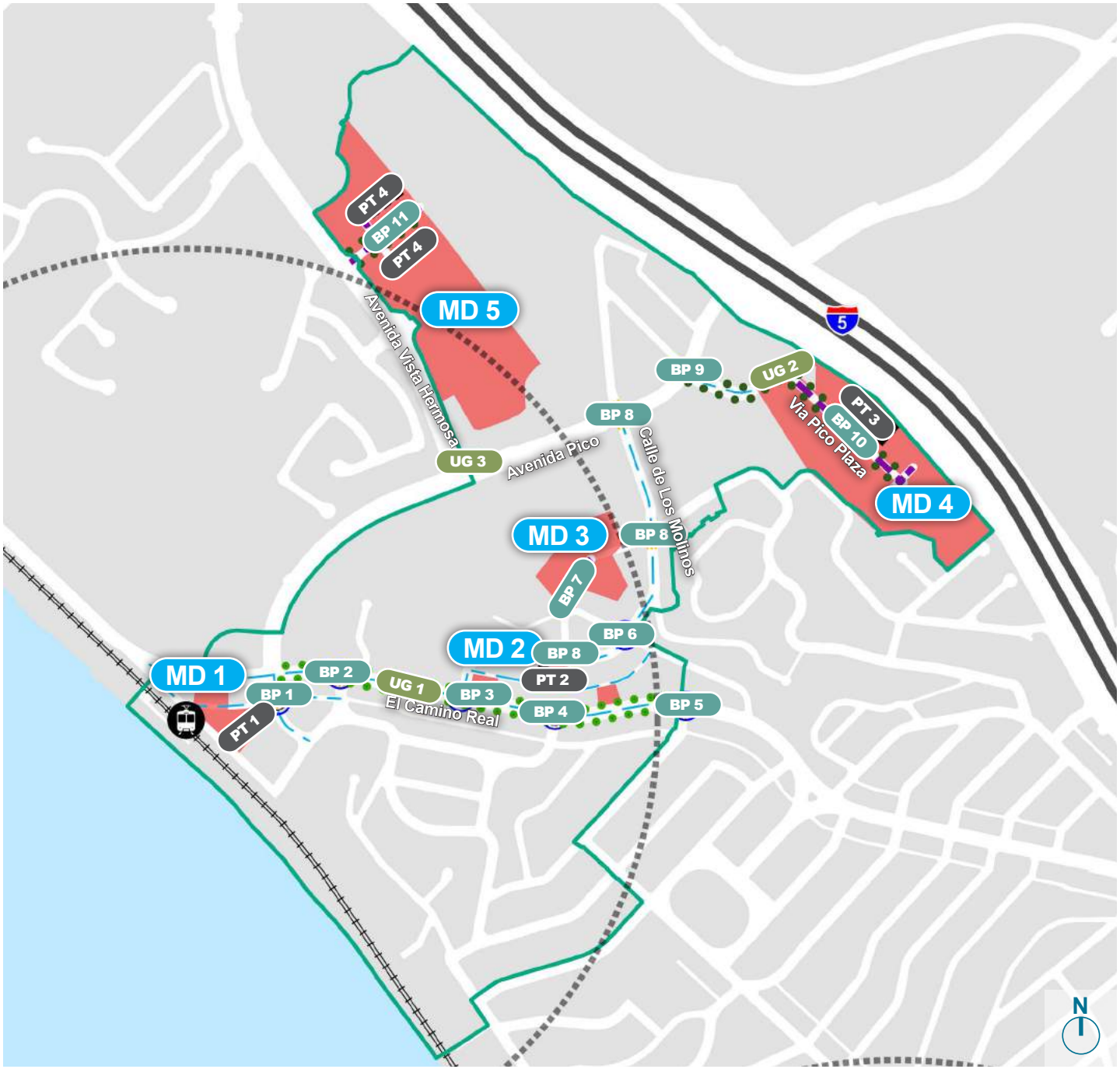
Cost Estimates

All order of magnitude cost estimates are conceptual and assume no modifications to utilities or escalation beyond 2018. Costs of private property improvements have not been estimated.

Major street reconstruction cost estimates used an average per-mile cost of similar precedents. Other cost estimates used average unit costs for project elements in similar precedent projects.

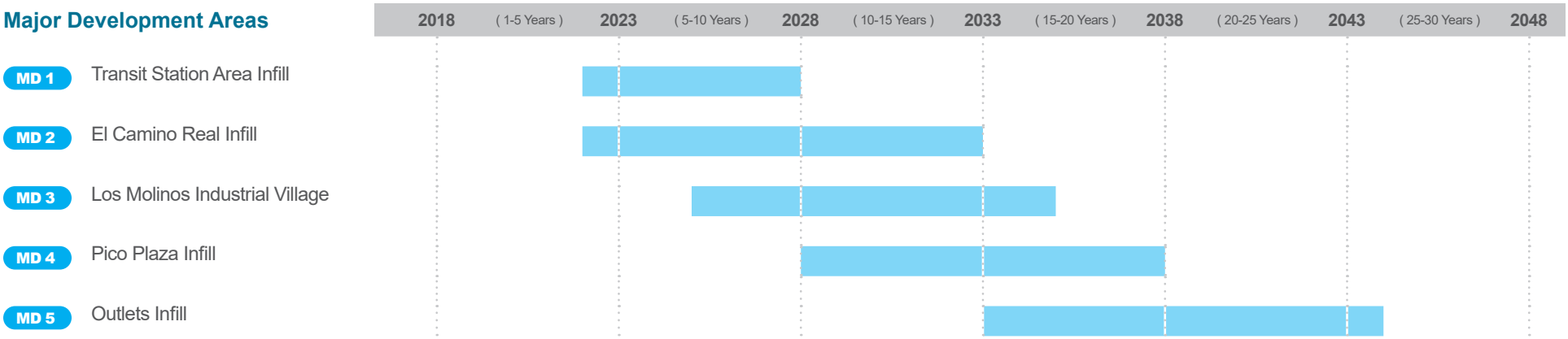
Metrics

The Implementation Plan uses the SCAG 2016 RTP/SCS to establish baseline conditions and evaluates the impact of the Pilot Project Buildout through a series of metrics.



Prioritization of Major Development Areas and Associated Priority Projects

Major Development Areas



Priority San Clemente Funding Sources

Based on the list of priority projects identified in the Vision Plan, this section identifies priority funding sources and value capture mechanisms, customized for the San Clemente HQTA. The priority funding list is drawn from a larger master list of funding sources, which is included in the HQTA toolkit. The master list contains additional information about each of the sources, including an overview of the funding source, eligibility criteria, description of the application process, and key considerations.

For the Vision Plan and its implementation strategy, the priority funding sources list, shown below, has been crafted to prioritize the resources that would be most applicable to projects identified within the Vision Plan based on ease of access to the funding resources, level of potential competition for the resources, and restrictive covenants associated with the resources.

Funding sources have also been presented by implementation phase. It may be helpful to strategically pursue funding for multiple projects at once by implementation phase. There are also a number of value capture sources that could be used on a district-wide basis to support multiple projects within each phase or across implementation phases.

It should be noted that the funding sources presented here represent those resources the City could potentially utilize to support implementation. However, the City should carefully consider its ability to mobilize these funds based on its existing capital plans, citywide budget, and other existing funding commitments.

Major Development Projects Funding Sources

- ER Public-Private Partnership/ Joint Development
- ER CDBG – Community Development
- AF Low-Income Housing Tax Credits
- AF Affordable Housing and Sustainable Communities (AHSC)

Bicycle and Pedestrian Funding Sources

- BP Active Transportation Program (ATP)
- BP Surface Transportation Block Grant
- BP Congestion Mitigation and Air Quality Improvement Program (CMAQ)

Urban Greening & Environmental Funding Sources

- UG Urban and Community Forestry Program
- UG Urban Greening Grant Program
- UG Infill Infrastructure Grant Program (IIG)

Parking and Transit Funding Sources

- PT SB-325 State Transit Assistance
- PT SB-862 – Low Carbon Transit Operations Program
- PT Infrastructure State Revolving Fund
- PT Buses and Bus Facilities Grant Program

District-wide Value Capture Mechanisms

- VC TIF/ EIFD
- VC Parking Fees/ Congestion Pricing
- VC Community Facilities/ Special Assessment District
- VC Community Revitalization and Investment Authorities
- VC Developer Impact Fee
- VC Bond/Debt Financing

Priority Projects Cost Estimates and Funding Sources

MDA	Corridor	Priority Projects	Cost Estimate* (see Toolkit pg II-A-3)	Stakeholders	Potential Funding Sources
Bicycle and Funding Projects					
MD 1	n/a	BP 1 **Calle Deshecha / Avenida Pico Intersection Improvements** - Curb Extension - Enhanced Crosswalk	$58k - $84k	• City of San Clemente	BP Active Transportation Program (ATP) BP Surface Transportation Block Grant (FAST Act) VC Special Assessment District VC Development Impact Fees VC EIFD
MD 2	C 1	BP 2 **El Camino Real / Boca de la Playa Intersection Improvements** - Curb Extension - Enhanced Crosswalk	$53k - $74k	• City of San Clemente	
		BP 3 **El Camino Real / Calle de Los Molinos Intersection Improvements** - Curb Extension - Enhanced Crosswalk	$12k - $22k	• City of San Clemente	
		BP 4 **El Camino Real / Calle Los Bolas Intersection Improvements** - Curb Extension - Enhanced Crosswalk	$9.5k - $17k	• City of San Clemente	
		BP 5 **El Camino Real / Avenida De La Grulla Intersection Improvements** - Curb Extension - Enhanced Crosswalk - Pedestrian Push Button	$108k - $234k	• City of San Clemente	
MD 3	C2	BP 6 **Calle de Los Molinos / Calle Valle Intersction Improvements** - Curb Extension - Enhanced Crosswalk - Pedestrian Push Button	$108k - $234k	• City of San Clemente	
	n/a	BP 7 **Rincon Ct Extension** - New street segment with sidewalks	(**)	• City of San Clemente • Private Developers	

Priority Projects in Multiple Major Development Areas (cont.)

MDA	Corridor	Priority Projects	Cost Estimate* (see Toolkit pg II-A-3)	Stakeholders	Potential Funding Sources
MD 3	C2	BP 8 **Misc. Enhanced Crosswalk Improvements** - Calle de Los Molinos / Calle Valle intersection - Calle de Los Molinos / Rincon Ct intersection - Calle de Los Molinos / Avenida Pico intersection	$25k - $50k	• City of San Clemente	BP Active Transportation Program (ATP) BP Surface Transportation Block Grant (FAST Act) VC Special Assessment District VC Development Impact Fees VC EIFD
MD 4	C 3	BP 9 **Via Pico Plaza / Avenida Pico Intersection Improvements** - Enhanced Crosswalk	$5k - $10k	• City of San Clemente	BP Active Transportation Program (ATP) BP Surface Transportation Block Grant (FAST Act) UG CCI Grants - Urban and Communities Forestry Grants Program UG California Urban Greening Grant Program VC Special Assessment District VC Development Impact Fees VC EIFD VC Joint Development
		BP 10 **Via Pico Plaza Extension** - New street segment with sidewalks and street trees on either side	(**)	• City of San Clemente • Private Developers	
MD 5	n/a	BP 11 **New Interior Roadways** - New private street segments with sidewalks and street trees on either side	(**)	• Private Developers	
Urban Greening Projects					
MD 2	C 1	UG 1 **El Camino Real Tree Canopy Gap Closure & Landscaping** - Shade trees in treelets/parklets	(***)	• City of San Clemente	UG CCI Grants - Urban and Communities Forestry Grants Program UG California Urban Greening Grant Program VC Special Assessment District
MD 4	C 3	UG 2 **Via Pico Plaza Tree Canopy Gap Closure & Landscaping** - Palm trees at western end near Avenida Pico	(***)	• City of San Clemente	

Priority Projects in Multiple Major Development Areas (cont.)

MDA	Corridor	Priority Projects	Cost Estimate* (see Toolkit pg II-A-3)	Stakeholders	Potential Funding Sources
n/a	n/a	UG 3 **Wayfinding Signage on Avenida Pico**	(***)	• City of San Clemente	BP Active Transportation Program (ATP) BP Surface Transportation Block Grant (FAST Act) VC Special Assessment District VC Development Impact Fees VC EIFD
Parking and Transit Projects					
MD 1	n/a	PT 1 **Shared Parking Structure at Transit Station**	(**)	• City of San Clemente • Private Developers	PT FTA Section - 5310, 5316, 5317 Programs PT California Infrastructure State Revolving Loan Fund (I-Bank) PT Buses and Bus Facilities Grant Program - 5539 PT Urbanized Area Formula Grants - 5307 VC Parking Fees VC Special Assessment District VC Development Impact Fees VC EIFD VC Joint Development
MD 3	n/a	PT 2 **Shared Parking Structure at near El Camino Real**	(**)	• City of San Clemente • Private Developers	
MD 4	n/a	PT 3 **Parking Structure(s) at Pico Plaza**	(**)	• Private Developers	
MD 5	n/a	PT 4 **Parking Structure(s) at Outlets at San Clemente**	(**)	• Private Developers	

* All rough order of magnitude cost estimates are conceptual and are based off of the estimates provided in the HQTA Toolkit. Estimates assume no modifications to utilities or cost escalation beyond 2019.

** Joint/Private property investment would require additional study to determine the cost.

*** See the "Rough Order Of Magnitude (ROM) Cost Estimates For Complete Street Amenities" table in the HQTA Toolkit on page II-A-3 for estimates of individual unit cost.

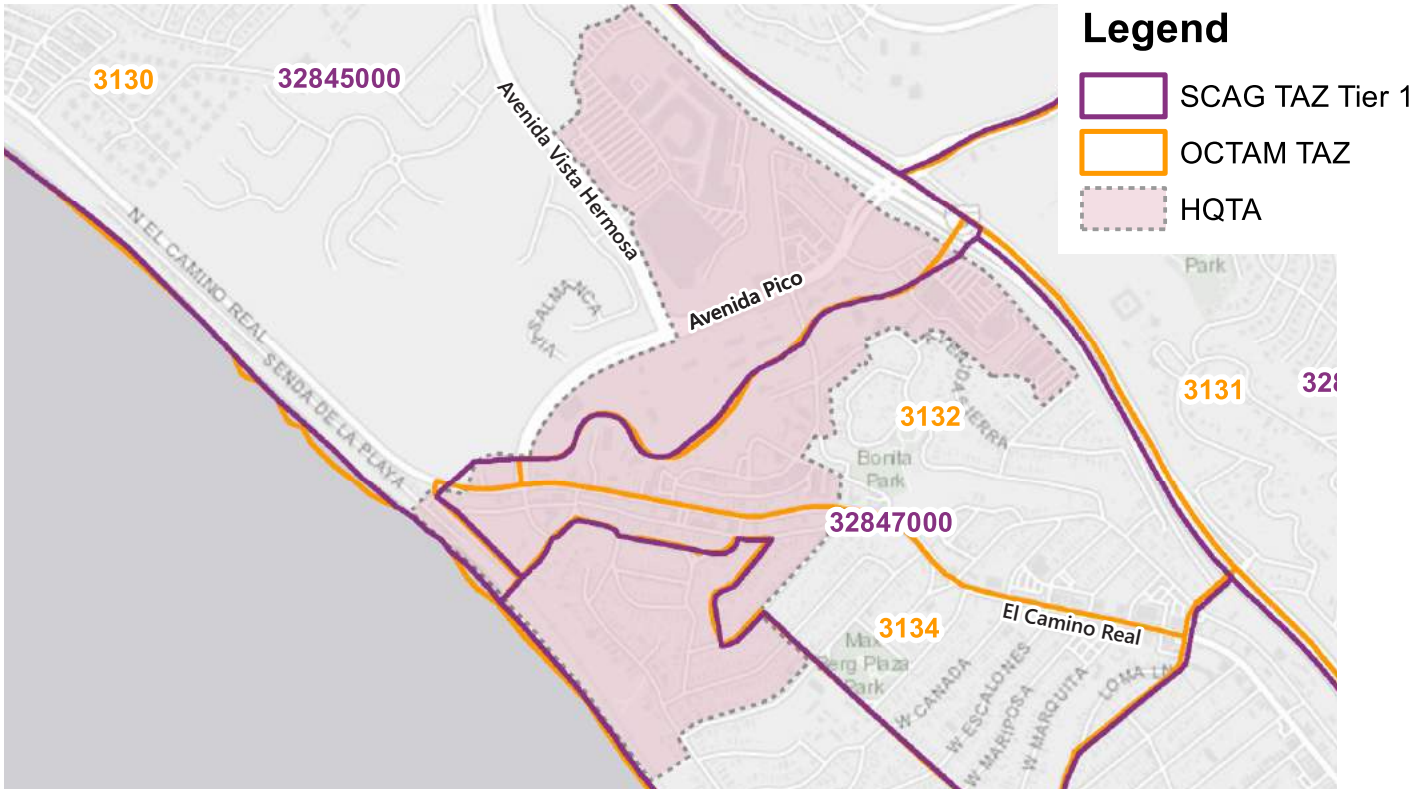
Metrics Overview

The San Clemente HQTA Pilot Project Vision Plan is made up of five major development areas (MDAs): Transit Station Area Infill, El Camino Real Infill, Los Molinos Industrial Village, Pico Plaza Infill, and Outlets Infill. The MDAs consist of or overlap with three SCAG Model TAZ's (Tier 2 level).

The current 2040 SCAG Model scenario Socio-economic data (SED) is considered as the "No Build" (i.e., business as usual) condition for the purposes of evaluating the effectiveness of the HQTA Vision Plan on transportation metrics. The HQTA Vision Plan land use was converted to SED (households, population, employment) for use in the model, using industry standard factors. Residential dwelling units were used to calculate the estimated population, and office and retail square footage was used to calculate employment. The Vision Plan SED was then proportionally added to the appropriate TAZ's based on the district, thus creating a 2040 With Vision Plan scenario, considered the "Build" scenario.

The following pages compare the No Build scenario to the HQTA Vision Plan using the following metrics: vehicular delay (in hours), transit mode share (in % of total travel trips), public transit usage, vehicular miles traveled (VMT), and vehicular hours traveled (VHT).

SCAG 2016 Tier 2 TAZ Boundaries



Source: Iteris, SCAG 2016-2040 Regional Transportation Plan/ Sustainable Communities Strategy (2016 RTP/SCS)

Vision Plan Outcomes

As described, with the increased density resulting from buildout of the Vision Plans in the San Clemente HQTA Pilot Project Area, several long-range transportation benefits enumerated in the 2016 RTP/SCS have the potential to be achieved.

A comparison of the 2040 "Build" versus "No Build" model results show the following anticipated projections for the HQTA with full buildout of the Vision Plan:

10 - 15% decrease
in non-freeway vehicular delay (per capita)

- no change
in transit mode share (as a percentage of total travel trips)

15 - 20% decrease
in vehicular miles traveled (VMT) (per capita)

15 - 20% decrease
in vehicular hours traveled (VHT) (per capita)

SCAG Model Output Data

Socio Economic Data (input)

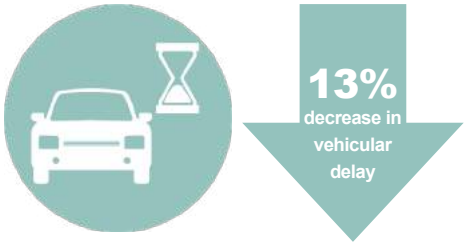
	Households	Population	Retail Employment	Non-Retail Employment
2016	1,191	3,308	281	2,113
2040 (No Build)	1,139	3,080	442	3,886
2040 (Vision Plan)	1,382	3,760	696	4,630

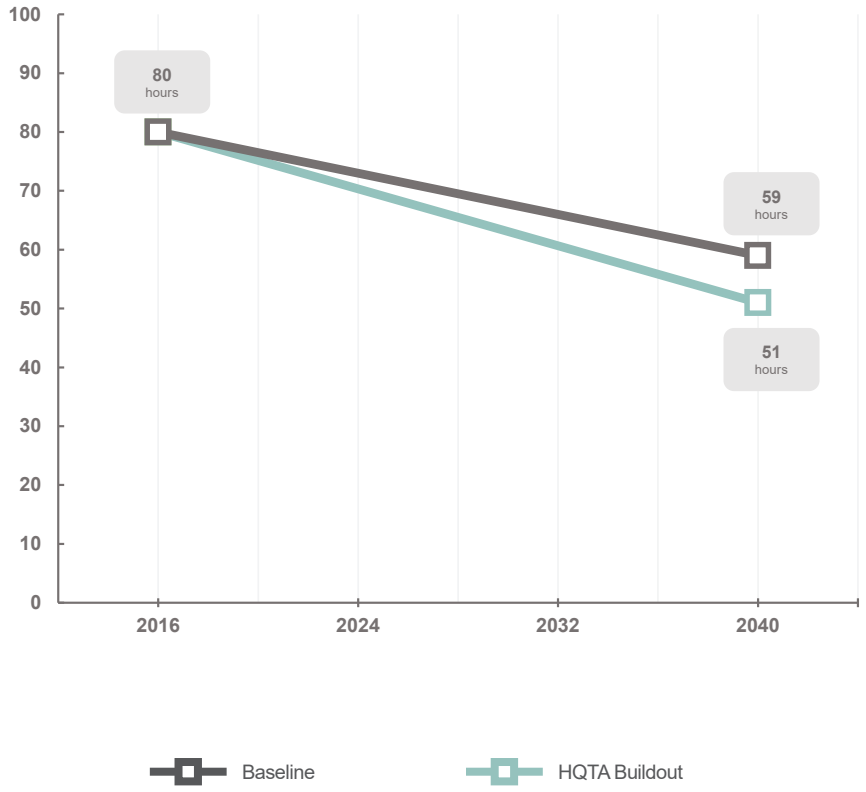
Additional Factors which may Affect Outcomes

The estimates provided in the Implementation Plan are estimates, and actual numbers may increase or decrease due to a variety of factors. Additional investments in transit infrastructure, for instance, may increase public transit usage and decrease vehicular miles traveled.

Non-freeway Vehicular Delay

Non-freeway vehicular delay is measured in total hours, limited to the Pilot Project Area. The San Clemente Pilot Project Area can potentially achieve a 13% decrease in non-freeway vehicular delay in hours total, and a 28% decrease in non-freeway vehicular delay per capita by the year 2040 compared to baseline delay projections.



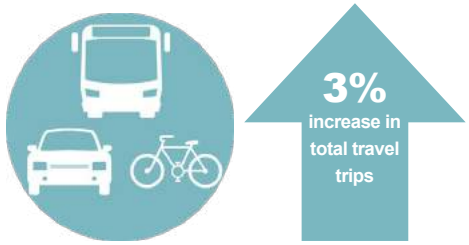


SCAG Model Output Data

METRICS

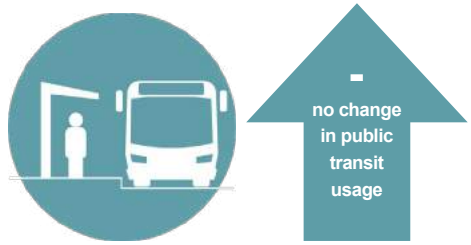
Transit Mode Share

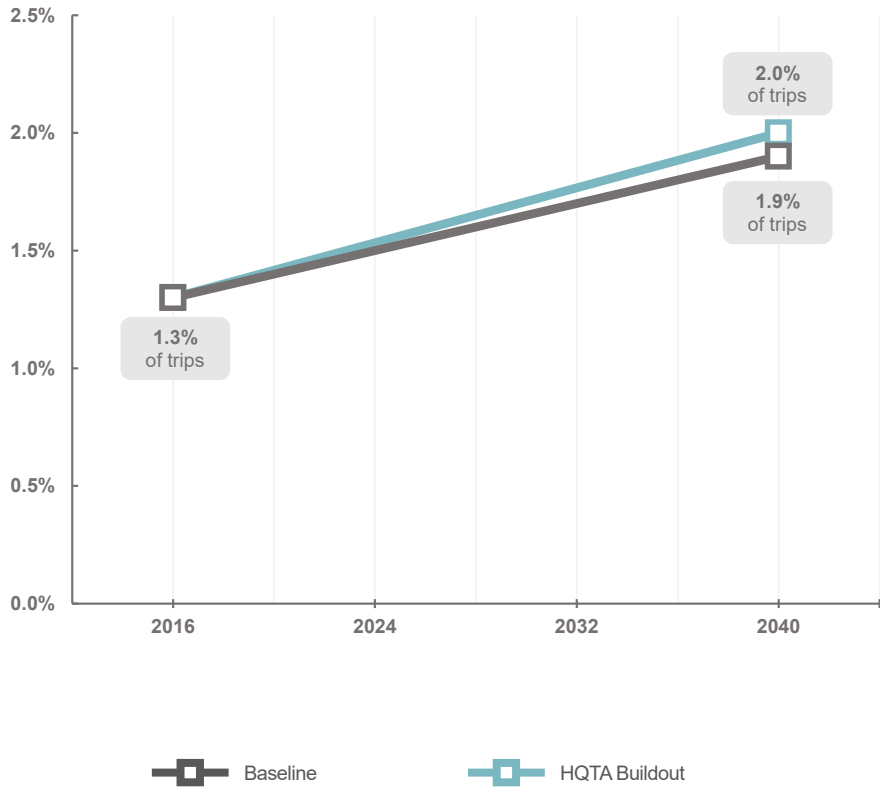
Transit usage estimates are limited to the Pilot Project Area boundary. The San Clemente Pilot Project Area can potentially achieve a 3% increase in the proportion of travel trips by public transit to other modes by the year 2040 compared to baseline transit usage projections.

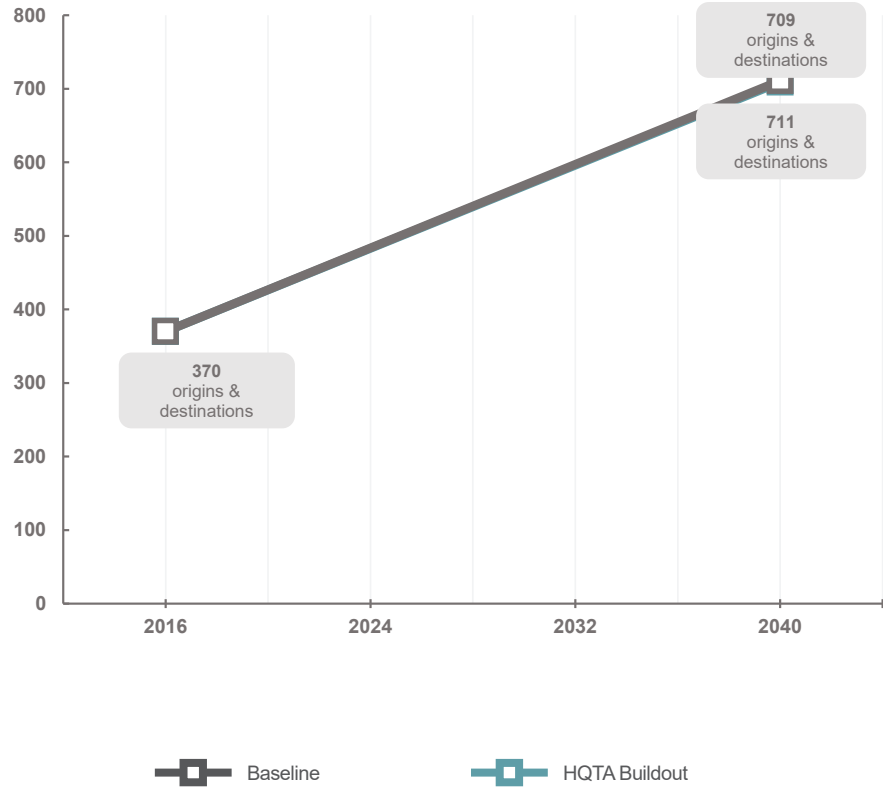


Public Transit Usage

Transit usage estimates are limited to the Pilot Project Area boundary. The San Clemente Pilot Project Area isn't anticipated to see a significant change in public transit origins and destinations by the year 2040 compared to baseline transit usage projections.



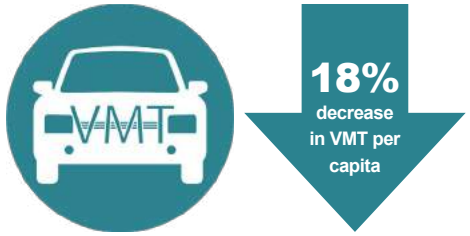




SCAG Model Output Data

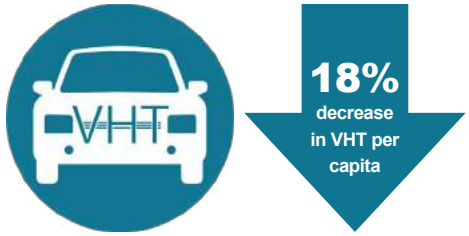
Vehicular Miles Traveled (VMT)

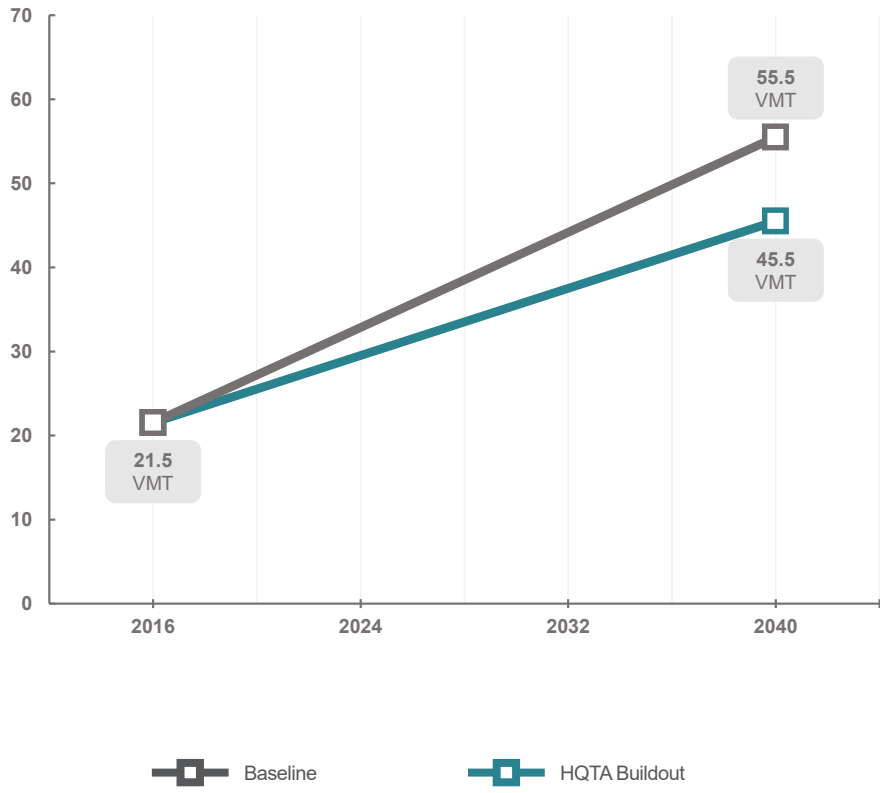
VMT is measured in miles per capita. The San Clemente Pilot Project Area can potentially achieve a 18% decrease in vehicle miles traveled per capita by the year 2040 compared to baseline VMT projections.

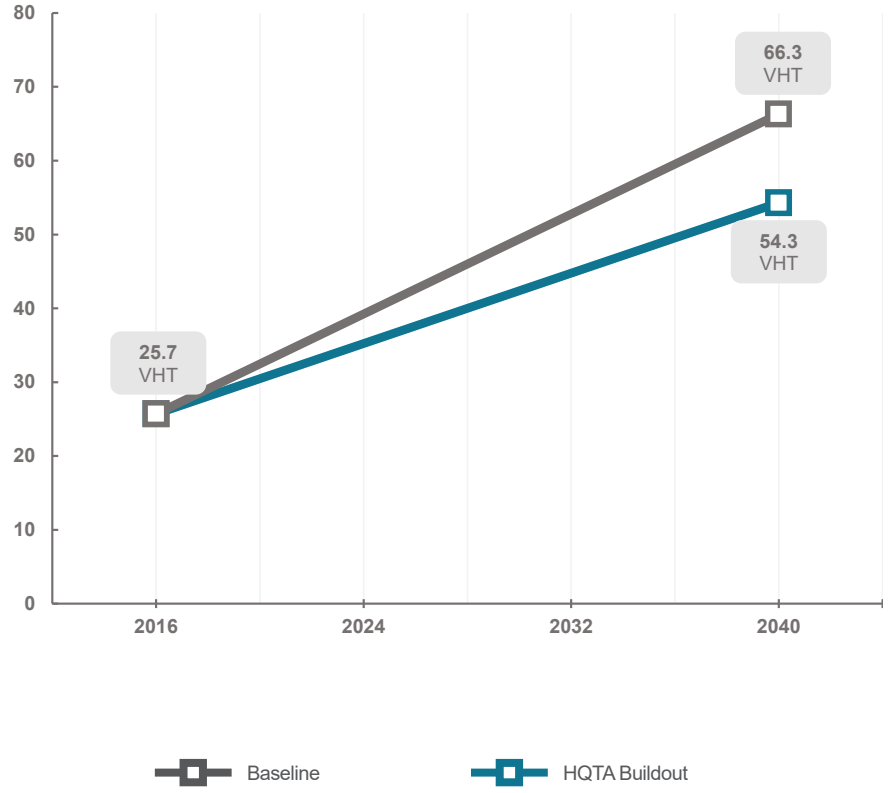


Vehicular Hours Traveled (VHT)

VHT is measured in miles per capita. The San Clemente Pilot Project Area can potentially achieve a 18% decrease in vehicle hours traveled per capita by the year 2040 compared to baseline VHT projections.







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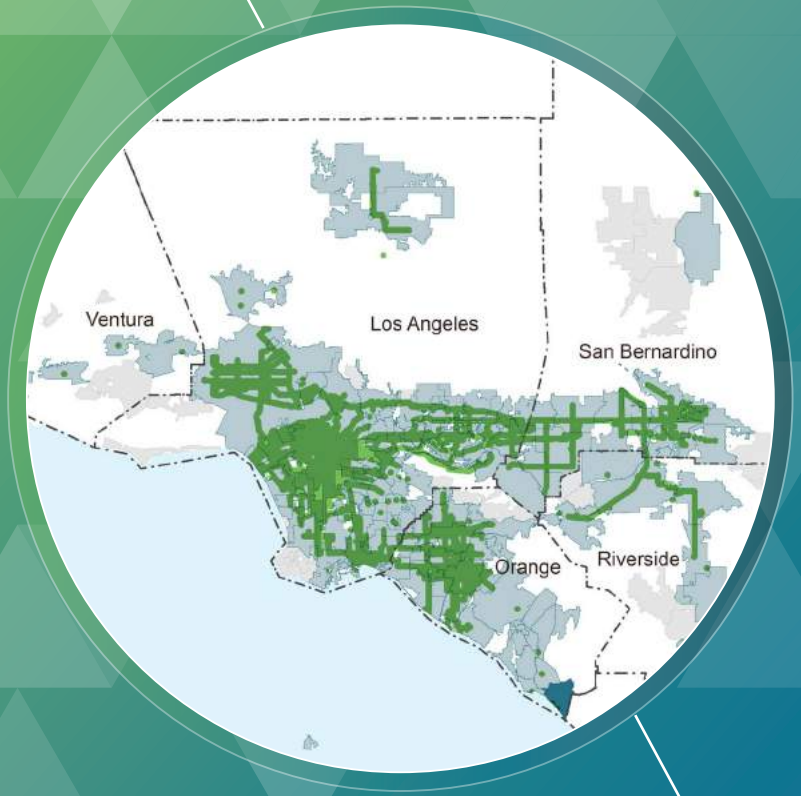
Appendix

A - Existing Conditions Inventory

B - HQTA Toolkit



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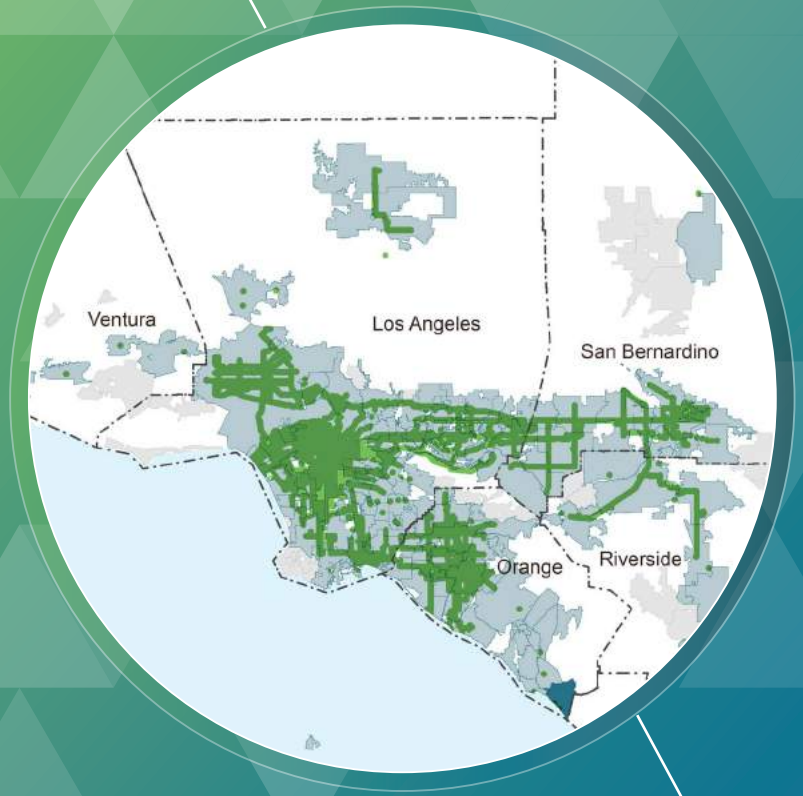
Appendix A
Existing Conditions Inventory

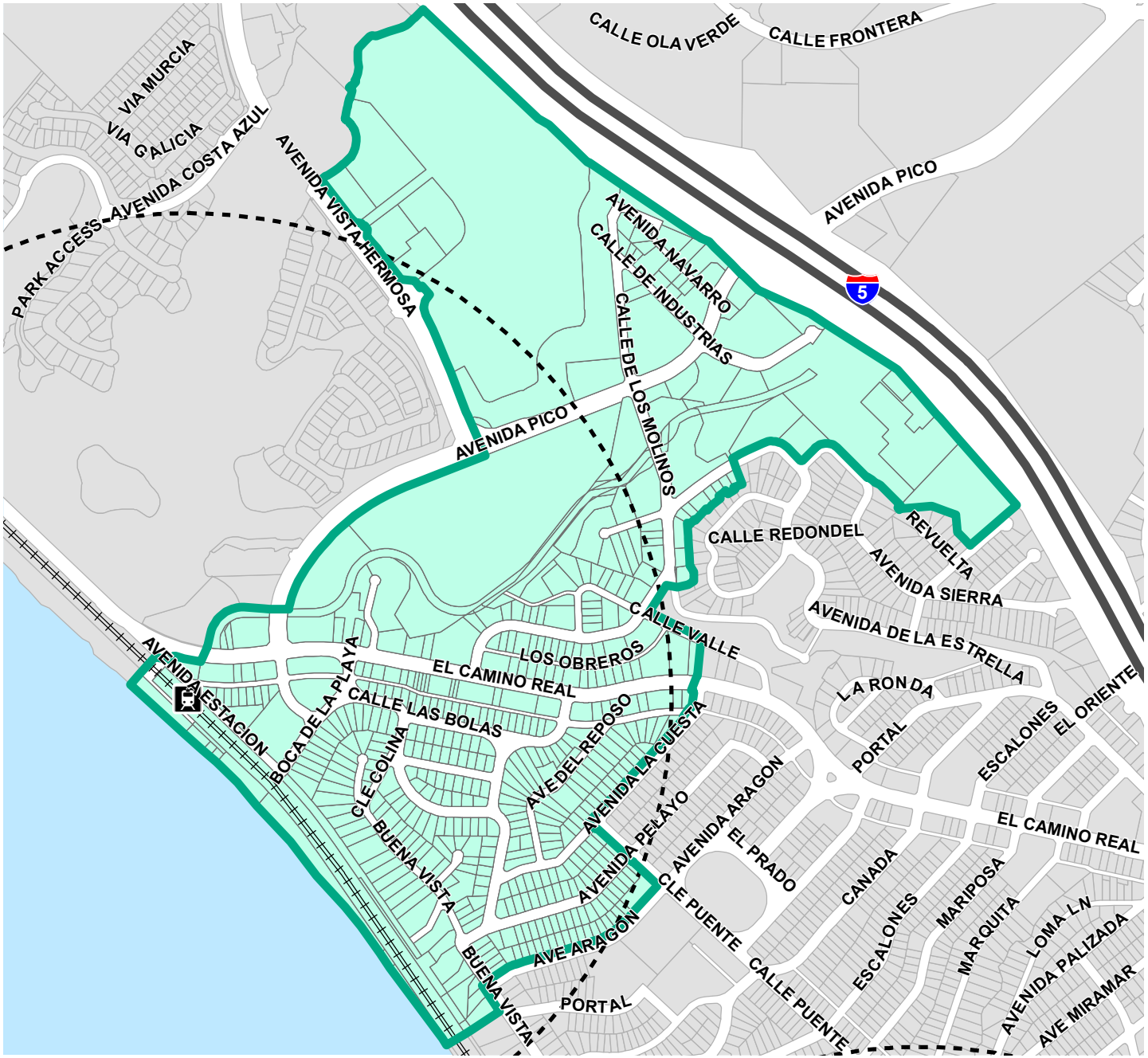
San Clemente HQTA Vision Plan



SCAG

San Clemente HQTA Project Area

- The study area is located within the City of San Clemente
- The HQTA study area for the San Clemente Metrolink Station covers the area east of the station excluding much of the adjacent hills and includes all the parcels within the West Pico Corridor Specific Plan as well as the outlets north of the half-mile station area.



HQTA Study Area
Metrolink Station
Half Mile Station Buffer
Study Area Parcels

0 500 1,000 2,000 Feet

Data Sources: Orange County, City of San Clemente

San Clemente Metrolink Station

- The study area is anchored by the San Clemente Metrolink Station, one of two Metrolink stations in the City.
- The station provides 142 parking spaces (13 handicapped spaces)
- The costs for at the lot are as follows: $1 per day for commuters arriving prior to 9am, $1.50 per hour for commuters arriving after 9am, $50 for a resident annual parking pass, or $100 for a non-resident annual pass.

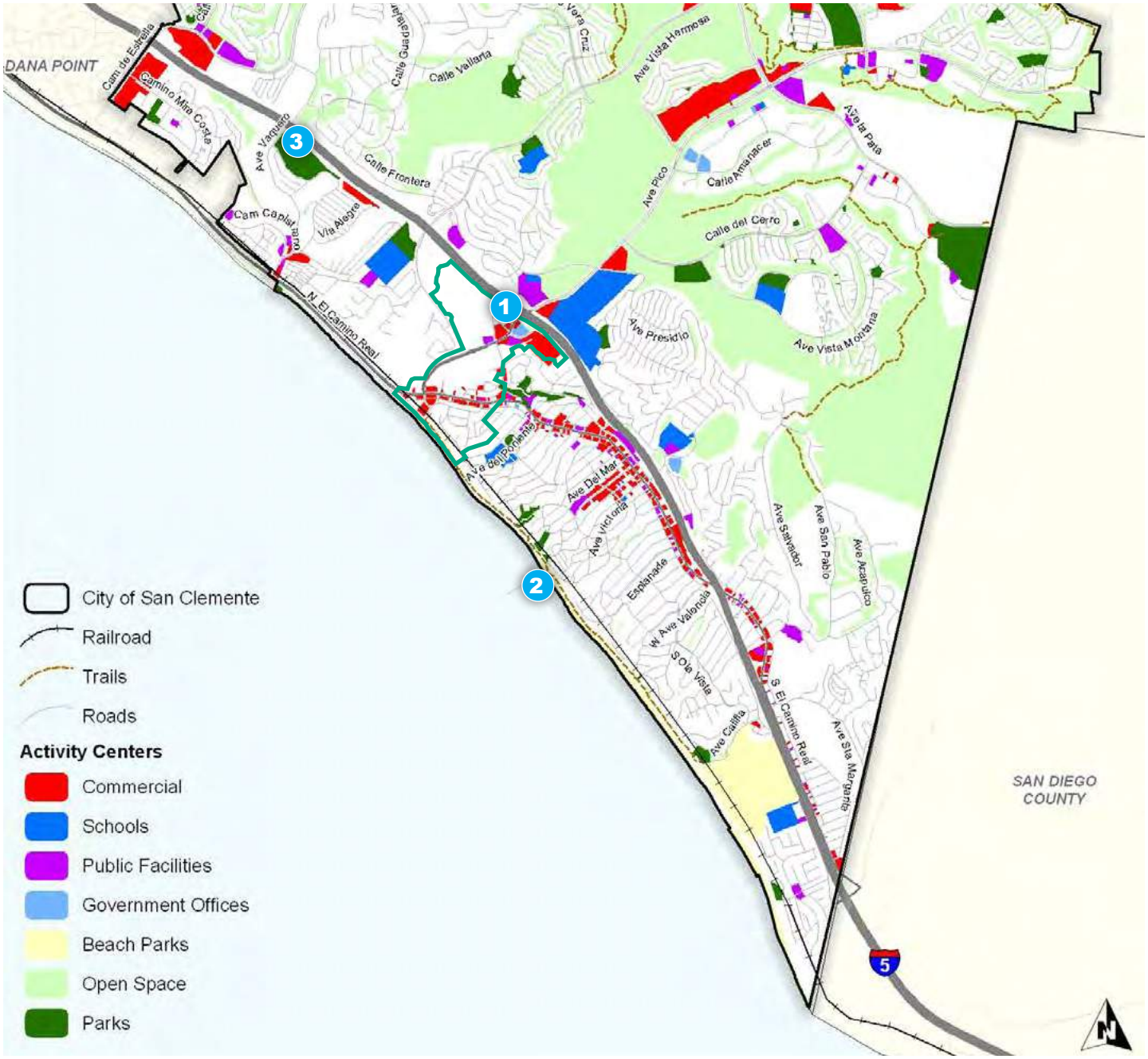
HQTA Study Area
Metrolink Station
Parking lot boundary

0 100 200 400 Feet

Data Sources: Bing Imagery, Orange County, City of San Clemente, Metrolink

Activity Centers

1. Outlets at San Clemente
2. San Clemente Pier
3. Shorecliffs Golf Course



Source: San Clemente Bicycle and Pedestrian Master Plan (2013)

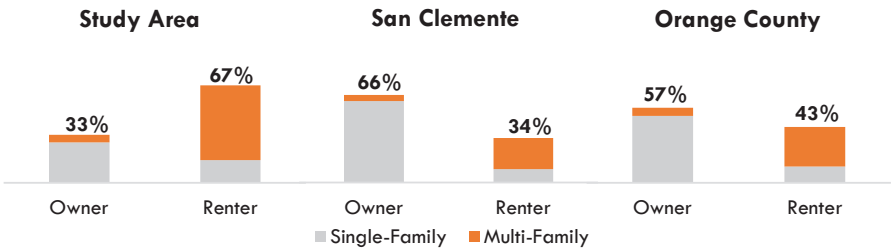
Demographic Profile

- The City of San Clemente constitutes 2.1% of the land area of Orange County and accounts for 2.0% of its population. The Study Area is home to 2.6% of San Clemente's population.
- According to SCAG's growth projections, San Clemente will continue to lag Orange County's population growth rate. Historically, the Study Area has grown faster than both the City and County.
- Median household income in the City is significantly higher than the County's median income. The study area has a much lower median income than both the City and the County.
- Unlike the City, the Study Area is mostly renters. The Study Area is two-thirds renters, whereas the City is two-thirds owners. The County has a more even split of renters and owners.
- Nearly 50% of the City's population has higher education degrees, which is significantly higher than the 30% in the Study area and 40% in the County.
- The population of San Clemente is nearly three fourths white, though the Study Area has a much higher proportion of its population that identifies as Hispanic or Latino.

DEMOGRAPHICS (2018)	Study Area	San Clemente	Orange County
Total Population (2018)[1]	1,714	65,045	3,164,182
Population Density (Per Sq. Mile)	3,571	3,405	3,338
Annual Growth Rate[2]			
Historic (2012-2020)*	1.3%	0.4%	0.8%
Projected (2020-2040)	-	0.1%	0.3%
Total Households (2018) [1]	766	24,530	1,032,373
Average HH Size	2.47	2.65	3.06
Annual Growth Rate[2]			
Historic (2012-2020)	1.3%	0.4%	0.9%
Projected (2020-2040)	-	0.1%	0.3%
Median Age[3]			
0-17 Years	22%	21%	23%
18-64 Years	69%	61%	64%
64 Years and Over	9%	17%	14%
Jobs per Household[4]	1.3	0.9	1.5
Unemployment Rate[3]	5.9%	4.7%	5.1%
Median Household Income[3]	$62,573	$105,812	$85,398

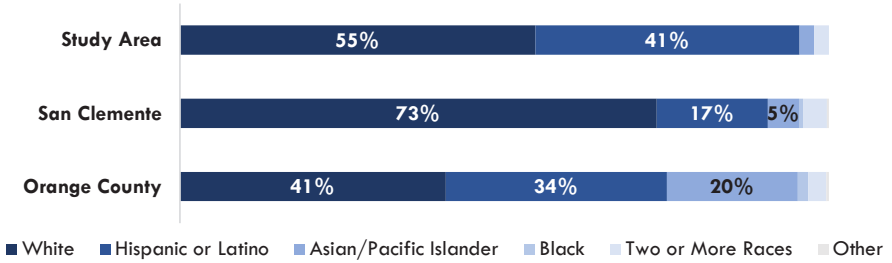
1 ESRI/ACS 5 Year Estimates for 2018
2 SCAG 2040 Projections
3 ACS 5 Year Estimates for 2018
4 HR&A Advisors, Inc.
*Historic Population Growth Calculated using ESRI estimated population between 2010-2020

HOUSING TENURE (2018)

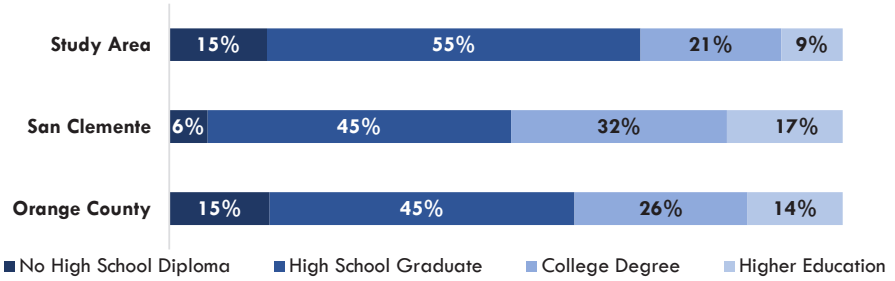


MOBILITY (2018)	Study Area	San Clemente	Orange County
Average Commute Time	-	30	28
Cars per household	1.9	2.1	2.0
Public Transit users	4%	2%	2%
Solo Drivers	72%	75%	79%
Other	25%	23%	19%

RACIAL DEMOGRAPHICS (2018)



EDUCATIONAL ATTAINMENT (2018)

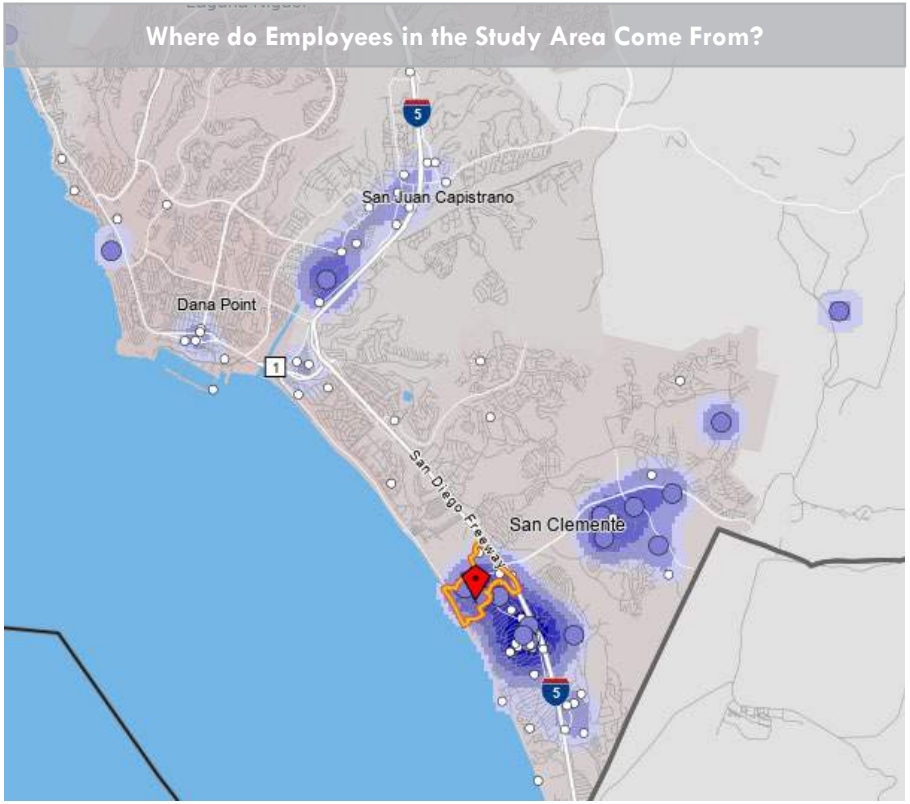


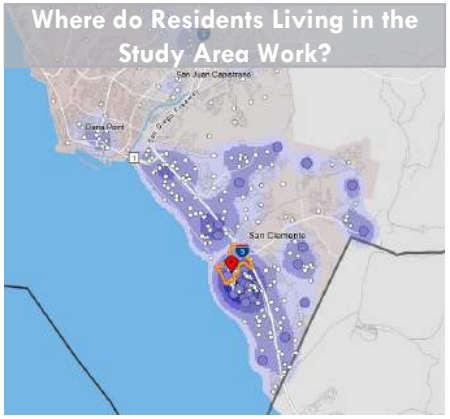
Employment Profile

- The City has several dense employment centers, which are mostly retail and industrial. Two centers are in the Study Area: the San Clemente Outlets and the industrial park between Avenida Pico and El Camino Real.
- The El Camino Real corridor has significant retail activity, especially food and beverage.
- Of all jobs in Orange County, 1.4% are located in San Clemente. Of those jobs, 4.4% are located in the Study Area.
- According to SCAG employment forecasts, job growth in the City is likely to lag the County's rates. This trend is on par with historic growth trends.
- Residents of the Study Area are mostly employed in and around the City. Most people who work in the Study Area commute in from other areas.
- In the Study area, just over 50% of the population travels under 30 minutes to work. This is on par with commute times at the County level, though the City's population tends to have longer commutes.
- Employment in the Study Area is primarily Accommodation and Food Services, which is prominent in the City and County as well.

EMPLOYMENT (2018)	Study Area	San Clemente	Orange County
Total Worker Population	983	22,072	1,536,307
Job Density (per sq. mile)	2,050	1,160	1,620
Annual Growth Rate			
Historic (2012-2020)*	5.7%	1.4%	1.6%
Projected (2020-2040)	-	0.3%	0.5%
Top Three Industry Clusters	Accommodation and Food Services (18.5%)	Administration & Support, Waste Management and Remediation(16.4%)	Health Care and Social Assistance (11.1%)
	Professional, Scientific, and Technical Services (15.9%)	Accommodation and Food Services (11.4%)	Manufacturing (10.1%)
	Retail Trade (13.8%)	Construction (10.6%)	Accommodation and Food Services (9.5%)

Source: LEHD
Growth projections from SCAG
*Historic Growth for Study Area Calculated using LEHD Employment Data between 2010-2018.





Employment Trends

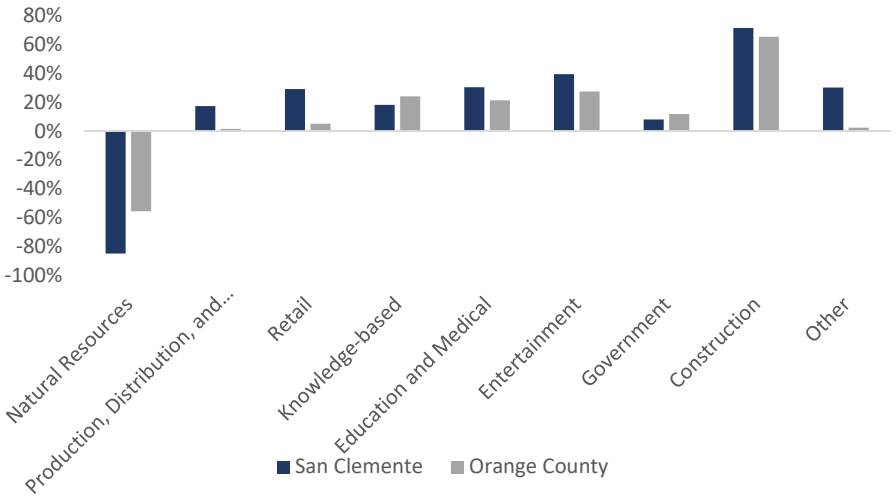
- Orange County, the City, and the Study Area all experienced significant growth in number of jobs between 2010 and 2018.
- The County lost the highest percentage of jobs in the Natural Resources industry cluster, as did the City.
- Construction experienced the most growth in the City and County, followed by Entertainment and Education and Medical.
- The City's growth most significantly outpaced the County's growth in Production, Distribution, and Repair, Retail, and Entertainment. It lagged the County's growth in Government and Knowledge-Based jobs.

HQTA OPPORTUNITIES

- Through infill development, the Study Area, particularly along El Camino Real and Avenida Pico offer opportunities for unique, authentic main street development with a mix of retail, office, and residential opportunities.
    - The Study Area's current mix of businesses broken up by parking lots could be used for infill development, but small parcel size is likely a limiting factor.
- With the growth in medical employment, medical office could be an important tenant for commercial spaces on main streets.
- With limited access to existing residential, the Study Area would benefit from innovative ways to increase foot traffic. These could include tourism initiatives and programming based around the bike trail.
- There are currently a number of proposed projects along El Camino Real, which include "The Gallery," a commercial center, new restaurant construction, and new mixed-use development.
    - Development of one or more of these projects could help to create an anchor closer to the ocean and along El Camino Real to attract new visitors.
- There are potential opportunities for redevelopment of the underutilized industrial sites and self-storage site on Avenida Pico near its intersection with El Camino Real, though that redevelopment is unlikely to occur in the near future. There may be more near-term opportunities for redevelopment within the Calle de Los Molinos and Calle Valle industrial area.

Employment Growth in Industry Clusters (2010-2018)	Study Area	San Clemente	Orange County
Natural Resources	-23	-33	-2,852
Production, Distribution, and Repair	55	537	4,195
Retail	62	459	6,908
Knowledge-based	121	536	63,176
Education and Medical	55	603	49,293
Entertainment	10	810	40,849
Government	-10	327	19,307
Construction	8	972	40,632
Other	24	179	983
Total	302	4,390	222,491

Percentage Change in Employment by Industry Clusters (2010-2018)



EMPLOYMENT INDUSTRY CLUSTER CLASSIFICATION
The classification is based on Center for Transit-Oriented Development 2010 Report. Natural Resources includes agriculture and mining; Production, Distribution, and Repair ("PD&R") includes manufacturing, wholesale trade, transportation and warehousing; Knowledge-based includes information, finance and insurance, real estate, scientific, professional, and technical services, and management of companies; Entertainment includes arts, entertainment, and recreation, and accommodation and food services, Government includes utilities, public administration and other administrative and support services, Other includes other services (excluding public administration).

Source: LEHD

Pedestrian Facilities

According to the 2016 General Plan:

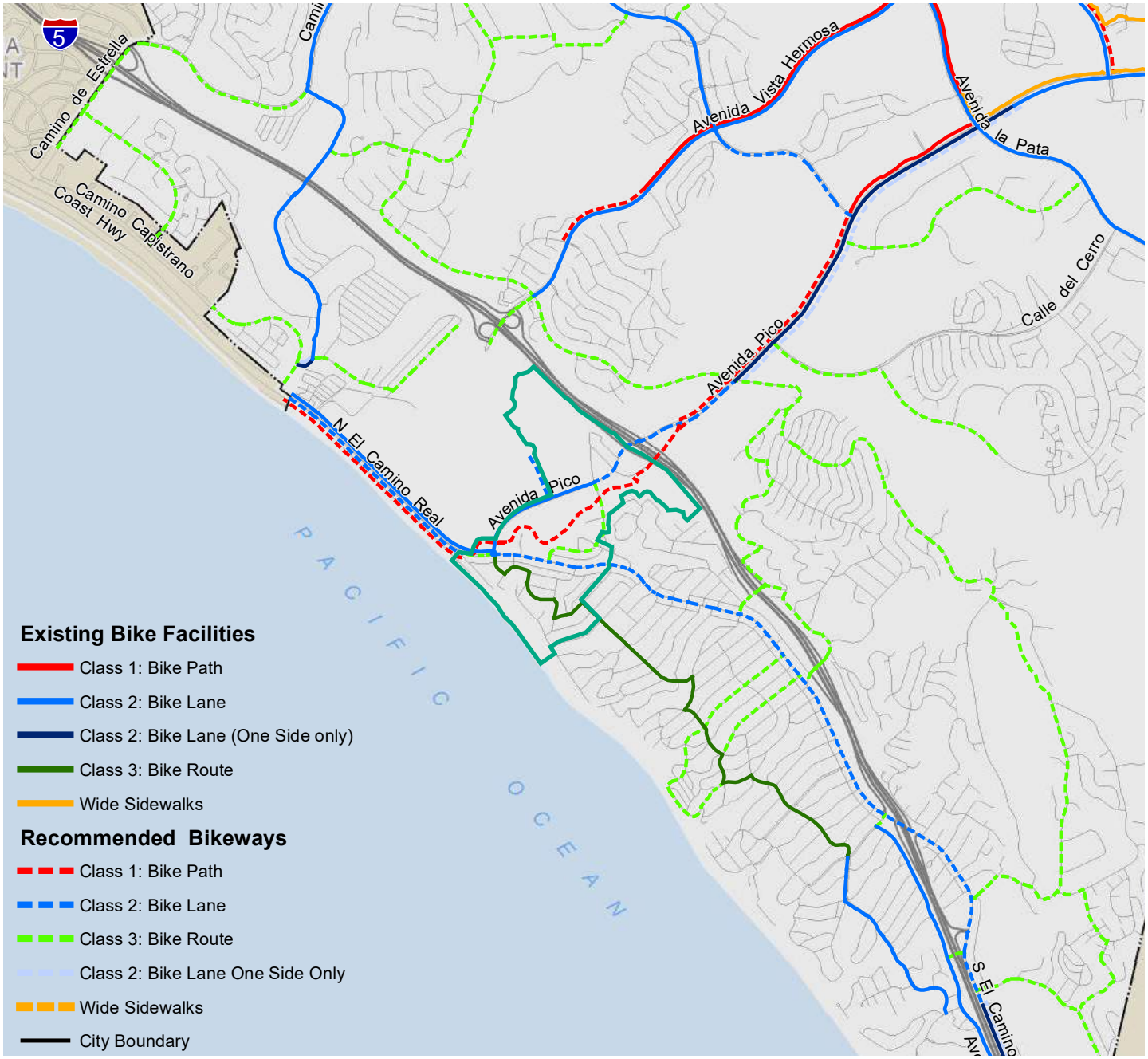
- Most of the streets within the study area are to be asphalt or concrete.
- El Camino Real is designated to have red PCC concrete while a few streets near the Metrolink station are to have brick pavers to create visual interest.

Source: San Clemente Bicycle and Pedestrian Master Plan (2013)

Bicycle Facilities

According to the 2016 General Plan:

- A Class 1 Bike Path is proposed along the drainage channel.
- An extension of existing Class 2 Bike Lanes is proposed along El Camino Real.
- A Class 3 Bike Route is proposed along Calle De Los Molinos.



Source: San Clemente Centennial General Plan (2016)

Public Transportation

- Aside from the Metrolink line, the other public transit in the study area is provided by Orange County Transportation Authority (OCTA).
- Local bus service is provided as follows by OCTA Route 91 along Avenida Pico and OCTA Route 1 along El Camino Real.

HQTA Study Area
Metrolink Station
Half Mile Station Buffer
Bus Stops

Transit Modes

Commuter Rail
Local Bus

0 500 1,000 2,000 Feet

Data Sources: Orange County, SCAG, City of San Clemente

- The San Clemente Trolley is a free public transportation ride services that only operates during the Summer. The season begins from Memorial Day weekend to the last Sunday in September. The system is made up of two routes, a Downtown Red Line and a North San Clemente Blue Line.

- Both Blue and Red Lines run within the HQTA. The Blue Line stops at the Outlets at San Clemente and the North Beach Metrolink Station within the HQTA. The Red Line stops at the Outlets at San Clemente, Avenida Vista Hermosa, El Camino Real & Calle de Los Molinos, and North Beach Metrolink Station within the HQTA.

- The trolley consists of approximately15 minute headways. Table 1 shows the Blue Line 2019 ridership by stops and Table 2 shows the Red Line 2019 ridership by stops, both within the HQTA. The trolley was suspended in 2020 due to the Covid-19 pandemic.

Table 1 – Blue Line 2019 Ridership by Stop

Stop Number	Stop Name	Ridership
8	North Beach Metrolink Station	3,136
9	Outlets at San Clemente	10,528

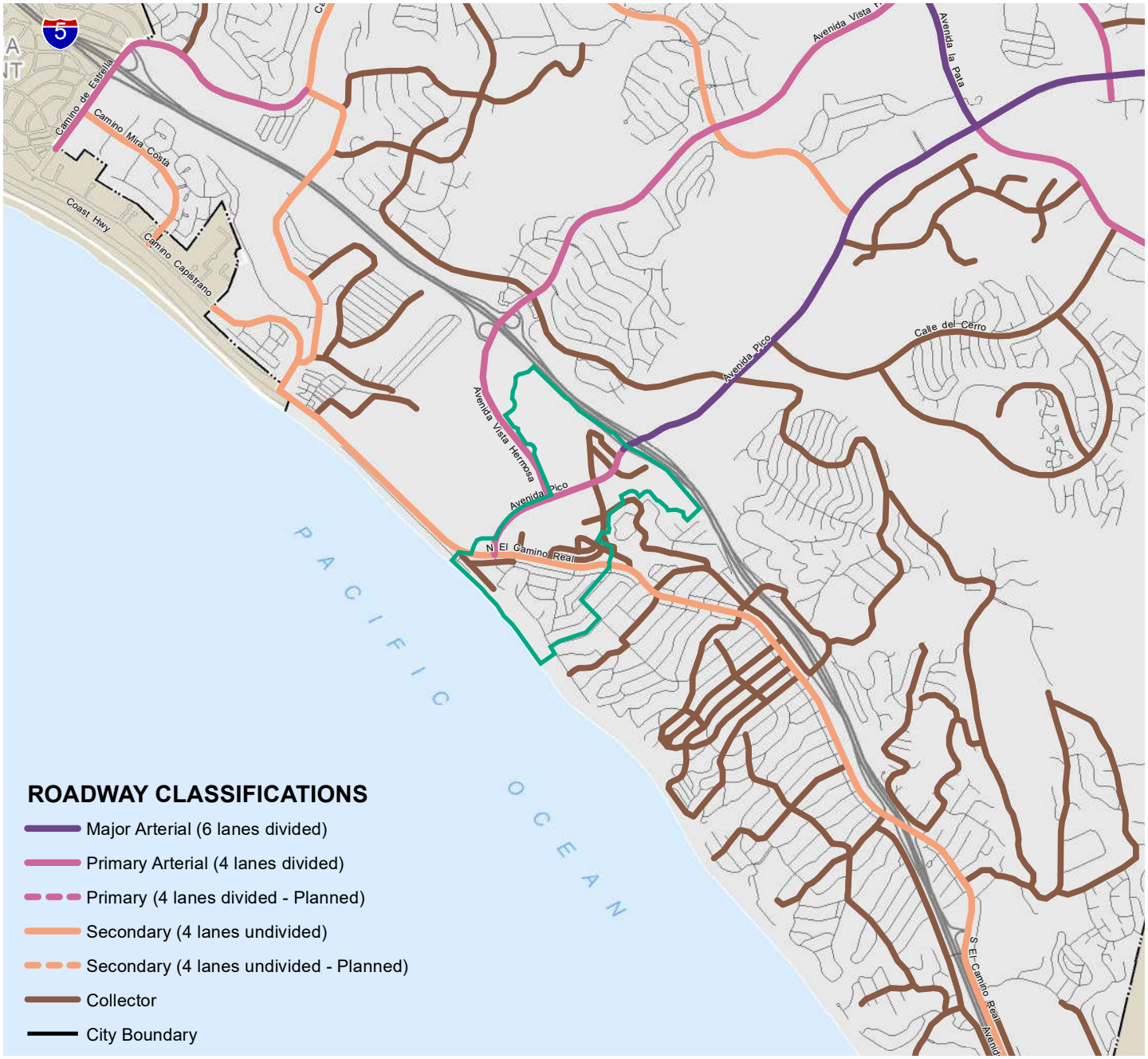
Table 2 – Red Line 2019 Ridership by Stop

Stop Number	Stop Name	Ridership
7	Los Molinos (WB)	1,097
8	North Beach Metrolink Station	6,549
9	Outlets at San Clemente	42,548
10	Avenida Vista Hermosa at Via Pamiona	1,022
11	San Clemente Metrolink	2,768
12	Los Molinos (EB)	3,583

Major Corridors

According to the 2016 General Plan:

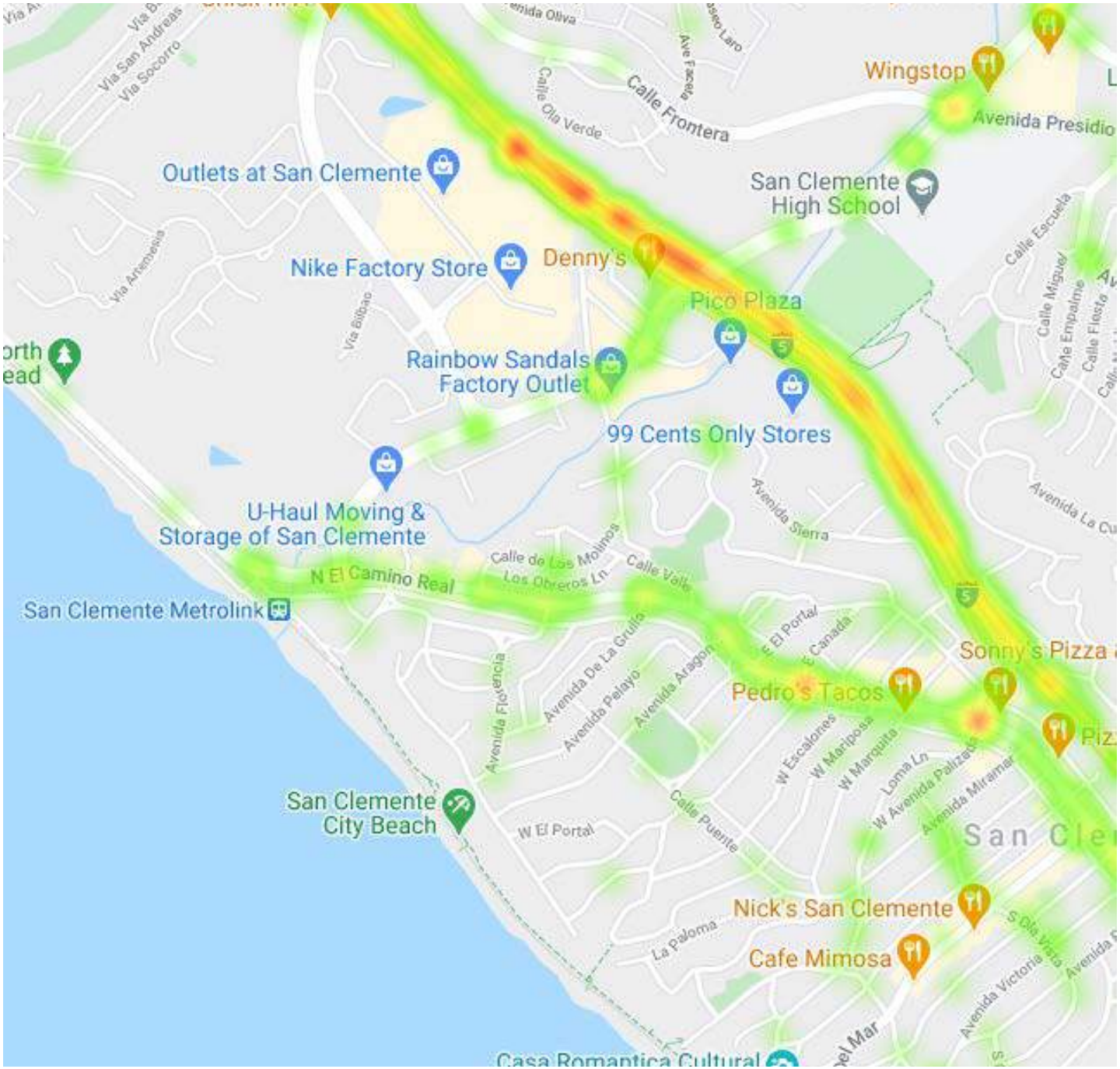
- Many of the roadways in the study area are local streets
- El Camino Real is identified as a Secondary Arterial
- Avenida Pico is identified as a Primary Arterial
- A few other roadways connecting to El Camino Real are identified as Collector roads

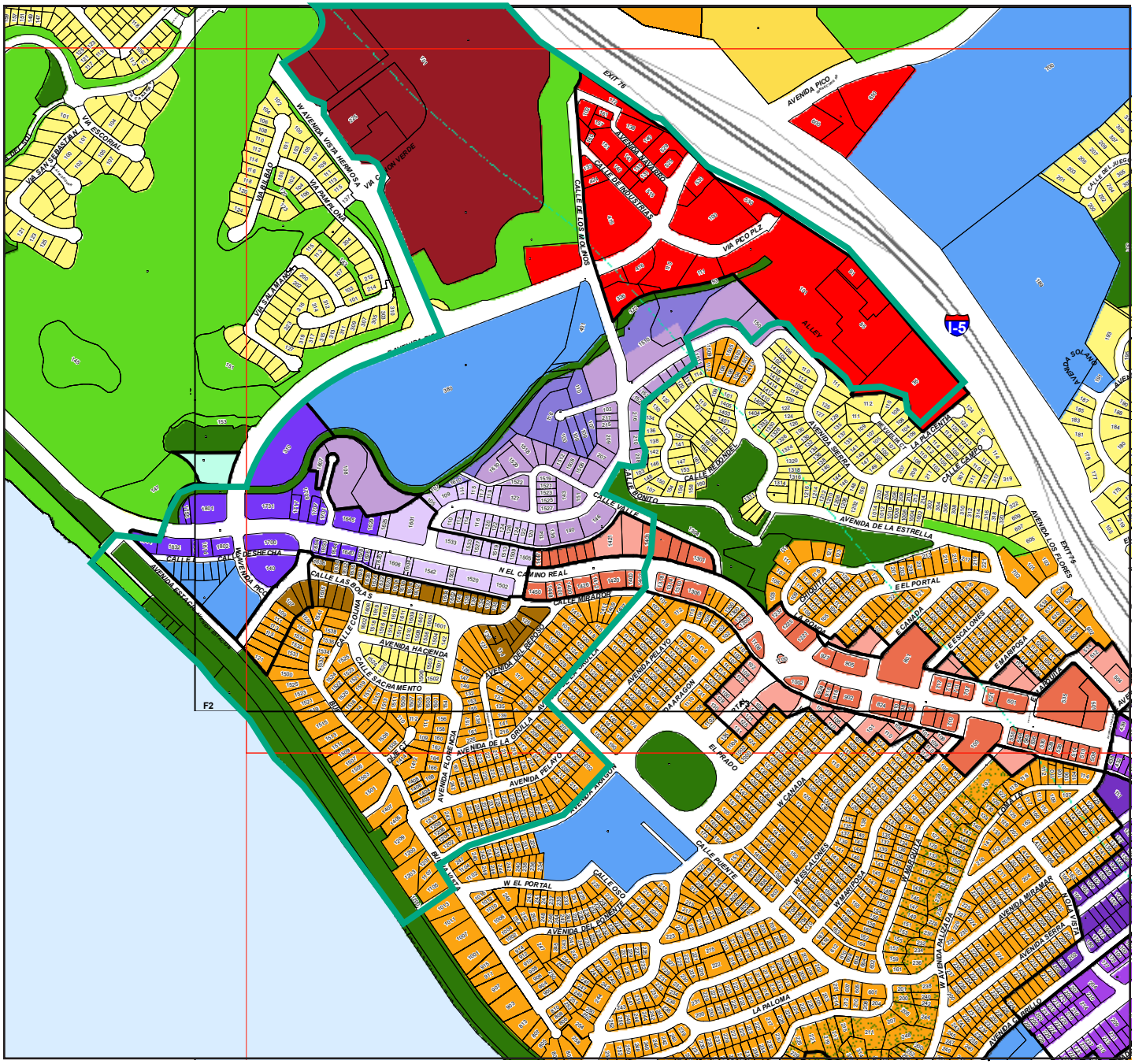


Source: San Clemente Centennial General Plan (2016)

Vehicle Collisions

- Most vehicle collisions in the study area occure along El Camino Real, with a few collisions along Avenida Pico near the Pico Plaza shopping center and the I-5 ramps.





General Plan Land Use Map

Adopted: 12.17.19

- Coastal Canyons
- Coastal Zone Boundary
- Overlays

Commercial

- CC2 - Community Commercial 2
- CRC - Coastal and Recreation Serving Commercial
- NC1.2 - Neighborhood Commercial 1.2
- NC2 - Neighborhood Commercial 2
- RC

Industrial

- LI - Light Industrial
- HI - Heavy Industrial

Mixed Use

- MU1 - Mixed Use 1
- MU2 - Mixed Use 2
- MU3.0 - Mixed Use 3.0
- MU3.1 - Mixed Use 3.1

Open Space

- OS1 - Open Space Public
- OS2 - Open Space Private

Public Facilities

- P - Public

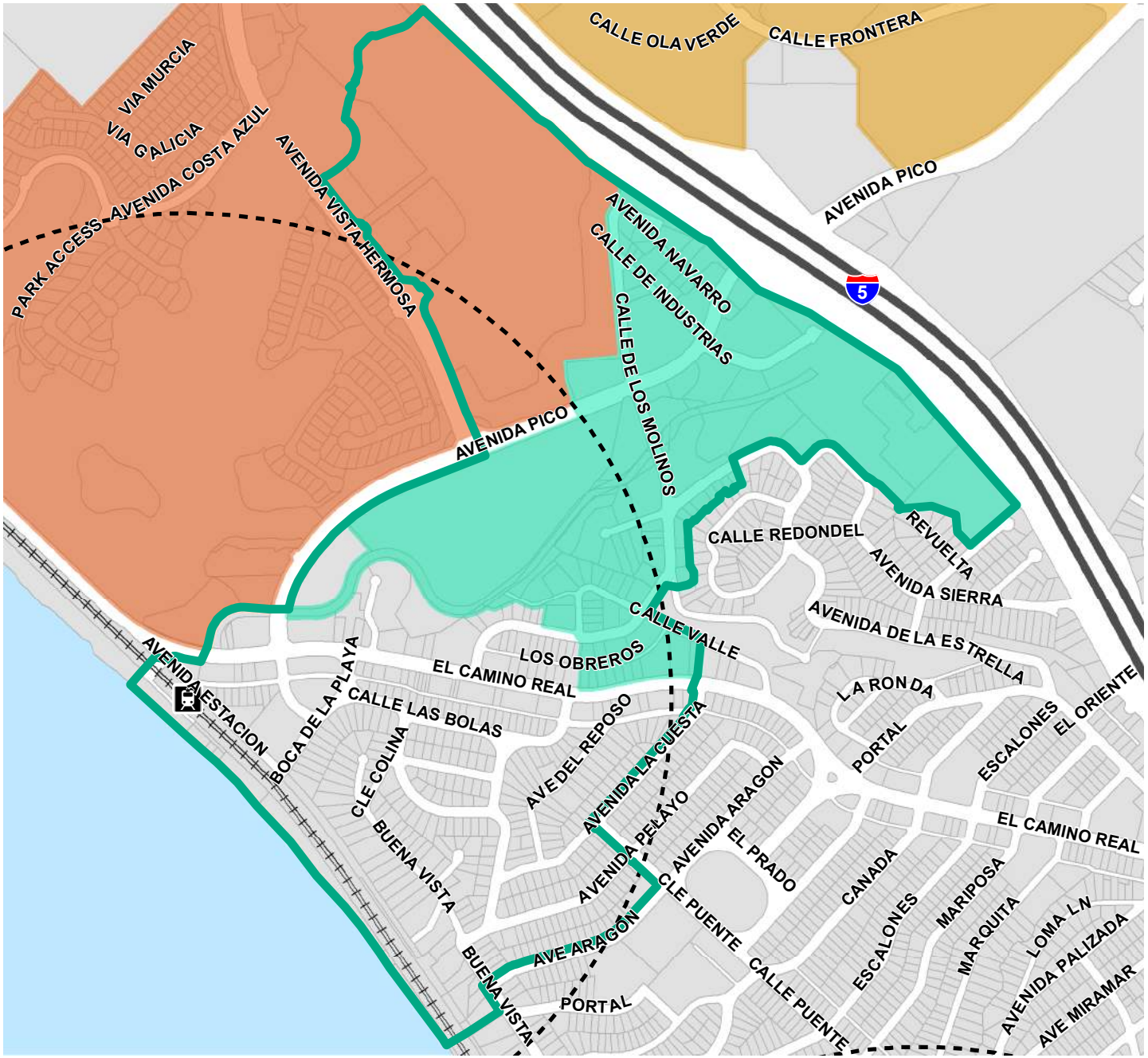
Residential

- RL - Residential Low Density
- RML - Residential Medium Low Density
- RM - Residential Medium Density
- RH - Residential High Density

Source: San Clemente Centennial General Plan (2016)

Specific Plan Boundaries

- The northern portion of the study area is governed by two specific plans: the Marblehead Coastal Specific Plan and the West Pico Corridor Specific Plan.



HQTA Study Area

Metrolink Station

Half Mile Station Buffer

Specific Plan Boundary

Marblehead Coastal Specific Plan

Marblehead Inland Specific Plan

West Pico Corridor Specific Plan

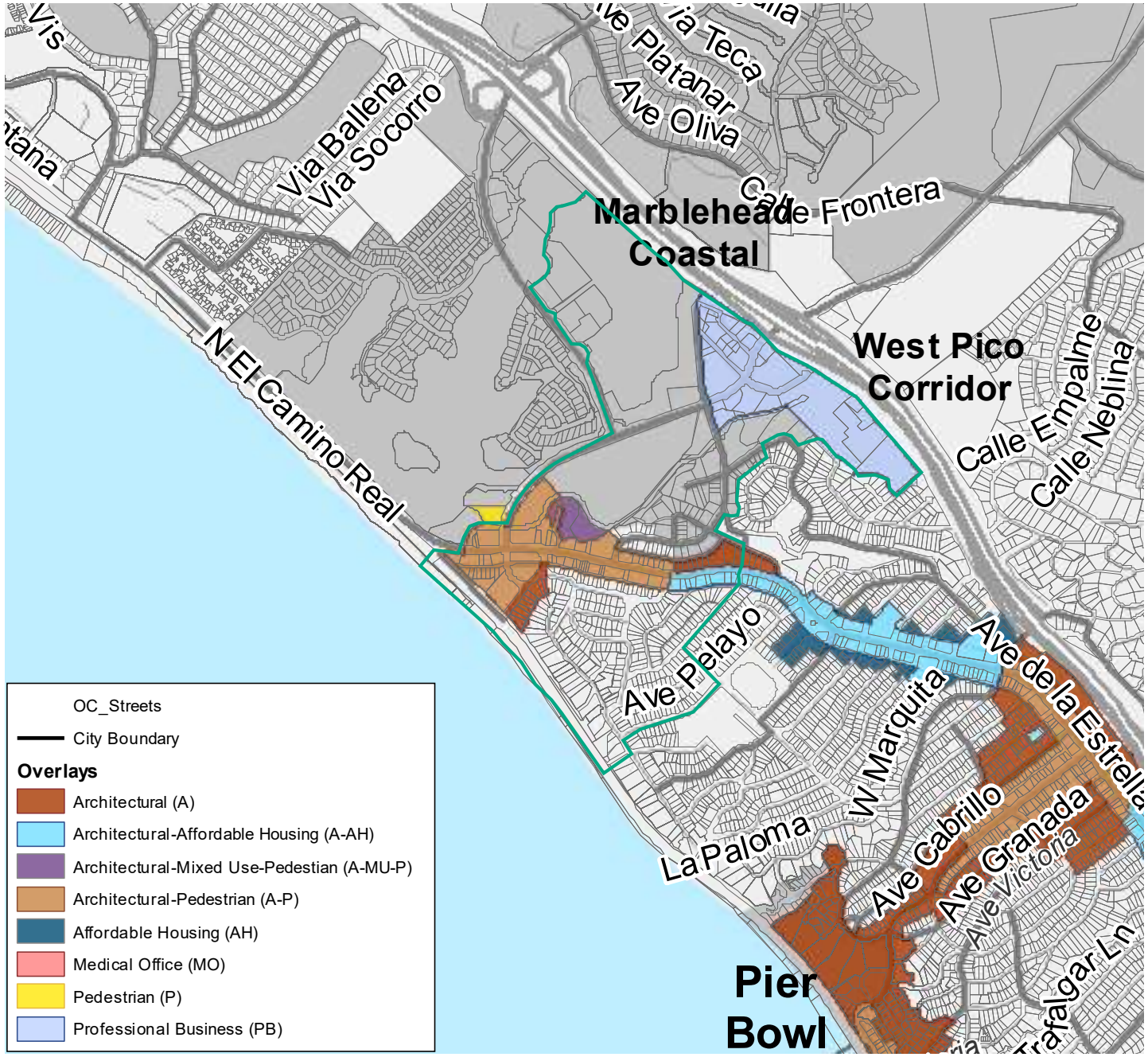
0 500 1,000 2,000 Feet

Data Sources: Orange County, SCAG, City of San Clemente

Overlay Zones

According to the 2016 General Plan several overlay zones overlap with the study area:

- The northeast portion of the study area is within a Professional Business (PB) overlay zone.
- The portion of the study area near the station and along El Camino Real is within a Architectural-Pedestrian (A-P) overlay zone.
- Further east along El Camino Real the study area is within a Architectural-Affordable Housing (A-AH) overlay zone.
- A small portion of the study area is within a Architectural-Mixed Use-Pedestian (A-MU-P) overlay zone.

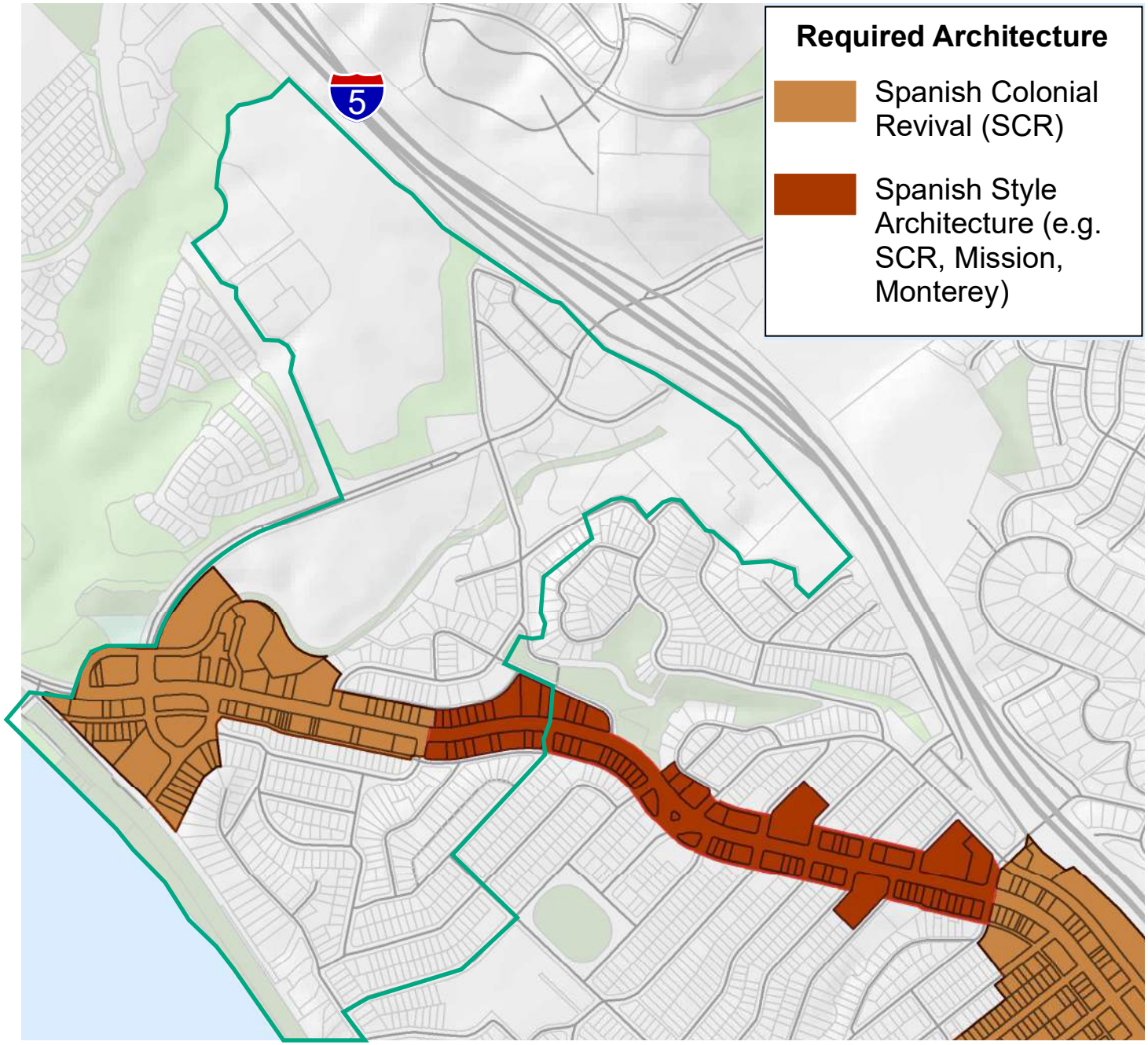


Source: San Clemente Centennial General Plan (2016)

Architectural Overlay Zones

According to the 2016 General Plan:

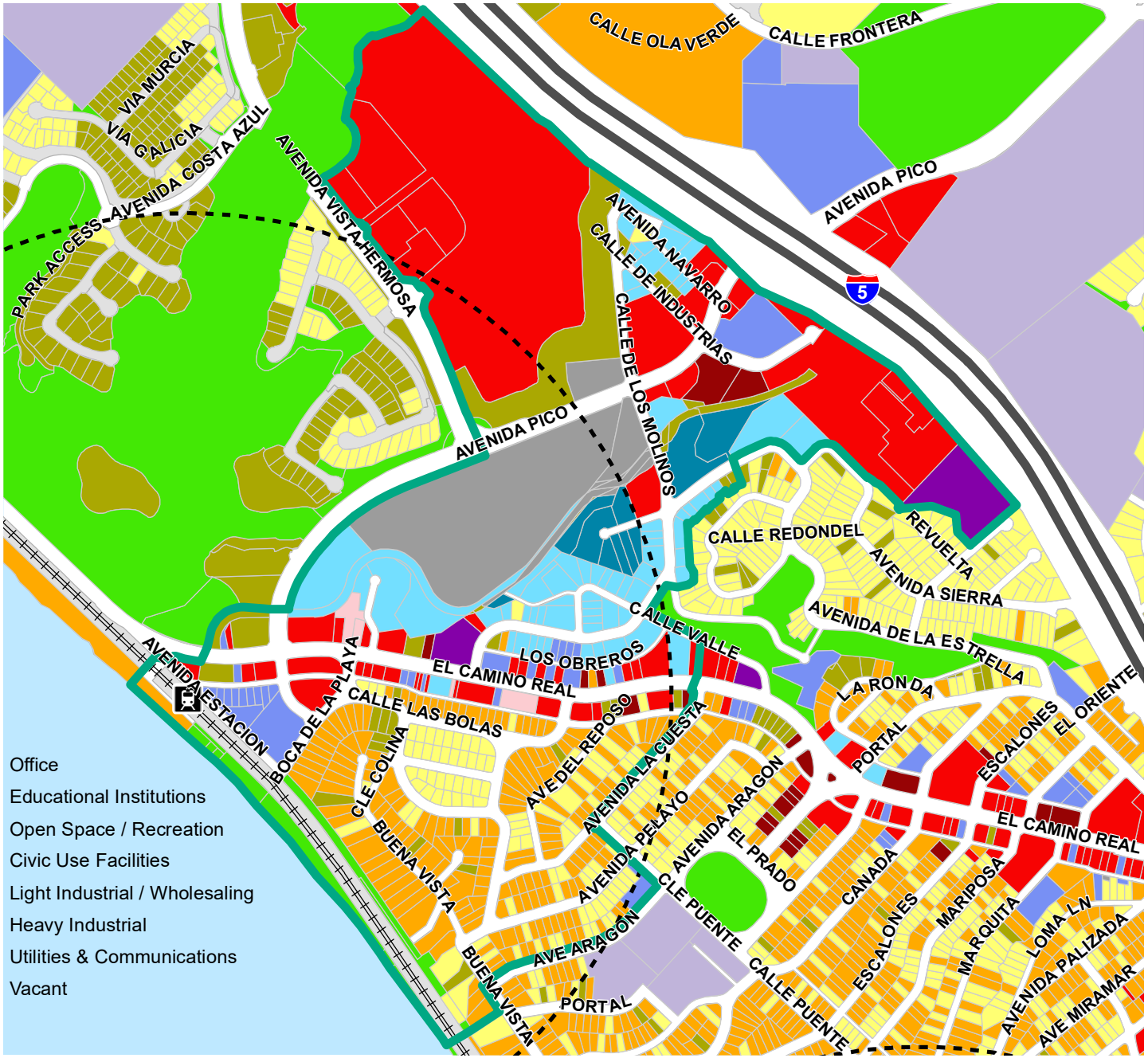
- Much of the area surrounding the Metrolink station is required to have Spanish Colonial Revival architecture.
- Parcels along El Camino Real at the eastern edge of the study area are required to have some type of Spanish Style Architecture.



Source: San Clemente Centennial General Plan (2016)

Existing Land Use

- Much of the study area is multifamily residential with some single family residential interspaced.
- North of the study area and within a half mile of the station there is a lot of open hilly area.
- Commercial uses are focused along El Camino Real and the I-5 Freeway.
- There is a larger water treatment plant along Avenida Pico.
- North of El Camino Real there is a concentration of industrial uses.



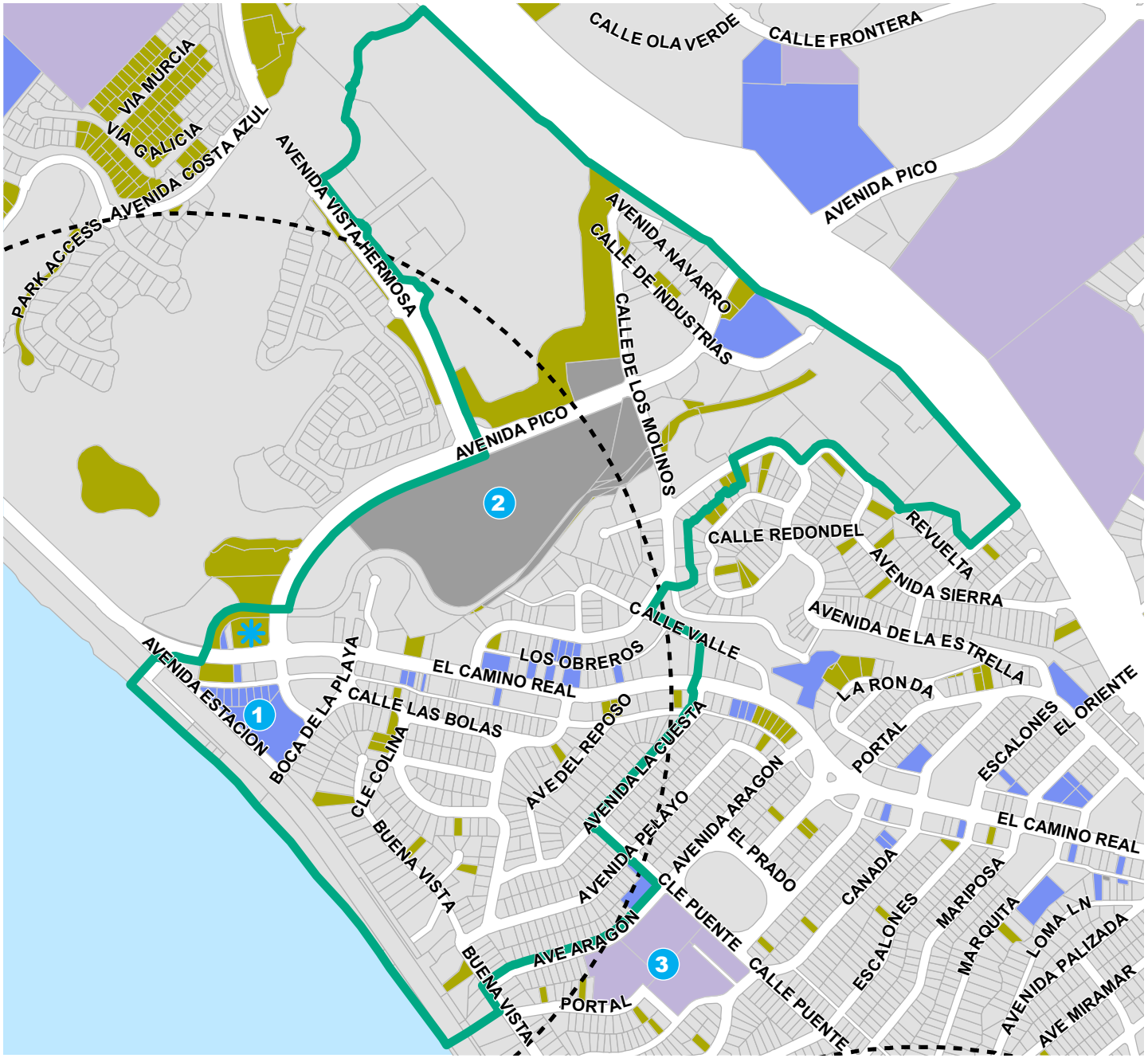
Data Sources: Orange County, SCAG, City of San Clemente

Vacant Land & Public Facilities

- Many of the vacant parcels have steep slopes or otherwise difficult terrain to build upon.

1. Transit Station parking & Ole Hanson Beach Club
2. San Clemente Water Reclamation Plant
3. Las Palmas Elementary School

* Development proposed, see “Recent Developments” maps on the following pages.



HQTA Study Area
Half Mile Station Buffer
Educational Institutions
Civic Use Facilities
Utilities & Communications
Vacant

0 500 1,000 2,000 Feet

Data Sources: Orange County, SCAG, City of San Clemente

Recent Developments

6 **The Gallery.** Proposed commercial center on a vacant 1.80-acre parcel in North Beach.

9 **North El Camino Real Mixed Use.** Addition to existing one-story commercial building to create 1st floor commercial space with one residence above.

18 **Publik House.** A request to adapt the historic San Clemente Art Supply building into a multi-use building comprised of a special events venue, café, and office space.

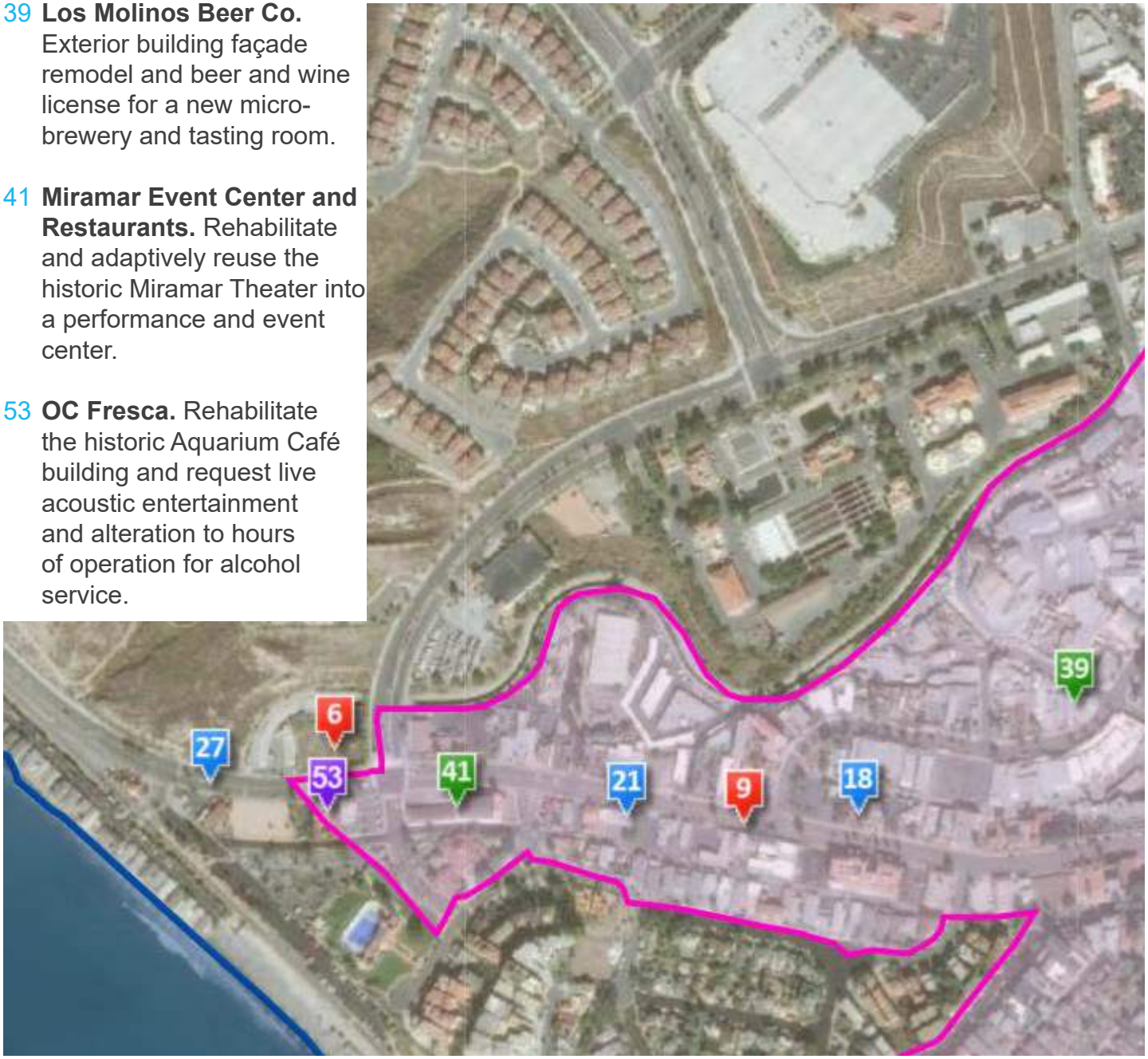
21 **La Colombiana Restaurant Expansion.** A request to expand the existing restaurant.

27 **Beach Hut Deli.** A façade remodel at the former Kaylani Coffee building at North Beach.

39 **Los Molinos Beer Co.** Exterior building façade remodel and beer and wine license for a new micro-brewery and tasting room.

41 **Miramar Event Center and Restaurants.** Rehabilitate and adaptively reuse the historic Miramar Theater into a performance and event center.

53 **OC Fresca.** Rehabilitate the historic Aquarium Café building and request live acoustic entertainment and alteration to hours of operation for alcohol service.



- Under Review
- Approved
- Under Construction
- Completed

Data Sources: City of San Clemente (2021)

Recent Developments

17 **The Lodge Rooftop Venue.** A request to increase the allowable height for the zone to allow for a rooftop bar/ venue at the Lodge at San Clemente.

19 **Pico Plaza In-N-Out.** Demolition of an existing two-story office building and construction of a one-story In-N-Out drive-thru restaurant.

20 **Chevron Convenience Store and Car Wash.** A request to demolish the existing convenience store and build a new convenience store and new car wash.

26 **Outlets Buildings.** A request to modify the approved site plan for undeveloped buildings 9, 10 & 11.

Under Review
Approved
Under Construction
Completed

Data Sources: City of San Clemente (2021)

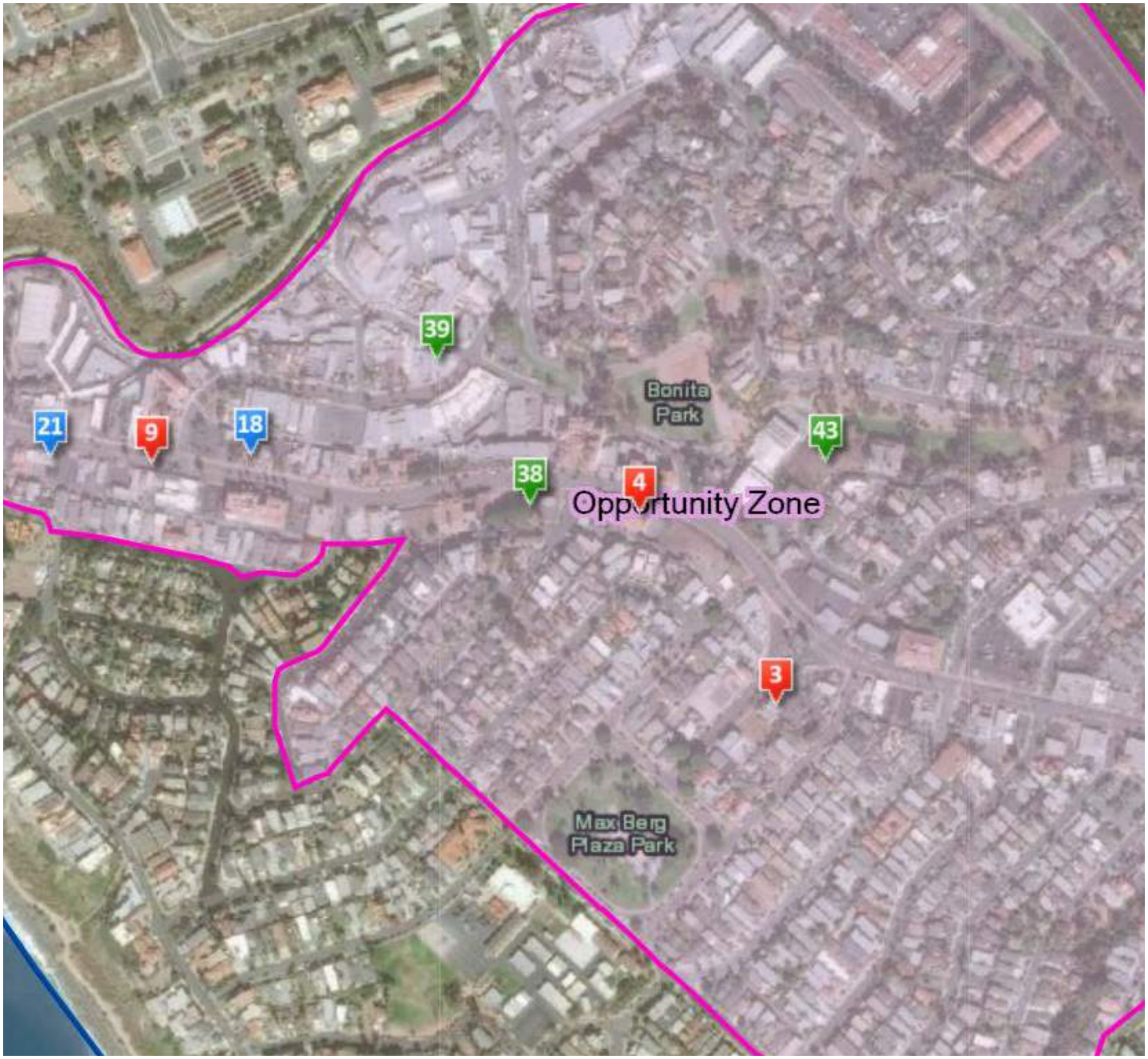
Recent Developments

3 **SC Ranch Market Remodel.** A request to remodel the exterior of an existing commercial building, and construct a new attached storage area, new attached patio cover, and new detached kiosk.

4 **Chabad Jewish Center Addition/Remodel.** A request for small addition and interior and exterior remodel of the existing Chabad Jewish Center.

38 **North Beach Bed and Breakfast.** New building to include a residence and 3 guest rooms.

43 **La Ronda Apartments.** Construction of a six-unit apartment building on a vacant site at 109-111 La Ronda in the Residential Medium (RM) Zone.

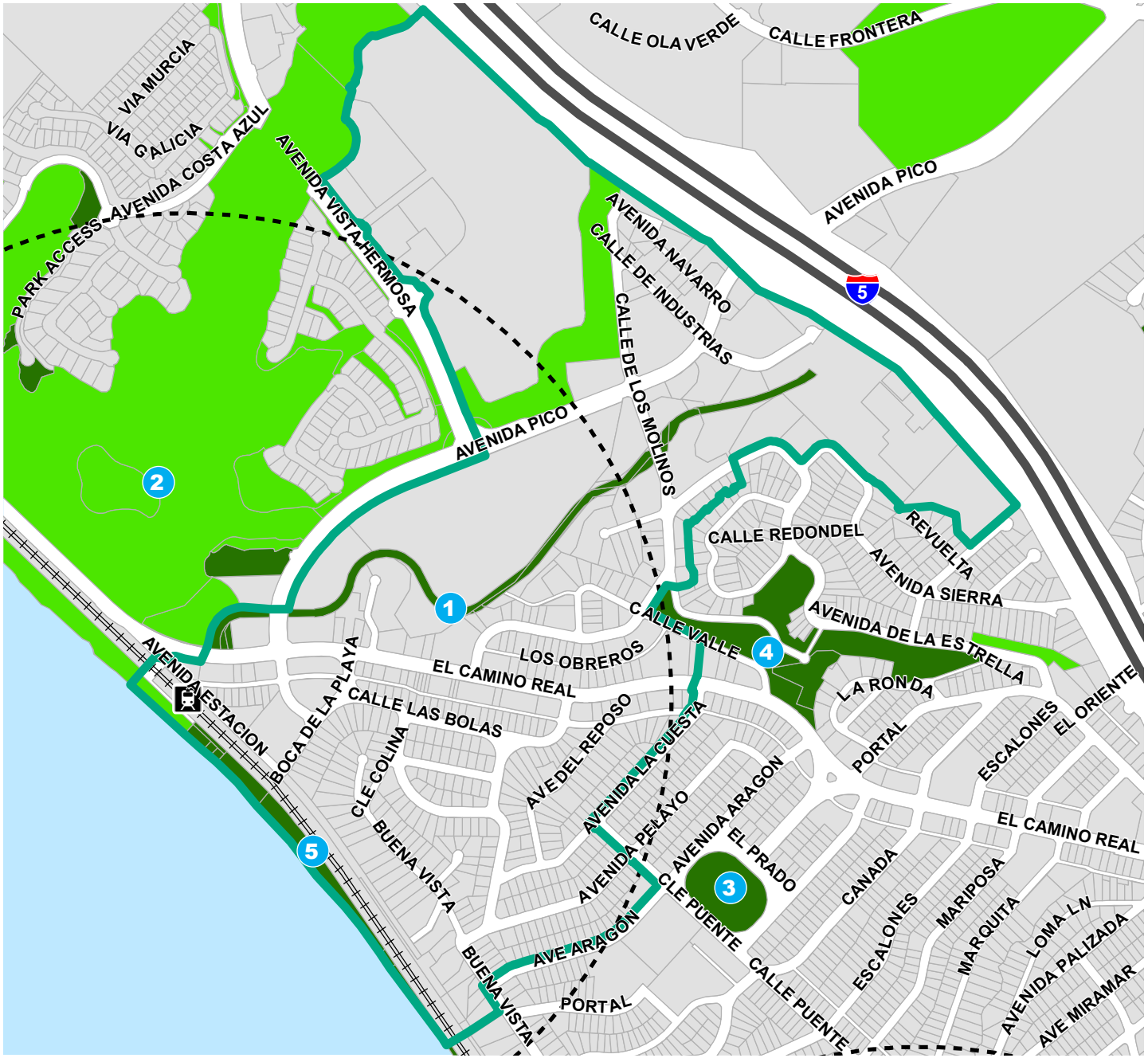


Under Review
Approved
Under Construction
Completed

Data Sources: City of San Clemente (2021)

Open Space

1. Drainage channel
2. Protected area
3. Max Berg Plaza Park
4. Bonito Canyon Park
5. San Clemente Pedestrian Beach Trail



HQTA Study Area
Metrolink Station
Half Mile Station Buffer
Parcels
Open Space, Public
Open Space, Private

0 500 1,000 2,000 Feet

Data Sources: Orange County, SCAG, City of San Clemente

Gateways

The 2016 General Plan identified several gateways within the study area:

- (2) along Avenida Vista Hermosa
- (1) at the El Camino Real / Avenida Pico intersection
- (1) at the Avenida Pico / Avenida Vista Hermosa intersection
- (1) at the Avenida Pico / Calle de los Molinos intersection
- (1) at the El Camino Real / Calle de los Molinos intersection

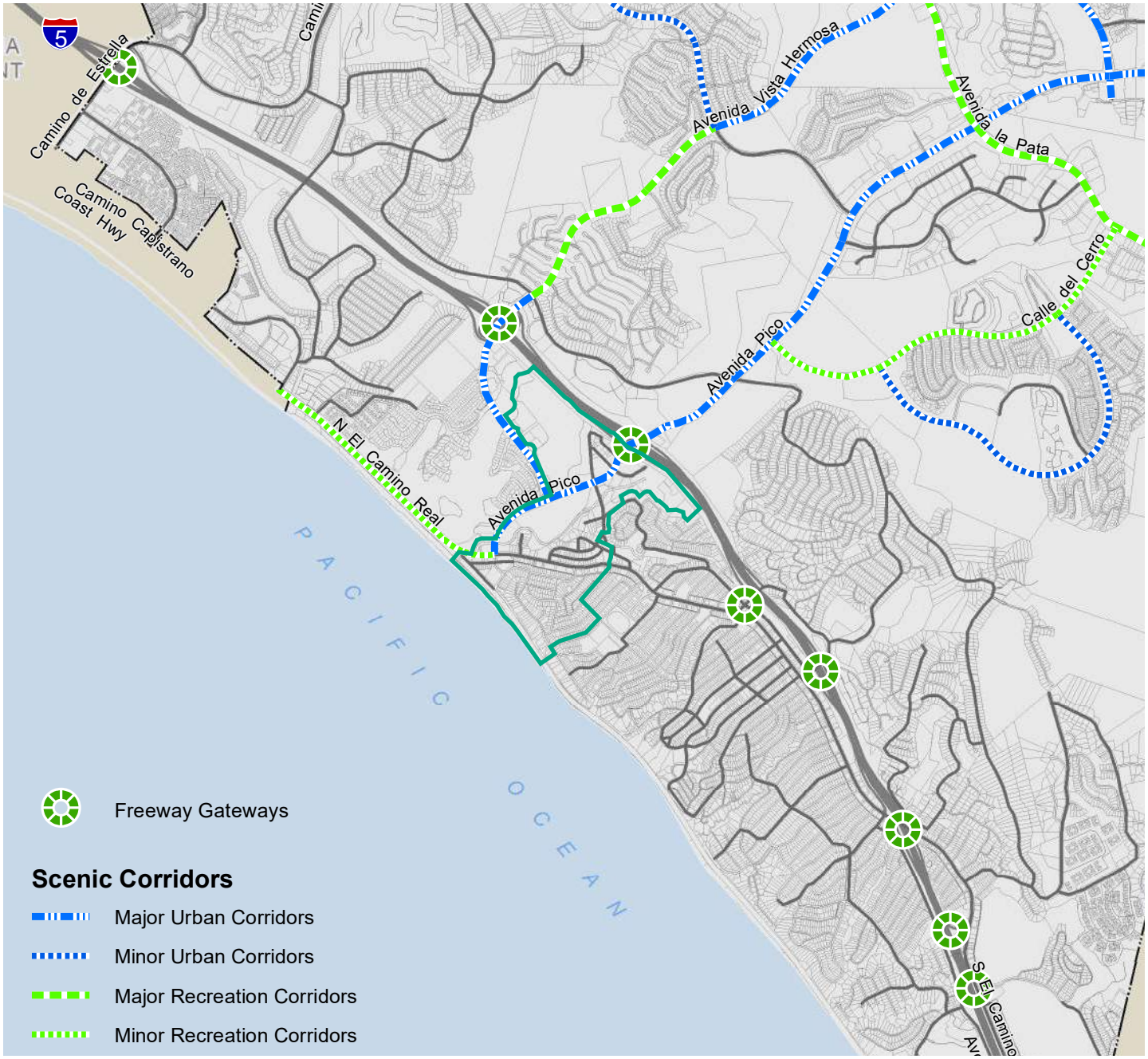
Source: San Clemente Centennial General Plan (2016)

Source: San Clemente Centennial General Plan (2016)

Scenic Corridors

According to the 2016 General Plan:

- Avenida Pico is identified as a Major Urban Corridor
- A portion of El Camino Real is identified as a Minor Recreation Corridor



Source: San Clemente Centennial General Plan (2016)

Coastal Access Points

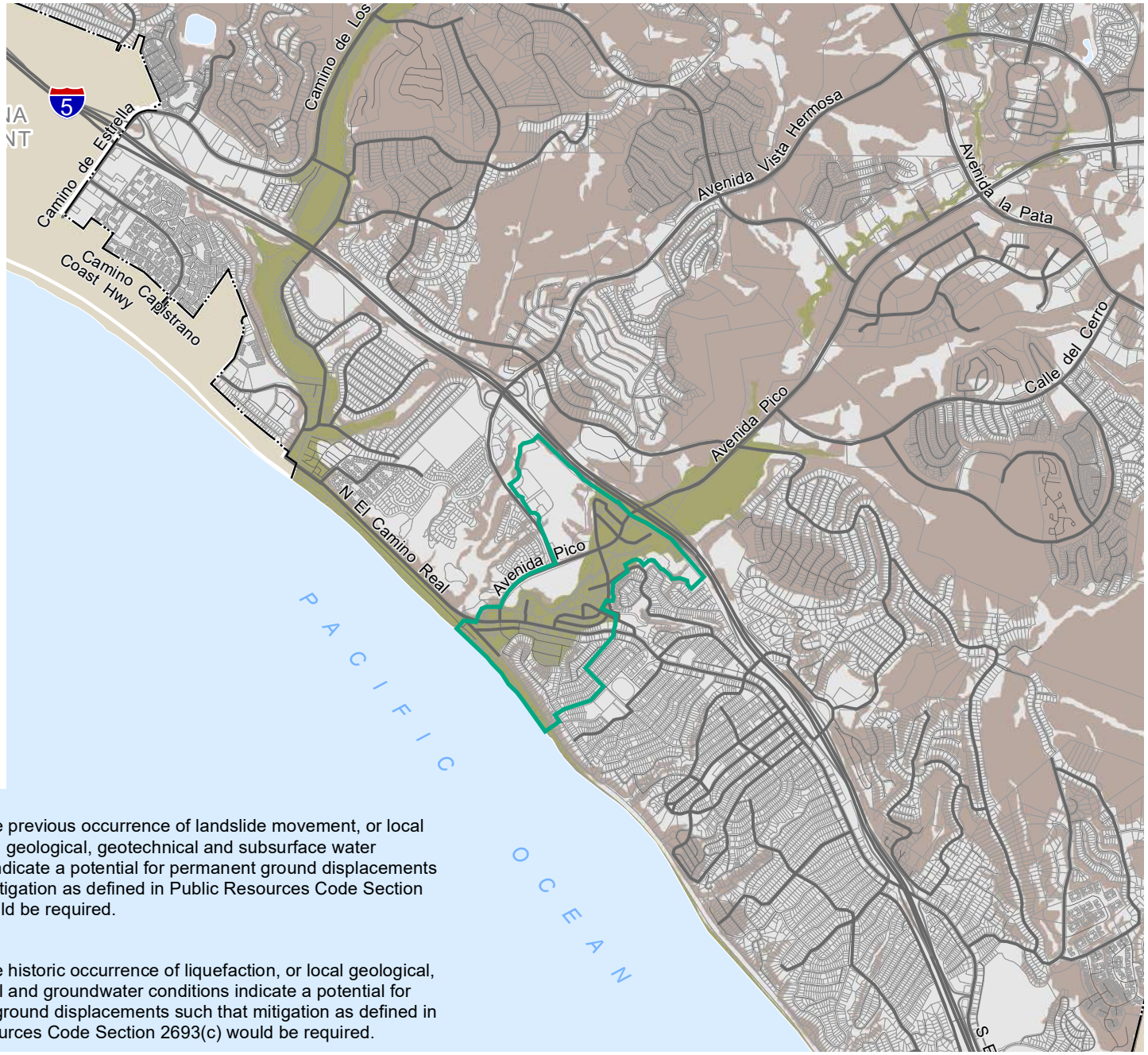
According to the 2016 General Plan there are four Coastal Access Points:

- Capistrano Shores
- North Beach
- Diji Court
- El Portal

Source: San Clemente Centennial General Plan (2016)

According to the 2016 General Plan:

- Much of the study area is within a Liquefaction Zone Area
- There are small portions of the study area identified as Landslide Zone Areas



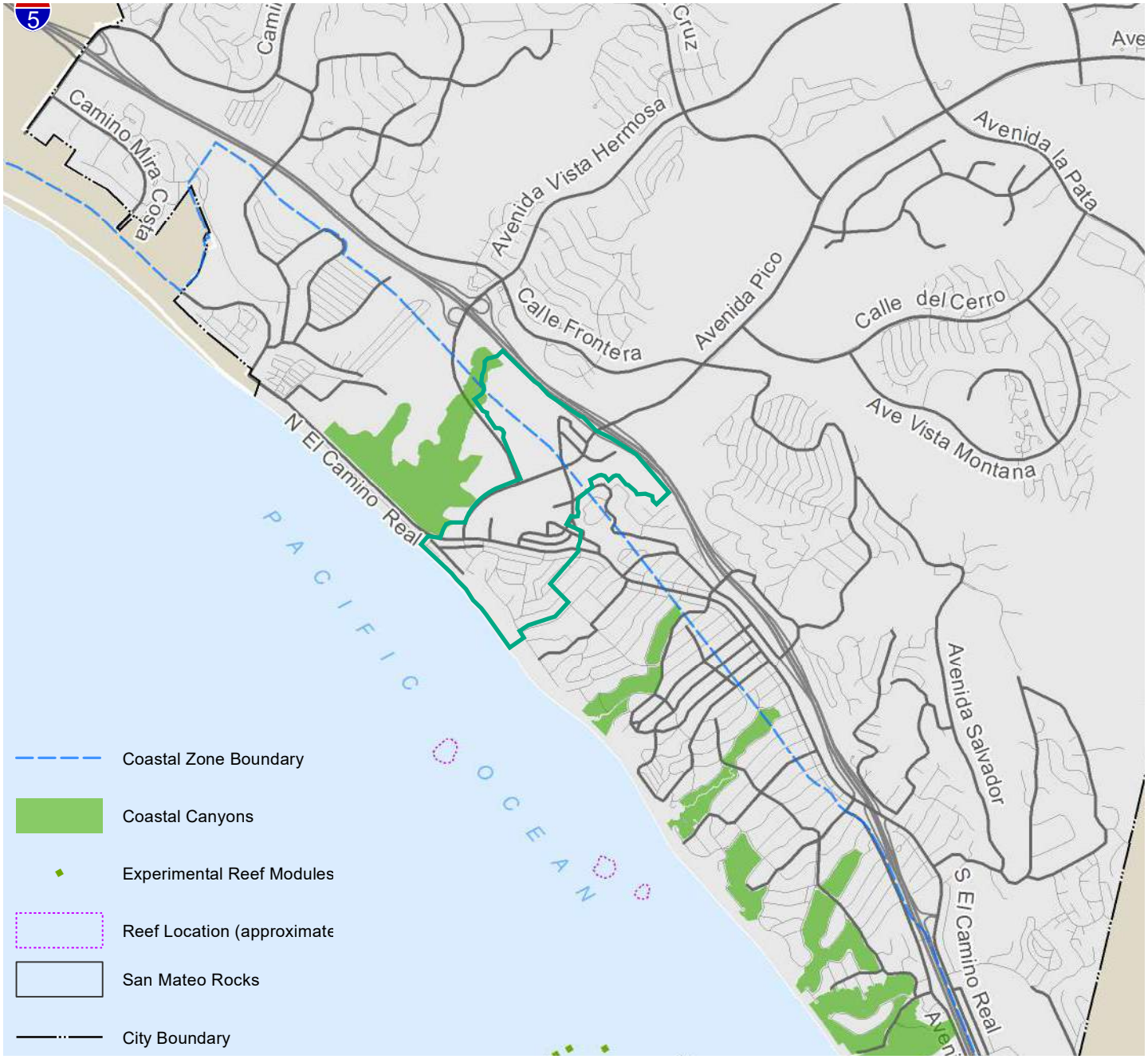
Landslide Zone Area — Areas where previous occurrence of landslide movement, or local topographic, geological, geotechnical and subsurface water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

Liquefaction Zone Area — Areas where historic occurrence of liquefaction, or local geological, geotechnical and groundwater conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

Source: San Clemente Centennial General Plan (2016)

Coastal Zone and Environmentally Sensitive Habitat Areas

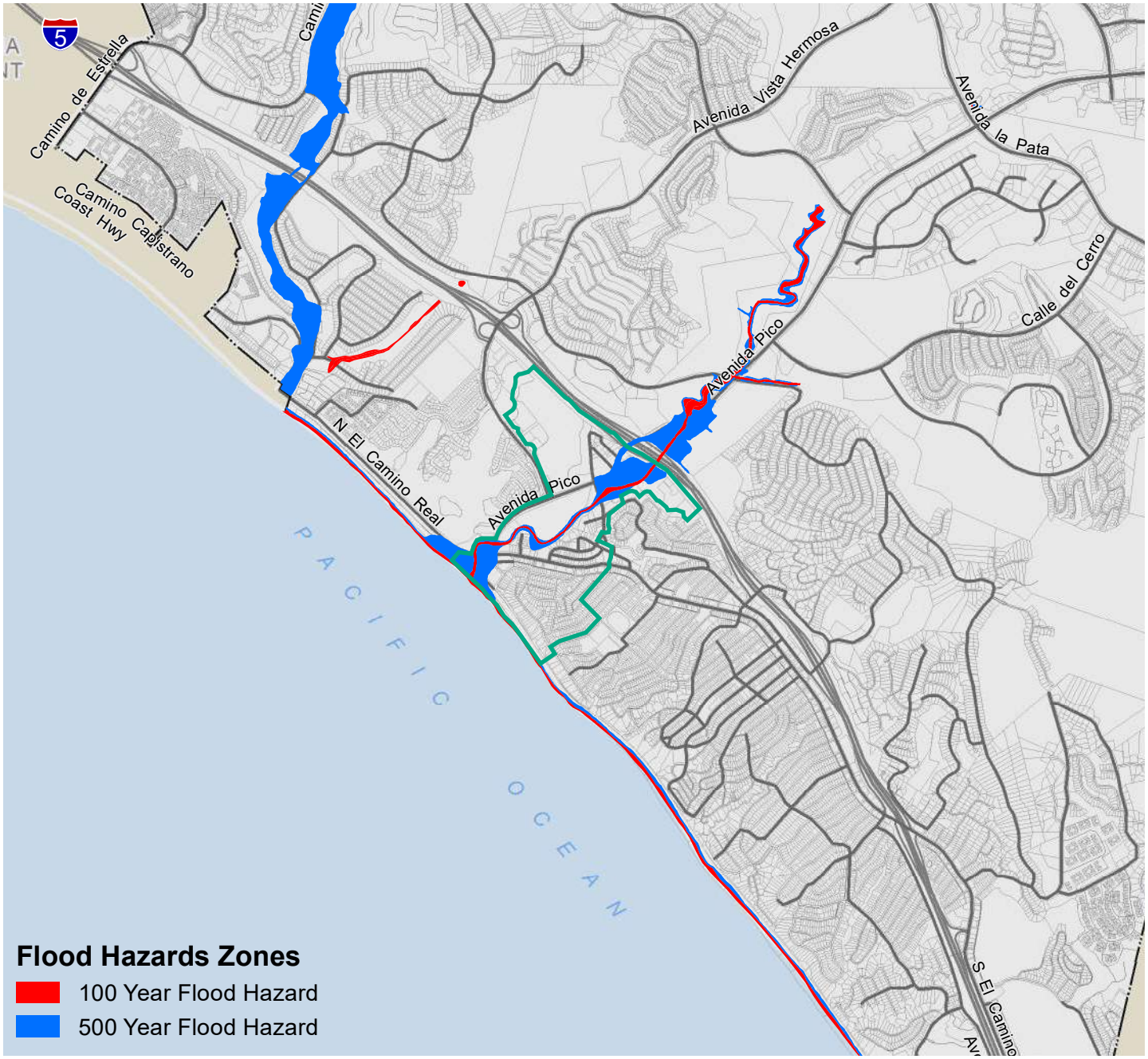
- Nearly all of the study area is within the Coastal Zone Boundary.



Source: San Clemente Centennial General Plan (2016)

Flood Hazards

- Portions of the study area near the shoreline and near the I-5 freeway are within the 500 Year Flood Hazard area.
- The area directly around the drainage channel are within the 100 Year Flood Hazard area.



Source: San Clemente Centennial General Plan (2016)

HQTA Toolkit

HIGH QUALITY TRANSIT AREA PILOT PROJECT

Southern California Association of Governments

March 2019

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HQTA Toolkit

HIGH QUALITY TRANSIT AREA PILOT PROJECT

Southern California Association of Governments

March 2019

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Additionally, the contents of this report reflect the views of the author who is responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of SCAG or DOT. This report does not constitute a standard, specification, or regulation.

In this Toolkit

The HQTA Toolkit is designed to implement Transit-Oriented Development (TOD) within the Region's HQTAs. An outline for the Toolkit is presented below:

PART 1 Introduction

The HQTA Pilot Project offers technical assistance and planning services to station areas that have a high potential for transit-supportive development patterns and future growth.

PART 2 Toolkit

The Toolkit includes contemporary best practices for TODs, open space, and complete street projects that are tailored to the desired place types for a HQTA. Those toolkit options are organized as follows:

PART 3 Additional Resources

Federal, regional, and local funding sources for complete street, open space and placemaking, and TOD projects are provided in addition to other resources Cities may find useful in evaluating their own HQTAs.

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Part I

Introduction

Implementation of the Station Area Vision is accomplished through specific physical improvements. The HQTA Toolkit provides a collection of individual elements (infrastructure and policy) based on contemporary best practices that can be combined to improve the public realm for people who walk, bicycle, and take public transit.

How to Use this Toolkit

Purpose

Issues, Goals, and Objectives for the SCAG Region

Benefits and Components of TODs

HQTA Place Types

Purpose

Vision

In the 2016 Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS), the Southern California Association of Governments (SCAG) established a vision for future investment in the communities of the Southern California region: **to develop sustainable communities where people enjoy increased mobility, greater economic opportunity, and a higher quality of life**. This vision was developed through years of community planning, incorporating all the diverse physical forms and individual perspectives of the region. The core physical elements of that vision include:

- Compact and walkable communities, seamlessly connected with public transportation, that allow people to live active and healthy lifestyles;
- Well maintained transportation networks that effectively utilize public tax dollars;
- Sustainable, multi-modal transportation system that improves air quality and reduces the region's climate change contribution; and,
- Housing supply that is sufficient to meet the needs of a growing population, affordable, and provides equal economic opportunity to diverse neighborhoods across the region.

Implementing the Vision within High Quality Transit Areas

At the heart of this vision is to concentrate transit-oriented development (TOD) within High Quality Transit Areas (HQTA). A HQTA is defined as an area along transit corridors or near major transit stations that have, or will have in place, 15 minute service, or better, during peak commuting hours; SCAG identified these areas through the development of the 2016/2040 RTP/SCS. Between 2016 and 2040, 46 percent of new housing and 55 percent of new employment within the six county SCAG region is expected to be developed within HQTAs. Though well-served by transit, an HQTA may not necessarily be a transit-oriented community (TOC). TOCs are based on the principles of TODs, but place greater emphasis on significant changes in land use patterns, socioeconomic outcomes, and travel patterns at the neighborhood scale. To achieve the regional vision, communities must make infrastructure investments that support walkable, compact communities that integrate land use and transportation planning for a better functioning built environment.

These investments in active transportation and higher density development should be made through sensitive design that responds to existing physical conditions of the surrounding context - focusing TOD investments to make areas more walkable while complementing existing community character. Sensitively designed TODs can preserve existing development patterns and neighborhood character while providing a balance of modes and housing choices.

Purpose of the Toolkit

In 2017, SCAG launched the first round of the HQTA Pilot Project. The Pilot Project offers technical assistance and planning services to station areas that have a high potential for transit-supportive development patterns and future growth. Once Station Area Vision Plans are created, SCAG will work with Pilot Project jurisdictions to track the progress towards meeting a variety of regional objectives, such as lower greenhouse gas emissions and increased transit ridership.

Generally, this Toolkit is a tool for guiding the development of Station Area Vision Plans and their implementation. It includes strategies and investments for people who walk, bike, and take public transportation, while balancing considerations for drivers and other modes. Specifically, this document provides a range of physical investments and strategies to construct, and measure the impacts of well-designed TODs. The individual physical elements addressed by this document are identified in a typical half-mile station area diagram shown on the following page.

This Toolkit is meant to be used as a resource for SCAG, municipalities, and individual developers to build quality TOD within the region's HQTAs in order to address a number of regional issues and achieve a number of regional goals and objectives; these issues, goals, and objectives are enumerated on the following pages.

The HQTA Toolkit is a "living document" and is designed to be regularly updated with additional TOD amenity precedents over time.

High Quality Transit Areas

The first step in planning for TOD is to determine the location and limits of the HQTA. A HQTA is defined in the RTP/SCS generally as a walkable transit village or corridor, within one half-mile of a well-serviced transit stop or a transit corridor with 15-minute or better service frequency (headways) during peak commute hours. This definition of a HQTA is based on the following Senate Bill (SB) 375 language, which provides the legal framework for funding of active transportation, TOD, and other infrastructure projects oriented towards reducing GHGs:

Major Transit Stop: A site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.

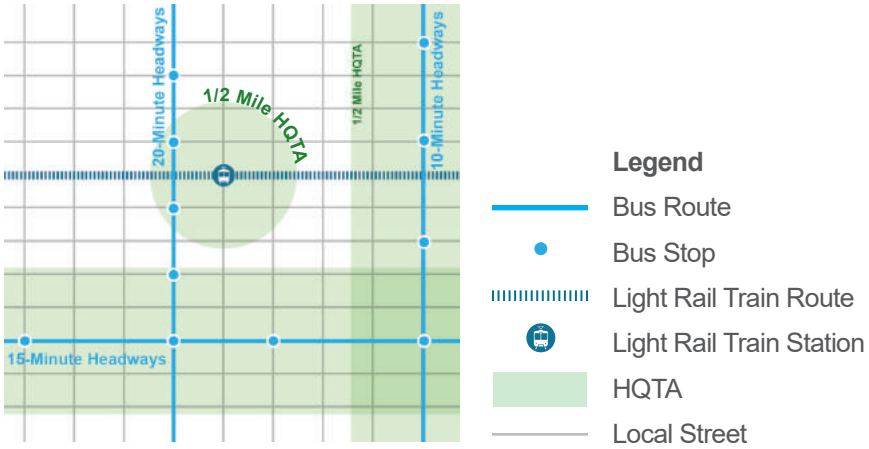
High Quality Transit Corridor (HQTC): A corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.

The figure below shows hypothetical HQTAs based on the SB 375 language for various transit route frequencies.

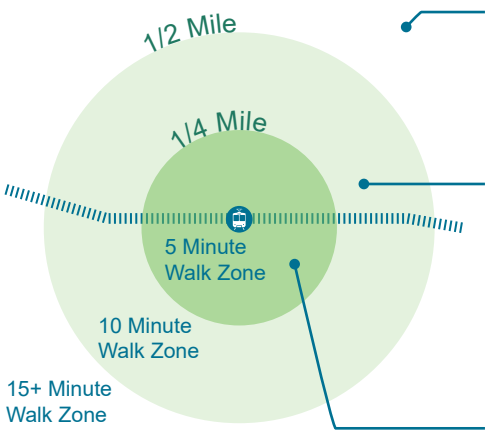
Within the HQTA, there are individual zones that have implications for TOD planning. The HQTA station/stop is surrounded by relatively high-intensity development, with intensity of development gradually reducing outwards to be compatible with lower-density uses as shown in the figure at right top.

The figure at right shows the location of all HQTAs within the SCAG region by 2040, which is based on the expected build-out of scheduled public transportation projects.

Qualifying HQTAs based on Transit Frequencies



HQTA Zones

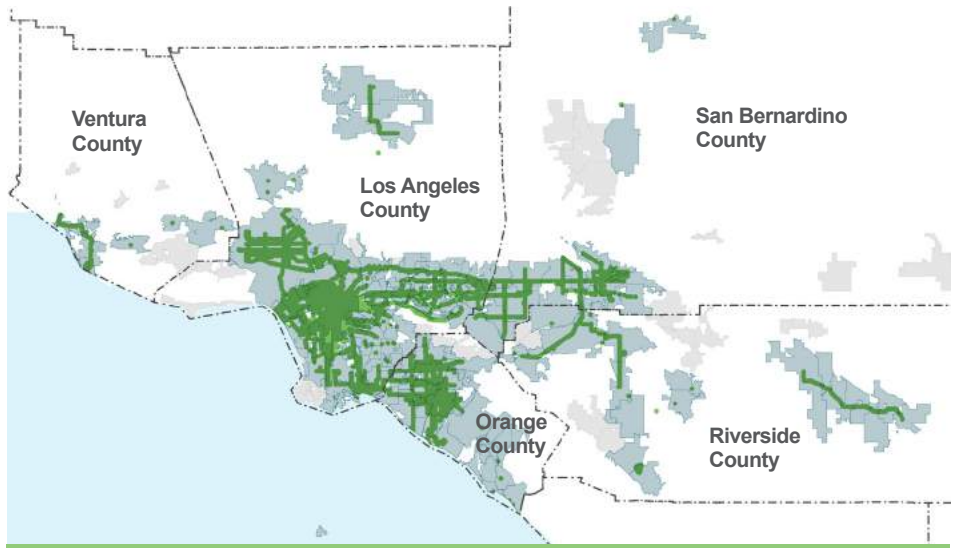


3 Mile Bicycle Zone: Bicyclists generally commute to transit stations within a three-mile bikeshed.

1/2 Mile Station Area: The maximum distance most people are willing to walk to transit is one-half mile, which roughly equates to a 10-minute walk. Uses include residential, retail, office, open space and other employment uses.

Core Area: Uses include highest intensity retail, office, residential, educational, open space and employment uses and the transit station corridor.

Location of HQTAs in the SCAG Region



Maps of HQTAs within the SCAG Region that provide detailed information on location of HQTAs are provided online:
www.Loremipsumdolorsitamet.com

Note: Per the 2016/2040 RTP/SCS, there are no HQTAs identified for Imperial County.

Issues in the SCAG Region

The vision set forth in the RTP/SCS addresses major issues facing the SCAG Region today:

- Environmental justice
- Affordablilty
- Population growth and displacement
- Air quality
- Economic development
- Transportation access and safety
- Goods movement
- Public health
- Climate change

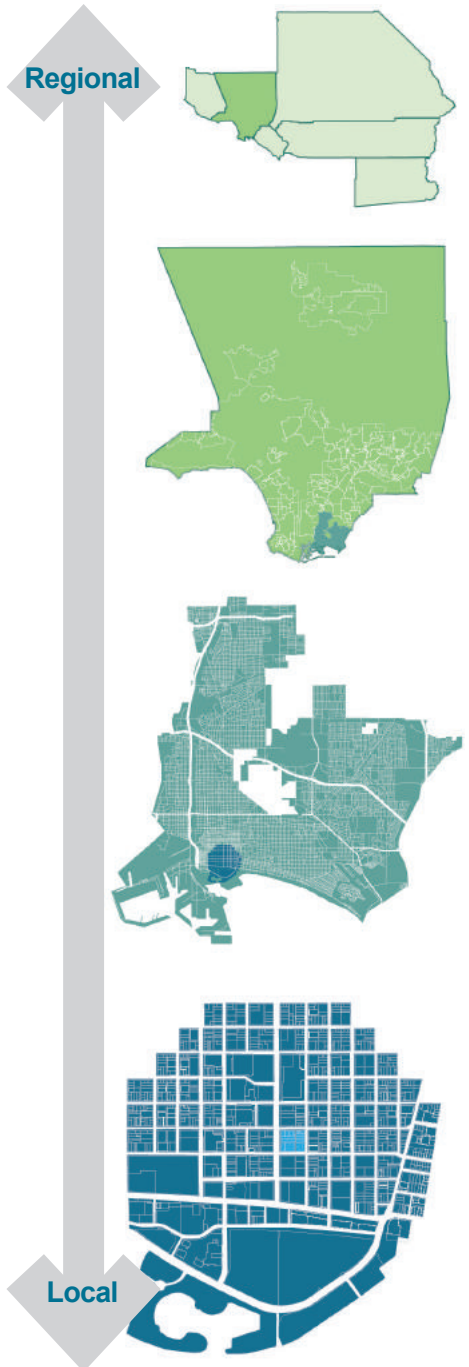
All these issues facing the Region are interconnected. They are the consequence of past investments in sprawling development and auto-centric transportation infrastructure when land use and transportation planning were isolated disciplines. In hindsight, the auto-centric development patterns were made without consideration for the potential impacts to air quality, public health, neighborhood fabric, and other factors. The new vision for the SCAG Region, centered on TODs within HQTAs integrates transit-supportive land uses with a variety of transportation options. A new urban development pattern applies the context and technologies of the 21st Century to produce walkable, affordable, healthy, sustainable, safe, and equitable communities.

Geographic Scales of TOD Planning

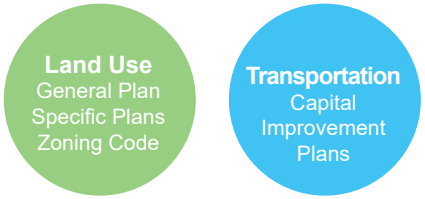
While major issues are perceived regionally, it is the individual parcels, blocks, and neighborhoods that produce the physical conditions that influence regional outcomes; they form the individual tiles of the regional mosaic. The same applies for the goals and objectives of the region. TODs occur at the individual scale where localized issues can match or be contrary to regional trends, but they are not isolated from its context. Understanding the value of how studying every scale impacts the success of TOD is demonstrated through research from Center for Transit-Oriented Development (CTOD),

"Planning for TOD occurs at the scale of the region, the corridor, the station area, and the land parcel, and these separate levels of planning should be coordinated to achieve the most successful outcomes. Planning at the regional scale serves to integrate regional goals, such as decreasing traffic congestion and improving public health, with regional contexts, such as a consideration of population growth and the location of major employment centers. Planning for TOD most often takes place at the station area level, and this is where it's easiest to understand local benefits such as reduced transportation costs for residents, and the creation of a sense of place and community. Development projects are planned at the scale of the [individual] land parcel."

This Toolkit will provide the tools to implement individual projects both public and private that improve both local and regional livability.



Traditional Planning



New Approach to Planning

Goals and Objectives for the SCAG Region

Goals

The following are the broad goals of the 2016/2040 RTP/SCS designed to address the primary issues facing the SCAG Region, which also apply to this Toolkit:

- Align plan investments and policies with improving regional economic development
- Maximize mobility and accessibility for all people and goods in the region
- Ensure travel safety and reliability
- Preserve and ensure a sustainable regional transportation system
- Maximize productivity
- Protect the environment and health of the region's residents by improving air quality and encouraging active transportation
- Actively encourage and create incentives for energy efficiency
- Encourage land use and growth patterns that facilitate transit and active transportation
- Maximize security of the regional transportation system

Objectives and Metrics

The Pilot Project Vision Plans, guided by the strategies and investments contained in the Toolkit will help achieve the following 2016/2040 RTP/SCS objectives:

- 8 percent reduction in GHG emissions per capita by 2020, 18 percent reduction by 2035, and a 21 percent reduction by 2040 - compared to 2005 levels
- Improve regional air quality
- 4 percent increase in commute trips made by carpooling, active transportation (walking and biking) and public transit from current single occupant vehicle trips
- 7 percent reduction of vehicle miles traveled (VMT) per capita
- 17 percent reduction of vehicle hours (VHT) per capita for automobiles and light/medium duty trucks
- 1/3 increase in daily travel by public transit
- 39 percent reduction of delay on roadways per capita
- Create more than 351,000 jobs annually
- Reduce the amount of undeveloped (greenfield) lands by 23 percent
- Reduce the regional obesity rate from 26.3 percent to 25.6 percent in areas with land use changes

Once the Vision Plans are developed, SCAG will work with pilot project jurisdictions to track the progress of pilot projects towards meeting regional objectives through a set of metrics. Pilot projects that successfully reduce GHGs or meet other objectives will be held up as models for other station areas with similar characteristics. Taken together, successful pilot projects will help to address the major issues facing the SCAG Region today.

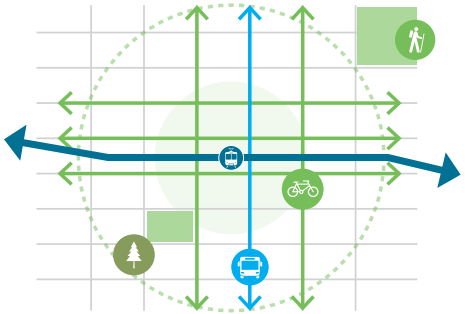
Benefits of TODs

Transit-Oriented Development (TOD) is a form of urban development that is different than urban development that occurred during the sprawl that ensued after WWII. The postwar population boom led to a sprawling development pattern that was enabled by the construction of freeways and inefficient infrastructure and land use investments. TOD can accommodate inevitable future population and job growth that addresses the issues we face today, and focuses that new urban development in HQTAs that preserve and improve the quality of existing communities.

A new population boom offers the opportunity to reshape how the region grows. According to estimates by SCAG, Los Angeles County alone will add up to 1 million new residents by 2030. TODs are equipped to accommodate future growth while largely preserving existing neighborhood character.

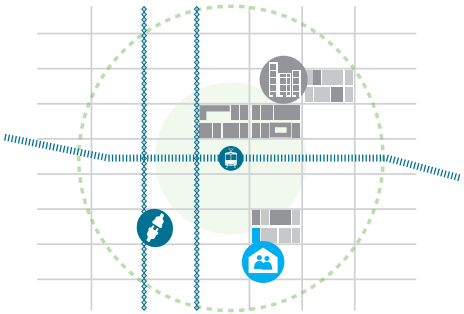
The illustration at right lists the numerous benefits of TODs, which have been grouped into the categories of environment, economic, and social.

ENVIRONMENT



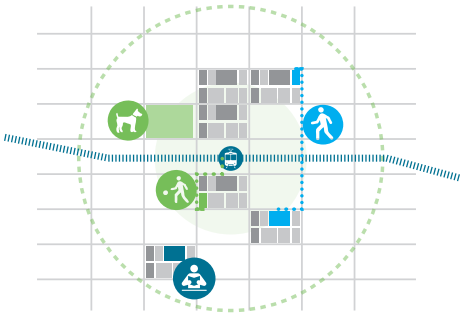
- Increased transit ridership
- Reduced VMT
- Reduced GHG
- Improved Air Quality
- Conservation of land and open space

ECONOMIC



- Catalyst for economic development
- Redevelopment of vacant and underutilized properties
- Increased property value
- Decreased infrastructure costs
- Revenue for transit systems
- Reduced household spending on transportation
- Increase in affordable housing

SOCIAL



- Increased housing and employment choices
- Greater mobility choices
- Health benefits
- Enhanced sense of community
- Enhanced public safety
- Increased quality of life

Components of TODs

A typical HQTA should include a mixture of housing, office, retail and/or other commercial development and amenities integrated into a walkable neighborhood and located within a half-mile of quality public transportation.

1. **Mix of Land Uses / Higher Densities and Intensities**
   GOAL: Encourage transit-supportive uses at higher densities and intensities in walking distance to transit stations/stops
   Design for flexibility to allow for future conversion to other uses
   Provide for convenience retail that serves transit commuters

2. **Street Design / Active Transportation**
   GOAL: Balance the provision of pedestrian, cyclist, transit, and single-occupancy vehicles (SOVs) infrastructure by promoting "complete streets"
   Design amenities for all modes (shelters, storage, etc.)
   Design streets with pedestrian and cyclist safety in mind
   Employ traffic-calming devices to reduce collisions

3. **Buildings / Urban Design**
   GOAL: Promote attractive, pedestrian-friendly buildings that contribute to the character of a district and have active ground floor uses
   Promote building articulation and variety
   Use a diverse pallete of materials
   Locate parking behind buildings and retail along streets
   Design for flexibility to allow for future conversion to other uses

4. **Parking: Strategies**
   GOAL: Reduce reliance upon SOVs by managing the supply and demand of parking
   Shared, district-wide parking
   Reduced parking supply
   Reliance upon multiple modes to address mobility needs
   Appropriately-priced parking to manage demand
   Car-share, transit and cycling incentive programs

5. **Open Space: / Placemaking**
   GOAL: Design for active and passive recreational opportunities
   Privately-owned, publicly-accessible public spaces (POPs)
   Publicly-owned civic spaces for passive + active recreation
   Public spaces of a wide variety of types and programming

TOD Performance Metrics

Baseline conditions for each HQTA are established using the most recent version of the SCAG model (2016 RTP/SCS). Evaluation of the Pilot Project Buildout conditions includes modification to the SCAG model's Transportation Analysis Zones (TAZs) to represent the land use forecast to be built.

Each analysis of the Pilot Project Buildout proposed by the HQTA Vision Plan used the **number of jobs**, **housing units**, and **population** to estimate the following metrics:

Vehicle Miles Traveled (VMT) per capita is a measurement of the number of vehicle trips multiplied by the distance of those trips (in terms of miles traveled). The total VMT (generated by the TAZ's within the HQTA) is divided by the population within the HQTA area to determine the VMT per capita. Data from all TAZ's within, or overlapping with, the HQTA boundaries is included in the calculation.

Vehicle Hours Traveled (VHT) per capita is a measurement of the number of vehicle trips multiplied by the duration of those trips (in terms of hours traveled). The total VHT (generated by the TAZ's within the HQTA) is divided by the population within the HQTA area to determine the VHT per capita. Data from all TAZ's within, or overlapping with, the HQTA boundaries is included in the calculation.

Travel mode share within the HQTA is calculated by obtaining the total origins and destinations (auto and transit) for each zone within the HQTA, and calculating the travel mode share based on raw model output data.

Public transit usage is calculated as the number of daily transit trips within the HQTA.

Vehicular delay is calculated as the total daily vehicle delay on all roadway links within the HQTA.

Number of Jobs

Transit-oriented communities have active local businesses and attract new economic development.

Housing Units

A higher density of housing units along transit routes increases residents' access to alternative modes of travel.

Population

Cities with population densities concentrated along transit routes are healthier, more economically stable, and produce less carbon emissions.

Vehicular Delay

A reduction in vehicular delay can reduce GHG emissions from idling cars.

Travel Mode Share

Streets designed for all modes of travel can reduce occurrences and severity of traffic collisions.

Public Transit Usage

An increase in public transit ridership reduces the number of single-occupancy vehicles on the road and provides revenue for cities.

Vehicular Miles Traveled (VMT)

A reduction in VMT eases traffic congestion, promotes active transportation, and reduces GHG emissions.

Vehicular Hours Traveled (VHT)

A reduction in VHT promotes mental health in commuters by reducing commute fatigue.

HQTA Place Types

During the generation of growth scenarios for the 2016 RTP/SCS, SCAG developed a set of 35 place types that are based on observations of station areas in California and throughout the United States. Each place type is embedded with assumptions for density/intensity, land use type and mix, built form, and connectivity, each of which can be quantified and compared across many different stations. Place types are organized into "urban," "compact," and "standard."

These place types recognize the rich diversity and wide variety of communities in the SCAG region. The goal of the HQTA program is not to replicate the same TOD model for each community, but rather to build upon the unique attributes of each city. Through this approach, each community can identify its strengths and opportunities to create compact, livable, walkable communities. Communities can refer to these place types as they define the current conditions and desired qualities of their HQTA.

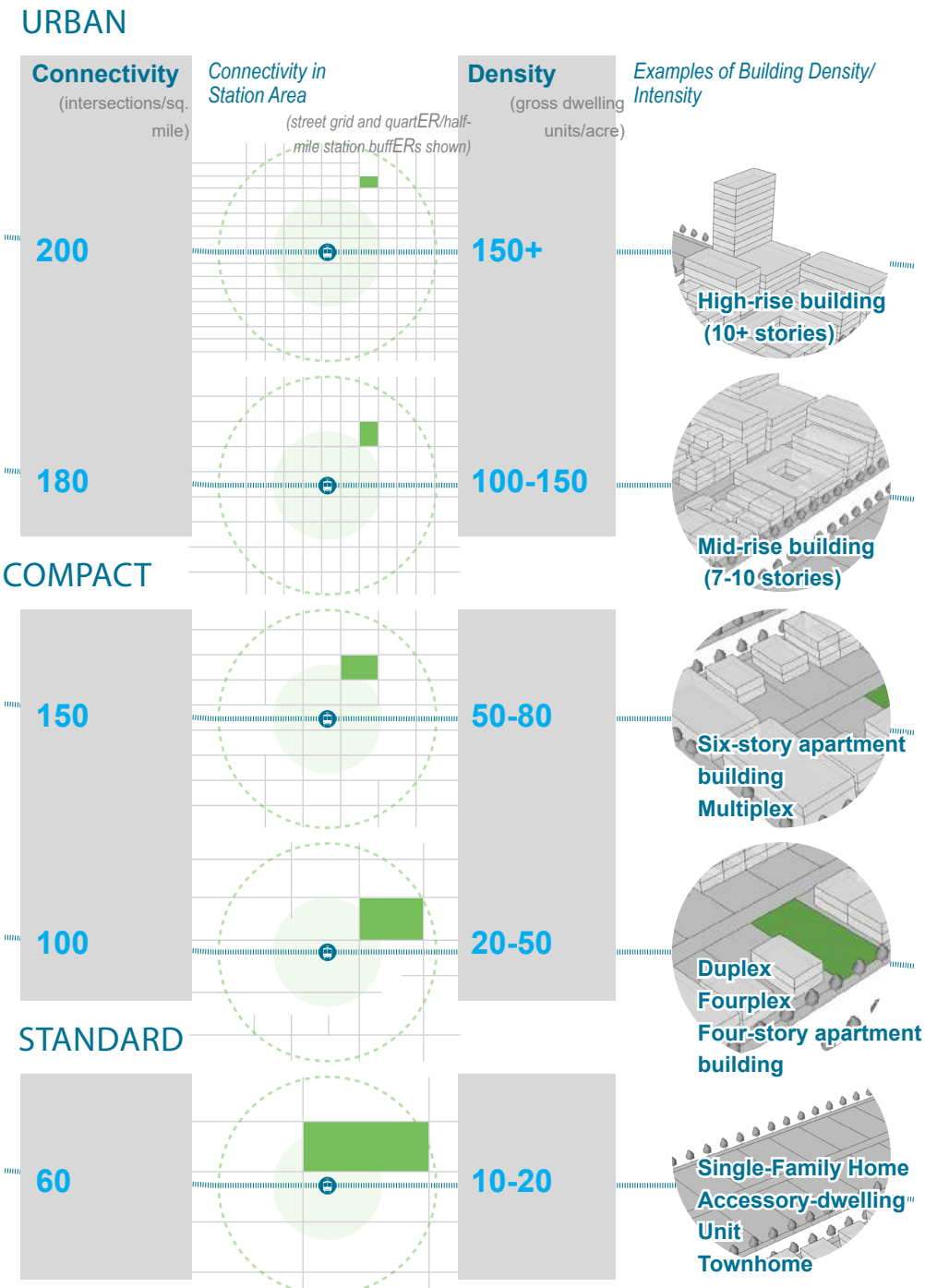
Progress towards meeting these goals will be tracked through a series of targets and metrics identified in each Vision Plan. These targets include density, connectivity, primary mode of travel, and greenhouse gas reductions, among others. Of the 35 place types identified by SCAG, 17 meet or exceed density thresholds that will promote the use of high quality transit. These are listed in **bold** below. A more complete profile of each of the 17 place types is presented on the following pages. A summary table of metrics for each place type can be found in the "Additional Resources" section of this Toolkit.

Urban
- **Urban Mixed Use**
- **Urban Residential**
- **Urban Commercial**
- **City Mixed Use**
- **City Residential**
- **City Commercial**

Compact
- **Town Mixed Use**
- **Town Residential**
- **Town Commercial**
- **Village Mixed Use**
- **Village Residential**
- **Village Commercial**
- Neighborhood Residential
- Neighborhood Low

Other
- **Campus / University**
- Institutional

Standard
- **Office Focus**
- Mixed Office and R&D
- Office / Industrial
- Industrial Focus
- Low-Density Employment Park
- **High Intensity Activity Center**
- Mid Intensity Activity Center
- Low Intensity Retail-Centered Neighborhood
- Retail: Strip Mall / Big Box
- **Industrial / Office / Residential Mix High**
- Industrial / Office / Residential Mix Low
- **Suburban Multi-family**
- Suburban Mixed Use Residential
- Residential Subdivision
- Large Lot Residential Area
- Rural Residential
- Rural Ranchettes
- Rural Employment
- Open Space



HQTA Place Types

Urban Mixed Use

Land Use Mix		Residential Mix	
Residential	18%	SF Large Lot	0%
Employment	16%	SF Small Lot	0%
Mixed Use	45%	Townhome	0%
Open Space/Civic	21%	MultiFamily	100%
Built Environment		**Employment Mix**	
Intersections per mi^2	200	Office	80%
Average Floors	23	Retail	20%
Floors Range	15 – 100	Industrial	0%
Total Net FAR	9.0		
Gross Density Range (per acre)		**Average Density** (per acre)	
Household	40-500+	Household	85
Employee	50-500+	Employee	266

Description

Urban Mixed Use districts are exemplified by a variety of intense uses and building types. Typical buildings are between 10 and 40+ stories tall, with offices and/or residential uses and ground-floor retail space. Parking is usually structured below or above ground. Workers, residents, and visitors are well served by transit, and can walk or bicycle for many of their transportation needs.

City Mixed Use

Land Use Mix		Residential Mix	
Residential	28%	SF Large Lot	0%
Employment	17%	SF Small Lot	0%
Mixed Use	35%	Townhome	3%
Open Space/Civic	20%	MultiFamily	97%
Built Environment		**Employment Mix**	
Intersections per mi^2	200	Office	60%
Average Floors	7	Retail	40%
Floors Range	3 – 40	Industrial	0%
Total Net FAR	3.4		
Gross Density Range (per acre)		**Average Density** (per acre)	
Household	10-75	Household	44
Employee	25-165	Employee	85

Description

City Mixed Use areas are transit-oriented and walkable, and contain a variety of uses and building types. Typical buildings are between 5 and 30 stories tall, with ground-floor retail space, and offices and/or residences on the floors above. Parking is usually structured below or above ground.

Urban Residential

Land Use Mix		Residential Mix	
Residential	64%	SF Large Lot	0%
Employment	4%	SF Small Lot	0%
Mixed Use	12%	Townhome	0%
Open Space/Civic	21%	MultiFamily	100%
Built Environment		**Employment Mix**	
Intersections per mi^2	200	Office	22%
Average Floors	18	Retail	78%
Floors Range	5 – 60	Industrial	0%
Total Net FAR	9.0		
Gross Density Range (per acre)		**Average Density** (per acre)	
Household	75-500+	Household	131
Employee	0-50+	Employee	44

Description

The most intense residential-focused type, Urban Residential areas are typically found within or adjacent to major downtowns. They include high- and mid-rise residential towers, with some ground-floor retail space. Parking usually structured below or above ground. Residents are well served by transit, and can walk or bicycle for many of their daily needs.

City Residential

Land Use Mix		Residential Mix	
Residential	65%	SF Large Lot	0%
Employment	4%	SF Small Lot	0%
Mixed Use	11%	Townhome	3%
Open Space/Civic	20%	MultiFamily	97%
Built Environment		**Employment Mix**	
Intersections per mi^2	200	Office	40%
Average Floors	7	Retail	60%
Floors Range	5 – 40	Industrial	0%
Total Net FAR	2.9		
Gross Density Range (per acre)		**Average Density** (per acre)	
Household	35-75	Household	58
Employee	0-17	Employee	14

Description

An dense residential-focused type, City Residential is dominated by mid- and high-rise residential towers, with some ground-floor retail space. Parking is usually structured, below or above ground. Residents are well served by transit, and can walk or bicycle for many of their daily needs.

Urban Commercial

Land Use Mix		Residential Mix	
Residential	1%	SF Large Lot	0%
Employment	4%	SF Small Lot	0%
Mixed Use	12%	Townhome	0%
Open Space/Civic	21%	MultiFamily	100%
Built Environment		**Employment Mix**	
Intersections per mi^2	200	Office	93%
Average Floors	15	Retail	7%
Floors Range	15 – 100	Industrial	0%
Total Net FAR	6.0		
Gross Density Range (per acre)		**Average Density** (per acre)	
Household	0-40	Household	8
Employee	250-500+	Employee	402

Description

Urban Commercial areas are typically found within major Central Business Districts. They are exemplified by mid- and high-rise office towers. Typical buildings are between 15 and 40+ stories tall, with ground-floor retail space, and offices on the floors above. Parking is usually structured below or above ground; workers tend to arrive by transit, foot or bicycle in large numbers.

City Commerical

Land Use Mix		Residential Mix	
Residential	1%	SF Large Lot	0%
Employment	82%	SF Small Lot	0%
Mixed Use	4%	Townhome	0%
Open Space/Civic	14%	MultiFamily	100%
Built Environment		**Employment Mix**	
Intersections per mi^2	200	Office	77%
Average Floors	7	Retail	23%
Floors Range	5 – 40	Industrial	0%
Total Net FAR	3.1		
Gross Density Range (per acre)		**Average Density** (per acre)	
Household	0-10	Household	4
Employee	90-250	Employee	200

Description

The central business districts of most cities contain areas exemplary of City Commercial, with many mid- and high-rise office towers and government buildings. Typical structures are between 4 and 40 stories tall, with ground-floor retail space, and offices on the floors above. Parking is usually structured, though many workers arrive by transit, foot, or bicycle.

HQTA Place Types

Town Mixed Use

Land Use Mix		Residential Mix	
Residential	26%	SF Large Lot	0%
Employment	20%	SF Small Lot	0%
Mixed Use	29%	Townhome	0%
Open Space/Civic	25%	MultiFamily	100%
Built Environment		**Employment Mix**	
Intersections per mi²	200	Office	75%
Average Floors	4	Retail	25%
Floors Range	2 – 8	Industrial	0%
Total Net FAR	1.9		
Gross Density Range (per acre)		**Average Density** (per acre)	
Household	7-35	Household	21
Employee	25-70	Employee	50

Description

Town Mixed Use areas are walkable mixed-use neighborhoods, such as the mixed-use core of a small city or transit oriented development, with a variety of uses and building types. Typical buildings are between 3 and 8 stories tall, with ground-floor retail space, and offices and/or residences on the floors above. Parking is usually structured, above or below ground.

Village Mixed Use

Land Use Mix		Residential Mix	
Residential	43%	SF Large Lot	15%
Employment	14%	SF Small Lot	15%
Mixed Use	14%	Townhome	29%
Open Space/Civic	28%	MultiFamily	41%
Built Environment		**Employment Mix**	
Intersections per mi²	220	Office	42%
Average Floors	3	Retail	58%
Floors Range	2 – 6	Industrial	0%
Total Net FAR	1.0		
Gross Density Range (per acre)		**Average Density** (per acre)	
Household	5-12	Household	10
Employee	5-40	Employee	14

Description

Village Mixed Use areas are the walkable and transit accessible mixed-use cores of traditional neighborhoods. Typical buildings are between 2 and 6 stories tall, with ground-floor retail space, and offices and/or residences on the floors above. Parking is typically structured, tucked under, or placed behind buildings so that it does not detract from the pedestrian environment.

Town Residential

Land Use Mix		Residential Mix	
Residential	68%	SF Large Lot	0%
Employment	0%	SF Small Lot	0%
Mixed Use	10%	Townhome	47%
Open Space/Civic	22%	MultiFamily	53%
Built Environment		**Employment Mix**	
Intersections per mi²	220	Office	47%
Average Floors	3	Retail	53%
Floors Range	2 – 8	Industrial	0%
Total Net FAR	1.2		
Gross Density Range (per acre)		**Average Density** (per acre)	
Household	12-35	Household	18
Employee	0-25	Employee	12

Description

Containing a mix of townhomes, condominiums and apartments (and occasionally small-lot single family homes), Town Residential is characterized by dense residential neighborhoods interspersed with occasional retail areas. Typical buildings are 2-5 stories tall, with limited off-street parking; residents tend to use transit, walking and bicycling for many of their transportation needs.

Village Residential

Land Use Mix		Residential Mix	
Residential	74%	SF Large Lot	26%
Employment	0%	SF Small Lot	26%
Mixed Use	1%	Townhome	49%
Open Space/Civic	26%	MultiFamily	0%
Built Environment		**Employment Mix**	
Intersections per mi²	180	Office	100%
Average Floors	3	Retail	0%
Floors Range	2 – 5	Industrial	0%
Total Net FAR	0.9		
Gross Density Range (per acre)		**Average Density** (per acre)	
Household	8-12	Household	10
Employee	0-5	Employee	2

Description

Containing a mix of single-family homes on small lots and townhomes, Village Residential is characterized by traditional neighborhoods, designed to be supportive of transit service, walking and bicycling. Typical buildings are 2-3 stories tall, with small yards and an active focus on the public realm.

Town Commercial

Land Use Mix		Residential Mix	
Residential	1%	SF Large Lot	0%
Employment	69%	SF Small Lot	0%
Mixed Use	17%	Townhome	0%
Open Space/Civic	14%	MultiFamily	100%
Built Environment		**Employment Mix**	
Intersections per mi²	200	Office	68%
Average Floors	3	Retail	32%
Floors Range	2 – 8	Industrial	0%
Total Net FAR	1.8		
Gross Density Range (per acre)		**Average Density** (per acre)	
Household	0-7	Household	5
Employee	60-90	Employee	75

Description

Equivalent to the center of a traditional town, or a more employment-focused transit-oriented development, Town Commercial contains a mix of commerical buildings set in a walkable context. Typical structures are between 2 and 8 stories tall, with ground-floor retail, and offices, services, and some residential uses on upper floors.

Village Commerical

Land Use Mix		Residential Mix	
Residential	0%	SF Large Lot	0%
Employment	61%	SF Small Lot	0%
Mixed Use	7%	Townhome	0%
Open Space/Civic	32%	MultiFamily	100%
Built Environment		**Employment Mix**	
Intersections per mi²	230	Office	49%
Average Floors	2	Retail	51%
Floors Range	0	Industrial	0%
Total Net FAR	1.2		
Gross Density Range (per acre)		**Average Density** (per acre)	
Household	0-5	Household	2
Employee	1-60	Employee	40

Description

Equivalent to the center of a small town or district, or a lower-intensity employment-focused transit-oriented development, Village Commercial contains a mix of buildings set in a walkable context. Typical structures are between 2 and 5 stories tall, with some ground-floor retail, and offices, services, and some residential on upper floors.

HQTA Place Types

Suburban Multifamily

Land Use Mix		Residential Mix	
Residential	87%	SF Large Lot	0%
Employment	0%	SF Small Lot	0%
Mixed Use	0%	Townhome	11%
Open Space/Civic	13%	MultiFamily	89%
Built Environment		**Employment Mix**	
Intersections per mi^2	90	Office	85%
Average Floors	3	Retail	15%
Floors Range	2-5	Industrial	0%
Total Net FAR	1.2		
Gross Density Range (per acre)		**Average Density** (per acre)	
Household	18-150+	Household	32
Employee	0-6	Employee	2

Description

Predominantly containing apartments, condos, and town homes, Suburban Multifamily represents developments that may have internal walking paths but are set in an automobile-oriented context. While densities can be high enough to support bus transit, residents are likely to drive for most trips. Typical buildings are 2-5 stories tall, surrounded by surface parking lots.

Office Focus

Land Use Mix		Residential Mix	
Residential	0%	SF Large Lot	0%
Employment	82%	SF Small Lot	0%
Mixed Use	0%	Townhome	0%
Open Space/Civic	18%	MultiFamily	0%
Built Environment		**Employment Mix**	
Intersections per mi^2	45	Office	93%
Average Floors	4	Retail	2%
Floors Range	2 – 9	Industrial	5%
Total Net FAR	1.1		
Gross Density Range (per acre)		**Average Density** (per acre)	
Household	0	Household	0
Employee	35-150+	Employee	65

Description

Representing the most intense auto-oriented single-use office areas, Office Focus is characterized by mid and high-rise office towers. Typical buildings are between 2 and 9 stories tall. Parking can be either structured or provided on surface lots. Workers tend to arrive by auto, though densities are high enough to support suburban transit service.

High Intensity Activity Center

Land Use Mix		Residential Mix	
Residential	14%	SF Large Lot	0%
Employment	37%	SF Small Lot	0%
Mixed Use	41%	Townhome	6%
Open Space/Civic	8%	MultiFamily	94%
Built Environment		**Employment Mix**	
Intersections per mi^2	130	Office	20%
Average Floors	5	Retail	80%
Floors Range	5 – 40	Industrial	0%
Total Net FAR	2.5		
Gross Density Range (per acre)		**Average Density** (per acre)	
Household	0.5-200+	Household	24
Employee	3-250+	Employee	69

Description

High Intensity Activity Centers include a mix of moderate to intense densities of retail, office, and residential uses. They are often anchored by major regional retail centers or office parks, and while they can contain a robust mix of uses, they are most often oriented within an auto-oriented and non-walkable street and land use pattern. Parking can be structured and/or provided on surface lots.

Campus/University

Land Use Mix		Residential Mix	
Residential	32%	SF Large Lot	0%
Employment	2%	SF Small Lot	0%
Mixed Use	0%	Townhome	0%
Open Space/Civic	67%	MultiFamily	100%
Built Environment		**Employment Mix**	
Intersections per mi^2	150	Office	64%
Average Floors	8	Retail	36%
Floors Range	3 – 17	Industrial	0%
Total Net FAR	1.7		
Gross Density Range (per acre)		**Average Density** (per acre)	
Household	1-50	Household	31
Employee	10-100	Employee	22

Description

College/University areas tend to be internally walkable, though they can be located in either a walkable or auto-oriented context. Buildings can range from 1 to 20+ stories, depending on the design of the campus. Parking may be plentiful or restricted; housing may be provided on-site in large amounts, or students may commute from homes in other locations.

Source: 2016 RTP/SCS

Industrial/Office/Residential Mixed High

Land Use Mix		Residential Mix	
Residential	58%	SF Large Lot	0%
Employment	36%	SF Small Lot	0%
Mixed Use	0%	Townhome	4%
Open Space/Civic	6%	MultiFamily	96%
Built Environment		**Employment Mix**	
Intersections per mi^2	60	Office	73%
Average Floors	4	Retail	16%
Floors Range	1 – 17	Industrial	11%
Total Net FAR	2		
Gross Density Range (per acre)		**Average Density** (per acre)	
Household	18-200+	Household	45
Employee	3-250+	Employee	42

Description

Industrial/Office/Residential Mixed High is characterized by a wide-ranging, intensely developed mix of uses located in close proximity and set in an automobile-oriented context. Building heights can range from 1 to 15+ stories, and uses can include but are not limited to industrial, warehouses, offices, residential, and retail.

Part II

Toolkit

Implementation of the Station Area Vision is accomplished through specific physical improvements. The HQTA Toolkit provides a collection of individual elements (infrastructure and policy) based on contemporary best practices that can be combined to improve the public realm for people who walk, bicycle, and take public transit.

A - Complete Streets

B - Placemaking

C - Building Types & Precedents

SCAG

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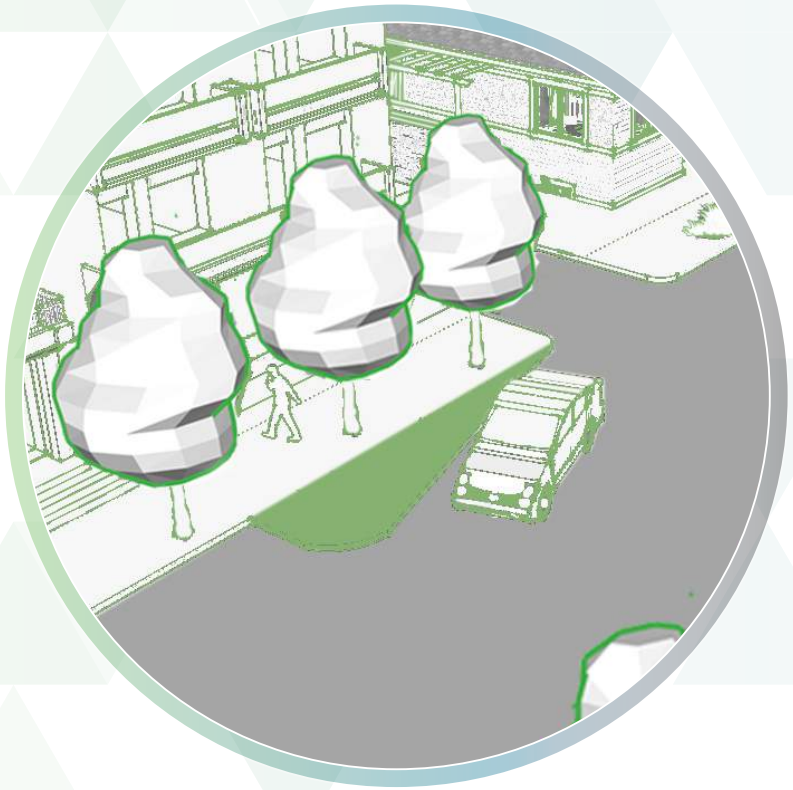
Part II

Toolkit

A - COMPLETE STREETS



Street Design

Intersections

Infrastructure

Amenities

Other

Complete Streets

Complete streets are designed and constructed to serve all users of streets regardless of age or ability or whether they are driving, walking, bicycling, or taking transit.[1] In many areas of the SCAG region, vehicular travel lanes have been given priority within the public right-of-way over other forms of transportation leaving little space for sidewalks, bicycle paths, and transit. In HQTAs within the constrained street right-of-way, the challenge is to create a network of complete streets where tree-lined walkways, bicycle paths, pedestrian/ bicycle amenities and transit connections are balanced with the requirements of automobiles. The two diagrams illustrate an example of transforming a major corridor into a more walkable, bicycle friendly, and transit-supportive street.

Benefits

- Safety – Designing streets that consider safe travel for all modes can reduce occurrences and severity of vehicular collisions with pedestrian and bicycles.
- Health – Promotes a healthy lifestyle by encouraging physical activity.
- Greenhouse Gas Emission reduction – Developing an integrated land use and transportation pattern in a HQTA can reduce VMT and greenhouse gas emissions.
- Economic Development – Multi-modal transportation networks can improve economic activity of local business and attract new economic development.

Street Design

- Lane Width and Re-purposing
- Transit Lanes
- Bicycle Lanes and Paths
- Sidewalks
- Bus Bulbs
- Speed Table

Intersections

- Traffic Circle
- Diverter
- Median Refuge Island
- Curb Extension
- Protected Bicycle Intersection
- Enhanced crosswalk
- High-intensity Activated Crosswalk (HAWK) Beacon
- Scramble Crosswalk
- Curb Ramp

Infrastructure

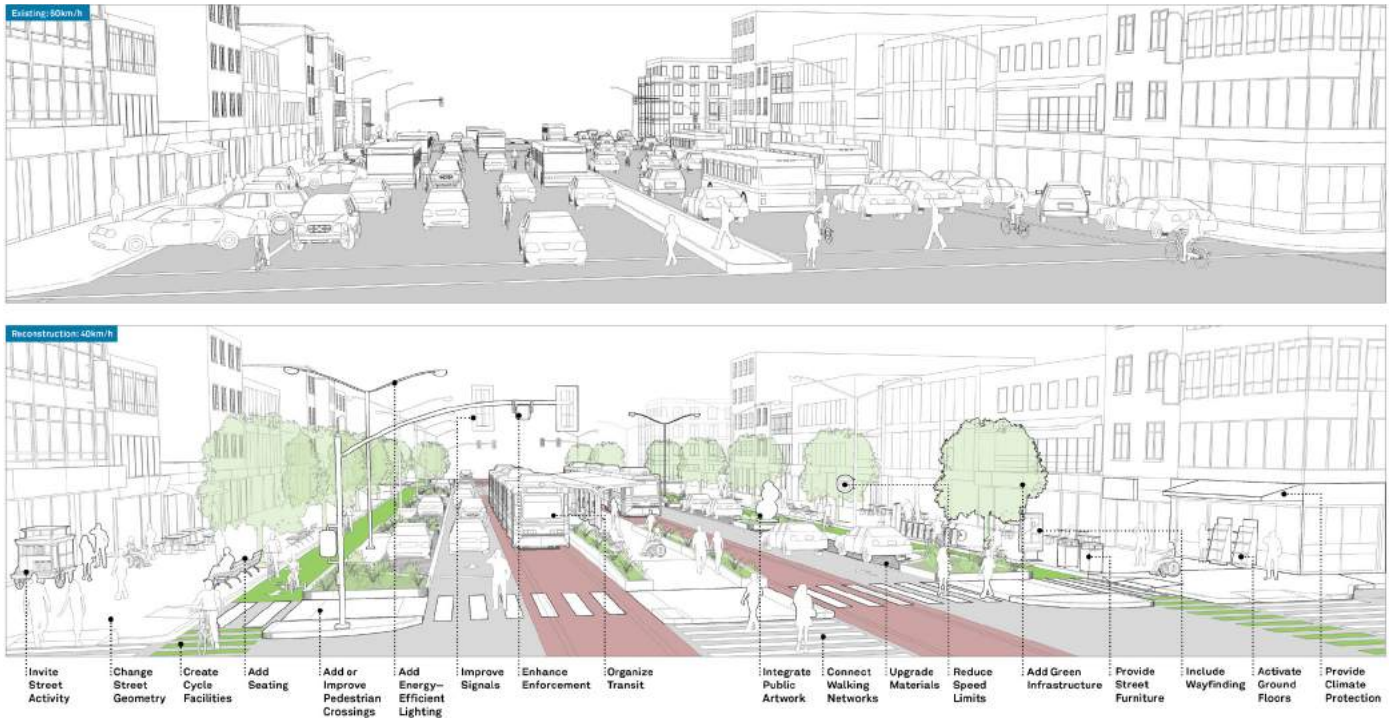
- Chicane
- Street trees
- Treelet
- Greenway Planters / Bioswales
- Permeable Paving
- Lighting

Amenities

- Wayfinding
- Street Furniture
- Transit Shelter

Other

- Demonstration Projects



Source: NACTO

[1] State of California OPR, General Plan Guidelines: Complete Streets and the Circulation Element, 2010.

Complete Streets

ROUGH ORDER OF MAGNITUDE (ROM) COST ESTIMATES FOR COMPLETE STREET AMENITIES (2019)

The table at right lists an estimated cost range for the complete street elements profiled in the HQTA Toolkit. These estimates can be used as cities develop more detailed complete street plans as priority projects move forward.

Costs for contingencies (design and construction), general contractors, contractor overhead and project, bonds and insurance, and escalation are factors which may increase the cost estimates provided at right. These factors vary by city, and should be added to the estimates on a case-by-case basis.

The Toolkit is a living document meant to be updated over time. These cost estimates should be updated periodically to reflect the average costs for the complete street amenities described herein.

	Complete Street Treatments	Lower Limit ($)	Upper Limit ($)	Unit
Street Design	Street Reconstruction to achieve transit lanes or protected bike lanes, new curbs, wider sidewalks, new street/pedestrian lighting, street trees, street furniture, storm water management	$15,000,000	$28,000,000	/ mile
	Transit Lanes (re-striping only, no new curb, no color)	$25	$30	LF
	Bicycle Lanes (re-striping only, no new curb)	$25	$30	LF
	Sidewalks (new paving)	$25	$80	SF
	Bus Bulbs (at intersection)	$25,000	$32,000	each
	Speed Table	$50,000	$100,000	each
Intersections	Raised Crosswalk	$8,000	$15,000	each
	Traffic Circle	$50,000	$100,000	each
	Diverter	$25,000	$50,000	each
	Median Refuge Island	$15,000	$30,000	each
	Curb Extension (each corner)	$12,000	$16,000	each
	Curb Extension: Mid-block	$7,000	$12,000	each
	Protected Bicycle Intersection	$75,000	$150,000	each
	Enhanced Crosswalk	$2,500	$5,000	each
	High-intensity Activated Crosswalk (HAWK) Beacon	$50,000	$150,000	each
	Scramble Crosswalk	$15	$20	SF
	Curb Ramp	$3,000	$5,300	each
Infrastructure	Chicane	$10,000	$25,000	each
	Street Trees: General	$1,500	$2,500	each
	Street Trees: Palms	$4,000	$5,000	each
	Treelet	$3,000	$10,000	each
	Greenway Planter / Bioswale	$50	$60	SF
	Permeable Paving	$25	$50	each
	Lighting: Street (30' tall)	$30,000	$50,000	each
	Lighting: Pedestrian (15' tall)	$5,000	$6,000	each
Amenities	Wayfinding Signage (excludes monument signage)	$2,000	$3,000	each
	Street Furniture: Benches	$1,200	$3,200	each
	Street Furniture: Waste Receptacle	$1,500	$2,500	each
	Street Furniture: Bicycle Racks	$600	$1,800	each
	Street Furniture: Bicycle Fix-it Station	$3,500	$4,000	each
	Transit Shelter (new custom)	$25,000	$50,000	each
	Demonstration Projects: Bollards	$6,000	$2,500	each
	Demonstration Projects: Planters	$3,000	$4,000	each

Complete Streets

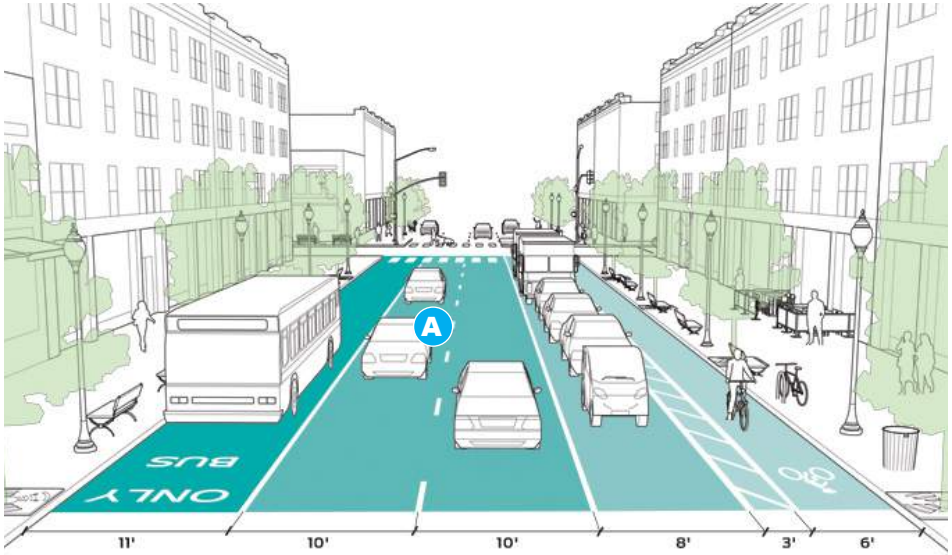
LANE WIDTH AND REPURPOSING

Amenities | Infrastructure | Intersections | **Street Design**

In HQTA areas reducing the width of vehicular travel lanes will allow more space to be devoted to other mobility modes including pedestrian. In addition, narrowing lane widths act as traffic calming by reducing vehicular speeds which can decrease pedestrian-auto collisions. Repurposing a vehicular travel lane to a bus only lane can increase the number of people being moved along the street in less space. The example shown illustrates a street with four vehicle lanes of 12' to 13' width repurposed for two vehicular travel lanes, a bus only lane, a parking lane, and a one way buffered bike lane. There are many ways streets can be reconfigured to accommodate multiple transportation modes. The key is to determine for each street which modes are to be given priority if there is not space for all. Many cities define in their plans which streets should have transit priority, pedestrian priority, vehicle enhanced or be bike enhanced streets and apply these categories to address constrained right-of-way conditions.

Best Design Practices / Guidelines

A In constrained conditions, vehicular roadway lane widths may be reduced to 10', parking lanes to 7' to 8', exclusive bus lanes to 12' to 13', one way bike lanes from 5' to 7', and two way bike lanes to 12' including shoulders.



Source: NACTO

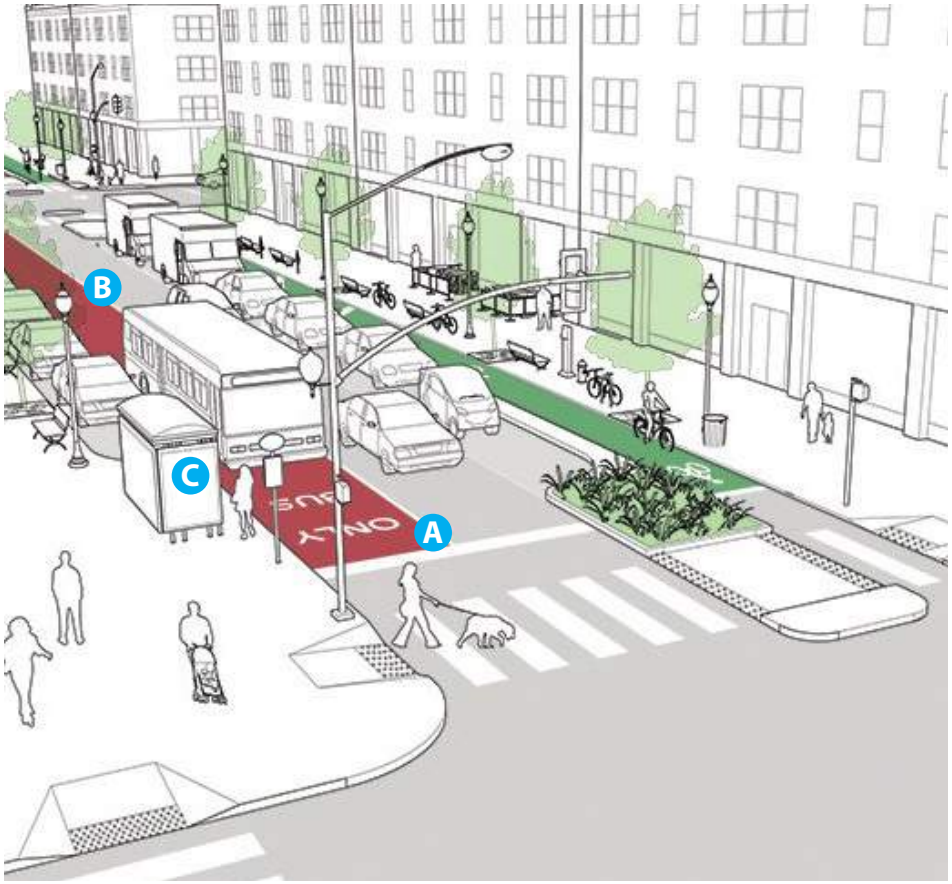
SbX with its bus-only lanes in downtown San Bernardino, CA

Complete Streets

TRANSIT LANES

Amenities | Infrastructure | Intersections | **Street Design**

Transit on a complete street may include 1) a bus that shares a vehicular lane, 2) a peak-hour bus lane that prohibits curbside parking in peak hours, 3) a bus only lane, (either curb side or in the median),4) a street car, or 5) a rail line. Peak hour bus lanes or exclusive bus only lanes shown in the illustrations increase the efficiency of transit especially on congested streets. On exclusive bus only lanes high ridership buses with transit signal priority at intersections move more quickly than adjoining traffic. Mixed traffic is only allowed to enter or cross a bus only lanes to turn at an intersection or park at designated parking areas. Bus only lanes may be used by emergency vehicles.



Source: NACTO

Best Design Practices

A Exclusive (dedicated) bus lanes width varies from 12' to 13' depending on transit agency requirements and street constraints.

B Exclusive bus lanes require physical barriers to separate bus lanes from mixed flow traffic which could be concrete barriers, bollards, delineators, or other devices.

C Well designed and branded transit shelters with ample space for waiting, protection from the sun, rain and wind, adequate lighting, variable message signs, seating, trash, receptacles will contribute positively to the passenger experience and the streetscape environment.

Georgia Avenue, Washington D.C.

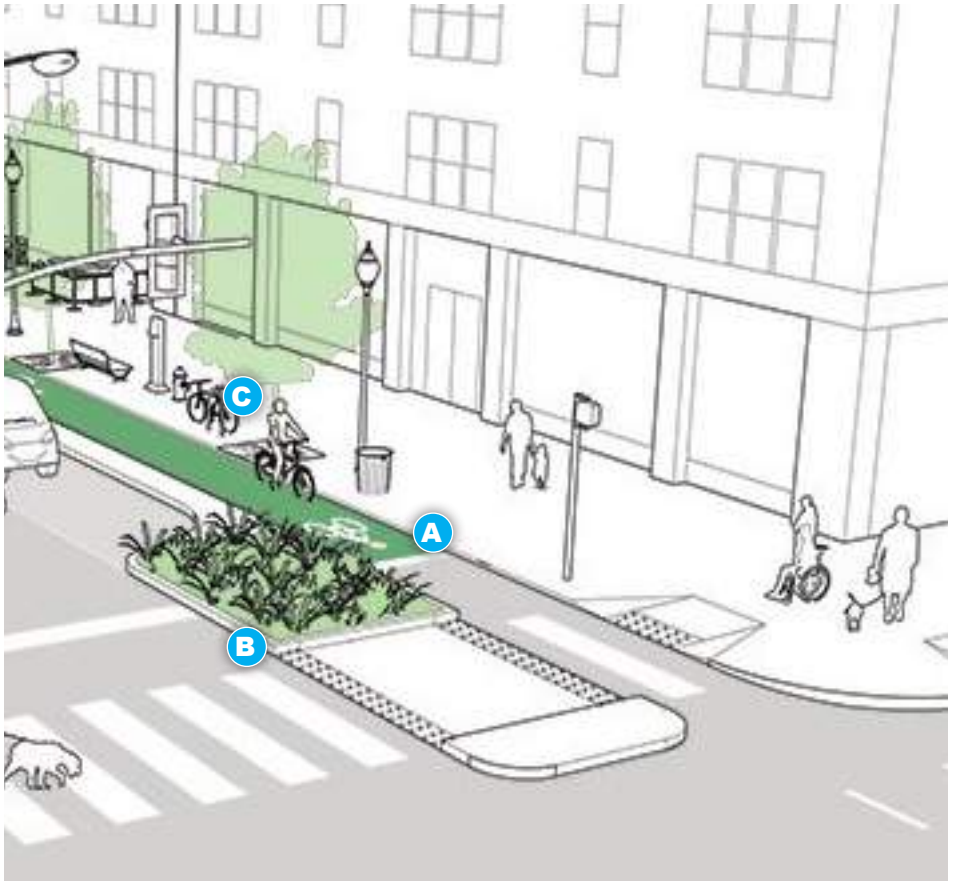
34th Street, New York

Complete Streets

BICYCLE LANES AND PATHS

Amenities | Infrastructure | Intersections | **Street Design**

Providing a robust bicycle network within 3 miles of a HQTA transit station/stop will assist in the first last mile connections to the transit station/stops and provide an alternative to the automobile for those living, working and playing within the HQTA area. Options to consider in providing safe, dedicated bicycle lanes/path in the HQTA include: 1) bicycle lanes (class II) are striped lanes located adjacent to the curb or to parked cars. 2) a bicycle path (class III) is a two way path usually on one side of a street or in a separate right-of-way 3) protected bike lanes or cycle tracks(class IV) contain a buffer or physical separation between the bike lane and parked cars or vehicular travel lanes as shown in the illustration.



Source: NACTO

Best Design Practices / Guidelines

A Bike lanes are a minimum of 5' width; 7' width desirable.

B Protected bike lane – Buffers could be wide striping in the pavement, a raised concrete curb or median, bollards or landscaping. The buffer should be a minimum of 3' if adjacent to parked cars and will need to be broken at driveways and at intersections.

C Along the bike lane/bike path there needs to be adequate bicycle parking which could include bike racks, bicycle lockers, bike corrals, bike bulbs and shared bike stations.

Class IV bike path, the Bowery, New York

Class IV bike path, Rosemead Blvd, Temple City, CA

Complete Streets

SIDEWALKS

A continuous, attractive landscaped pedestrian network provided in a HQTA area will connect a dynamic mix of uses with transit facilities. Adequate sidewalk width and pedestrian amenities will help create a walkable environment throughout the entire HQTA area. In addition to having travel lanes, devices such as “bump outs” or curb extensions are methods to provide more sidewalk width in constrained right-of-way conditions. These curb extensions may be used for bus stops, additional landscaping, outdoor dining and other amenities.

Best Design Practices / Guidelines

A Sidewalks typically can be classified into the following three zones. 1) an amenity zone next to the curb, 2) a pedestrian zone for access and, 3) a frontage zone. The amenity zone, sometimes called the parkway typically includes street lights, street trees, landscaping, signage, bike racks, trash receptacles, local bus stops with transit shelters, seating, and utilities. It could contain storm water treatment, parking meters, public art, and outdoor dining. The pedestrian zone includes enough walking area to accommodate the number of people walking abreast depending on the land use and must meet ADA requirements. The frontage zone is adjacent to the property line and its width will vary depending on the adjacent land use. In a retail area it may contain outdoor dining, planter boxes, railings, seating, and other amenities.

B Sidewalks and parkways of 12’ to 15’ or more are desirable as they are wide enough for street trees, pedestrian amenities, and allow at least two people to pass another. Sidewalks/parkways should not be less than 10’.

C Paving patterns will vary per City requirements for construction and maintenance and could include standard gray concrete, colored concrete, decorative paving, permeable paving, and others.

D To create a lively active pedestrian environment, the building entrances should be located with access directly from the sidewalk. The ground level frontage of the building facing the sidewalk should provide visual interest with clear glass windows that support the pedestrian environment.

Culver City, CA

Tokyo, Japan

West Hollywood, CA

Chicago, IL

Complete Streets

BUS BULB

Amenities | Infrastructure | Intersections | **Street Design**

A bus bulb is a curb extension that allows buses to stop in a vehicular travel lane increasing transit efficiency as the bus stopped at the curb does not need to wait to pull into moving traffic. Bus bulbs create more space adjacent to the sidewalk for pedestrian and transit amenities.

Best Design Practices / Guidelines

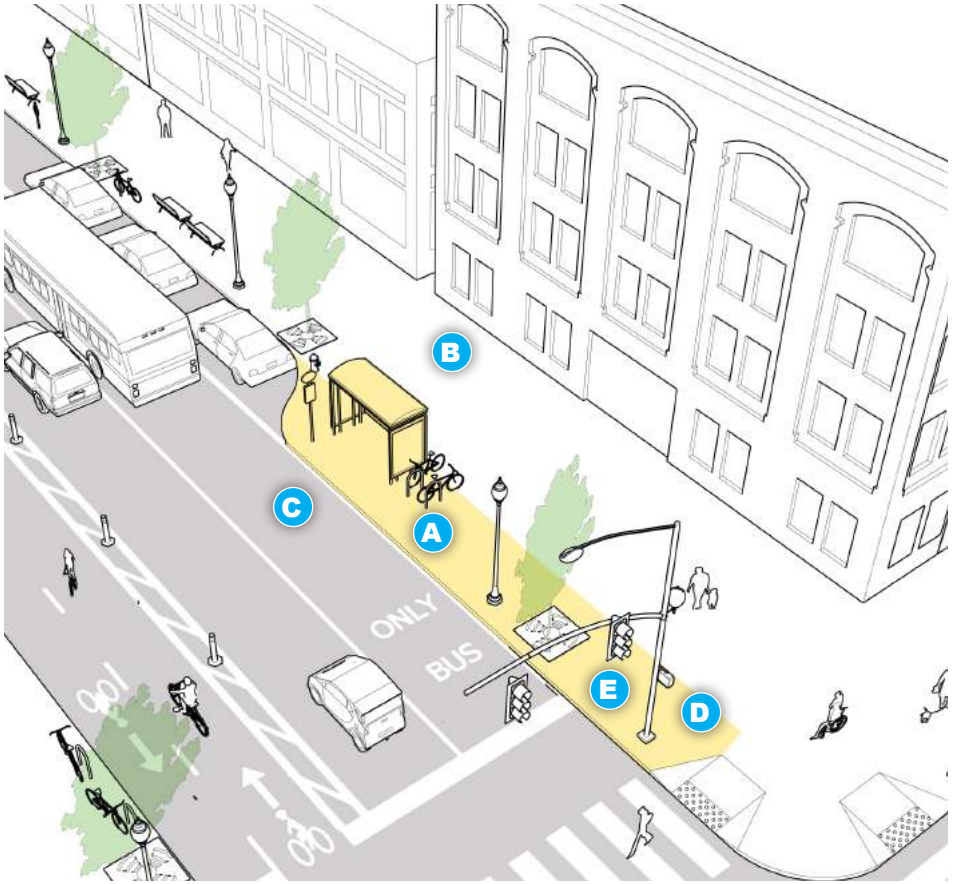
A Bus bulbs are typically located on multi-lane arterials with curb side parking allowing for an extension of the sidewalk at intersections and for vehicles to pass stopped buses in adjoining lanes.

B Bus bulbs are used in constrained sidewalk conditions where there is limited space for a transit shelter and other amenities.

C Bus bulbs may be used in high bus ridership corridors for premium service such as Rapid or Bus Rapid Transit.

D Far side bus bulbs are preferred over near side bus bulbs to avoid right turn interference.

E The length of bus bulbs vary depending on the type (local or articulated) and the number of buses at a stop. The length of the bus bulb is often constrained by driveways and other physical conditions. For conceptual design guidance a minimum length of 60' to 140' and a width of 8' should be considered and longer if more than one bus will be stopping at the same time.



Source: NACTO

Dexter Avenue, Seattle, WA

Complete Streets

SPEED TABLE

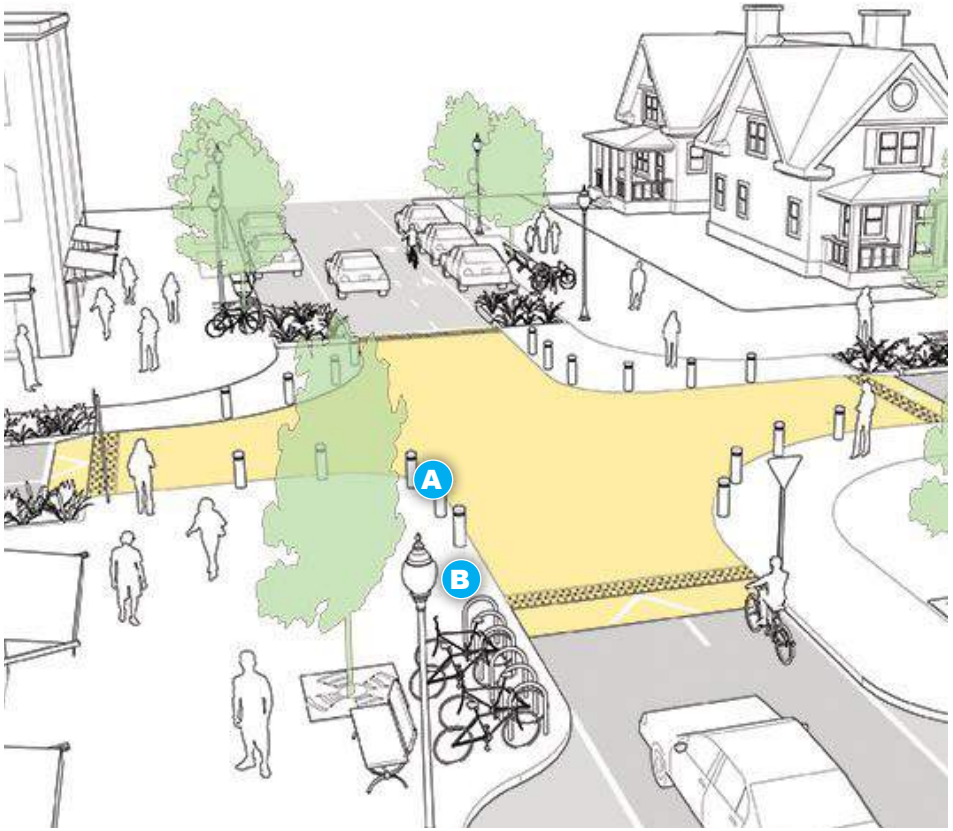
Amenities Infrastructure Intersections **Street Design**

Speed tables are traffic calming devices that raise the pavement several inches to reduce traffic speed and improve safety for pedestrians and bicycles crossing a roadway.

Best Design Practices / Guidelines

A Speed tables have a flat surface with sloped ramps for vehicles.

B To shorten the distance of crossing a street, speed tables are typically located in conjunction with a curb extension and with the flat surface at the level of the curb.



Source: NACTO

Speedway, IN

Complete Streets

TRAFFIC CIRCLE

Amenities | Infrastructure | **Intersections** | Street Design

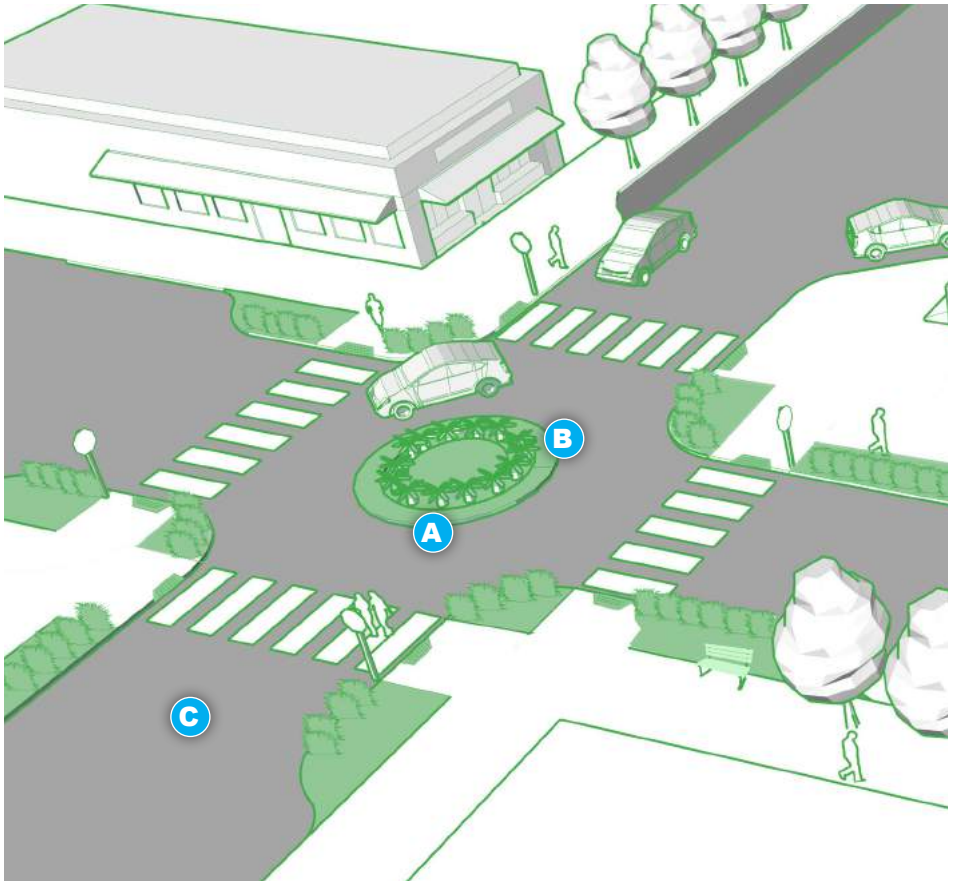
Traffic circles are circular islands in the center of intersections that control the flow of traffic. Drivers that enter the traffic circle must travel in a counter clockwise direction around the island to get to the other side. Intersections with traffic circles can be signalized, stop-controlled, or yield-controlled. Traffic circles slow the flow of vehicular traffic into intersections, which creates a more safe and comfortable environment for bicyclists and pedestrians. Studies have shown traffic circles improve air quality and roadway circulation by eliminating the stop-and-start movements associated with a four-way stop.

Best Design Practices / Guidelines

A Use permeable materials and low water landscaping within the traffic circle for storm water management and create an attractive image.

B Use signs and reflective paint on the curb to improve visibility.

C Design speeds for vehicular movement, around the traffic circle should be 10 to 15 mph.



Source: Gruen Associates

Vista Bike Boulevard, Long Beach, CA

Complete Streets

DIVERTER

Amenities | Infrastructure | **Intersections** | Street Design

A traffic diverter is a roadway design feature which is placed upon a street or roadway in order to prohibit vehicular traffic from entering into, or from any street. Traffic diverters can be low cost and be large planters, signs, dirt filled concrete drums, curbs, curb extensions and more permanent installations. A raised median diverter allows through traffic for bicycles while directing drivers onto an arterial street more appropriate for car traffic. Diverters also make the crossing much easier and safer for pedestrians. Diverters may include drought-resistant landscaping that can, integrate them into the feel and fabric of the surrounding neighborhood.

Best Design Practices / Guidelines

A. Use signs within the diverter and reflective point on the curb to improve diverter visibility.

B. Use permeable materials and low water landscaping within the diverter for storm water management and aesthetics.

C. Bicycles can freely pass through the diverter. Enhanced cross walks and a “Z” pedestrian crossing can improve pedestrian safety.

Source: Gruen Associates

Complete Streets

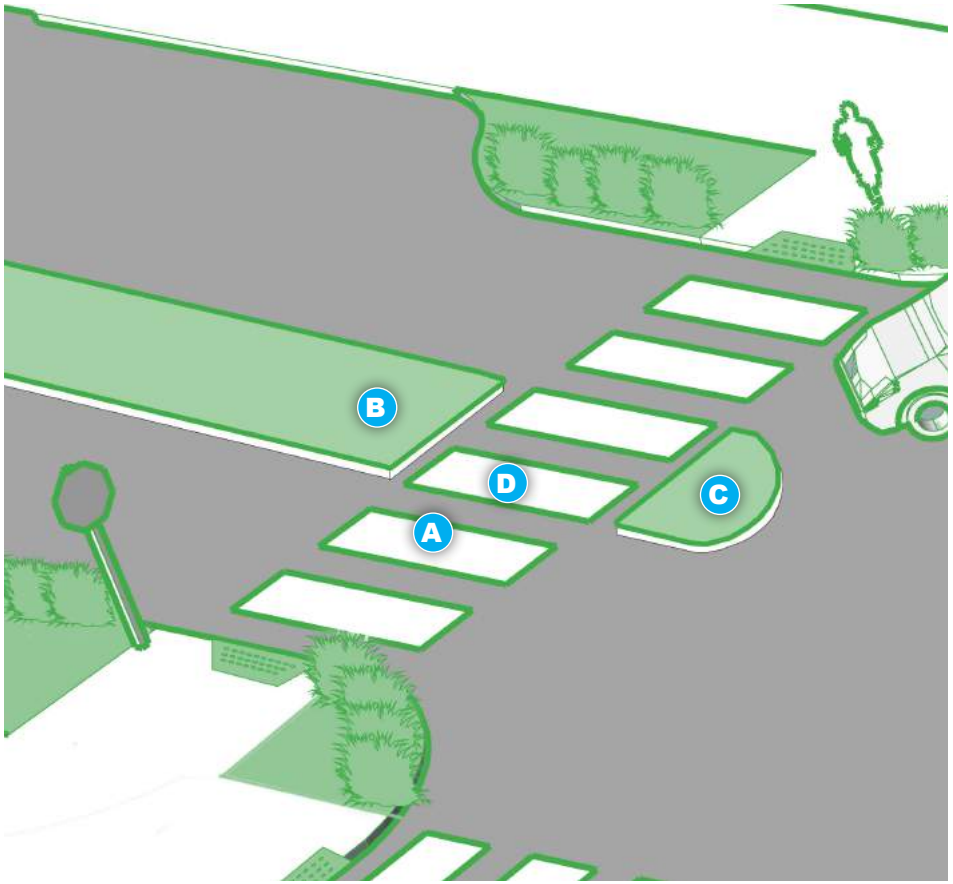
MEDIAN REFUGE ISLAND

Amenities | Infrastructure | **Intersections** | Street Design

Median refuge islands can provide a protected space for pedestrians or bicyclists crossing the street. Medians are elevated barricades that divide the roadway down the center. A refuge island can provide additional protection for pedestrians and bicyclists along busy corridors by allowing them to navigate only one direction of traffic at a time. They are especially recommended for wide streets and arterials that pedestrians may have trouble crossing before the end of the signal phase.

Best Design Practices / Guidelines

- **A** Median refuge should accommodate pedestrians with disabilities and provide all pedestrians with a clear path of travel.
- **B** The minimum width is 6 feet, a preferred width of 10', and a length of 12' or the length of the crosswalk which ever is wider.
- **C** Signage and reflective material should identify the refuge island.
- **D** Provide detectable paving for visually impaired uses to indicate the line between the travel lanes and the pedestrian refuge.



Source: Gruen Associates

Arlington, VA

Complete Streets

CURB EXTENSION

Amenities | Infrastructure | **Intersections** | Street Design

A curb extension is a portion of the sidewalk that is extended into the street or parking lane and typically occurs at intersections. This reduces the distance that pedestrians need to walk to cross the street, makes pedestrians more visible to motor vehicles, and causes drivers to reduce speeds by narrowing the roadway. Curb extensions offer space for amenities such as street furniture, bike racks, public art, transit shelters and landscaping. Curb extensions must be installed with curb ramps that comply with ADA standards. Curb extensions are typically installed at corners but they can be used at mid-block crossings as well.

Best Design Practices / Guidelines

A. A curb extension should not obstruct sight lines and allow motorist to clearly see pedestrians and bicyclist. Well designed curb extensions could include low height landscaping, bioswale planting, bike parking, or seating.

B. To avoid conflict with bike lanes curb extensions often occupy a portion of a curb side parking lane.

C. A curb extension could modify the storm water flow and the street may need to be redesigned by providing curb breaks into a bioswale, relocating catch basins or an ADA compliant grated channel to redivert stormwater to existing catch basins.

Source: Gruen Associates

Long Beach, CA

Complete Streets

PROTECTED BICYCLE INTERSECTION

Amenities | Infrastructure | **Intersections** | Street Design

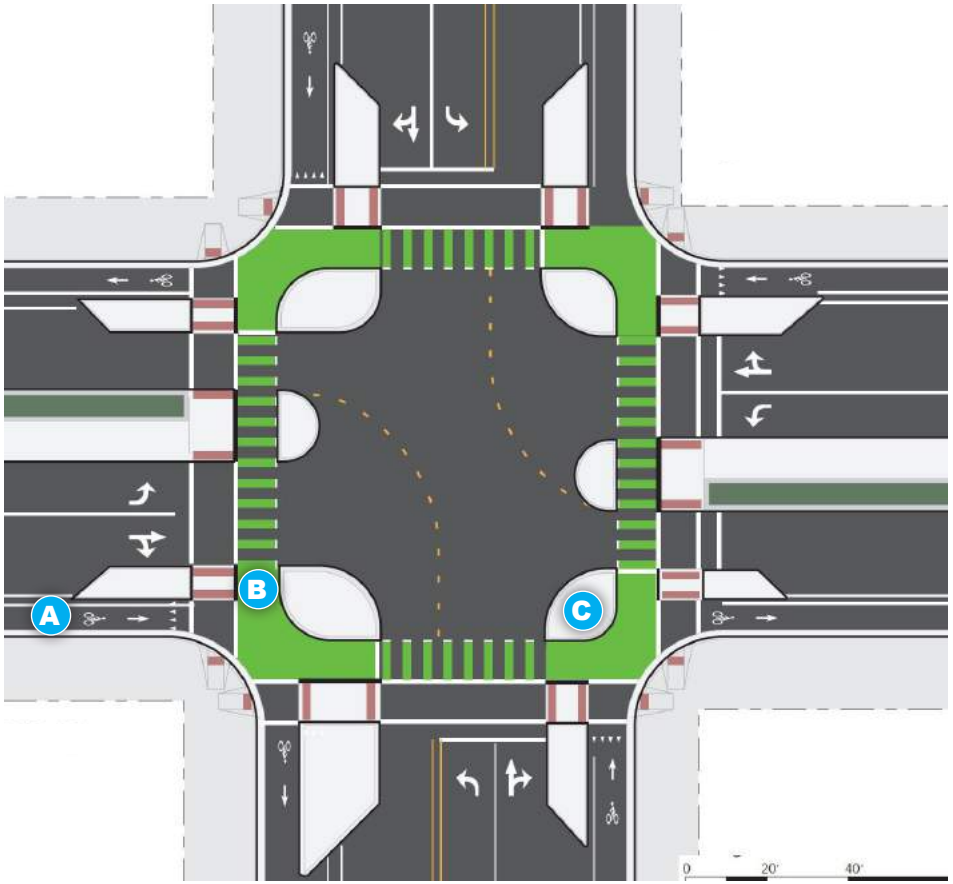
A protected bicycle intersection utilizes curb extensions to add a barrier between a bicycle lane and vehicle travel lanes at an intersection. Like other curb extensions, this makes cyclists and pedestrians more visible to motor vehicles. This arrangement provides greater safety for cyclists at intersections by preventing motorists from intersecting with cyclists when making a right turn and providing turning cyclists with an area to queue without interfering with either cyclist or motorists traffic. Protected bicycle intersections offer less space for pedestrian amenities as other forms of curb extensions.

Best Design Practices / Guidelines

A A protected bicycle intersection can be implemented in configurations with shared travel lanes or bicycle-only lanes. Roads with shared traffic lanes will have dedicated bicycle lanes at intersections to accommodate protected intersections.

B Well-designed protected bicycle intersections provide sufficient space for at least one cyclist to queue in the protected area. Queuing space can be maximized by widening the inside radius of the corner safety island.

C A protected bicycle intersection can include low height landscaping in raised corner safety islands.



Source: ALTA

San Francisco, CA

Complete Streets

ENHANCED CROSSWALK

Amenities | Infrastructure | **Intersections** | Street Design

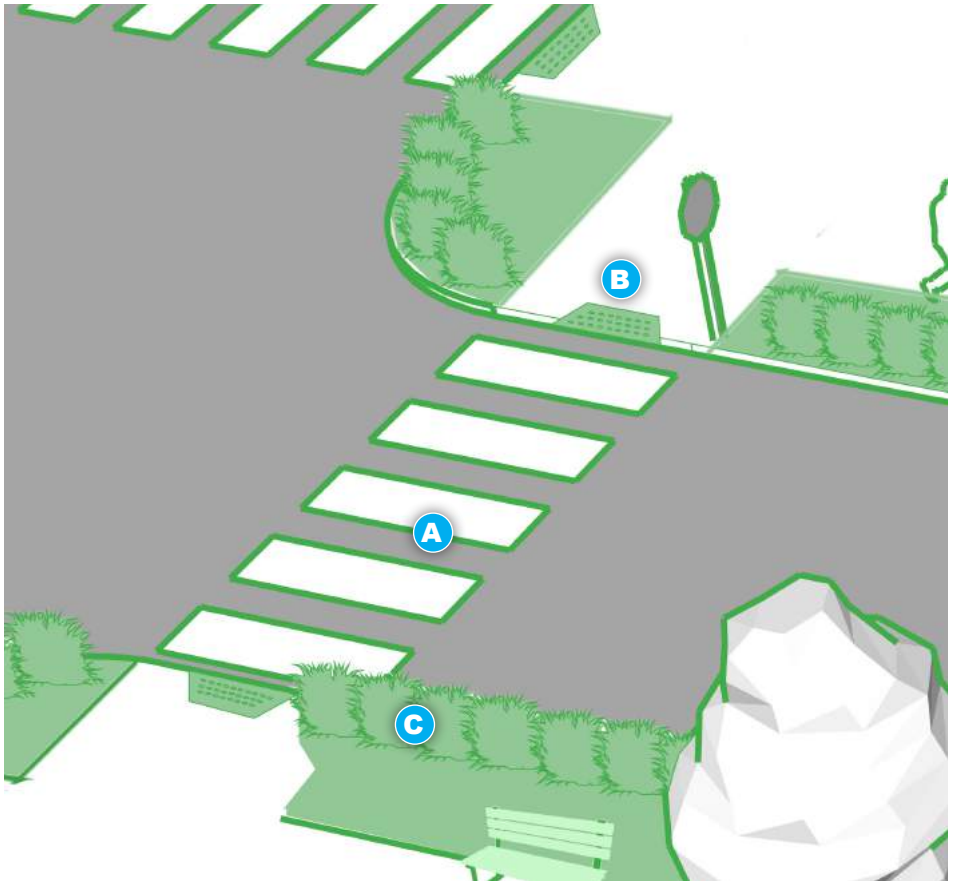
Installing crosswalks at controlled and mid-block help pedestrians to identify ideal locations at which to cross a street. Marked crosswalks also indicate to motorists where pedestrians have right-of-way and where to yield. Crosswalks should be highly visible to both drivers and pedestrians and can be installed with basic striping or decorative pavers. Crosswalks can also be supplemented with in-pavement flashing lights, elevated "table crosswalks," or freestanding beacons to increase visibility, which is particularly important for mid-block crossings.

Best Design Practices / Guidelines

A. A continental crosswalk has wide highly visible longitudinal strips paired with a stop line setback from the crosswalk.

B. Curb ramps shall be designed to align with cross walks.

C. Vertical elements such as street trees should not block visibility of pedestrians in the crosswalk.



Source: Gruen Associates

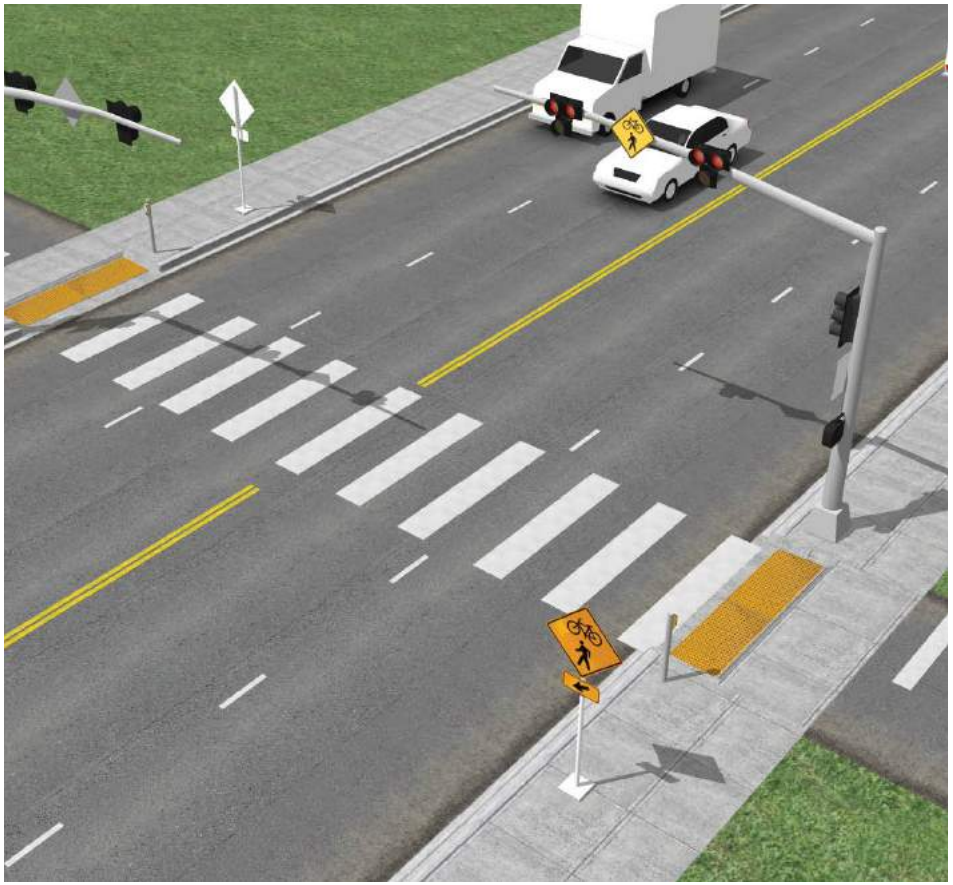
Chicago, IL

Complete Streets

HIGH-INTENSITY ACTIVATED CROSSWALK (HAWK) BEACON

Amenities | Infrastructure | **Intersections** | Street Design

HAWK pedestrian signals, beacons, and push buttons promote intersection safety. Pushing the pedestrian button alerts the signal system of the presence of a pedestrian requesting a "walk" signal. In some cases, such as at a mid-block crossing, the pedestrian must press the button to receive a "walk" sign. At signalized intersections, the pushing of the button will reduce the pedestrian's wait time for crossing the street.



Source: NACTO

Best Design Practices / Guidelines

A. Push buttons should incorporate tones for the visually impaired.

B. Push buttons are appropriate for arterial streets, congested streets and in areas with a high concentration of seniors as they can allocate more time for pedestrian crossing.

Complete Streets

SCRAMBLE CROSSWALK

Amenities | Infrastructure | **Intersections** | Street Design

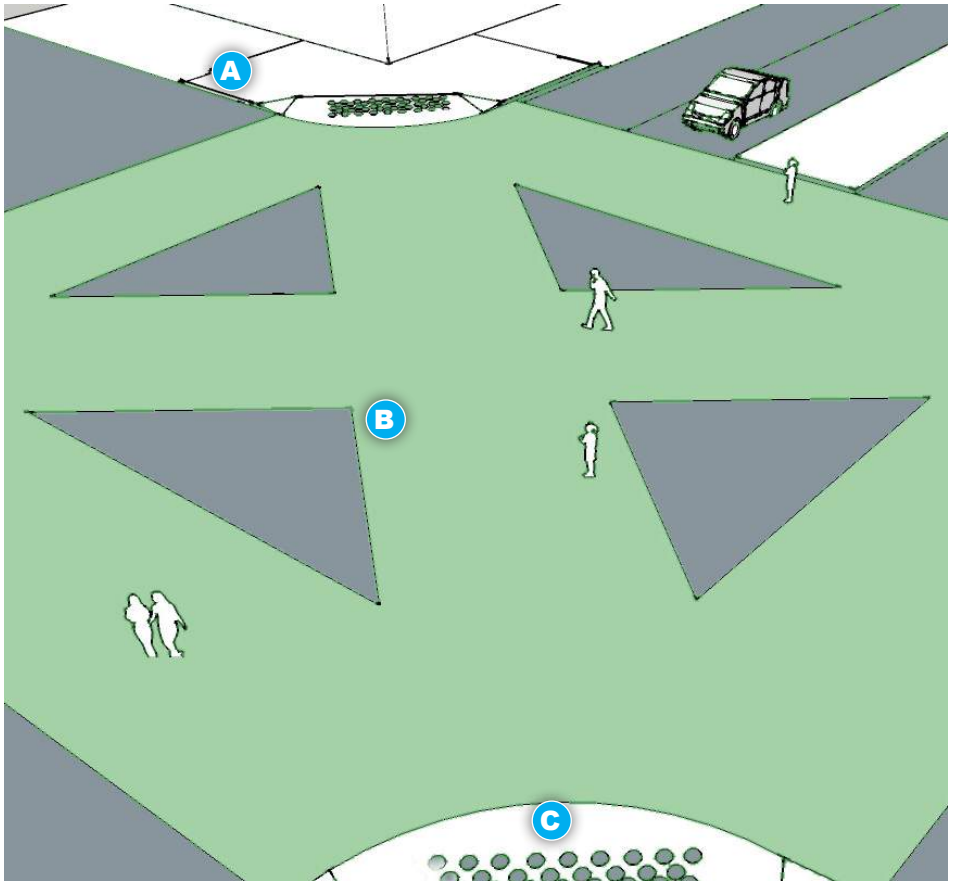
When activated, scramble crosswalks signalization temporarily stops traffic to allow pedestrians to cross at an intersection in any direction. The crossings can be striped with paint or pavers and can be used to direct pedestrian movement. Scramble crosswalks are advantageous in areas with high pedestrian traffic, as they more efficiently allow pedestrians to cross directly to their desired corner even diagonally , as opposed to having to wait for successive crossing signals.

Best Design Practices / Guidelines

A Scramble intersections have “pedestrian only” phase in signal light cycles during which vehicles are prohibited from entering an intersection including right turns.

B “Continental” crosswalks or decorative concrete unit pavers may be used at scramble intersections. Continental crosswalks include wide bands perpendicular to the direction of travel.

C Curb ramps and tactile warning strips should be provided at curbs to meet ADA requirements.



Source: Gruen Associates

Pasadena, CA

Complete Streets

CURB RAMP

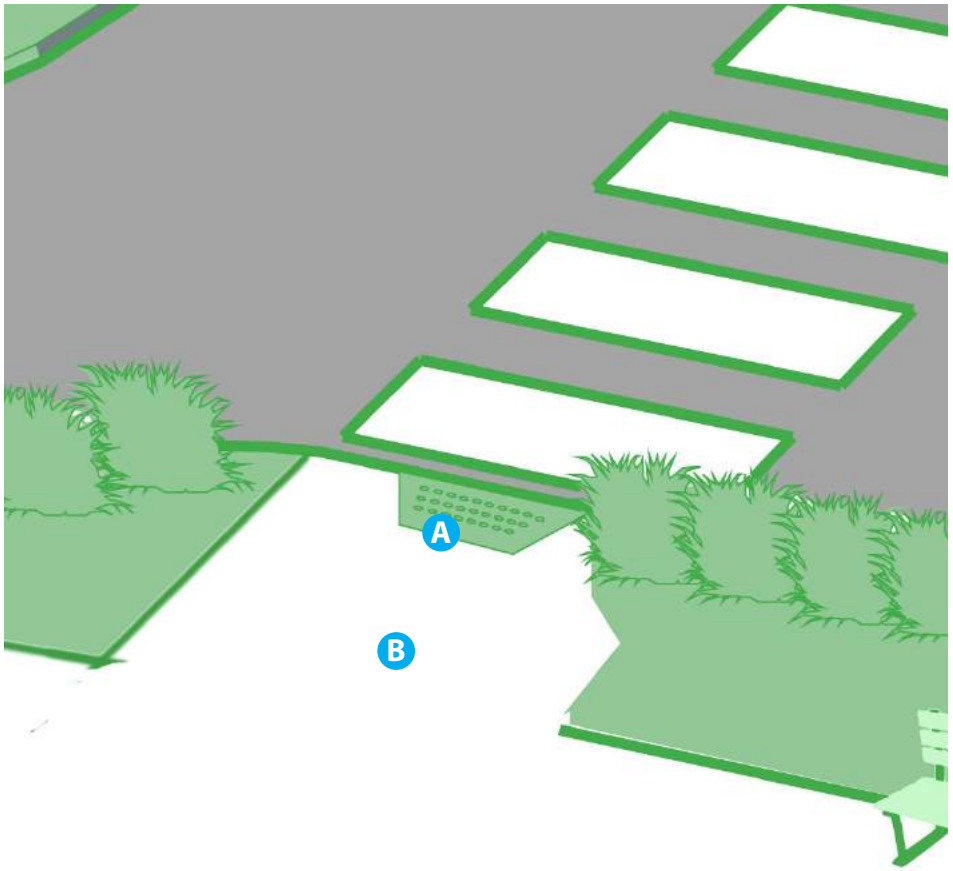
Amenities Infrastructure **Intersections** Street Design

Curb ramps allow persons in wheelchairs, with walkers, with strollers, and with other disabilities convenient access to the sidewalk from the street. The Americans with Disabilities Act (ADA) requires curb ramps to be installed at all locations where pedestrians cross. Curb ramps for each crossing approach are preferred rather than one curb cut per corner so that visually impaired persons have better orientation. Warning strips should be installed on all ramps.

Best Design Practices / Guidelines

A All curb ramps should have ADA - approved ramps with detectable warning surface (min. width 24") in yellow.

B At least 48" of landing should be provided behind the curb ramp.



Source: Gruen Associates

Long Beach, CA

Complete Streets

CHICANE

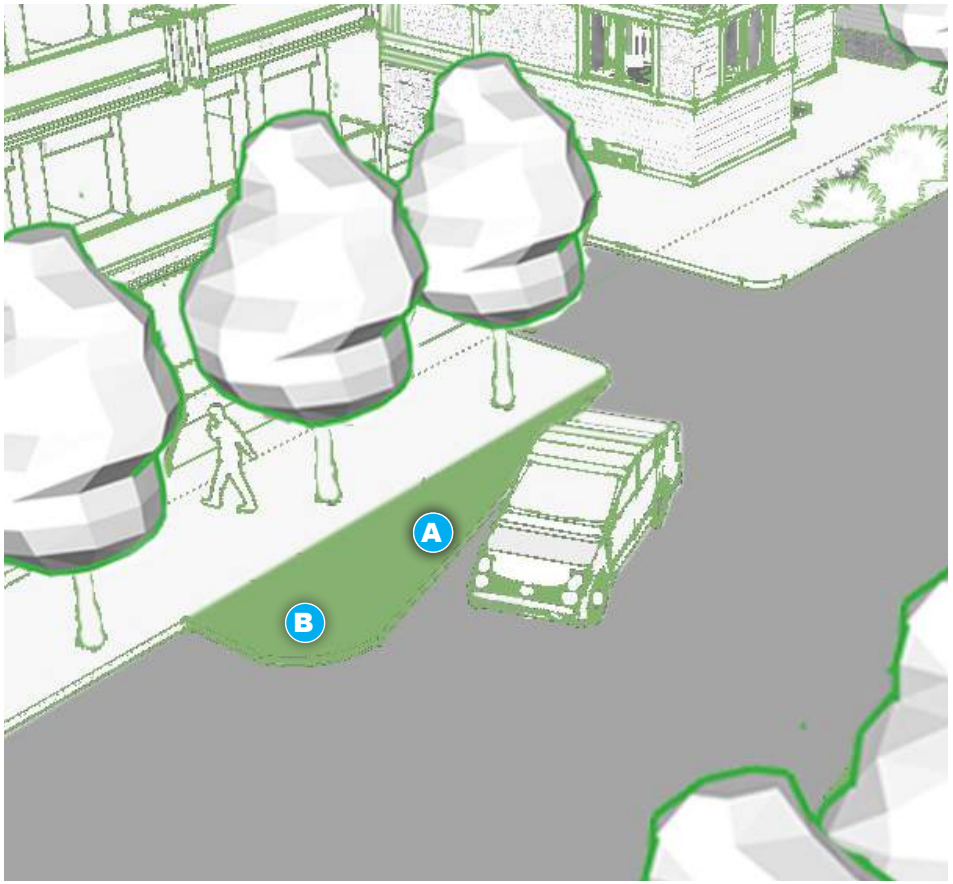
Amenities | **Infrastructure** | Intersections | Street Design

Chicanes reduce vehicle speeds by visually narrowing the roadway and requiring vehicles to shift their positions horizontally. Chicanes and chokers are curb extensions that alternate from one side of the street to the other and calm traffic. If supplemented with landscaping, bike parking, seating and other amenities, chicanes can also create a more pleasant walking environment and a buffer between the sidewalk and the street. The City of Seattle found an 18-35% reduction in travel speeds and a 32-45% decrease in average daily traffic (ADT) volumes at locations with chicanes.

Best Design Practices / Guidelines

A. A chicane may require special striping of the street and signage reflective paint on the curb to ensure drivers are aware of the serpentine roadway.

B. Landscaping and storm water infiltration in the chicane contributes to a pleasant walking environment and can aid in wayfinding for drivers.



Source: Gruen Associates

Austin, TX

Complete Streets

STREET TREES

Amenities | **Infrastructure** | Intersections | Street Design

Street trees will enhance the walkability, comfort and attractiveness of the HQTA pilot area streets. Street trees provide visual interest, unity and shade protection from the hot sun. Landscaping of parkways and tree wells compliment and support street trees and assist in storm water management. Street trees reduce the heat island effect, reduce storm water runoff, improve air quality by absorbing greenhouse gases, and can provide wild life habitat and food.

Best Design Practices / Guidelines

A. Street trees and landscaping in the amenity zone should be specified to achieve a strong visual image that fits in the neighborhood, to respond to the area's climate, for low water requirements, for resistance to disease, for compatibility with soil and drainage conditions, and to avoid invasive roots that will uplift sidewalks.

B. If streets are wide, tall canopy trees should be selected to create a strong visual impact and smaller trees may be selected for local small scaled street.

C. Typical street trees should be spaced 30' - 35" apart while avoiding interference with street lighting, utilities and visibility of approaches to intersections and driveways.

Culver City, CA

West Hollywood, CA

Bethesda, MD

Complete Streets

TREELET

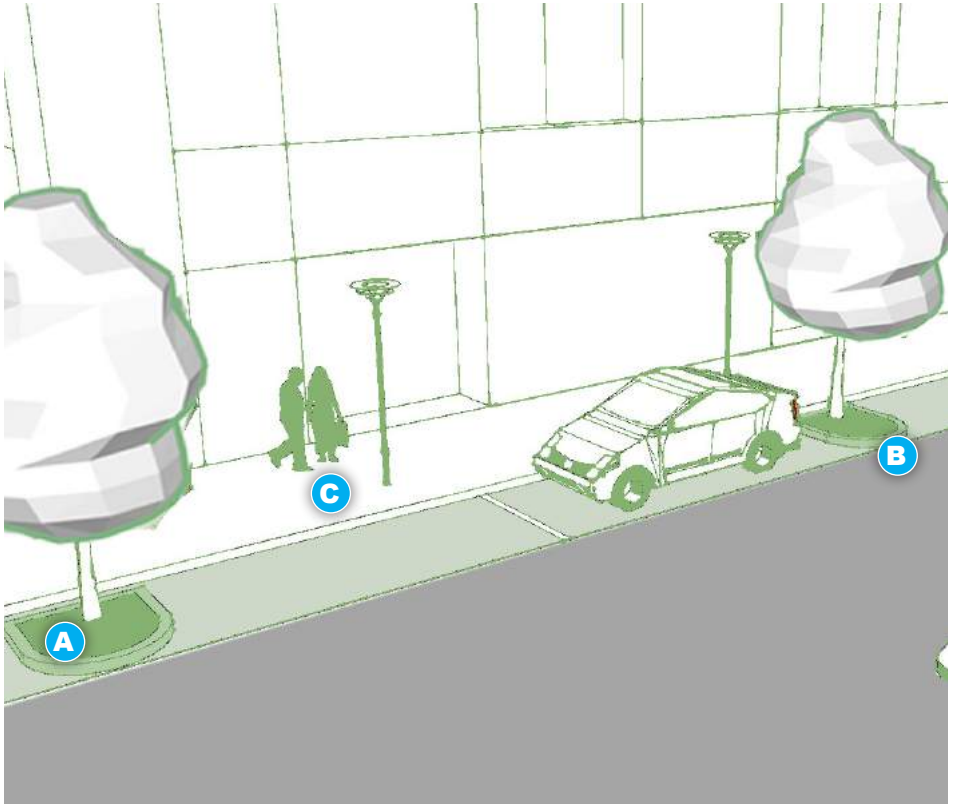
Amenities | **Infrastructure** | Intersections | Street Design

A treelet is a curbed tree well that is extended into the parking lane between on-street parking spaces. Treelets are typically used as an alternative to planting strips and tree wells in business districts and other areas where the existing sidewalk width is narrow and it is important to maintain the maximum width to accommodate pedestrian volumes and accessibility. Treelets can often be accommodated between existing parking spaces and typically do not impact the number of parking spaces along the street. A tree pit is saw-cut out of the street and a curb extension is built outside the gutter dimensions to prevent conflicts with existing drainage infrastructure.

Best Design Practices / Guidelines

A Treelet island length and widths vary with on-street parking conditions and existing utilities.

B Treelets should not obstruct sight lines of drivers viewing pedestrians. Parallel parking lengths should meet city standards.



Source: Gruen Associates

Long Beach, CA

Complete Streets

GREENWAY PLANTER / BIOSWALE

Amenities | **Infrastructure** | Intersections | Street Design

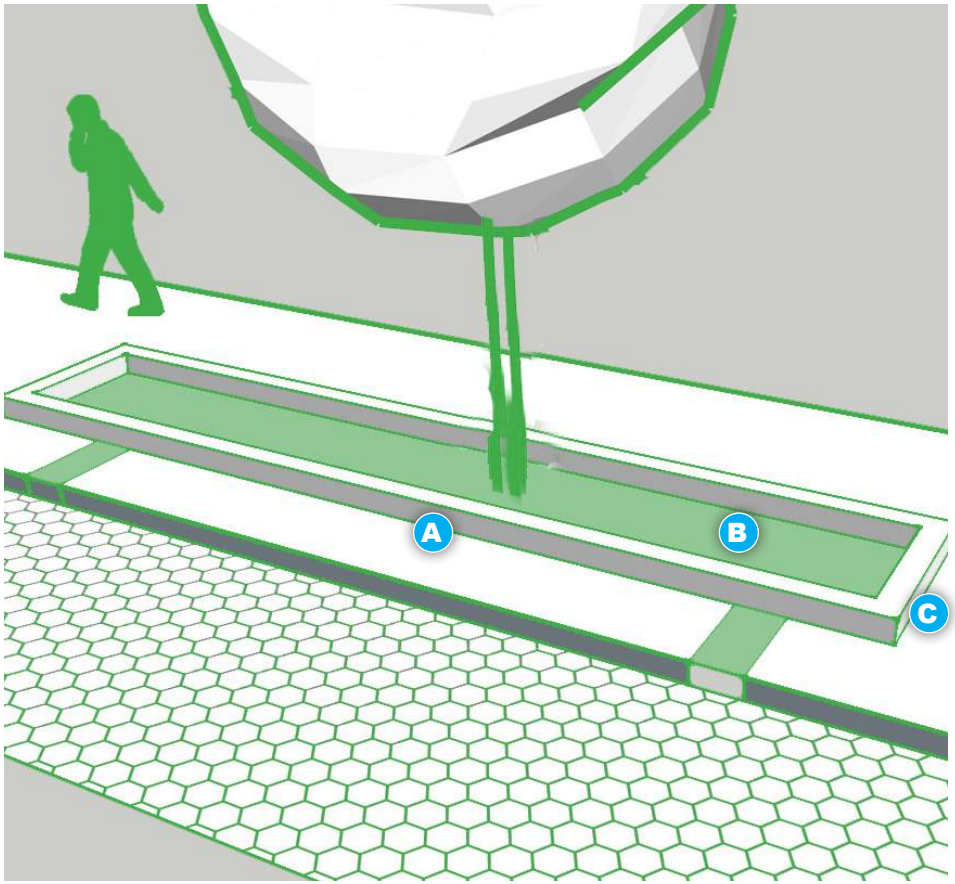
Greenway planters/bioswales meet an increasing demand to mitigate storm water pollution from our streets and impermeable surfaces in our urban areas. Bioswale parkways between the street and sidewalk collect and filter stormwater run off from streets. Curb cut-outs direct street runoff into the permeable soils and native plants or grasses to help reduce the flow of water and to filter out pollutants such as sediment, trash, and heavy metals. Drainage pipes installed beneath the soil carry the filtered water to the storm drain system.

Best Design Practices / Guidelines

A Greenway planters or bioswales may be designed in many ways and individual cities are starting to develop standards for green streets that filter storm water. The illustration is one example of a greenway planter where the curb is broken to allow storm water in the gutter to flow into a bioswale planter in the sidewalk area.

B If there is not curbside parking, place the greenway planter next to the curb. If there is curb side parking, place an accessible area between the curb and the greenway planter.

C Allow for accessible breaks in the greenway planters periodically.



Source: Gruen Associates

Hope Street and 11th Street, Los Angeles, CA

Bioswale, Boston, MA

Complete Streets

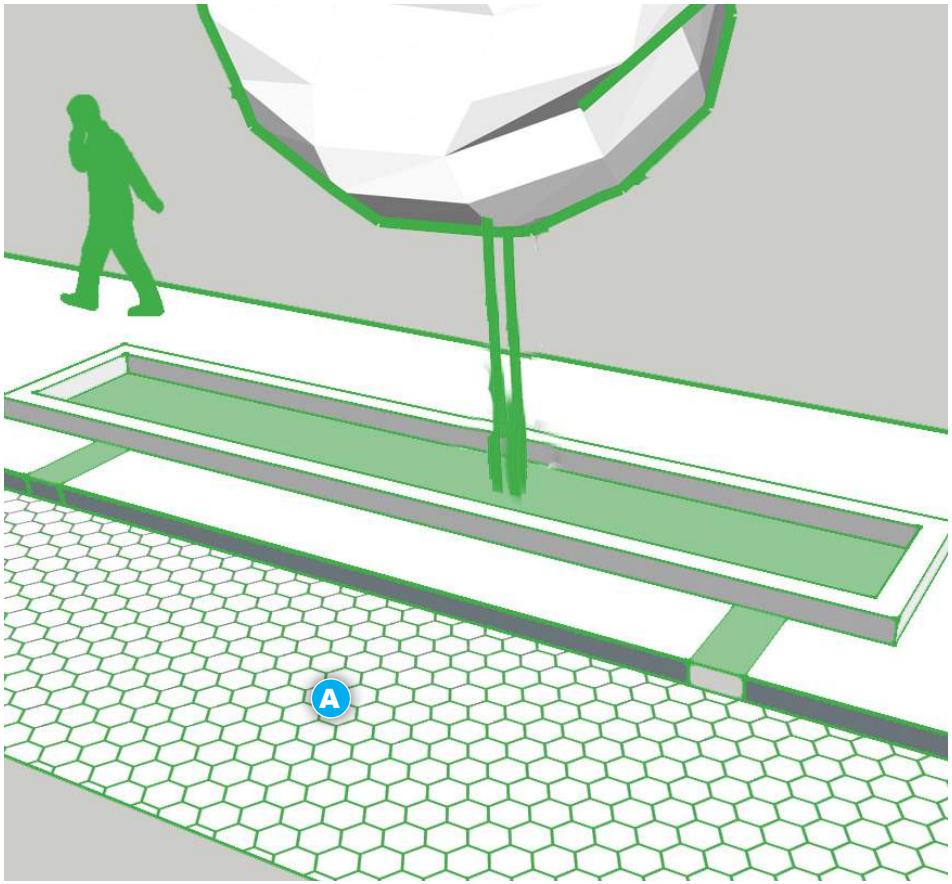
PERMEABLE PAVING

Amenities | **Infrastructure** | Intersections | Street Design

Permeable pavement allows stormwater runoff to seep through and into the soil below where the water is filtered and eventually directs to the existing aquifer. Permeable pavement is an alternative to typical concrete and asphalt paving and offers a range of utility, strength and sustainable properties. These materials include permeable concrete, asphalt, clay brick interlocking unit pavers, open grid pavers, gravel pavers or decomposed granite. Joints usually include aggregate.

Best Design Practices / Guidelines

A Permeable paving may be used in the street, in parking lots and in sidewalks, especially in the amenity zone. Soil tests are needed to establish soil characteristics and to determine proper aggregate materials so water filters properly through the system. Maintenance is required to keep debris from clogging joints.



Source: Gruen Associates

Source: NACTO

Complete Streets

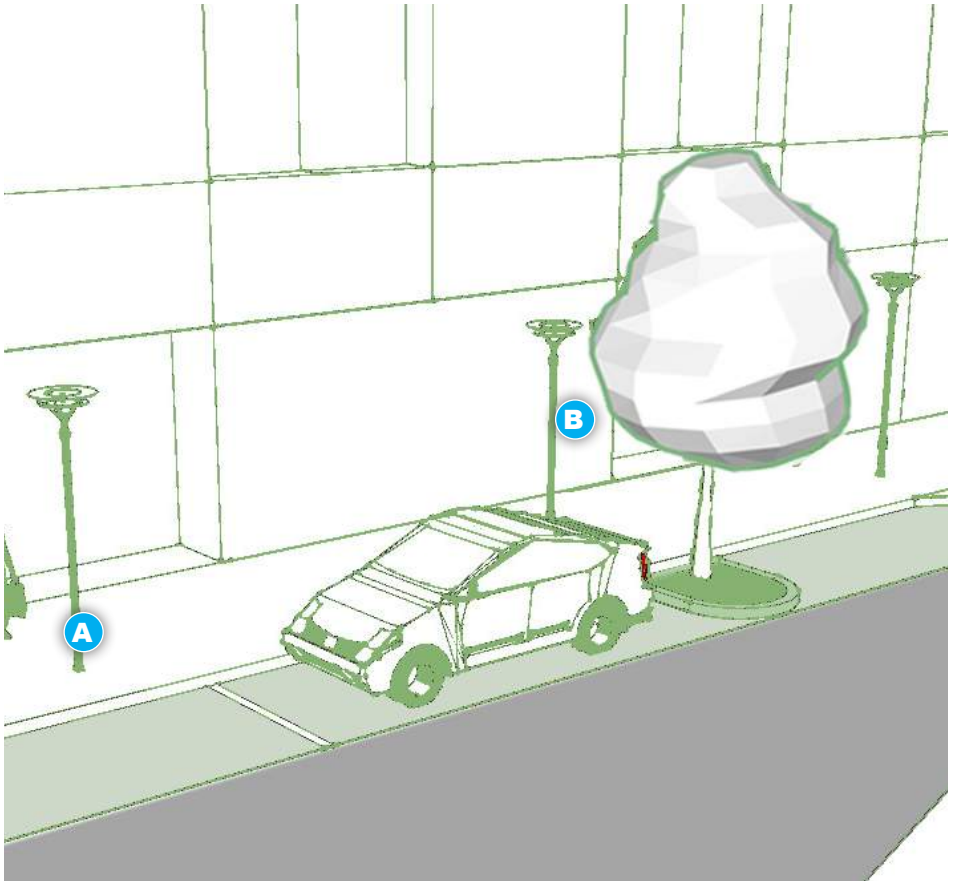
LIGHTING

Street lighting improves streetscapes by improving security and visibility for both bicyclists and pedestrians. Street lights should be installed on both sides of the street and the level of lighting should be consistent throughout the segment. To accompany city standard street lights, which are tall and often spaced ovER00' apart, pedestrian scale lighting is shorter in height, more frequent and creates a more aesthetically pleasing, comfortable and safe environment to walk and stroll. Pedestrian-scaled lighting along bike paths and at bus stops also add to the safety and security of those arriving within the HQTA area. Intersections often require additional lighting to allow motorists to see pedestrians crossing. In addition, when operation and maintenance funds are available specialty lighting of trees and digital signage can add to the vitality of the area.

Best Design Practices / Guidelines

A Lighting should have energy efficient fixtures such as LED which provides even, uniform distribution of light enhancing visibility and safety.

B Pedestrian-scaled lighting can be located between street lights, interspersed with street trees in the amenities zone or if sidewalks are wide enough at the back of the sidewalks to maximize the number of street trees.



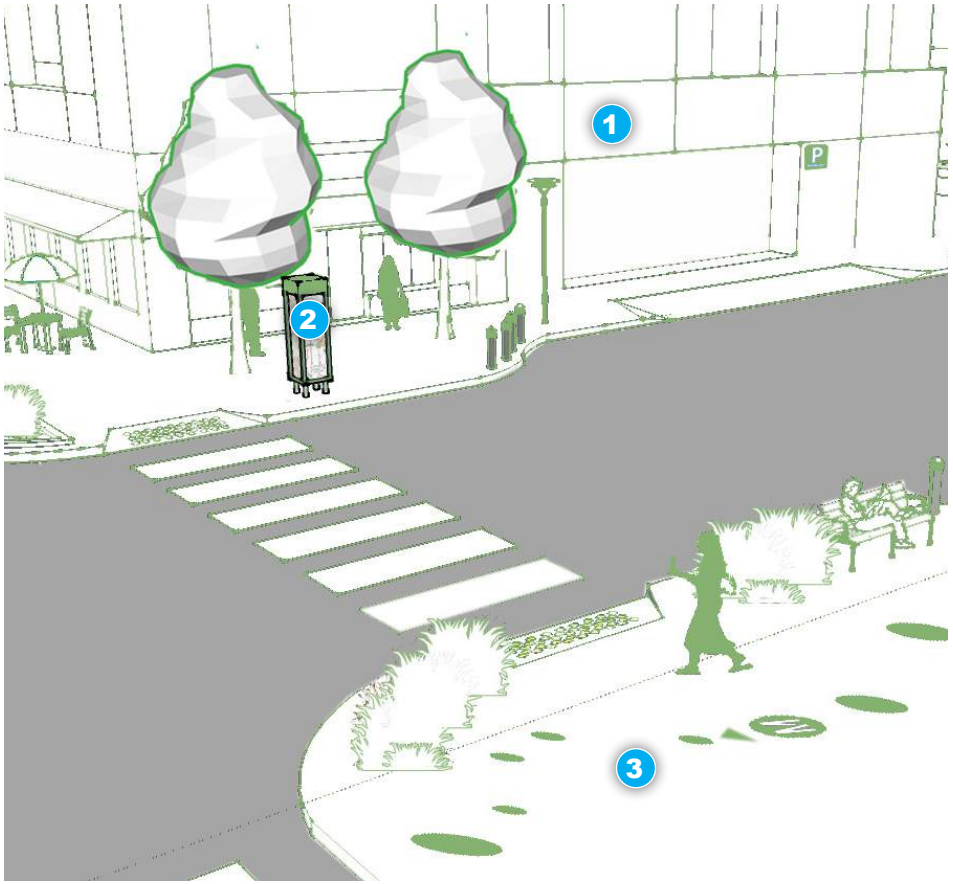
Source: Gruen Associates

Uptown Transit Hub, Cincinnati, OH

Complete Streets

WAYFINDING

Wayfinding improvements can help visitors navigate to major destinations, public facilities, and transit connections. Wayfinding signage can be divided into three categories: **1) Identification signs** that mark important destinations such as buildings, activity centers, and public facilities. **2) Informational signage** that provides more background information on a point of interest and often uses maps. **3) Directional signage** that shows the optimal route between key destinations. A successful wayfinding strategy should make use of all three types of signage. As part of this strategy, cities should develop directional signage for transit stations and informational signage for major destinations.



Source: Gruen Associates

Best Design Practices / Guidelines

A Graphic designers should develop a comprehensive signage system that is clear and concise for each of the type of signage.

B Directional and informative signage should use a consistent color palette, fonts, materials and graphics and be scaled for its purpose.

Manufaktura Square, Łódź Poland

Zeughaus Museum, Berlin, Germany

Complete Streets

STREET FURNITURE

Street furniture on sidewalks acts as a buffer between pedestrians and vehicular traffic and contributes to an active vital, walkable environment. Benches, water receptacles, and bicycle racks are recommended types of street furniture because they address needs that a pedestrian may have, such as a place to rest. Street furniture should be placed outside of the walking zone as to not create a hazard to pedestrians.

Best Design Practices / Guidelines

A Except at bus shelters and when space allows, benches should face or be perpendicular to the sidewalk creating a seating node. Waste receptacles should be placed near nodes of activity and spaced frequently along the streetscape. Considerations should be given to providing waste receptacles for recycling. Bicycle racks should be located near transit stops, major destinations and bike paths. Outdoor dining on private property and in the frontage zone should be encouraged where adequate space exists.

Source: Gruen Associates

Concrete Bench by Escofet

Caudal Drinking Fountain by Santa & Cole

Grand Park, Los Angeles, CA

Outdoor Litter Bins by Crystal

Complete Streets

TRANSIT SHELTER

Amenities | Infrastructure | Intersections | Street Design

Providing a shelter at all transit stops and stations allows commuters protection from sun and from inclement weather. Shelters should be established outside of the pedestrian walking zone and with sufficient room for bus wheelchair lifts to load and unload passengers. If there is not adequate space to install a dedicated shelter, at a minimum a bench and signage should be provided.

sbX Transit Shelter, San Bernardino, CA

Transit Stop, Temple City, CA

Best Design Practices

A Transit shelters should provide protection from the elements, adequate lighting, seating, a 5'x8' passenger loading area at the front door of the bus, accessibility to the bus and the sidewalk, and information signage.

B Benches or seats should be provided at all transit stops and stations for commuters to rest while waiting for the bus or train. Elderly and disabled passengers often have difficulty standing for long periods. Seating should be installed within close proximity of transit stops and stations and under the provided shelter if feasible.

C At a minimum, all transit stops and stations should provide signage displaying the route number. Providing timetables and maps are recommended to increase convenience for commuters with transfers and those that are less familiar with the network, such as a bicyclist with a flat tire in an unfamiliar location. For major transit stations and terminals, providing passengers with real time information on arriving transit vehicles is a valuable customer service improvement.

CTA Transit Shelter, Chicago, IL

Complete Streets

DEMONSTRATION OR PILOT PROJECT

Amenities | Infrastructure | Intersections | Street Design

Demonstration projects are temporary, low-cost public realm improvements that serve to introduce new pedestrian safety techniques to the general public. During the pre-design phase for projects,cities and partners should consider installing temporary elements such as curb extensions, plastic bollards, or striping. These improvements typically last no longer than one-two years. These temporary projects can help to demonstrate the benefits of pedestrian and bicycle improvements to the general public, as well as potential funders as the City seeks financial support through public and private grants, and sponsorship opportunities.

Best Design Practices / Guidelines

A **Flexible Bollards:** Can be used to define pedestrian-only zones, curb extensions, cycle tracks, and other areas where cars are not permitted.

B **Striping:** Used to define areas where curbs will eventually be installed, new lanes of traffic, parking stalls, crosswalks.

C **Planters:** Temporary planters can bring shade and refuge to sidewalks, plazas, and pocket parks. Temporary painting can be used to create colorful plazas and pocket parks.

D **Surface Painting:** They can also be used to delineate important zones such as parking stalls, cycle tracks pedestrian areas, or medians.

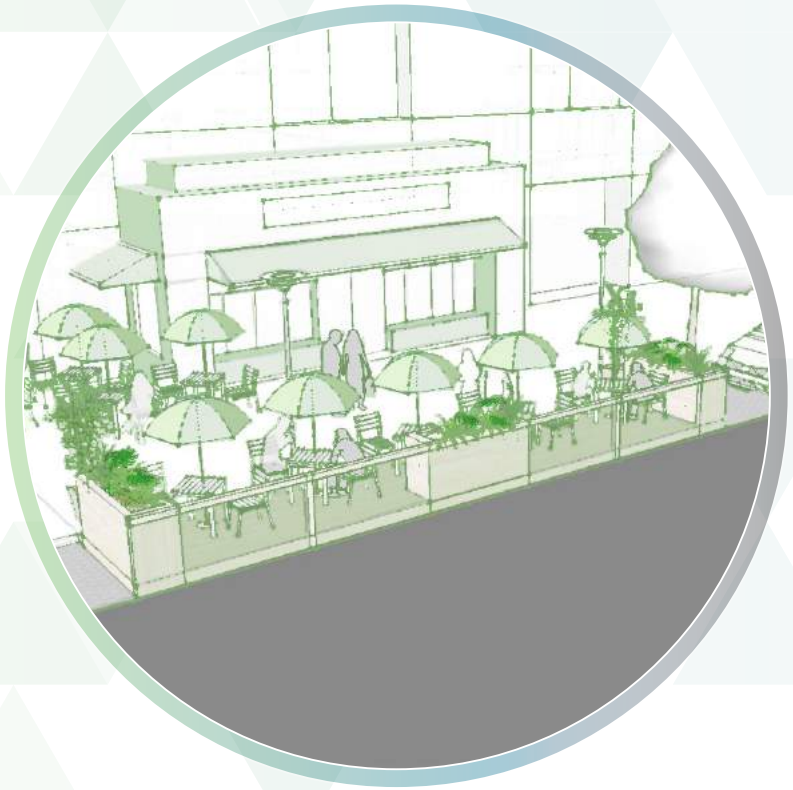
Lincoln Hub, Chicago, IL

Sunset Triangle Park, Los Angeles, CA

Part II

Toolkit

B - OPEN SPACE / PLACEMAKING



Parklet

Pocket Park

Paseo

Parkway / Linear Park

Reclaimed Street / Pedestrian Mall

Neighborhood Park

Plazas / Town Square

Open Space / Placemaking

A key ingredient in creating a dynamic, urban TOD environment which is connected by transit and active transportation is to create attractive and functional places that people want to be. Placemaking includes providing public gathering and open spaces which are linked to transit and transit supportive housing, educational, institutional, and commercial uses. These open spaces vary in size and function, some are programmed for events to activate an area, some may be adjacent to a transit station or civic building and others may be entirely for recreation. The illustrations show some of the types of open space appropriate for a HQTA area.

Santana Row, San Jose, CA Source: ULI

Active Transportation Connection

Sport and Active Recreation
Sport Fields, Swings, Exercise, etc.

Culture, Education, and Passive Recreation

Stormwater Management / Landscape
Bioswale

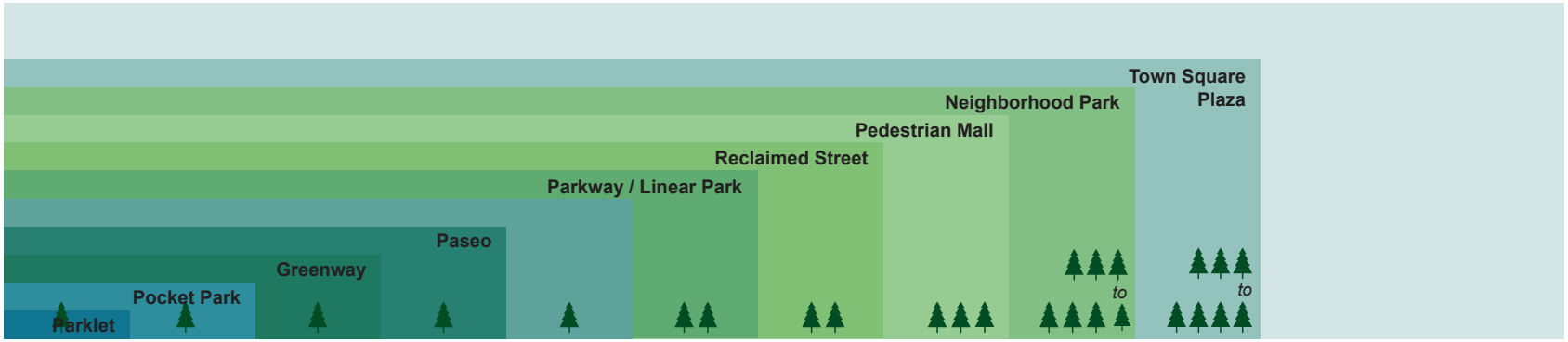
Habitat and Open Space
Habitat Corridor Links, Natural Landscape

Safety and Visibility
Eyes on the Street, Convenient Access

Retail and Commercial Features
Space for / Proximity to

Event Space
Temporary Stage, Amphitheater

Pet Areas
Dog Park, Dog Run



Large
> 40,000 sf

Medium
20,000 sf to 40,000 sf

Small
5,000 sf to 20,000 sf

Micro
< 5,000 sf

Open Space / Placemaking

PARKLET

Parklets connect curb side lanes and curb extensions into viable community spaces for recreation, seating and outdoor dining. By connecting one or two parking spaces into gathering spaces, the sidewalk is extended for public use and enhances the neighborhood. San Francisco, Boston, Los Angeles, Long Beach, all have Parklet programs. In Long Beach, the City has a pilot program with local restaurants to create these spaces. On Broadway and Spring Street in downtown Los Angeles, there are many parklets.

Best Design Practices / Guidelines

A. Parklets should not encroach into the walking path and should be flush with the sidewalk.

B. Parklets should not interfere with the storm water drainage of the street and electrical wires should not be exposed.

C. A buffer should be provided from the parklet of at least 2 ft from the travel lanes.

D. If there are multiple parklets on a street, the programming of the activities should vary between public uses and public/private uses, such as outdoor dining connected to restaurants.

Source: Gruen Associates

La Vague, Montreal, Canada

Spring Street, Los Angeles, CA

Open Space / Placemaking

POCKET PARK

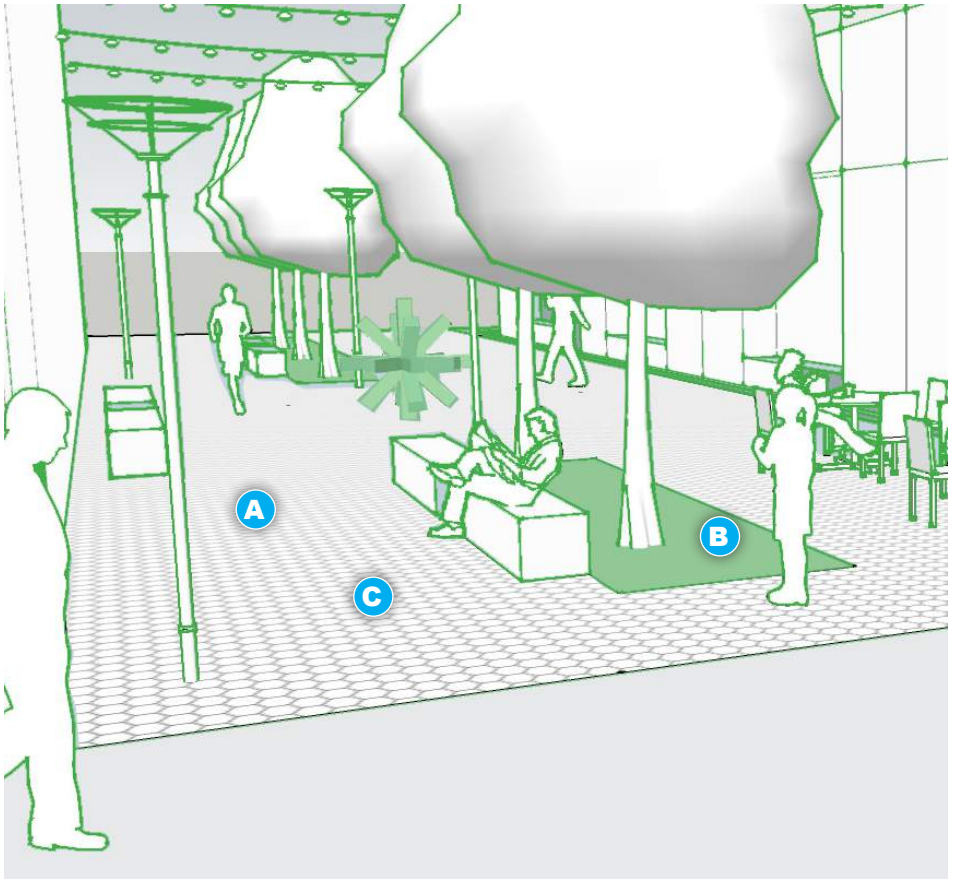
Pocket parks offer small areas for siting, dining and recreation, and could be located on public or private property. They could occupy underutilized or leftover public right-of-way or small lots owned by the City. Private property pocket parks could be a parking lot no longer used or an easement designated for public uses or connectivity. A variety of social and recreational functions could take place in the pocket parks and certain pocket parks could be designed for a unique use, such as a dog park. Potential elements include lighting, permeable or decorative paving, fitness equipment, tables for games and dining; seating, planting, trees, water features to mask noise, public art, wayfinding, space for and hook-ups for food trucks, play equipment, and community information signage.

Best Design Practices / Guidelines

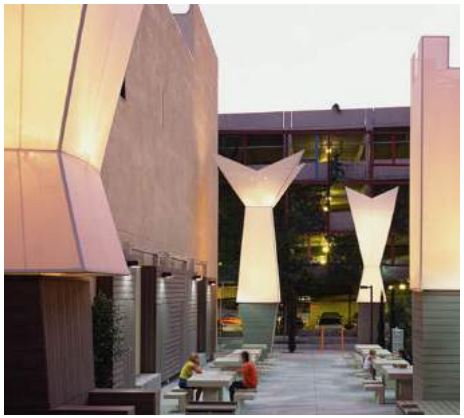
A Design of parks should accommodate a diversity of users although some depending on size could be devoted to specialty users, such as a children's playground or a dog park.

B Sustainable features, such as bioswales, permeable paving, LED lighting, solar lighting,drought-tolerant landscaping, and canopy trees for shade should be incorporated.

C Select sites that consider the orientation of the sun and the opportunity to integrate with viable transit-oriented uses and public art.



Source: Gruen Associates



Chess Park, Glendale, CA

Greenacre Park, New York, NY

Open Space / Placemaking

PASEO

A paseo is a landscaped public place containing a path designed for walking and strolling and could also be for biking. Paseos could be a mid-block pedestrian connection or part of a larger trail system connecting neighborhoods, parks, schools, and city sidewalks.

Best Design Practices / Guidelines

A Paseos are wider than normal sidewalks as they contain a wide pathway (15' to 20') with landscaping on either side of the pathway. Typically they contain pedestrian scaled lighting, an occasional bench for resting, trash receptacle, artwork, and could contain pet waste bag dispensers.

B Pathways could be serpentine or straight and in some communities are grade separated from major streets.

C For security and to create an active edge, portions of buildings and local streets should front on the paseo rather than continuous walls and fences.

Pearl District, Portland, OR

Old Town Pasadena, CA

Valencia, CA

Paseo Nuevo, Santa Barbara, CA

Arts District, Los Angeles, CA

Mercantile Alley, Pasadena, CA

Open Space / Placemaking

PARKWAY / LINEAR PARK

A parkway / linear park is a wide landscaped area parallel to a public street curb, a rail line, or a busway and used by pedestrians, bicyclists, joggers and other social, health and recreational opportunities. A linear park may also be in a wide landscaped median of a public street.

Best Design Practices / Guidelines

A As linear paths adjacent to a rail or busway must limit the number of crossings of the transportation facility, pedestrian/vehicular and bicycle crossings should be designed to provide safe, attractive, and pathways for all modes and incorporate wayfinding signage to identify the location of these crossings. If housing is adjacent, quiet zones may be considered.

B Pedestrian and bicycle pathways should cross at signalized perpendicular street intersections with consideration for separate striping for pedestrians and bicyclists.

C Connecting pathways should meander through canopy trees for shade and colorful planting with active recreational and passive places dispersed as appropriate.

D The character of linear parks could vary from the “zen like” low maintenance drought tolerant landscaping with bioswales of the Metro Orange Line Extension to the more vibrant colorful planting, water features and art in the Marina Linear Park in downtown San Diego to the active market space atmosphere of the Ramblas in Barcelona.

Marina Linear Park, San Diego, CA

Orange Line Busway, Chatsworth, CA

Ramblas, Barcelona, Spain

Los Angeles River Bike Path

San Vicente Boulevard, Los Angeles, CA

Havnegade Harbour Promenade, Copenhagen

Open Space / Placemaking

RECLAIMED STREET / PEDESTRIAN MALL

Providing a sense of place and history involves creating great urban spaces but also preserving, where appropriate, landmarks and historic buildings adjacent to these spaces. The focus of a HQTA could be a traffic free street reclaimed for pedestrians, active transportation, and transit, often called a pedestrian mall, with dense retail, office, and residential interspersed with the areas historic fabric.

Best Design Practices / Guidelines

A Pedestrian malls could be considered for small towns where they may operate as the main street, or in cities with a strong market for retail, restaurants and entertainment uses such a tourist destinations and university settings.

B For economic viability, pedestrian malls should be clustered on 1-4 blocks, should have frequent programming of events and be designed with consistent textured pavings, street furniture, outdoor dining, wayfinding signage, art work, and dramatic lighting.

C For flexibility and fire life safety, consideration should be given to incorporating a two lane vehicular path that can be open and closed depending on events and anticipated crowds. This roadway space could be designed curbless with bollards.

D Active ground level uses with large clear windows and entrances from the pedestrian mall is essential.

Sunset Triangle, Los Angeles, CA

Former Georges-Pompidou Expressway, Paris

16th Street Mall, Denver, CO

Third Street Promenade, Santa Monica, CA

Church Street, Burlington, VT

Charlottesville, VA

Open Space / Placemaking

NEIGHBORHOOD PARK

A neighborhood park is typically family oriented with children's playgrounds, community gardens, picnicking, and could include swimming, tennis, or basketball courts as well as passive landscaped areas. The neighborhood park could be public or private. If private it may be a part of a housing or mixed use development.

Best Practices / Design Guidelines

A Each neighborhood park's uses and design should respond to the individual needs and character of a neighborhood.

B If on private property the park should be designed to intuitively welcome the public by its visibility and lack of barriers from the sidewalks and streets.

Gladys Jean Wesson Park, Los Angeles, CA

Waterfront Park, Seattle, WA

Madison Park, New York, NY

Pearl District Park, Portland, OR

Spring Street Park, Downtown Los Angeles, CA

Tongva Park, Santa Monica, CA

Open Space / Placemaking

PLAZAS / TOWN SQUARE

Historically, a plaza was a grand space adjacent to a public building such as a cathedral, a library, or a civic building. Traditionally plazas contained features including a fountain, space for large events such as parades, performance space like a band shell, sculpture, sitting areas, cafes, and landscaping. A large portion of these plazas were paved. Today urban plazas are public open spaces for gathering next to the street which vary considerably in size, use and character. Representative plazas for HQTA include:

- A town square which is similar to the traditional plaza mentioned alone and could be the focal point of the HQTA especially if combined with a transit plaza. A wide range of activities could be planned from out door cafes, play grounds, art installations, performances, seasonal activities such as temporary ice skating as well as trees and landscaping for storm water management.
- A transit plaza is an open space adjacent to a transit center and should serve rail or multiple bus lines or both. As this is a space that people will move through as well as stopping and waiting, pedestrian and passenger amenities are appropriate including vendors for newspapers, flower stands and coffee.
- A street plaza is a small public open space immediately adjacent to a sidewalk or an extension of the sidewalk. It may be used for people watching, sitting waiting for the bus, and for eating lunch.
- A plaza open space in front of a major building operates as a gateway or entrance to the building and may be privately owned but open to the public.

South Pasadena Transit Plaza

Del Mar Gold Line Plaza, Pasadena, CA

Bryant Park, New York, NY

City Hall Park, Philadelphia, PA

Wilshire-Grand Plaza, Downtown Los Angeles

Platform, Culver City, CA

Best Design Practices / Guidelines

A Each plaza should contain amenities comfortable for people to use and be planned with enough flexibility to respond to the seasons and time of day.

B Plazas should be distinct places which as visible and easily accessible to people from the public street and connected to the pedestrian and bicycle network in the HQTA.

C The town square/transit plaza should be easy in walking distance of the most dense portions of the HQTA, preferable in the core and appeal to diverse multi-generations.

D Amenities to consider for the town square plaza include arbors, trellises, sun terraces, decks, art installations, concert and performance spaces, formal seating areas, secondary sitting areas such as seating walls and steps, lighting, focal points, out door dining areas, recreational activities, bicycle hubs, shared vehicles, fountains, play areas, way finding signs and kiosks, trees and landscaping with a variety of color and forms.

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Part II

Toolkit

C - BUILDING TYPES & PRECEDENTS

Building Types

- **A - Detached Residence**
- **B - Attached Residence**
- **C - Multiplex**
- **D - Mid/Hi-Rise Tower**

TOD Precedents

Building Types

Meeting residential and job density targets that support transit ridership and walkable communities can be achieved through a wide variety of building types. The HQTA Toolkit recognizes the diversity of building stock throughout Southern California by organizing building types into the six typologies listed below. The typologies are informed by the following considerations:

- Primary means of access to units and habitable spaces
  (from courtyard, intERnal hall)
- Orientation to street, intERnal open spaces
- Construction type
  (Wood-frame construction, concrete block, etc.)
- Parking configuration
  (surface lot, undERground, podium, on-street, partial excavation)

Each Vision Plan includes a draft Regulating Concept Plan that generally specifies the typologies that are appropriate for each district. As the HQTA areas are developed, building types from each typology can be selected, allowing for a great degree of architectural flexibility while enabling cities to meet the density/intensity targets set forth in each Vision Plan.

The following pages include:

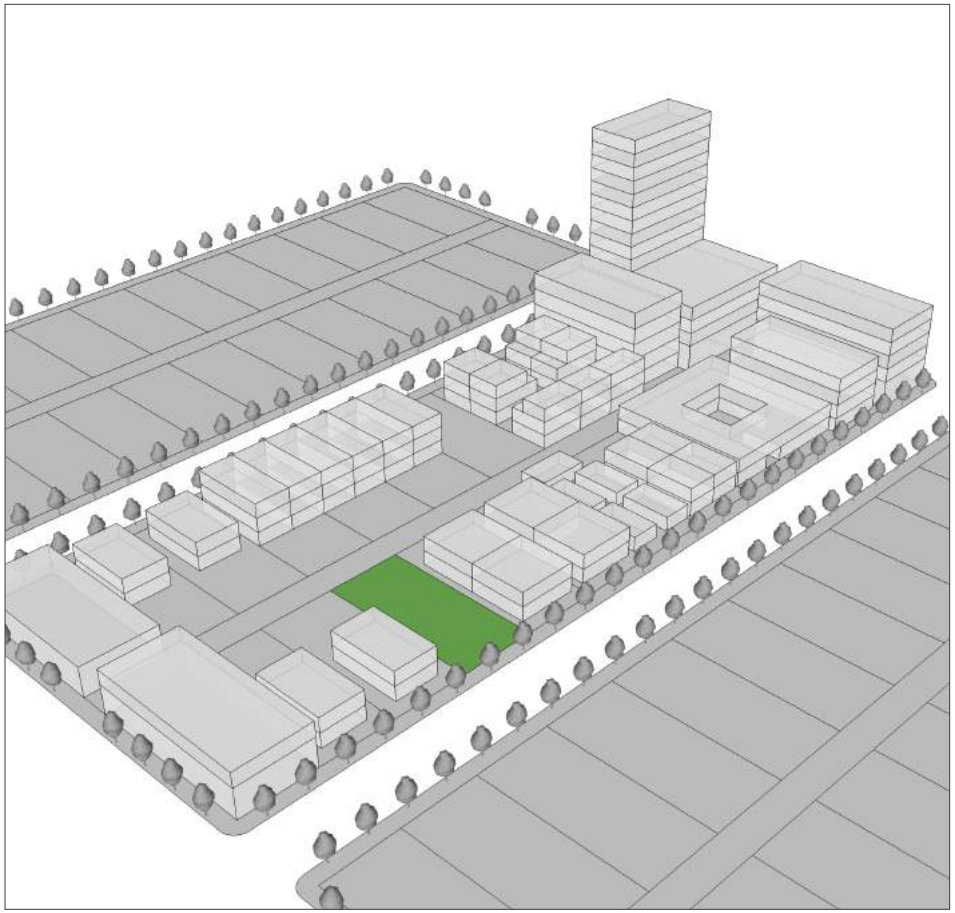
Typologies
A profile of each typology, including the general density/intensity range, mix of land uses, parking and circulation assumptions, and key design considerations

Building Types
Specific building types for each typology with precedent imagery and diagrams

Transit-Oriented Development Precedents
Profiles of built TOD projects from throughout California and the United States

A summary table of TOD precedent attributes can be found in the "Additional Resources" section of this Toolkit.

As future rounds of the HQTA program move forward, this Toolkit will be continuously updated with additional building types and precedents that reflect creative and innovative ways to build livable, transit-supportive communities.



Typologies

A Detached Residence

Building Types

1. Accessory Dwelling Unit (ADU)
2. Shopfront House
3. Bungalow Courtyard
4. Rosewalk

B Attached Residence

1. Attached Townhouse
2. Hybrid Courtyard
3. Duplex
4. Live/Work Lofts
5. Small Lot Subdivision

C Multiplex

1. Triplex/Fourplex
2. Stacked Flats
3. Flex Apartment/Mixed Use
4. LinER Structure

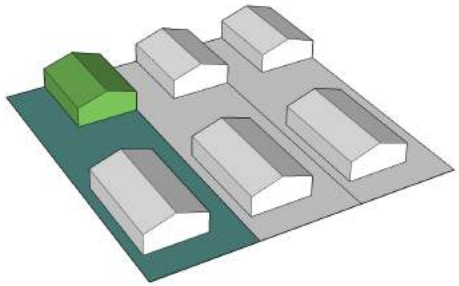
D Mid/Hi-Rise Tower

1. Mid-Rise Tower
2. High Rise Tower

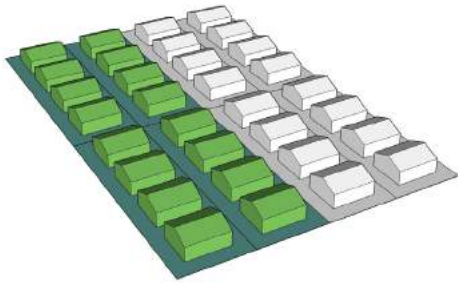
A B C D

Typology: Detached Residence

The detached residence parti is one of the most common residential building types existing within the SCAG region. Typical for a single-family residence, the form is best characterized as a detached dwelling unit with a front, rear, and side yard. However, the detached parti can also include multiple dwelling units per property, while employing a building form that can match or complement single-family homes, thus still retaining the existing residential character.



Accessory Dwelling Unit (ADU)



Rosewalk

Typical Lot Size: 50' x 150'/7,500 sf/0.18 acres

Number of Units: 2 - 4

Density Range: 10 - 20 du / acre

FAR: < 1.0

Number of Floors: 1 - 2

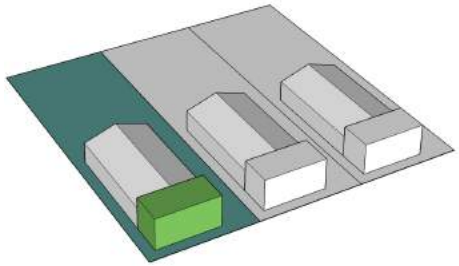
Parking: Assumption: 0-1 space per unit

Unit Size: studio - 2 bedrooms / 600 - 1,000 sf

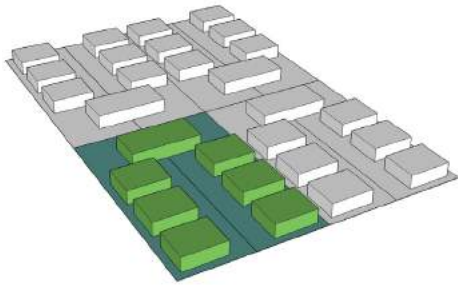
Residential: / Commercial: Mix:

Residential - 100%

Commercial - 0%



Shopfront House



Bungalow Courtyard

Design Considerations

Front Setback: +/- 5' from established front yard line

Side Setback: 15% of lot width (e.g. 50' x 20% = 7.5')

Lot Coverage: 50% - 75%

Ground Floor Transparency: 20%

A B C D

Typology: Detached Residence

1 ACCESSORY DWELLING UNIT

Accessory dwelling units are permitted statewide in California since the passage of SB 229 and AB 494 in 2017 and 2018. The bills allow owners of single or multi-family residences to build a secondary unit on their property with minimal restrictions from local zoning ordinances. Units can be free-standing or located above a garage or other structure. Provisions allow for the addition of a studio or 1-bedroom unit of up to 1,200 square feet with bathroom and kitchen facilities, among other conditions.

▽ **Vehicle Access:** Garages or carports can be accessed from an alley or existing streetside curb cut.

Parking: No additional parking is required per recent California legislation.

△ **Pedestrian / Bicycle Access:** Owners are encouraged to provide convenient storage for bicycles, scooters, or other non-motorized forms of transport. Pedestrian access to ADUs can be shared with an existing driveway or provided from the alley.

For additional information:
www.hcd.ca.gov/policy-research/docs/SummaryChangesADULaws.pdf

Piedmont, California

2 SHOPFRONT HOUSE

Shopfront houses are commercial structures that can be added to existing single-family homes. They are typically found along arterials and lower-density commercial corridors that include a mix of single-family homes and retail. The shopfront house can be an effective way to enliven the street scene while providing neighborhood-serving retail, new stores and boutiques, and coffee shops, among other uses.

▽ **Vehicle Access:** Vehicles typically access shopfronts from an alley.

Parking: If alley access is provided, conventional spaces for customers and tandem spaces for employees can be provided. On-street parking is encouraged.

△ **Pedestrian / Bicycle Access:** Pedestrians and cyclists access shopfronts from the sidewalk.

upper: Minneapolis, Minnesota/lower: Saint Paul, Minnesota

A B C D

Typology: Detached Residence

3 BUNGALOW COURTYARD

Bungalow courtyards emerged in Pasadena in the early 20th century as a way to provide amenities typically offered in a single family home in a more affordable complex. As its name implies, units are organized around a common courtyard and designed in the low-density (1-2 story) bungalow design. Multiple units can be clustered together (duplex, triplex, etc.) to achieve even higher densities.

Vehicle Access: Vehicles can access units from driveways along the side lot line or alley.

Parking: Parking can be provided in a common suite of garages or carports in the rear of the complex. Alternatively, each unit may include its own single-stall garage.

Pedestrian / Bicycle Access: Pedestrians access units from the courtyard. Secure bicycle storage should be provided in each garage stall.

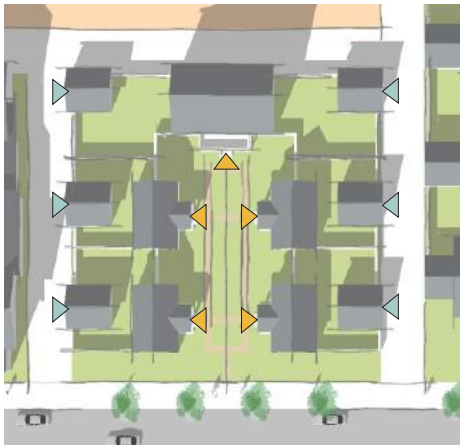
4 ROSEWALK

Rosewalks are similar to bungalow courtyards, but the common amenity space takes the form of a narrow mall. Additionally, the mall typically extends across the whole block in a linear arrangement (from street to street). Given space constraints, garages are typically attached to the rear of each unit. Rosewalks achieve slightly higher densities than bungalow courtyards and provide for public pedestrian access and excellent circulation throughout the neighborhood.

Vehicle Access: Driveways are provided along the side lot line.

Parking: Parking garages are typically attached to the rear of each unit.

Pedestrian / Bicycle Access: Units are accessed from the mall, while bike storage should be provided at the rear of each unit.



Gartz Court, Pasadena

Redlands, California

Venice, CA

Manhattan Beach, CA

A B C D

Typology: Attached Residence

Attached residences often take the form of townhomes, which are two to three-story units that are primarily accessed from the primary street. Parking is typically located in tuck-under garages at the rear of the residence or in a common lot or garage. Units may take the form of a duplex, with two units, or several units in a row that share party walls. Small-lot subdivisions, similar in scale and density to townhomes, have become popular in the City of Los Angeles, where an ordinance has permitted owners of some R-1 single lots further subdivide the property and sell fee-simple units individually. Contrary to townhomes, small-lot subdivisions are owned individually, do not share a party wall (they are separated by a few inches) and are not a part of an association, which can lower the monthly payment for homeowners.

These residences can be found in a variety of communities throughout Southern California and add slightly more density to a neighborhood than the typical single-family detached home while maintaining an area's existing character.

Typical Lot Size: 50' x 150'/7,500 sf/0.18 acres

Number of Units: 2 - 4

Density Range: 15- 30 du / acre

FAR: < 1.0

Number of Floors: 2 - 3

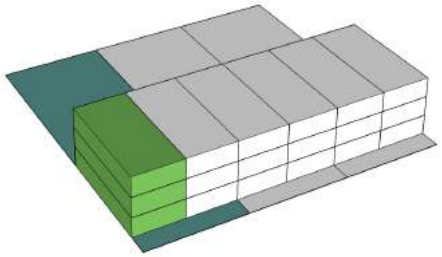
Parking: Assumption: 1-2 spaces per unit

Unit Size: 1 - 3 bedrooms / 900 - 1,400 sf

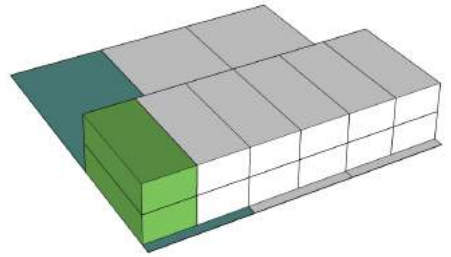
Residential: / Commercial: Mix:

Residential - 100%

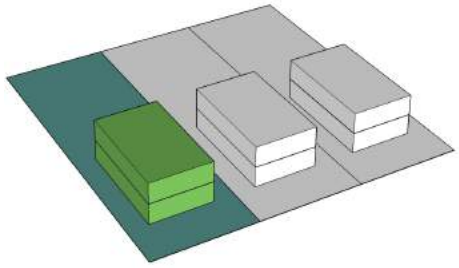
Commercial - 0%



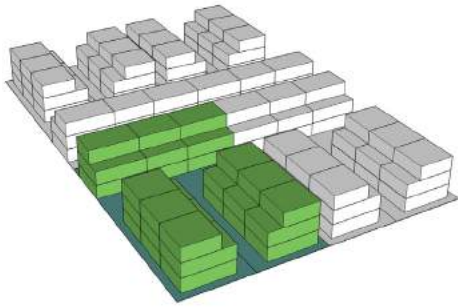
Attached Townhouse



Live/Work



Duplex



Small-Lot Subdivision

Design Considerations

Front Setback: +/- 0-5' from established front yard line

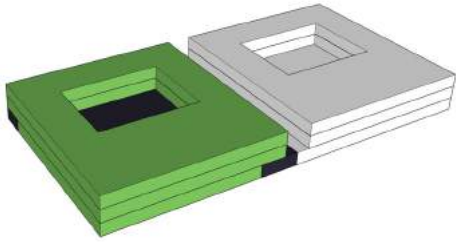
Side Setback: 0% of lot width

Lot Coverage: 50% - 75%

Ground Floor Transparency: 50%

Frontage Elements:

- Arcade
- Awning
- Balcony
- Canopy
- Forecourt
- Plaza
- Porch
- Stoop



Hybrid Courtyard

Typology: Attached Residence

1 ATTACHED TOWNHOUSE

Attached townhomes offer many of the same benefits of single-family at higher residential densities. Units are typically 1-2 stories with up to three bedrooms and are typically no more than 30-40' wide. This unit size allows for higher densities (20-25 units/acre) when compared with single-family homes (7 units/acre). Attached units can include private backyards and feature minimal sidewalk setbacks. To facilitate pedestrian circulation, at least one public walkway should be provided at or near the center of each block.

▽**Vehicle Access:** Guests arriving by car park on-street, while townhome owners access each garage from a shared alley.

Parking: Up to two stalls can be provided in a detached, private garage that is located off the alley. On-street parking should be provided for guests.

△**Pedestrian / Bicycle Access:** Pedestrians access units from the sidewalk and secure bicycle parking should be provided in each private garage.

2 HYBRID COURTYARD

Like the bungalow courtyard, hybrid courtyards share a common, central amenity space that is shared among residents and tenants. Hybrid courtyards, however, include a mix of higher density (2-4 story) attached multi-family buildings and/or a mixed-use (retail/office or retail/residential) building that is oriented to the primary street. This building type achieves high densities (40-50 units/acre) and a desirable mix of uses using Type V construction, which is less expensive to build.

▽**Vehicle Access:** Access is provided from an alley or through a driveway along the side lot line.

Parking: Parking is provided in a shared lot at the rear or in a garage below the complex.

△**Pedestrian / Bicycle Access:** Ground-floor residential units are accessed from the courtyard, while upper units can be reached from a stairwell and hall. Commercial suites include street-facing entrances.

Washington D.C.

SL70 - Silver Lake, Los Angeles

Mission Meridian Village, South Pasadena

Typology: Attached Residence

3 DUPLEX

A structure that consists of two side-by-side or stacked dwelling units, both facing the street and within a single building; with the appearance of a single-family home, it is appropriately scaled to it within primarily single-family neighborhoods or medium-density neighborhoods.

Vehicle Access: Vehicle access is prefERred from an alley. If no alley is present, a driveway for single car width along one edge of the lot is acceptable.

Parking: Surface parking is located behind the building, or located along an alley, and should be hidden from the street. On-street parking should also be utilized to reduce amount of on-site parking.

Pedestrian / Bicycle Access: Pedestrian access can be from the front of the building, or from the side driveway. Side yard duplex should have entrances fronting both streets.

4 LIVE/WORK LOFTS

Live-work lofts are a unit type that can be integrated into duplexes, detached/attached townhomes, and small lot projects. These units are typically two-or three stories, face the primary street, and include second and/or third-levels that open to the main living space below. Living spaces may be converted to workspace for small retail or office operations, artist studios, or other low volume commercial uses. They help to activate the street in areas where traditional retail is not feasible.

Vehicle Access: Commercial patrons park on-street and access units from the sidewalk.

Parking: Garages can be provided in shared complexes or as tuck-under stalls facing the alley.

Pedestrian / Bicycle Access: Pedestrians and cyclists can access units from the sidewalk. Convenient bicycle parking(typically a pole or rack) should be provided for guests.

Los Angeles

Los Angeles

La Esquina, San Diego

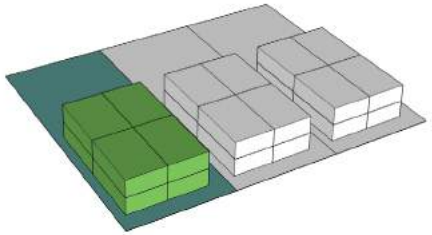
City Place, Santa Ana

A B C D

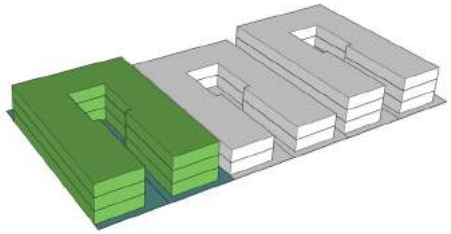
Typology: Multiplex

Multiplexes encompass a wide range of building and unit types. Units may be organized into clusters of 3-4, or part of multi-family buildings that include up to 100+ units. Parking may be located in small surface lots in the rear of a complex, on-street, or within podium (above-grade) or below-grade garages to maximize the density/intensity of development. Multiplexes may also have commercial frontage along the primary and/or secondary streets, greatly enhancing the walkability and vibrancy of the streetscape by adding interest and activity.

Liner structures are single-loaded (units located along only one side of a corridor) and are used to screen the blank facades of free-standing or podium parking structures. Units at-grade can be configured as live-work units or loft-style residential units with entrances facing the primary street.



Triplex/Fourplex



Courtyard

Typical Lot Size: 50' x 150'/7,500 sf/0.18 acres

Number of Units: 4 - 100+

Density Range: 50 - 125 du / acre

FAR: 1.0 - 5.0

Number of Floors: 2 - 7

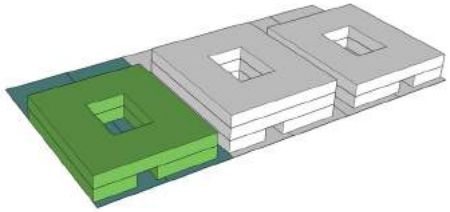
Parking: Assumption: 1 space per unit

Unit Size: studio - 3 bedrooms / 900 - 1,400 sf

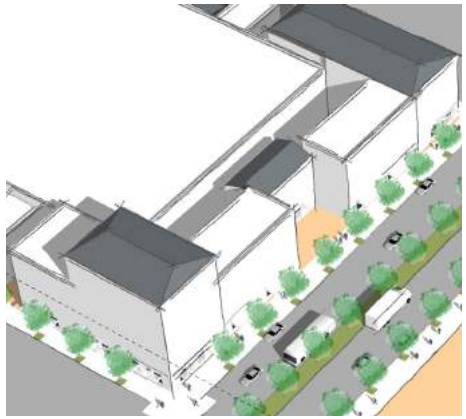
Residential: / Commercial: Mix:

Residential - 75% - 100%

Commercial - 0% - 25%



Flex Apartment/Mixed Use



Liner Structure

Design Considerations

Front Setback: +/- 5' from established front yard line

Side Setback: 0% - 15% of lot width (e.g. 50' x 20% = 7.5')

Lot Coverage: 50% - 75%

Ground Floor Transparency: 50 - 75%

Typology: Multiplex

1 TRIPLEX/FOURPLEX

Triplexes and fourplexes are similar in concept to the duplex, but can be configured in a variety of ways to achieve higher density structures that come in combinations of three or four units. A common entrance may lead to three or four units, or individual entrances may be located along the front and/or sides of each building.

Vehicle Access: Vehicles can access shared lots or garages from the street or alley.

Parking: Shared lots or garages can be provided, although some units may not include any dedicated parking. On-street parking should be made available.

Pedestrian / Bicycle Access: Pedestrians and cyclists access units from the sides and front of each complex. Bicycle parking should be provided in common garages or racks near the alley.

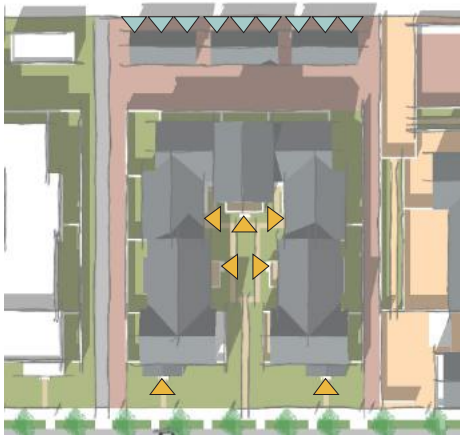
2 COURTYARD

Courtyards are similar to bungalow courtyards (see earlier description) but units are fully attached and arranged in higher densities (2-3 stories). This arrangement yields more units per acre, but does not include private backyards. Instead, social interaction among residents is encouraged through a well-designed and maintained common courtyard.

Vehicle Access: Vehicles access to the complex is typically through a driveway along the side lot line.

Parking: Parking is provided in carports or garages at the rear of the building. Residents park and walk through arcades to access courtyards and units.

Pedestrian / Bicycle Access: Pedestrian/ cyclist access to each unit is provided from the courtyard.



Los Angeles

Angelino Heights, Los Angeles

Mission Meridian Village, South Pasadena

Harper Court, Los Angeles

Typology: Multiplex

3 FLEX APARTMENT/MIXED USE

Flex apartments are a general, catch-all term for the most common building type used in TOD construction. These are multi-family structures between 3 and 7 stories in height, and may be build using Type V or modified Type III construction types, depending on the type and presence of retail. Buildings may be all-residential or include a mix of street-facing retail or commercial units. Densities of 50-100 units/acre are possible depending on the density.

▽ **Vehicle Access:** Vehicles access the complex from curb cuts located at the ends or rear of the building.

Parking: Parking for residents and customers is located behind the building, in upper level podiums, or in below-grade garages.

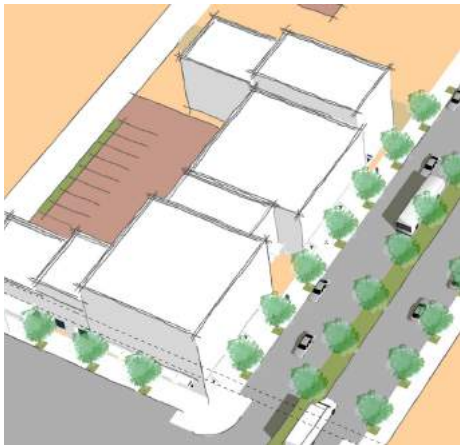
△ **Pedestrian / Bicycle Access:** Retail suites include street-facing entrances, while residents access units from a separate, private entrance that leads to stairwells/elevators and common corridors.

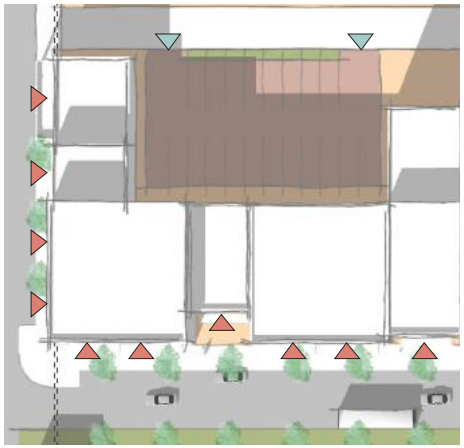
4 LINER STRUCTURE

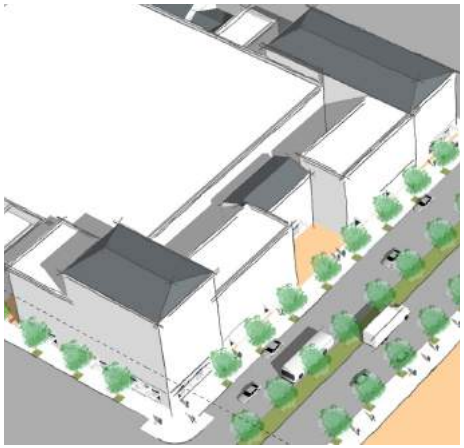
Liner structures are single-loaded (units located along only one side of a corridor) and are used to screen the blank facades of free-standing or podium parking structures. Units at-grade can be configured as live-work units or loft-style residential units with entrances facing the primary street.

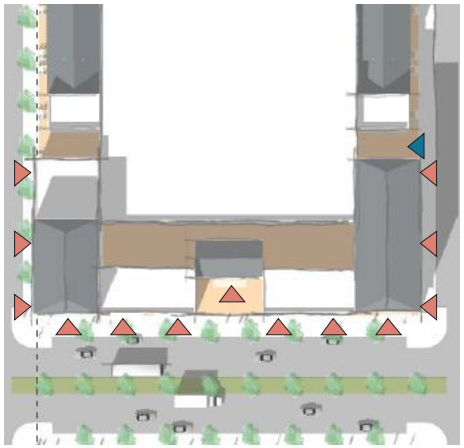
▽ **Vehicle Access:** Vehicles park in a podium parking structure with entrances located around the block.

Parking: Liner buildings typically wrap above-grade parking structures. Retail customers park on the lower levels and walk through arcades to access street-fronting retail, while residents can park on the upper levels and access units directly from the garage.









SoMa, San Francisco

124 N. 6th St., Williamsburg Virgina

Boulder, Colorado

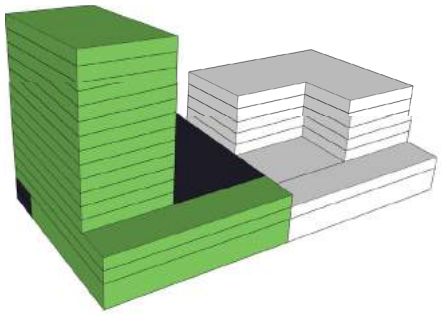
Dallas, Texas

A B C D

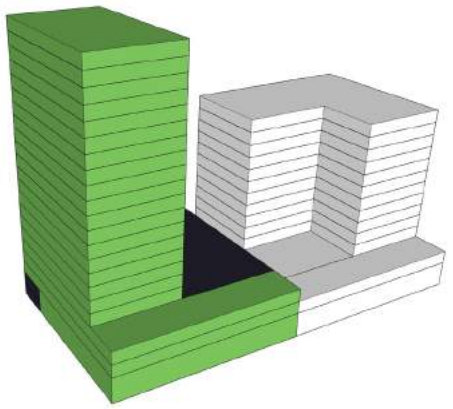
Typology: Mid/Hi-Rise Tower

Once the market for multi-family residential or commercial units matures, mid-rise or high-rise towers may become feasible. Due to their cost, these structures often require either high per-square foot rent or sales prices or a significant subsidy to make them profitable for developers. Parking is located in above-grade podium structures (construction costs of roughly $25,000/stall) or in more expensive below-grade garages (approximately $40,000 or more to construct).

Towers should be sensitively designed at the ground level to avoid creating imposing blank walls. Strategies include recessing structures at floors 3-5 and locating retail, live-work, outdoor cafes and pocket parks, and other active uses at the ground level. Sunlight, wind, and the existing neighborhood context and density are additional key design factors to consider.



Mid-Rise Tower



High-Rise Tower

Typical Lot Size: 100’ x 100’/10,900+ sf/0.25+ acres

Number of Units: 100+

Density Range: 100+ du / acre

FAR: 6.0+

Number of Floors: 8+

Parking: Assumption: 1 space per unit

Unit Size: 1 - 3bedrooms / 900 - 1,200 sf

Residential: / Commercial: Mix:

Residential - 0 - 100%

Commercial - 0 - 100%

Design Considerations

Front Setback: 0”-20’ from established front yard line (setbacks acceptable only if plazas, parks, or cafes are included.

Side Setback: 0% of lot width

Lot Coverage: 50% - 75%

Ground Floor Transparency: 75+%

A B C D

Typology: Mid/Hi-Rise Tower

1 MID-RISE TOWER

Mid-rise towers are higher density (7-10 story) structures that are organized around a common set of elevators and stairwells. Several residential units can be located on a single floor plate in a number of configurations, from studio to four bedroom units. Parking is provided in above-grade podiums or in garages below-grade. An amenity deck that includes a terrace, barbecue, pools, gyms, and other features is typically included and maintained by the landlord or association.

Vehicle Access: Access is provided from curb cuts located from an alley or from an adjacent street if permitted by individual cities.

Parking: Parking is located in upper-level podium structures or in below-grade garages.

Pedestrian / Bicycle Access: Privately-owned pocket parks and plazas should be provided to encourage social activity and provide for convenient pedestrian/cyclist access and parking.

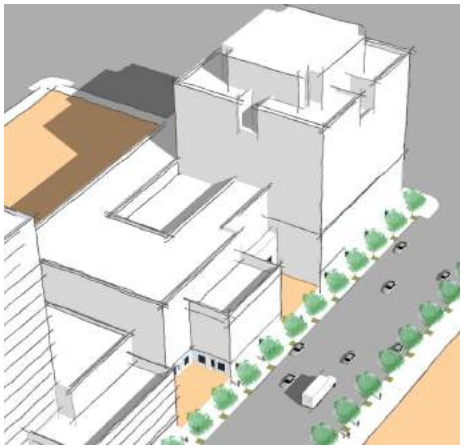
2 HIGH-RISE TOWER

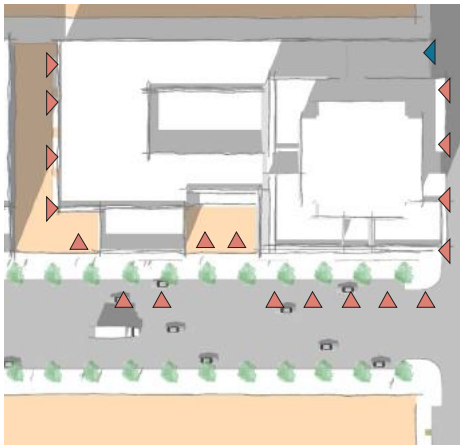
While mid-rise towers achieve significant densities (100-150 units/acre), high-rise towers can be in excess of 10, 20, 30 or more stories. In most other respects, high-rise towers are similar. A diverse mix of residential, office, retail, or hotel can be included in a high rise tower, with separate entrances provided for each use. High-rise towers are feasible in select few, highly desirable markets (typically central business districts). Existing office towers may also be converted to a mix of uses.

Vehicle Access: See mid-rise tower description.

Parking: See mid-rise tower description.

Pedestrian / Bicycle Access: See mid-rise tower description.





Onyx, Los Angeles

The Apollo, Washington D.C.

Atelier - Downtown Los Angeles

TOD Precedents

	Projects	Project Attributes											
		Place Type	City	Year Completed / Expected	Building Type	Transit Mode	Distance to Transit	Acres	Number of Floors: (max)	Number of Units:	du / acre	Retail / Commercial sf	Estimated Total Development Costs
Urban	820 Olive Street	Mixed Use	Los Angeles	2018	High Rise	Local Rail	1,800	0.87	59	516	593	4,500 sf	
	Ballpark Village	Mixed Use	San Diego	2018	High Rise, Podium Mid Rise	Local Rail	250	3.7	37	713	193	45,000 sf	$250,000,000
	Middough Arts Center	Commercial	Cleveland	2012	Loft Building (AR)	BRT	400	1.5	5	0	0	300,000 sf	$41,500,000
	Wilshire / Vermont	Mixed Use	Los Angeles	2007	Podium Block	Local Rail	50	3.24	7	449	139	35,000 sf	$136,000,000
	The Pearl	Mixed Use	Silver Spring	2016	Podium Tower	Local Rail	1,200		14	284		30,000 sf	
	The Blairs	Mixed Use	Silver Spring	2025	Master Plan Development	Local Rail	1,200	27		2,800	104	450,000 sf	
	YUL	Mixed Use	Montreal	2020	High Rise, Townhouse	Local Rail	600	2.27	38	890	392		$300,000,000
	The Current	Mixed Use	Long Beach	2016	High Rise	Local Rail	2,100	0.8	17	223	279	6,750 sf	$70,000,000
	45 Marion Street	Residential	Boston	2016	Stacked Units	Local Rail	1,200	0.4	6	65	163	0 sf	
Town	11405 Chandler Boulevard	Mixed Use	Los Angeles	2017	Podium Mid Rise	Local Rail / BRT	500	0.6	7	82	137	1,000 sf	
	1647 - 55 N. Milwaukee	Mixed Use	Chicago	2016	Stacked Units	Local Rail	600	0.3	5	36	120	7,400 sf	
	Market Station	Mixed Use	Kansas City	2015	Podium Block	BRT / Streetcar	1,600	4.46	5	137	31	4,500 sf	
	Mercer Commons	Mixed Use	Cincinnati	2014	Loft Building, Townhouse	Streetcar	600	1.1	4	95	86	14,500 sf	$49,000,000
	Mercer III Townhouse	Mixed Use	Cincinnati	2016	Townhouse	Streetcar	700	0.4	4	12	30	0 sf	$5,500,000
	8 House	Mixed Use	Copenhagen	2010	Podium Block	Local Rail	1,000	7	10	476	68	107,000 sf	
	Ivy Station	Mixed Use	Culver City	2019	Podium Mid Rise	Local Rail	100	5.2	6	200	38	246,000 sf	$300,000,000
	La Esquina	Mixed Use	San Diego	2012	Live / Work	Local Rail	2,700	0.25	2	7	28	500 sf	
	Linkt Apartments	Mixed Use	Chicago	2017	Stacked Units	Local Rail	500	0.35	5	47	134	3,000 sf	
	East Liberty Transit Center	Mixed Use	Pittsburgh	2016	Podium Mid Rise	BRT	300	6	5	360	60	43,000	$90,000,000
	Del Mar Station	Residential	Pasadena	2007	Podium Block	Local Rail	50	3.4	7	347	102	11,000 sf	$77,000,000
	SoCo Walk	Residential	Fullerton	2006	Townhouse, Live / Work	Commuter Rail	100	5.9	3	120	20	Yes	
	Depot at Santiago	Residential	Santa Ana	2018	Stacked Units	Commuter Rail	800	1.35	4	70	52	9,000 sf	$34,000,000
	Terraces at Santiago	Residential	Santa Ana	2013	Courtyard Apartment	Commuter Rail	2,500	0.85	3	36	42	0 sf	
	Centrum Wicker Park	Residential	Chicago	2016	Podium Mid Rise	Local Rail	500	0.5	6	60	120	13,000 sf	

TOD Precedents

Projects		Project Attributes											
		Place Type	City	Year Completed / Expected	Building Type	Transit Mode	Distance to Transit	Acres	Number of Floors: (max)	Number of Units:	du / acre	Retail / Commercial sf	Estimated Total Development Costs
Town	**The Row**	Residential	Chicago	2017	Townhouse	Local Rail	1,100	0.8	3	24	30	0 sf	
	Mode Logan Square	Residential	Chicago	2017	Stacked Units	Local Rail	1,100	0.95	4	78	82	6,100 sf	
	Residences @ 245 Sumner	Residential	Boston	2017	Stacked Units	Local Rail	600	0.4	4	34	85	2,250 sf	$8,000,000
	169 Calle Amsterdam	Residential	Mexico City	2014	Stacked Units	BRT / Local Rail	1,800	0.14	5	15	107	0 sf	
	Kroyer Square	Residential	Copenhagen	2016	Stacked Units	Local Rail	2,400	2.12	5	105	50	Yes	
Village / Suburban	**Mission Meridian Village**	Mixed Use	South Pasadena	2006	Duplex, Courtyard, Loft	Local Rail	200	1.65	3	67	41	5,000 sf	
	Village Walk	Mixed Use	Claremont	2006	Townhouse	Commuter Rail	2,300	8	3	186	23	0 sf	
	Highland Park	Mixed Use	Buffalo	2022	Master Plan Development	Local Rail	1,600	27	4	717	27	Yes	
	118 Flats	Mixed Use	Cleveland	2013	Townhouse	BRT	200	0.38	3	20	53	0 sf	$4,000,000
	Takoma Central	Mixed Use	Takoma	2015	Podium Block	Local Rail	600	1.29	5	150	116	10,000 sf	
	Fruitvale Transit Village	Commercial	Oakland	2004	Podium Mid Rise	Local Rail	100	3.6	4	47	13	154,000 sf	
	Victory Building	Commercial	Cleveland	2013	Loft Building	BRT	50	3.24	4	0	0	161,000 sf	$26,000,000
	Midtown Tech Park	Commercial	Cleveland	2011	Flex Building	BRT	50	6	2	0	0	128,000	
	Metro Village	Residential	Takoma	2017	Podium Block	Local Rail	1,000	1.13	5	150	133	0 sf	
	Residences @ Thayer	Residential	Silver Spring	2014	Stacked Units	Local Rail	2,300	0.5	4	52	104	0 sf	
	Metro Gateway	Suburban Multifamily	Riverside	2017	Stacked Units	Commuter Rail	600	4.26	4	187	44	0 sf	
	Paseos at Montclair North	High Intensity Activity Center	Montclair	2013	Townhouse	Commuter Rail	2,000	15.4	3	385	25	0 sf	
	Grossmont Trolley Center	High Intensity Activity Center	La Mesa	2010	Podium Block	Local Rail	100	9.9	6	527	53	3,000 sf	
	South Bay Town Center	High Intensity Activity Center	Boston	2018	Podium Block, Podium Mid Rise	Local Rail	2,500	10.15	6	475	47	120,000 sf	
	Solaire Wheaton	High Intensity Activity Center	Wheaton	2013	Podium Block	Local Rail	1,200						
Campus	**Greenbridge Commons**	Campus / University	Cleveland	2011	Stacked Units	BRT	700	1.1	4	70	64	0 sf	$11,000,000
	Euclid Commons	Campus / University	Cleveland	2012	Stacked Units	BRT		2.8	4	163	58	0 sf	

TOD Precedents

820 OLIVE

Downtown, Los Angeles, California

Year Expected: **2018**

SCAG Region | California | United States | International

Size: 0.87 acre

Number of Floors (min/max): 7 / 50

Number of Units: 516

Retail / Commercial: 4,500 sf

Office: 0 sf

Hotel Rooms: 0

Parking: 600 subterranean

Dwelling Units per Acre: 593

100 + | 51 - 99 | 13 - 50 | < 12

Residential: 96%

Commercial: 4%

Project Features

Open Space: Roof patio

Context

Place Type Context: Urban Mixed-Use

Transit Mode: Local Rail

Transit Line(s): Metro: Blue, Red, Purple, Expo

Distance to Station / Stop: 1,800'

Development Type: Single lot infill

Building Type(s): High-Rise

TOD Precedents

BALLPARK VILLAGE

Downtown,San Diego, California

Year Expected: **2018**

SCAG Region | **California** | United States | International

Size: 3.7 acres

Number of Floors (min/max): 6 / 37

Number of Units: 713

Retail / Commercial: 45,000 sf

Office: 0 sf

Hotel Rooms: 0

Parking: 991 subterranean

Dwelling Units per Acre: 193

100 +	51 - 99	13 - 50	< 12

FAR: 2.2

3.0 +	2.0 - 2.9	1.0 - 1.9	< 1

Residential: 36%

Commercial: 64%

Project Features

Open Space: Central plaza, paseo

Project Cost: $250 million

Context

Place Type Context: Urban Mixed-Use

Transit Mode: Local Rail

Transit Line(s): MTS: Green, Blue, Orange

Distance to Station / Stop: 250'

Development Type: Multi-building development block

Building Type(s): High Rise, Mid Rise Podium

TOD Precedents

MIDDOUGH ARTS CENTER

Cleveland, Ohio

Year Completed: **2012**

SCAG Region | California | **United States** | International

Size: 1.5 acres

Number of Floors (min/max): 5

Number of Units: 0

Retail / Commercial: 300,000 sf

Office: 0 sf

Hotel Rooms: 0

Parking: 0 on site

Dwelling Units per Acre: 0

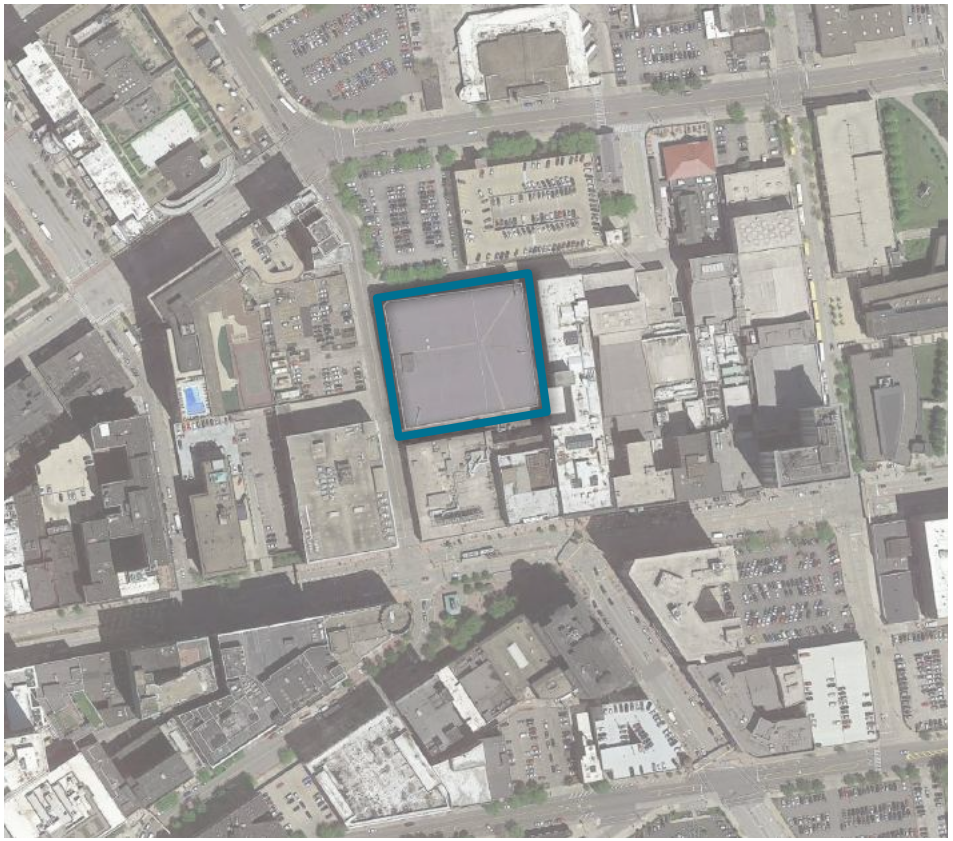
100 +	51 - 99	13 - 50	< 12

FAR: 4.6

3.0 +	2.0 - 2.9	1.0 - 1.9	< 1

Residential: 0%

Commercial: 100%



Project Features

Open Space: None

Project Cost / Funding Sources: $41.5 million / CDA Investment: $5 million NMTC allocation from CNMIF II

Context

Place Type Context: Urban Commercial

Transit Mode: BRT

Transit Line(s): RTA: Health-line

Distance to Station / Stop: 400’

Development Type: Adaptive Reuse

Building Type(s): Loft Building

TOD Precedents

WILSHIRE / VERMONT

Koreatown, Los Angeles, California

Year Completed: **2007**

SCAG Region | California | United States | International

Size: 3.24 acres

Number of Floors (min/max): 7

Number of Units: 449

Retail / Commercial: 35,000 sf

Office: 0 sf

Hotel Rooms: 0

Dwelling Units per Acre: 139

100 + | 51 - 99 | 13 - 50 | < 12

Residential: 86%

Commercial: 14%

Project Features

Open Space: Central Plaza, paseo

Project Cost / Funding Sources: $136 million

Special Considerations: Metro / private joint development. Metro station part of project.

Context

Place Type Context: City Mixed-Use

Transit Mode: Local Rail

Transit Line(s): Metro: Red, Purple / 720, 754

Distance to Station / Stop: 50’

Development Type: Development block

Building Type(s): Podium Block

TOD Precedents

THE BLAIRS

Silver Spring, Maryland

Year Expected: **2025**

SCAG Region | California | **United States** | International

Size: 27 acres

Number of Units: 2,800

Retail / Commercial: 450,000 sf

Office: 0 sf

Hotel Rooms: 0

Dwelling Units per Acre: 104

100 +	51 - 99	13 - 50	< 12

Project Features

Open Space: Multiple plazas, central lawn, multiple paseos, private courtyards

Context

Place Type Context: City Mixed-Use

Transit Mode: Commuter / Local Rail

Transit Line(s): WMATA: Red

Distance to Station / Stop: 500'

Development Type: Master Plan Development

Building Type(s): Podium Mid Rise, Podium Tower, High Rise

TOD Precedents

THE PEARL

Silver Spring, Maryland

Year Completed: **2018**

SCAG Region | California | **United States** | International

Size: 1.5 acres

Number of Floors (min/max): 3 / 14

Number of Units: 284

Retail / Commercial: 30,000 sf

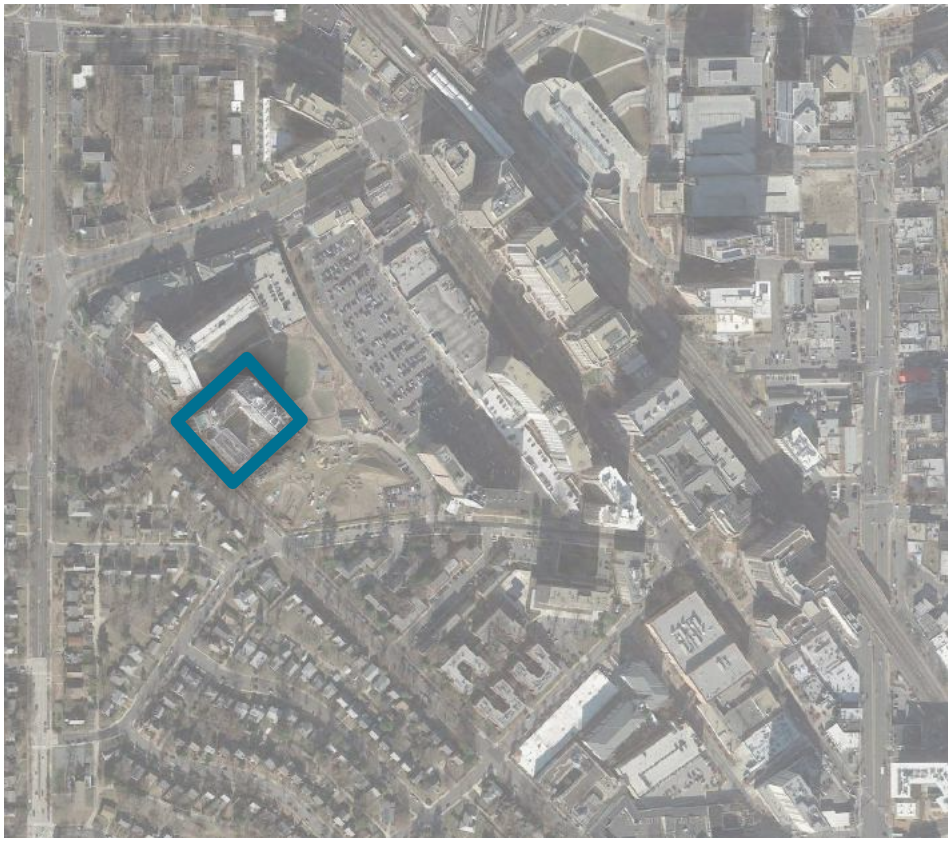
Office: 0 sf

Hotel Rooms: 0

Parking: 177

Dwelling Units per Acre: 174

100 +	51 - 99	13 - 50	< 12



Project Features

Open Space: Plaza

Context

Place Type Context: City Mixed-Use

Transit Mode: Local / Commuter Rail

Transit Line(s): WMATA: Red

Distance to Station / Stop: 1,200'

Development Type: Phase I of Master Plan

Building Type(s): Podium Tower

TOD Precedents

YUL

Montreal, Canada

Year Expected: **2020 (2017 Phase I)**

SCAG Region | California | United States | **International**

Size: 2.27 acres

Number of Floors (min/max): 3 / 38

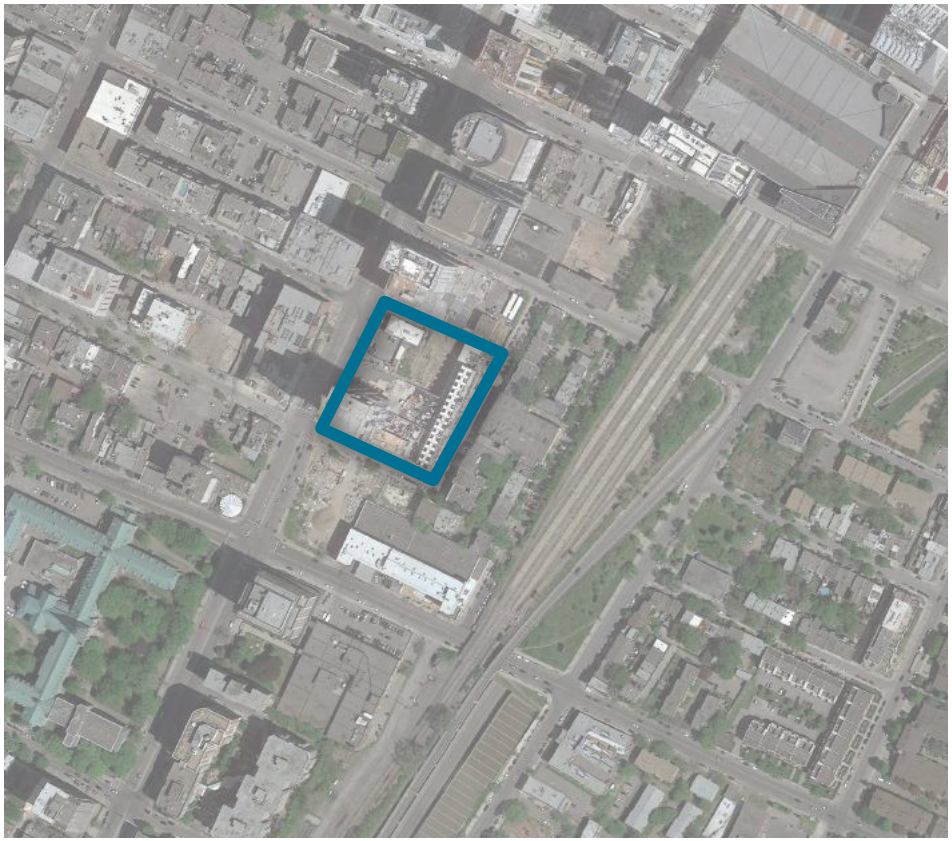
Number of Units: 890

Office: 0 sf

Hotel Rooms: 0

Dwelling Units per Acre: 392

100 +	51 - 99	13 - 50	< 12



Project Features

Open Space: 23,000 sf garden, roof amenities

Project Cost / Funding Sources: $300 million

Context

Place Type Context: City Mixed-Use

Transit Mode: Local Rail

Transit Line(s): Metro: Orange

Distance to Station / Stop: 600'

Development Type: Multi-building development block

Building Type(s): High Rise, Townhouse

TOD Precedents

THE CURRENT

Downtown, Long Beach, California

Year Completed: **2016**

SCAG Region | California | United States | International

Size: 0.8 acre

Number of Floors (min/max): 17

Number of Units: 223

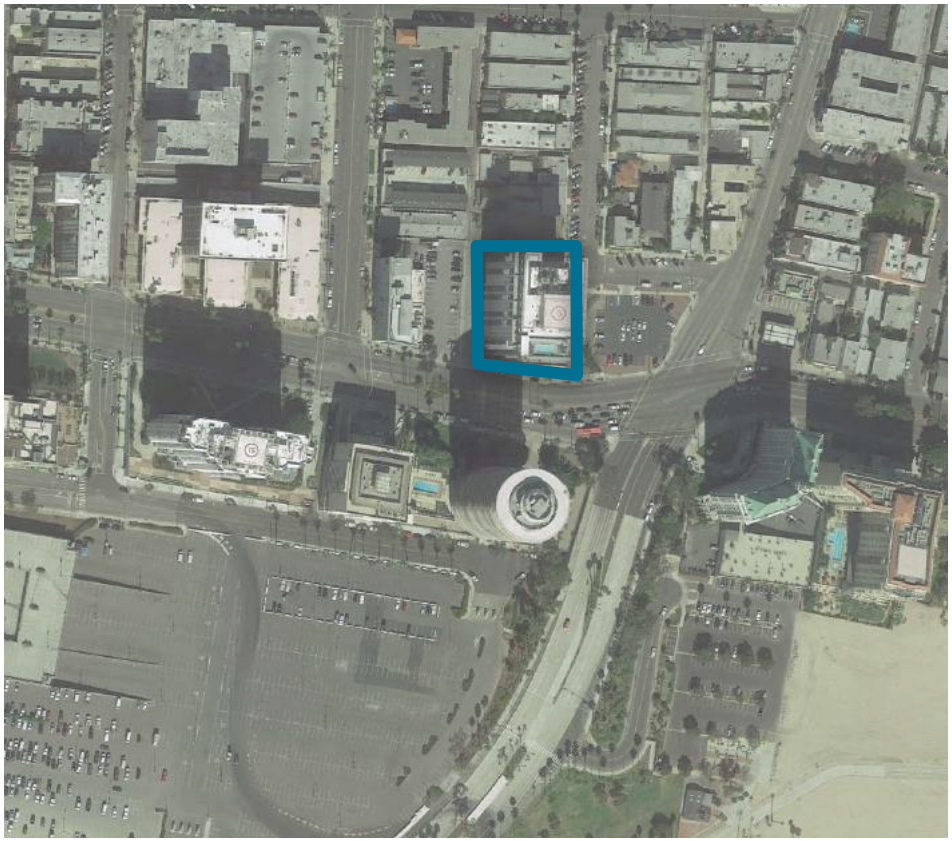
Retail / Commercial: 6,750 sf

Office: 0 sf

Hotel Rooms: 0

Dwelling Units per Acre: 279

100 +	51 - 99	13 - 50	< 12



Project Features

Open Space: Plaza

Project Cost: $70 million

Context

Place Type Context: City Residential

Transit Mode: Local Rail

Transit Line(s): Metro: Blue

Distance to Station / Stop: 2,100’

Development Type: Multi-lot infill

Building Type(s): High Rise

TOD Precedents

45 MARION STREET

Boston, Massachusetts

Year Completed: **2016**

SCAG Region | California | **United States** | International

Size: 0.4 acre

Number of Floors (min/max): 6

Number of Units: 65

Retail / Commercial: 0 sf

Office: 0 sf

Hotel Rooms: 0

Parking: 21

Dwelling Units per Acre: 163

100 +	51 - 99	13 - 50	< 12

Residential: 100%

Commercial: 0%

Project Features

Open Space: None

Special Considerations:: Affordable housing project.

Context

Place Type Context: City Residential

Transit Mode: Local Rail

Transit Line(s): MBTA: C

Distance to Station / Stop: 1,200'

Development Type: Single lot infill

Building Type(s): Stacked Units

TOD Precedents

11405 CHANDLER

North Hollywood, Los Angeles, California

Year Completed: **2017**

SCAG Region | California | United States | International

Size: 0.6 acre

Number of Floors (min/max): 7

Number of Units: 82

Retail / Commercial: 1,000 sf

Office: 0 sf

Hotel Rooms: 0

Dwelling Units per Acre: 137

100 + | 51 - 99 | 13 - 50 | < 12

Residential: 99%

Commercial: 1%

Project Features

Open Space: None

Context

Place Type Context: Town Mixed Use

Transit Mode: BRT / Local Rail

Transit Line(s): Metro: Orange / Red

Distance to Station / Stop: 500' / 900'

Development Type: Single lot infill

Building Type(s): Podium Mid Rise

TOD Precedents

1645 N MILWAUKEE

Chicago, Illinois

Year Completed: **2016**

SCAG Region | California | **United States** | International

Size: 0.3 acre

Number of Floors (min/max): 5

Number of Units: 36

Retail / Commercial: 7,400 sf

Office: 0 sf

Hotel Rooms: 0

Parking: 11

Dwelling Units per Acre: 120

100 +	51 - 99	13 - 50	< 12

FAR: 4.13

3.0 +	2.0 - 2.9	1.0 - 1.9	< 1

Residential: 86%

Commercial: 14%

Project Features

Open Space: None

Special Considerations: Retained facade of existing historic building as part of development.

Context

Place Type Context: Town Mixed-Use

Transit Mode: Local Rail

Transit Line(s): CTA: Blue

Distance to Station / Stop: 600'

Development Type: Multi-lot infill

Building Type(s): Stacked Units

TOD Precedents

MARKET STATION

Kansas City, Missouri

Year Completed: **2015**

SCAG Region | California | **United States** | International

Size: 4.46 acres

Number of Floors (min/max): 5

Number of Units: 137

Retail / Commercial: 4,500 sf

Office: 0 sf

Hotel Rooms: 0

Parking: 400

Dwelling Units per Acre: 31

100 + | 51 - 99 | **13 - 50** | < 12

Residential: 99%

Commercial: 1%

Project Features

Open Space: Private courtyard

Funding Sources: $2 million loan from the Kansas City Council in 2013 through a direct housing assistance program associated with the streetcar development

Context

Place Type Context: Town Mixed-Use

Transit Mode: BRT / Streetcar

Transit Line(s): KCATA: Main MAX / Streetcar

Distance to Station / Stop: 600'

Development Type: Development Block

Building Type(s): Podium Block

TOD Precedents

MERCER COMMONS

Cincinnati, Ohio

Year Completed: **2014**

SCAG Region | California | **United States** | International

Size: 1.1 acres

Number of Floors (min/max): 3 / 4

Number of Units: 95

Retail / Commercial: 14,500 sf

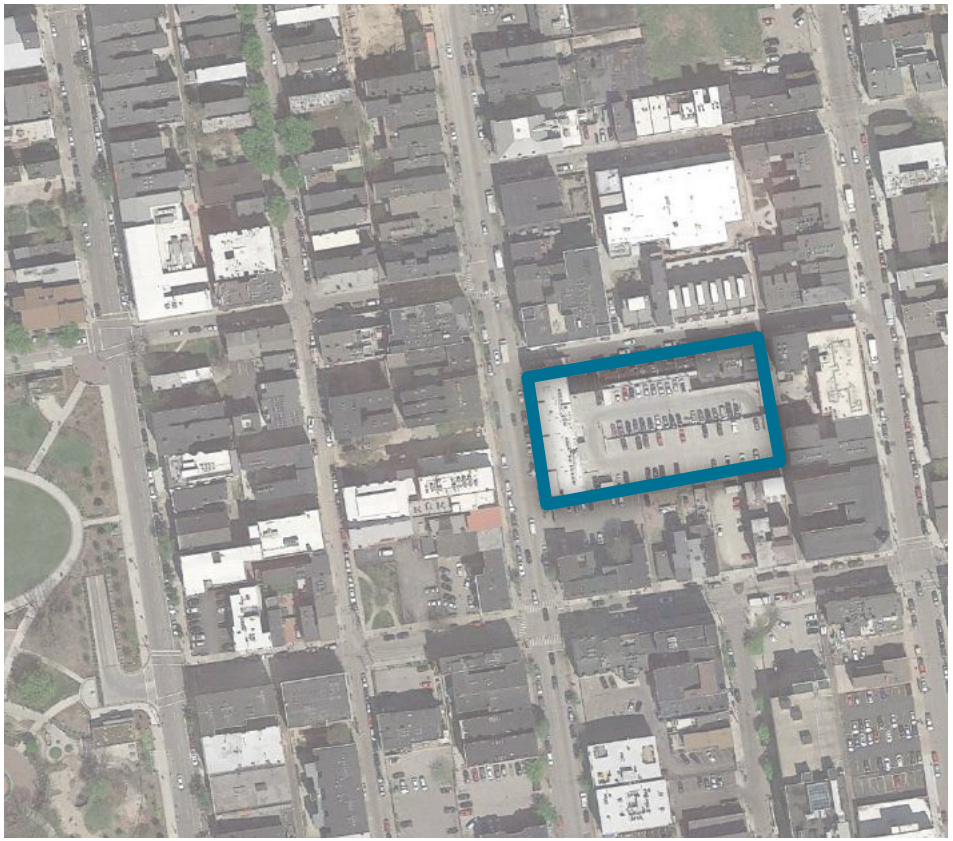
Office: 0 sf

Hotel Rooms: 0

Parking: 340

Dwelling Units per Acre: 86

100 +	51 - 99	13 - 50	< 12



Project Features

Open Space: None

Project Cost: $49 million

Special Considerations: Publicly-accessible parking structure

Context

Place Type Context: Town Mixed-Use

Transit Mode: Streetcar

Transit Line(s): Cincinnati Bell Connector

Distance to Station / Stop: 600'

Development Type: Multi-lot infill

Building Type(s): Loft Building, Parking Structure, Townhouse

TOD Precedents

MERCER III TOWNHOMES

Cincinnati, Ohio

Year Completed: **2016**

SCAG Region | California | **United States** | International

Size: 0.4 acre

Number of Floors (min/max): 3 / 4

Number of Units: 12

Retail / Commercial: 0 sf

Office: 0 sf

Hotel Rooms: 0

Dwelling Units per Acre: 30

100 + | 51 - 99 | **13 - 50** | < 12

Residential: 100%

Commercial: 0%

Project Features

Open Space: None

Project Cost: $5.5 million

Context

Place Type Context: Town Mixed-Use

Transit Mode: Streetcar

Transit Line(s): Cincinnati Bell Connector

Distance to Station / Stop: 600'

Development Type: Multi-lot infill

Building Type(s): Townhouse

TOD Precedents

8 HOUSE

Copenhagen, Denmark

Year Completed: **2010**

SCAG Region | California | United States | **International**

Size: 7 acres

Number of Floors (min/max): 10

Number of Units: 476

Retail / Commercial: 107,000 sf

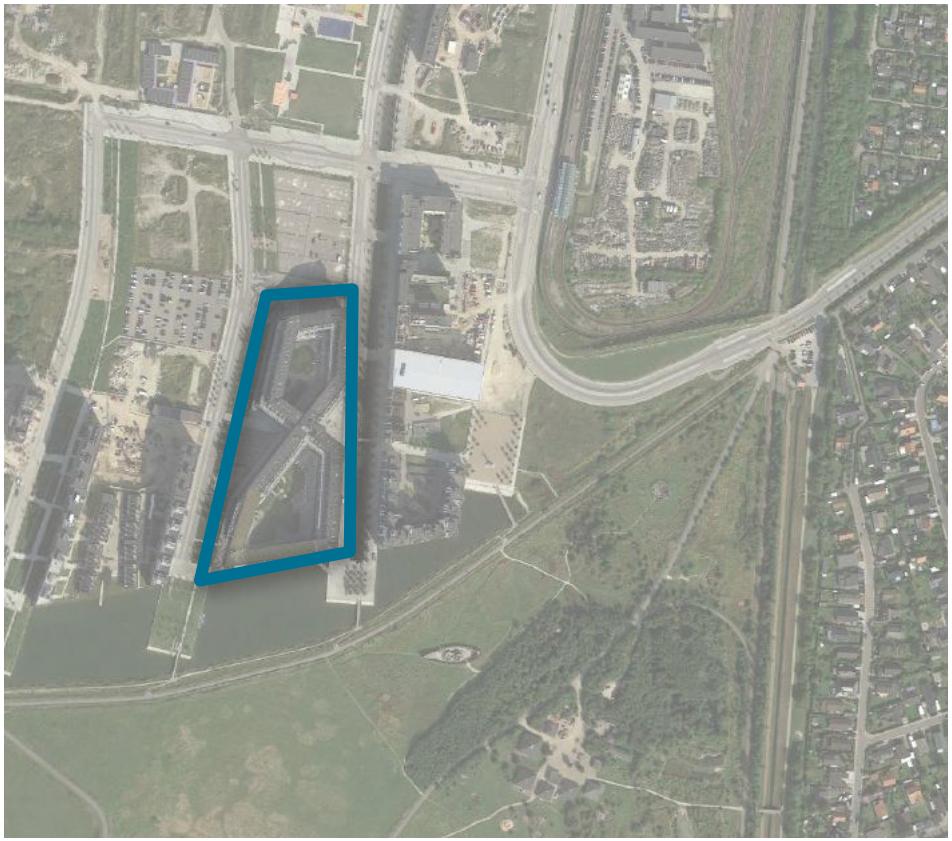
Office: 0 sf

Hotel Rooms: 0

Parking: 340

Dwelling Units per Acre: 68

100 +	51 - 99	13 - 50	< 12



Project Features

Open Space: Plaza, courtyard, elevated walkway

Special Considerations: Building facade terraced to achieve maximum sunlight exposure.

Context

Place Type Context: Town Mixed-Use

Transit Mode: Local Rail

Transit Line(s): Metro: M1

Distance to Station / Stop: 1,000'

Development Type: Development Block

Building Type(s): Podium Block

TOD Precedents

IVY STATION

Culver City, California

Year Expected: **2019**

SCAG Region | California | United States | International

Size: 5.2 acres

Number of Floors (min/max): 5 / 6

Number of Units: 200

Retail / Commercial: 36,000 sf

Office: 210,000 sf

Hotel Rooms: 148

Parking: 1,500 subterranean

Dwelling Units per Acre: 38

100 +	51 - 99	13 - 50	< 12

FAR: 2.2

3.0 +	2.0 - 2.9	1.0 - 1.9	< 1

Residential: 36%

Commercial: 64%

Project Features

Open Space: Multiple plazas, central lawn, private courtyards

Project Cost: $300 million

Special Considerations: Parking below-grade for development and transit.

Context

Place Type Context: Town Commercial

Transit Mode: Local Rail

Transit Line(s): Metro: Expo

Distance to Station / Stop: 100'

Development Type: Multi-building development block

Building Type(s): Mid Rise Podium

TOD Precedents

LA ESQUINA

Barrio Logan, San Diego, California

Year Completed: **2012**

SCAG Region | **California** | United States | International

Size: 0.25 acre

Number of Floors (min/max): 2

Number of Units: 7

Retail / Commercial: 500 sf

Office: 0 sf

Hotel Rooms: 0

Parking: surface

Dwelling Units per Acre: 28

100 +	51 - 99	**13 - 50**	< 12

FAR: 0.37

3.0 +	2.0 - 2.9	1.0 - 1.9	**< 1**

Residential: 88%

Commercial: 12%

Project Features

Open Space: Shared Paseo

Context

Place Type Context: Town Commercial

Transit Mode: Local Rail

Transit Line(s): MTS: Blue

Distance to Station / Stop: 2,700'

Development Type: Single lot infill

Building Type(s): Live / Work

TOD Precedents

LINKT APARTMENTS

Chicago, Illinois

Year Completed: **2017**

SCAG Region | California | **United States** | International

Size: 0.35 acre

Number of Floors (min/max): 5

Number of Units: 47

Retail / Commercial: 3,000 sf

Office: 0 sf

Hotel Rooms: 0

Dwelling Units per Acre: 134

100 +	51 - 99	13 - 50	< 12

Project Features

Open Space: None

Context

Place Type Context: Town Commercial

Transit Mode: Local Rail

Transit Line(s): CTA: Blue

Distance to Station / Stop: 500'

Development Type: Multi-lot infill development

Building Type(s): Stacked Units

TOD Precedents

EAST LIBERTY TRANSIT CENTER

Pittsburgh, Pennsylvania

Year Completed: **2016**

SCAG Region | California | | International

Size: 6.0 acres

Number of Floors (min/max): 5

Number of Units: 360

Retail / Commercial: 43,000 sf

Office: 0 sf

Hotel Rooms: 0

Parking: 554

Dwelling Units per Acre: 30

100 +	51 - 99	13 - 50	< 12

Project Features

Open Space: Plaza, paseo

Project Cost: $90 million

Context

Place Type Context: Town Commercial

Transit Mode: BRT

Transit Line(s): Port Authority: Martin Luther King Jr. Busway

Distance to Station / Stop: 300'

Development Type: Multi-building development block

Building Type(s): Podium Mid Rise

TOD Precedents

DEL MAR STATION

Pasadena, California

Year Completed: **2007**

SCAG Region | California | United States | International

Size: 3.4 acres

Number of Floors (min/max): 4 / 7

Number of Units: 347

Retail / Commercial: 11,000 sf

Office: 0 sf

Hotel Rooms: 0

Parking: 1,200 subterranean

Dwelling Units per Acre: 102

100 +	51 - 99	13 - 50	< 12

Project Features

Open Space: Plaza, paseo

Project Cost: $77 million

Context

Place Type Context: Town Residential

Transit Mode: Local Rail

Transit Line(s): Metro: Gold

Distance to Station / Stop: 50’

Development Type: Multi-building development block

Building Type(s): Podium Block

TOD Precedents

SOCO WALK

Fullerton, California

Year Completed: **2006**

SCAG Region | California | United States | International

Size: 5.9 acres

Number of Floors (min/max): 3

Number of Units: 120

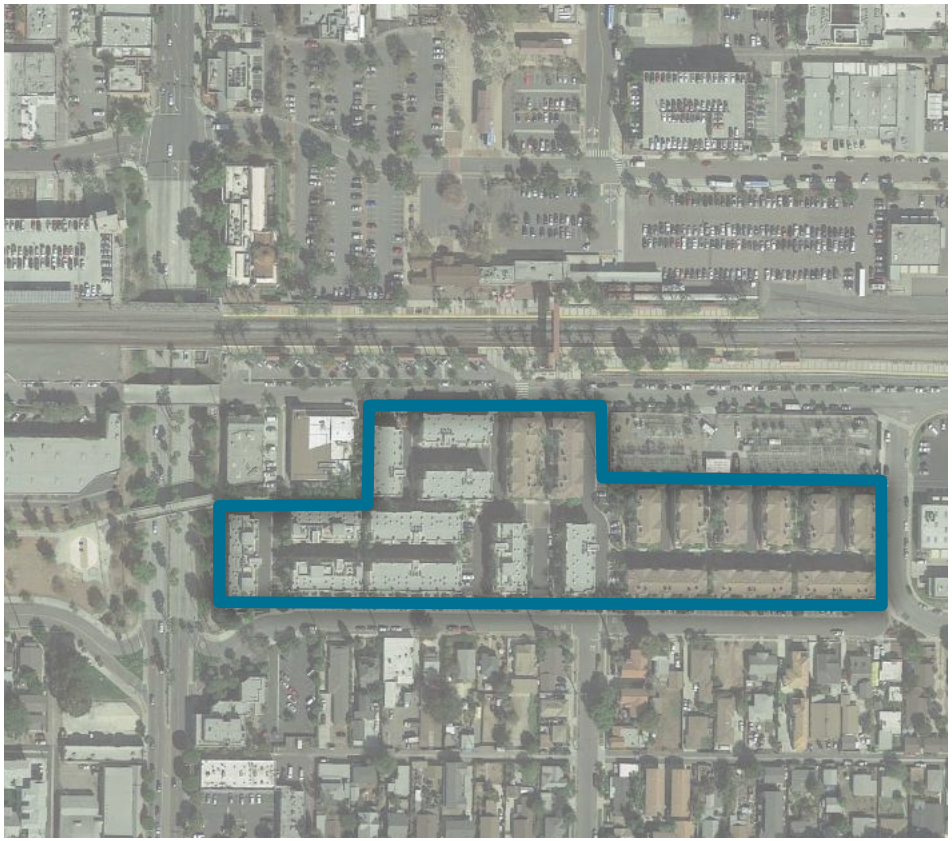
Retail / Commercial: xx sf

Office: 0 sf

Hotel Rooms: 0

Dwelling Units per Acre: 20

100 +	51 - 99	13 - 50	< 12



Project Features

Open Space: Plaza, paseo

Context

Place Type Context: Town Residential

Transit Mode: Commuter Rail

Transit Line(s): Metrolink: Orange County

Distance to Station / Stop: 100'

Development Type: Multi-building development block

Building Type(s): Townhouse, Live / Work

TOD Precedents

DEPOT AT SANTIAGO

Santa Ana, California

Year Completed: **2018**

SCAG Region | California | United States | International

Size: 1.35 acres

Number of Floors (min/max): 4

Number of Units: 70

Retail / Commercial: 10,900 sf

Office: 4,400 sf community space

Hotel Rooms: 0

Parking: 157 subterranean / 41 commercial

Dwelling Units per Acre: 52

100 +	51 - 99	13 - 50	< 12

Project Features

Open Space: Central plaza

Project Cost / Funding Sources: $34 million

Special Considerations: 100 percent affordable housing.

Context

Place Type Context: Town Residential

Transit Mode: Commuter Rail

Transit Line(s): Metrolink: Orange County

Distance to Station / Stop: 800’

Development Type: Development block

Building Type(s): Stacked Units

TOD Precedents

TERRACES AT SANTIAGO

Santa Ana, California

Year Completed: **2013**

SCAG Region | California | United States | International

Size: 0.85 acres

Number of Floors (min/max): 2 / 3

Number of Units: 36

Retail / Commercial: 0 sf

Office: 0 sf

Hotel Rooms: 0

Dwelling Units per Acre: 42

100 +	51 - 99	13 - 50	< 12

Project Features

Open Space: Central courtyard, playground

Context

Place Type Context: Town Residential

Transit Mode: Commuter Rail

Transit Line(s): Metrolink: Orange County

Distance to Station / Stop: 2,500'

Development Type: Multi-building development block

Building Type(s): Courtyard Apartments

TOD Precedents

CENTRUM WICKER PARK

Chicago, Illinois

Year Completed: **2016**

SCAG Region | California | **United States** | International

Size: 0.5 acre

Number of Floors (min/max): 6

Number of Units: 60

Retail / Commercial: 13,000 sf

Office: 0 sf

Hotel Rooms: 0

Parking: 24 subterranean

Dwelling Units per Acre: 120

100 +	51 - 99	13 - 50	< 12

Project Features

Open Space: Plaza (phase II)

Context

Place Type Context: Town Residential

Transit Mode: Local Rail

Transit Line(s): Metro: Blue

Distance to Station / Stop: 800'

Development Type: Multi-lot infill

Building Type(s): Podium Mid Rise

TOD Precedents

THE ROW WICKER PARK

Chicago, Illinois

Year Completed: **2017**

SCAG Region | California | **United States** | International

Size: 0.8 acre

Number of Floors (min/max): 3

Number of Units: 24

Retail / Commercial: 0 sf

Office: 0 sf

Hotel Rooms: 0

Parking: 48

Dwelling Units per Acre: 30

100 + | 51 - 99 | **13 - 50** | < 12

Residential: 100%

Commercial: 0%

Project Features

Open Space: Private front balcony

Context

Place Type Context: Town Residential

Transit Mode: Local Rail

Transit Line(s): Metro: Blue

Distance to Station / Stop: 1,100'

Development Type: Development block

Building Type(s): Townhouse

TOD Precedents

MODE LOGAN SQUARE

Chicago, Illinois

Year Completed: **2017**

SCAG Region | California | **United States** | International

Size: 0.95 acre

Number of Floors (min/max): 4

Number of Units: 78

Retail / Commercial: 6,100 sf

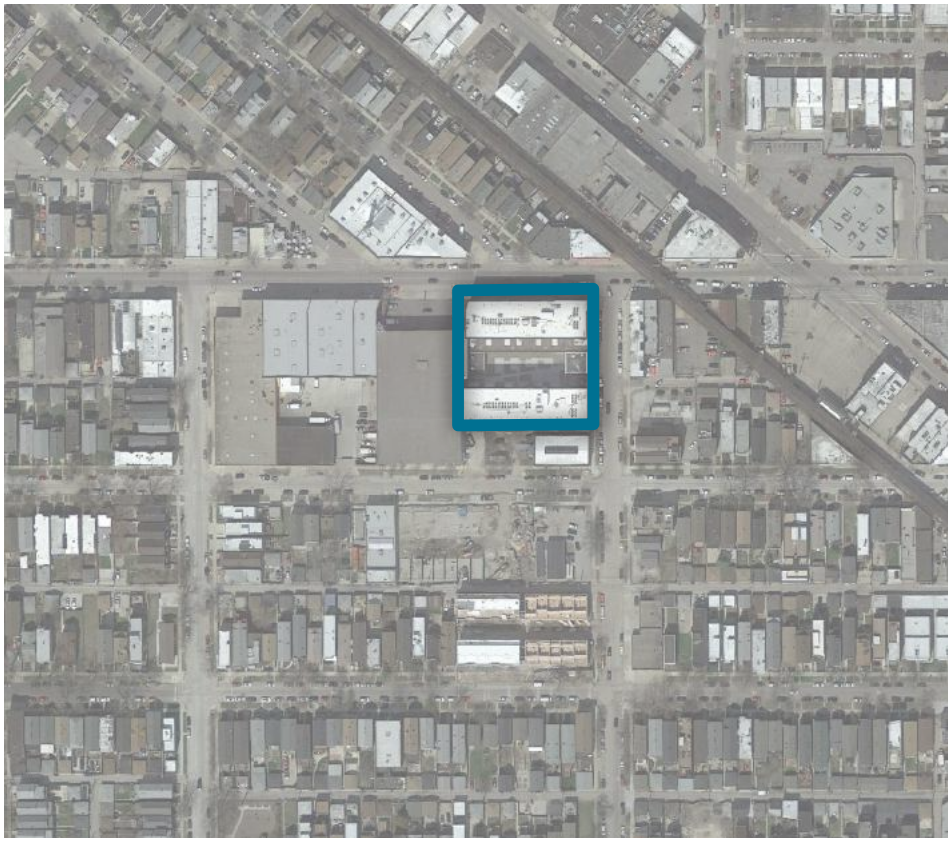
Office: 0 sf

Hotel Rooms: 0

Parking: 45 subterranean

Dwelling Units per Acre: 82

100 +	51 - 99	13 - 50	< 12



Project Features

Open Space: Central courtyard

Context

Place Type Context: Town Residential

Transit Mode: Local Rail

Transit Line(s): Metro: Blue

Distance to Station / Stop: 1,000'

Development Type: Single lot infill

Building Type(s): Podium Mid Rise

TOD Precedents

RESIDENCES AT 245 SUMNER

Boston, Massachusetts

Year Completed: **2017**

SCAG Region | California | **United States** | International

Size: 0.4 acre

Number of Floors (min/max): 4

Number of Units: 34

Retail / Commercial: 2,250 sf

Office: 0 sf

Hotel Rooms: 0

Parking: 34

Dwelling Units per Acre: 85

100 +	51 - 99	13 - 50	< 12

FAR: 2.88

3.0 +	2.0 - 2.9	1.0 - 1.9	< 1

Residential: 96%

Commercial: 4%

Project Features

Open Space: None

Project Cost / Funding Sources: $8 million

Context

Place Type Context: Town Residential

Transit Mode: Local Rail

Transit Line(s): MBTA: Blue

Distance to Station / Stop: 600'

Development Type: Single lot infill

Building Type(s): Stacked Units

TOD Precedents

169 CALLE AMSTERDAM

Mexico City, Mexico

Year Completed: **2014**

SCAG Region | California | United States | **International**

Size: 0.14 acre

Number of Floors (min/max): 5

Number of Units: 15

Retail / Commercial: 0 sf

Office: 0 sf

Hotel Rooms: 0

Parking: 2 levels subterranean

Dwelling Units per Acre: 107

100 + | 51 - 99 | 13 - 50 | < 12

Residential: 90%

Commercial: 10%

Project Features

Open Space: Courtyard

Special Considerations: Located within a historic preservation district

Context

Place Type Context: Town Residential

Transit Mode: BRT / Local Rail

Transit Line(s): Metrobus: Linea 1 / Metro: Linea 9

Distance to Station / Stop: 1,800' / 2,150'

Development Type: Single lot infill

Building Type(s): Stacked Units

TOD Precedents

KROYER SQUARE

Copenhagen, Denmark

Year Completed: **2016**

SCAG Region | California | United States | **International**

Size: 2.12 acres

Number of Floors (min/max): 5

Number of Units: 105

Retail / Commercial: ground floor

Office: 0 sf

Hotel Rooms: 0

Parking: None

Dwelling Units per Acre: 50

100 +	51 - 99	13 - 50	< 12

Project Features

Open Space: Multiple plazas

Context

Place Type Context: Town Residential

Transit Mode: Local Rail

Transit Line(s): Metro: M1

Distance to Station / Stop: 2,400'

Development Type: Multi-building development block

Building Type(s): Stacked Units

TOD Precedents

MISSION MERIDIAN VILLAGE

South Pasadena, California

Year Completed: **2006**

SCAG Region | California | | International

Size: 1.65 acres

Number of Floors (min/max): 2 / 3

Number of Units: 67

Retail / Commercial: 5,000 sf

Office: 0 sf

Hotel Rooms: 0

Parking: 280

Dwelling Units per Acre: 41

100 +	51 - 99	13 - 50	< 12

Project Features

Open Space: None

Context

Place Type Context: Village Mixed Use

Transit Mode: Local Rail

Transit Line(s): Metro: Gold

Distance to Station / Stop: 200'

Development Type: Multi-building development block

Building Type(s): Courtyard apartments, commercial block, duplex, (single-family homes)

TOD Precedents

VILLAGE WALK

Claremont, California

Year Completed: **2006**

SCAG Region | California | United States | International

Size: 8 acres

Number of Floors (min/max): 3

Number of Units: 186

Retail / Commercial: 0 sf

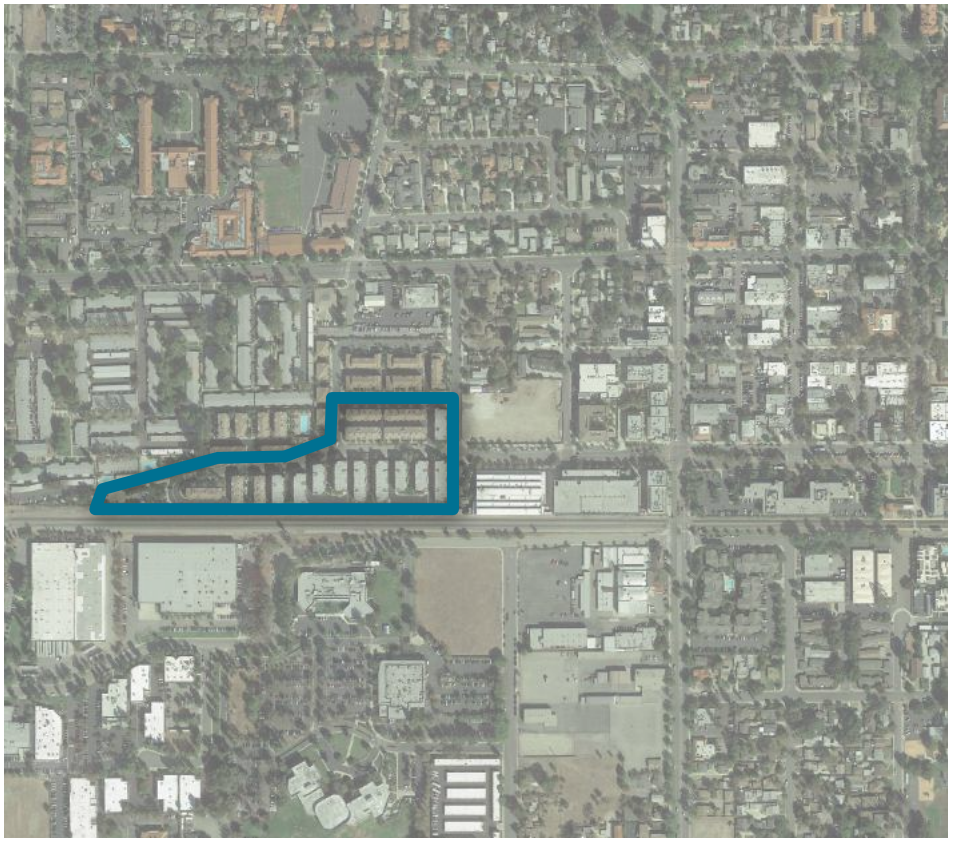
Office: 0 sf

Dwelling Units per Acre: 23

100 + | 51 - 99 | **13 - 50** | < 12

Residential: 100%

Commercial: 0%



Project Features

Open Space: Pocket Park

Context

Place Type Context: Village Mixed Use

Transit Mode: Local Rail

Transit Line(s): Metro: Gold

Distance to Station / Stop: 200'

Development Type: Multi-building development block

Building Type(s): Courtyard apartments, commercial block, duplex, (single-family homes)

TOD Precedents

HIGHLAND PARK

Buffalo, New York

Year Expected: **2022 (Phase 1 2018)**

SCAG Region | California | **United States** | International

Size: 27 acres

Number of Floors (min/max): 4

Number of Units: 717

Retail / Commercial: yes

Office: 0 sf

Hotel Rooms: 0

Dwelling Units per Acre: 27

100 + | 51 - 99 | **13 - 50** | < 12

Residential: 100%

Commercial: 0%

Project Features

Open Space: Central lawn, pocket parks, plazas, paseo

Context

Place Type Context: Village Mixed Use

Transit Mode: Local Rail

Transit Line(s): NFTA: Main Street

Distance to Station / Stop: 1,600'

Development Type: Master Plan development

Building Type(s): Townhouse, multiplex, fourplex, duplex

TOD Precedents

118 FLATS

Cleveland, Ohio

Year Completed: **2013**

SCAG Region | California | **United States** | International

Size: 0.38 acre

Number of Floors (min/max): 3

Number of Units: 20

Retail / Commercial: 0 sf

Office: 0 sf

Hotel Rooms: 0

Parking: 20

Dwelling Units per Acre: 53

100 + | **51 - 99** | 13 - 50 | < 12

Residential: 100%

Commercial: 0%

Project Features

Open Space: None

Project Cost / Funding Sources: $4 million

Context

Place Type Context: Village Mixed Use

Transit Mode: BRT

Transit Line(s): RTA: Health-line

Distance to Station / Stop: 200'

Development Type: Single lot infill

Building Type(s): Townhouse

TOD Precedents

TAKOMA CENTRAL

Takoma, Maryland

Year Completed: **2015**

SCAG Region | California | International

Size: 1.13 acres

Number of Floors (min/max): 5

Number of Units: 150

Retail / Commercial: 10,000 sf

Office: 0 sf

Hotel Rooms: 0

Dwelling Units per Acre: 116

100 + | 51 - 99 | 13 - 50 | < 12

Residential: 90%

Commercial: 10%

Project Features

Open Space: Courtyard

Context

Place Type Context: Village Mixed Use

Transit Mode: Local/Commuter Rail

Transit Line(s): WMATA: Red

Distance to Station / Stop: 600'

Development Type: Development block

Building Type(s): Podium Block

TOD Precedents

GREENBRIDGE COMMONS

Cleveland, Ohio

Year Completed: SCAG Region | California | **United States** | International

Size: 1.1 acres

Number of Floors (min/max): 4

Number of Units: 70

Retail / Commercial: 0 sf

Office: 0 sf

Hotel Rooms: 0

Parking: 22

Dwelling Units per Acre: 64

100 + | **51 - 99** | 13 - 50 | < 12

Residential: 100%

Commercial: 0%

Project Features

Open Space: None

Project Cost / Funding Sources: $11 million

Special Considerations: Supportive housing

Context

Place Type Context: Village Mixed Use

Transit Mode: BRT

Transit Line(s): RTA: Health-line

Distance to Station / Stop: 700'

Development Type: Single lot infill

Building Type(s): Stacked units

TOD Precedents

FRUITVALE TRANSIT VILLAGE

Oakland, California

Year Completed: **2004**

SCAG Region | **California** | United States | International

Size: 3.6 acres

Number of Floors (min/max): 3 / 4

Number of Units: 47

Retail / Commercial: 40,000 sf

Office: 114,000 sf

Hotel Rooms: 0

Dwelling Units per Acre: 13

100 + | 51 - 99 | **13 - 50** | < 12

Residential: 70%

Commercial: 30%

Project Features

Open Space: Central Plaza

Context

Place Type Context: Village Commercial

Transit Mode: Local Rail

Transit Line(s): BART: Blue, Yellow, Green

Distance to Station / Stop: 100'

Development Type: Multi-building development block

Building Type(s): Podium Mid Rise

TOD Precedents

VICTORY BUILDING

Cleveland, Ohio

Year Completed: **2013**

SCAG Region | California | **United States** | International

Size: 3.24 acres

Number of Floors (min/max): 4

Number of Units: 0

Retail / Commercial: 11,000 sf

Office: 150,000 sf

Hotel Rooms: 0

Parking: 225

Dwelling Units per Acre: 0

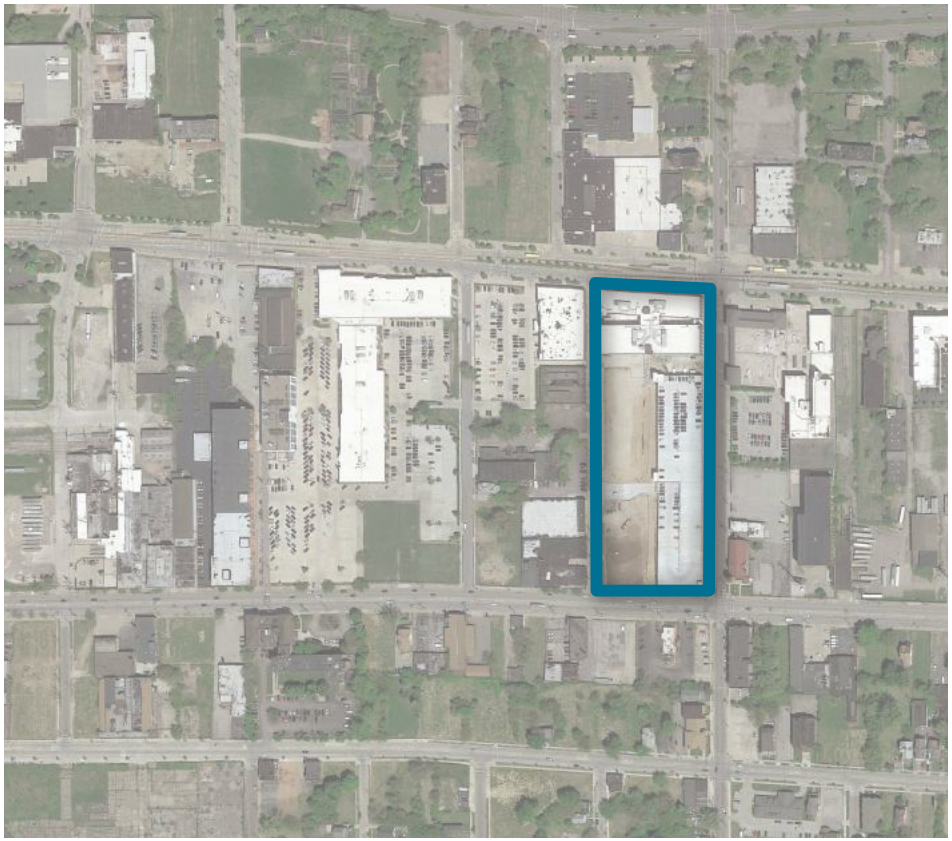
100 +	51 - 99	13 - 50	< 12

FAR: 1.2

3.0 +	2.0 - 2.9	1.0 - 1.9	< 1

Residential: 80%

Commercial: 20%



Project Features

Open Space: None

Project Cost / Funding Sources: $26 million / $1 million Job Ready Site grant by the State of Ohio as well as a $4.2 million State Historic Tax Credit award

Context

Place Type Context: Village Commercial

Transit Mode: BRT

Transit Line(s): RTA: Health-line

Distance to Station / Stop: 50'

Development Type: Adaptive Reuse

Building Type(s): Loft Building

TOD Precedents

MIDTOWN TECH PARK

Cleveland, Ohio

Year Completed: **2011**

SCAG Region | California | **United States** | International

Size: 6 acres

Number of Floors (min/max): 2

Number of Units: 0

Retail / Commercial: 0 sf

Office: 128,000 sf

Hotel Rooms: 0

Dwelling Units per Acre: 0

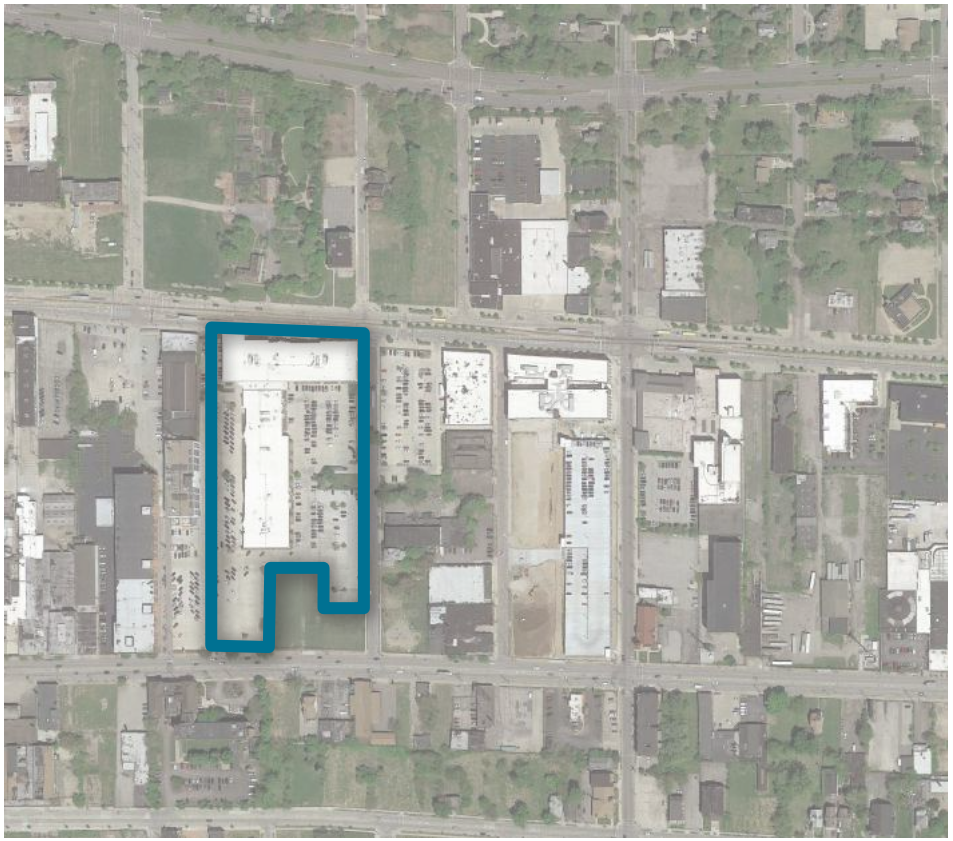
100 +	51 - 99	13 - 50	< 12

FAR: 0.5

3.0 +	2.0 - 2.9	1.0 - 1.9	< 1

Residential: 0%

Commercial: 100%



Project Features

Open Space: None

Context

Place Type Context: Village Commercial

Transit Mode: BRT

Transit Line(s): RTA: Health-line

Distance to Station / Stop: 50’

Development Type: Development block

Building Type(s): Flex Building

TOD Precedents

METRO VILLAGE

Takoma, Maryland

Year Completed: **2017**

SCAG Region | California | | International

Size: 1.13 acres

Number of Floors (min/max): 5

Number of Units: 150

Retail / Commercial: 0 sf

Office: 0 sf

Hotel Rooms: 0

Parking: 39

Dwelling Units per Acre: 133

100 + | 51 - 99 | 13 - 50 | < 12

Residential: 100%

Commercial: 0%

Project Features

Open Space: Plaza, Courtyard

Special Considerations: 80% income-restricted as part of the Low Income Housing Tax Credit (LIHTC) Program, 120 of which will be affordable for residents making 60 percent or less than the Area Median Income (AMI)

Context

Place Type Context: Village Residential

Transit Mode: Local/Commuter Rail

Transit Line(s): WMATA: Red

Distance to Station / Stop: 800'

Development Type: Infill development

Building Type(s): Podium Mid Rise

TOD Precedents

RESIDENCES AT THAYER

Silver Spring, Maryland

Year Completed: **2014**

SCAG Region | California | **United States** | International

Size: 0.5 acres

Number of Floors (min/max): 4

Number of Units: 52

Retail / Commercial: 0 sf

Office: 0 sf

Hotel Rooms: 0

Parking: 20

Dwelling Units per Acre: 104

100 + | 51 - 99 | 13 - 50 | < 12

Residential: 100%

Commercial: 0%

Project Features

Open Space: Plaza

Funding Sources: $11.9 million from the Maryland Department of Housing and Community Development and $4.5 million from the Montgomery County Housing Initiative Fund.

Context

Place Type Context: Village Residential

Transit Mode: Local/Commuter Rail

Transit Line(s): WMATA: Red

Distance to Station / Stop: 2,300'

Development Type: Single lot infill

Building Type(s): Stacked Units

TOD Precedents

METRO GATEWAY

Riverside, California

Year Completed: **2017**

SCAG Region | California | United States | International

Size: 4.26 acres

Number of Floors (min/max): 4

Number of Units: 187

Retail / Commercial: 0 sf

Office: 0 sf

Hotel Rooms: 0

Parking: 300

Dwelling Units per Acre: 44

100 + | 51 - 99 | **13 - 50** | < 12

Residential: 100%

Commercial: 0%

Project Features

Open Space: Courtyard

Context

Place Type Context: Suburban Multi-family

Transit Mode: Commuter Rail

Transit Line(s): Metrolink: Inland Empire, 91

Distance to Station / Stop: 600'

Development Type: Development block

Building Type(s): Stacked Units

TOD Precedents

PASEOS AT MONTCLAIR NORTH

Montclair, California

Year Completed: **2013**

SCAG Region | California | United States | International

Size: 15.4 acres

Number of Floors (min/max): 3

Number of Units: 385

Retail / Commercial: 0 sf

Office: 0 sf

Hotel Rooms: 0

Parking: 722

Dwelling Units per Acre: 25

100 + | 51 - 99 | 13 - 50 | < 12

Residential: 100%

Commercial: 0%

Project Features

Open Space: Central park, paseo

Project Cost / Funding Sources: $25.7 million / Canyon-Johnson Urban Funds provided a $25.7 million equity investment

Context

Place Type Context: High Intensity Activity Center

Transit Mode: Commuter Rail

Transit Line(s): Metrolink: San Bernardino

Distance to Station / Stop: 2,000'

Development Type: Planned development

Building Type(s): Townhouse

TOD Precedents

GROSSMONT TROLLEY CENTER

Year Completed: **2010**

La Mesa, California

SCAG Region | California | United States | International

Size: 9.9 acres

Number of Floors (min/max): 5 / 6

Number of Units: 527

Retail / Commercial: 3,000 sf

Office: 0 sf

Hotel Rooms: 0

Dwelling Units per Acre: 53

100 + | 51 - 99 | 13 - 50 | < 12

Residential: 99%

Commercial: 1%

Project Features

Open Space: Plaza, private courtyards

Context

Place Type Context: High Intensity Activity Center

Transit Mode: Local Rail

Transit Line(s): MTS: Green, Orange

Distance to Station / Stop: 100’

Development Type: Multi-block development

Building Type(s): Podium Block

TOD Precedents

SOUTH BAY TOWN CENTER

Boston, Massachusetts

Year Expected: **2018**

SCAG Region | California | **United States** | International

Size: 10.2 acres

Number of Floors (min/max): 6

Number of Units: 475

Retail / Commercial: 120,000 sf

Office: 0 sf

Hotel Rooms: 130

Parking: 1,095

Dwelling Units per Acre: 47

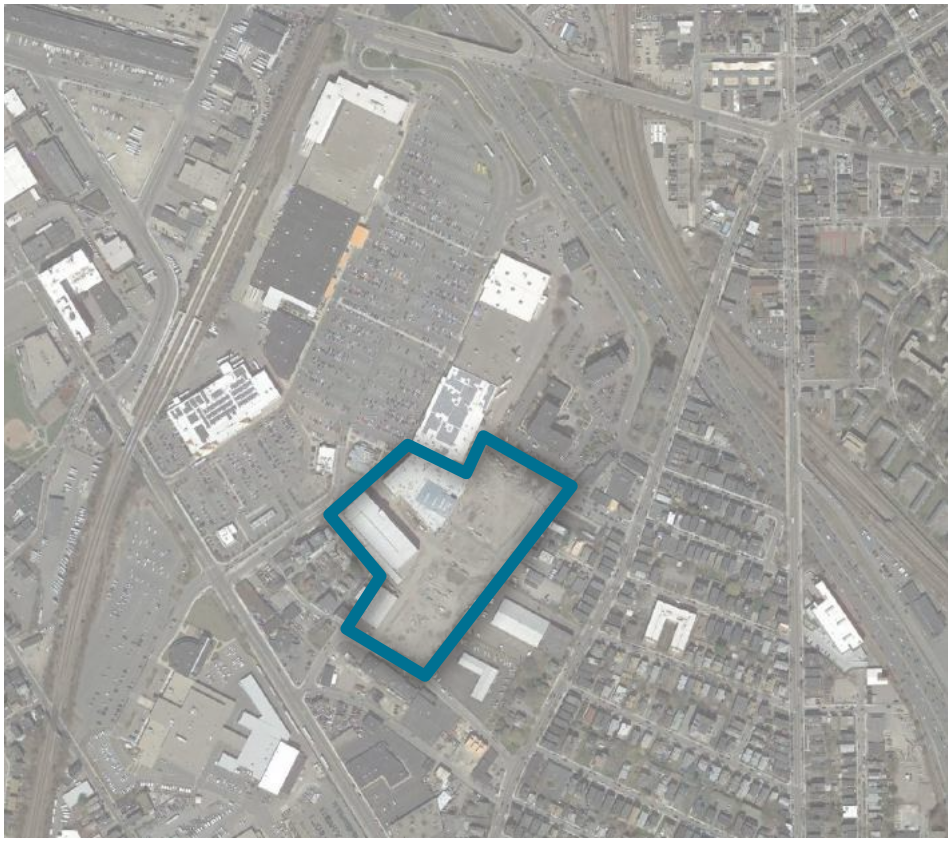
100 +	51 - 99	13 - 50	< 12

FAR: 2.23

3.0 +	2.0 - 2.9	1.0 - 1.9	< 1

Residential: 88%

Commercial: 12%



Project Features

Open Space: Plaza,paseo, pocket park

Context

Place Type Context: High Intensity Activity Center

Transit Mode: Commuter Rail / Local Rail

Transit Line(s): MBTA: Fairmount, Franklin / Red

Distance to Station / Stop: 1,000' / 2,400'

Development Type: Big box retail center redevelopment

Building Type(s): Podium Block, Podium Mid Rise

TOD Precedents

SOLAIRE WHEATON

Wheaton, Maryland

Year Completed: **2015**

SCAG Region | California | **United States** | International

Size: 1.5 acres

Number of Floors (min/max): 6

Number of Units: 232

Retail / Commercial: 0 sf

Office: 0 sf

Hotel Rooms: 0

Dwelling Units per Acre: 154

100 + | 51 - 99 | 13 - 50 | < 12

Residential: 100%

Commercial: 0%

Project Features

Open Space: Courtyard

Special Considerations: LEED Silver; 7,000 sf of amenity space

Context

Place Type Context: High Intensity Activity Center

Transit Mode: Local/Commuter Rail

Transit Line(s): WMATA: Red

Distance to Station / Stop: 1,200'

Development Type: Development block

Building Type(s): Podium Block

TOD Precedents

EUCLID COMMONS

Cleveland, Ohio

Year Completed: **2012**

SCAG Region | California | **United States** | International

Size: 2.8 acres

Number of Floors (min/max): 4

Number of Units: 163

Retail / Commercial: 0 sf

Office: 0 sf

Hotel Rooms: 0

Dwelling Units per Acre: 58

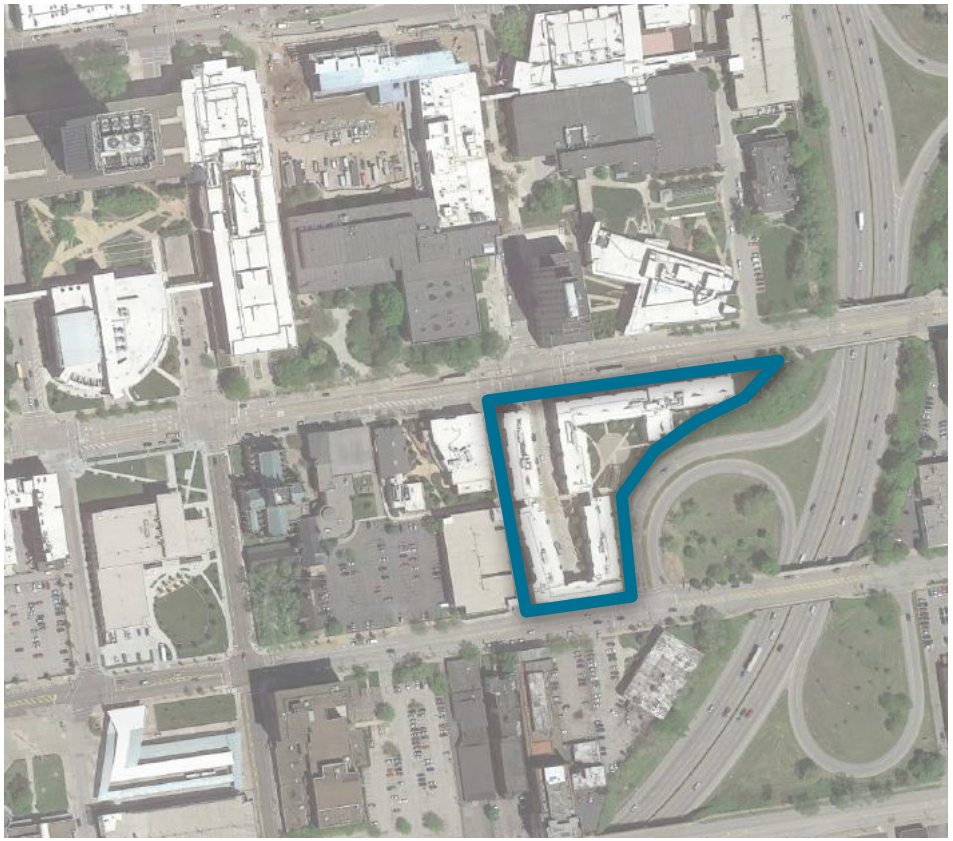
100 +	51 - 99	13 - 50	< 12

FAR: 1.9

3.0 +	2.0 - 2.9	1.0 - 1.9	< 1

Residential: 100%

Commercial: 0%



Project Features

Open Space: Courtyard

Project Cost / Funding Sources: $33.6 million

Special Considerations: Student housing; LEED Silver

Context

Place Type Context: Campus / University

Transit Mode: BRT

Transit Line(s): RTA: Health-line

Distance to Station / Stop: 100’

Development Type: Development block

Building Type(s): Stacked Units

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Part III

Additional Resources

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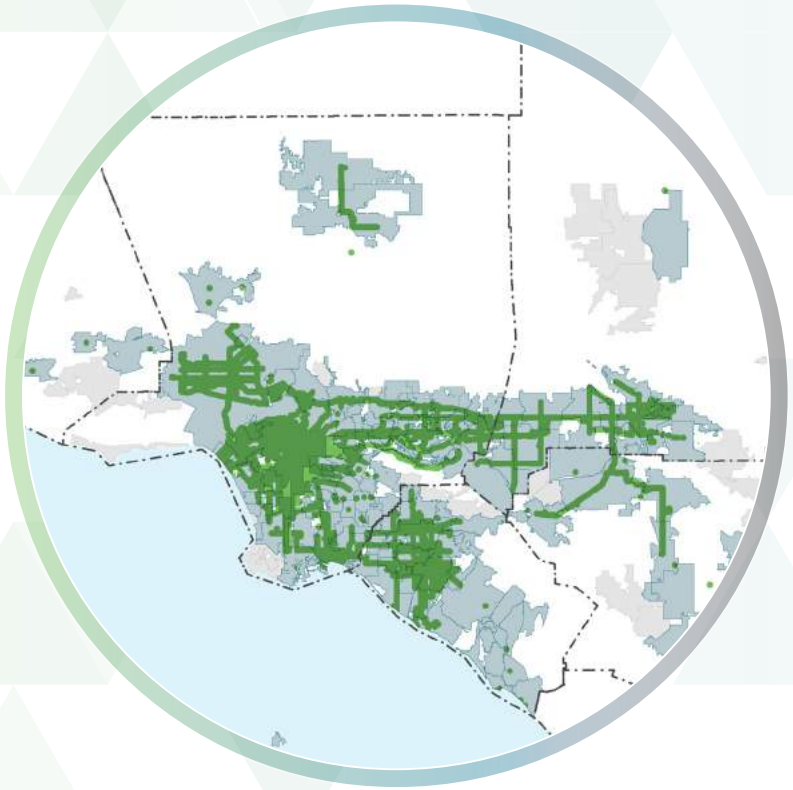
Part III

Additional Resources

A - FUNDING SOURCES



Funding Source Categories

Summary of Funding Sources

Bicycle/Pedestrian Project Funding Sources

Urban Greening/Environmental Project Funding Sources

Parking and Transit Infrastructure Funding Sources

Major Developments Funding Sources - Economic Revitalization

Major Developments Funding Sources - Affordable Housing

District-wide Value Capture Mechanisms

Funding Source Categories

There is a wide variety of public and private funding sources and strategies that can be used to realize the TOD goals expressed in each HQTA Vision Plan. The following pages include a list of some of these sources, grouped by the categories listed below:

- BP **Bicycle and Pedestrian**
- UG **Urban Greening & Environmental**
- PT **Parking and Transit Infrastructure**
- ER **Major Developments (Economic Revitalization)**
- AF **Major Developments (Affordable Housing)**
- VC **District-wide Value Capture Mechanisms**

For each Vision Plan, a tailored financial strategy with targeted funding sources is included to enable pilot project jurisdictions to focus on a specific set of sources. It is important to note that these funding sources can and often do change over time; funding programs may be canceled, new funding sources may become available, and funding availability may be decreased. There may also be new federal, state, and local resources available to cities in the coming years that could also be leveraged to implemented in each Vision Plan.

As future rounds of the HQTA program move forward, this Toolkit will be continuously updated with additional funding sources.

Summary of Funding Sources

Sources of Funding	Applicant	Disbursement Agency	Source	Funding Type	Process
Bicycle/Pedestrian Project Funding Sources					
BP Active Transportation Program (ATP)	Cities	Metropolitan Planning Orgs. (MPO)	CalTrans	Grant	Call for Projects
BP Measure M - Metro Active Transportation Program	Cities	LA Metro	Sales Tax	Discretionary Funds	Competitive
BP Local Returns Program (LA County)	Cities	LA Metro	Sales Tax	Grant	Formula
BP Transportation Development Act (Article 3)	Transit Agencies/City	LA Metro	Retail Sales Tax	Grant	Formula
BP Bicycle and Pedestrian Facilities Program SB-821	Local Jurisdictions	RCTC	LFT Funds	Grant	Call for Projects
BP Measure I - Local Streets	Cities	SBCTA	Sales Tax	Grant	Formula
BP Safe Routes to School	Cities/Counties	CalTrans	State+Federal	Grant	Competitive
BP Sustainable Transportation Planning Grant Program	Cities	MPOs	CalTrans	Planning Grant	Competitive
BP Surface Transportation Block Grant (FAST Act)	Cities	MPOs	FHWA	Grant	Formula
BP Congestions Mitigation and Air Quality Improvement Program (CMAQ)	Cities	MPOs	FHWA	Grant	Formula
Urban Greening/Environmental Project Funding Sources					
UG CalFIRE CCI Grants - Urban and Community Forestry Program	Cities	Dept. of Forestry and Fire Protection	CCI	Grant	Competitive
UG California Urban Greening Grant Program	Cities, Counties, others	California Natural Resources Agency	CCI	Grant	Competitive
UG Congestions Mitigation and Air Quality Improvement Program (CMAQ)	Cities	MPOs or State	FHWA	Grant	Formula
UG Community Development Block Grant (CDBG)	Cities/Developers	Cal. Dept. of Housing & Comm. Dev. (CAHCD)	US-HUD	Grant	Competitive
UG Affordable Housing and Sustainable Communities (AHSC) Program	Developers	CAHCD	Cap&Trade	Loan/Grant	Competitive
UG Infill Infrastructure Grant Program (IIG)	Developers	Cities	CAHCD	Grant	Competitive
Parking and Transit Infrastructure Funding Sources					
PT Proposition C - Transit Centers, Park-n-Ride	Developers	LA Metro	Sales Tax	Grant	Call for Projects
PT FTA Section - 5310, 5316, 5317 Programs	Transit Agencies/Cities	LA Metro	FTA	Grant	Competitive
PT BEYOND Framework Funds Program	Member Agencies	WRCOG		Grant	Formula
PT Local Transit Funds (LTF) Transportation Development Act (TDA) SB 325	Cities	Cities and counties	CalTrans	Grant	Discretionary
PT Cap and Trade - Transit and Intercity Rail Capital Program	Cities	MPOs, municipalities, counties	CalTrans	Grant	Call for Projects
PT Cap and Trade - Low Carbon Transit Operations Program (LCTOP)	Cities	Transit Agencies	CalTrans	Grant	Competitive
PT Buses and Bus Facilities Grant Program - 5339	Cities	Transit Agencies (Bus)	FTA	Grant	Formula/Competitive
PT Urbanized Area Formula Grants - 5307	Cities	MPOs and Transit Agencies	FTA	Capital/Planning Grant	Formula
PT California Infrastructure State Revolving Loan Fund (I-Bank)	Cities	Several (see details)	State of Cal	Financing	Rolling Applications
PT Transportation Infrastructure Finance and Innovation Act (TIFIA)	Cities	Several (see details)	USDOT	Financing/Guarantee	Rolling applications
PT Pilot Program for TOD Planning funded by CIG program	Cities	Cities, Local Govt., and Transit Ag.	FTA	Planning Grant	Competitive
PT Capital Investment Grant (Small Starts) - 5309	Cities	Transit Agencies	FTA	Grant	Discretionary

Summary of Funding Sources

Sources of Funding	Applicant	Disbursement Agency	Source	Funding Type	Process
Major Developments Funding Sources - Economic Revitalization					
ER New Markets Tax Credit	Developer	Local Community Development Entities (CDEs)	US-Treasury	Financing	Competitive
ER Community Development Block Grant (CDBG)	Developers	Cities and Counties	US-HUD	Grant	Formula
ER CDBG - Section 108 Loan Guarantee Program	Cities	Local or State Government	US-HUD	Guarantee	Competitive
ER Historical Preservation Tools - Historic Rehabilitation Tax Credit	Developer	Cities	US Parks	Financing	Rolling Applications
ER California Infrastructure State Revolving Loan Fund (I-Bank)	Cities	Several (see details)	State of Cal	Financing	Rolling Applications
ER California Organized Investment Network (COIN)	Cities	Insurance companies	CA -Insurance	Financing	Rolling Applications
ER Choice Neighborhood	Cities/Developers	Local Government	US-HUD	Planning/Capital Grant	Competitive
ER LA County - TOD Planning Grant Program	Cities	LA Metro		Planning Grant	Call for Projects
ER EB-5 Immigration Visa Investment	Developer	Local Jurisdiction	USCIS	Financing	Rolling Applications
ER Public- Private Partnerships (P3)	Cities/Developers			Financing	
ER Joint Development Program	Cities/Developers	LA Metro		Financing	Competitive
Major Developments Funding Sources - Affordable Housing					
AF Low Income Housing Tax Credit (LIHTC) Program	Developers	California Tax Credit Allocation Authority (CTCAC)	US-Treasury	Financing	Competitive
AF Affordable Housing and Sustainable Communities (AHSC) Program	Developers	CAHCD	Cap&Trade	Loan/Grant	Competitive
AF HOME Investment Partnerships Program	Cities/Developers	CAHCD	US-HUD	Grant/Low-int Loan	Competitive
AF National Housing Trust Fund	Cities/Developers	CAHCD	US-HUD	Soft Loans	Competitive
AF Infill Infrastructure Grant Program (IIG)	Cities/Developers	CAHCD	US-HUD	Grant	Competitive
AF Multifamily Bond Financing	Developers	Los Angeles Community Development Commission (LACDC)		Financing	Competitive
AF Los Angeles County Housing Innovation Fund	Developers	LACDC		Financing	Competitive
District-wide Value Capture Mechanisms					
VC Transportation utility fees					
VC Parking Fees/Congestion Pricing					
VC Development Impact Fee					
VC Special Assessment District					
VC Enhanced Infrastructure Finance Districts					
VC Community Revitalization and Investment Authorities (CRIA)					
VC Debt Tools					

Bicycle/Pedestrian Project Funding Sources

Sources of Funding	Overview	Criteria	Process	Considerations
BP **Active Transportation Program (ATP)** Applicant: Cities Disbursement Agency: MPOs Source: CalTrans Funding Type: Grant Process: Call for Projects	On September 26, 2013, Governor Brown signed legislation creating the Active Transportation Program (ATP) in the Department of Transportation (Senate Bill 99, Chapter 359 and Assembly Bill 101, Chapter 354). The ATP consolidates existing federal and state transportation programs, including the Transportation Alternatives Program (TAP), Bicycle Transportation Account (BTA), and State Safe Routes to School (SR2S), into a single program	Increase the proportion of trips accomplished by biking and walking; increase safety and mobility for non-motorized users; advance the active transportation efforts of regional agencies to achieve greenhouse gas (GHG) reduction goals, pursuant to SB 375 (0f 2008) and SB 341 (of 2009); Enhance public health; Ensure that disadvantaged communities fully share in the benefits of the program, and Provide a broad spectrum of projects to benefit many types of active transportation users.	40% to metropolitan planning organizations in urban areas with populations greater than 200,000, in proportion their relative share of population. 10%to small urban and rural regions with populations of 200,000 or less. 50%to projects awarded on competitive statewide basis.	Highly applicable for funding TOD-enabling infrastructure.
BP **Measure M - Metro Active Transportation Program** Applicant: Cities Disbursement Agency: LA Metro Source: Sales Tax Funding Type: Discretionary Funds Process: Competitive	Approximately $17 million of annual Measure M active transportation funding exists in the new Measure M 2% Active Transportation Program (2% ATP). A key reason Investing in Place and other advocates championed Measure M in 2016 was the creation of the first ever regional funding for walking, biking, vision zero, crosswalks and sidewalks.	Metro introduced a 2% ATP cash flow analysis, which essentially divided up the fund into four main categories: First/Last mile, LA River Bike Path, Bike Share, and Metro Bike and Pedestrian Programs. Each category includes funding allocations for the next five fiscal years.	The funding has been accounted for all the LA County regions. The active transportation projects will be funded through a competitive process and a local match.	Funding available in the near term.
BP **Local Returns Program (LA County)** Applicant: Cities Disbursement Agency: LA Metro Source: Sales Tax Funding Type: Grant Process: Formula	The Proposition A, Proposition C and Measure R Local Return programs are three one-half cent sales tax measures approved by Los Angeles County voters to finance a countywide transit development program. By ordinance, LA Metro is responsible for administering the programs and establishing guidelines.	Over 50% of local return funds are invested in local public transit. In addition to funding transit services, cities use their Local Return funds to improve and maintain local streets. The Local Return Program also enables local governments to provide other essential local components of our overall transportation system, such as bus stops, park and ride lots, bicycle access, pedestrian access and safety and security.	Local Return funds are allocated and distributed monthly to jurisdictions on a "per capita" basis by Metro. Eligible expenditures are outlined in the Metro's Adopted Local Return Program Guidelines.	
BP **Transportation Development Act (Article 3)** Applicant: Transit Agencies/Cities Disbursement Agency: LA Metro Source: Retail Sales Tax Funding Type: Grant Process: Formula	Transportation Development Act, Article 3 funds are used by cities within Los Angeles County for the planning and construction of bicycle and pedestrian facilities. A Local Transportation Fund (LTF) for each county derived from ¼ cent of the 7.25 cent statewide retail sales tax. The funds are apportioned to each county by the State Board of Equalization according to the amount of tax collected in the county.	TDA funds can be used for a wide variety of bike and pedestrian facilities such as right-of-way acquisition; construction costs, retrofitting bike and pedestrian amenities, route safety improvements, and bike infrastructure.	Local agencies may either draw down these funds or place them on reserve. Agencies must submit a claim form to LA Metro by the end of the fiscal year in which they are allocated. Failure to do so may result in the lapse of these allocations.	

Bicycle/Pedestrian Project Funding Sources

Sources of Funding	Overview	Criteria	Process	Considerations
BP **Bicycle and Pedestrian Facilities Program SB-821** Applicant: Transit Agencies/Cities Disbursement Agency: RCTC Source: Local Transportation Fund (LFT) Funding Type: Grant Process: Call for Projects	Each year 2% of the Local Transportation Fund (LTF) revenue is made available for use on bicycle and pedestrian facility projects through the Commission's SB 821 Program.	Eligible projects include sidewalks, access ramps, bicycle facilities, and bicycle plan development.	All of the cities and the county of Riverside are notified of the SB-821 program estimate of available funding and are requested to submit project proposals. An evaluation committee composed of the Technical Advisory Committee makes recommendations for projects and funding award amounts to the Commission for their final approval.	
BP **Measure I - Local Streets** Applicant: Cities Disbursement Agency: SBCTA Source: Sales Tax Funding Type: Grant Process: Formula	Measure I is a half-cent sales tax collected throughout San Bernardino County for transportation improvements. In 2004, San Bernardino County voters overwhelmingly approved the extension of the Measure I sales tax through 2040.	Program receives 20% of revenue collected in the San Bernardino Valley Subarea, includes funds for local street repair and improvements. Program funds can be used flexibly for any eligible transportation purpose determined to be a local priority, including local streets, major highways, state highway improvements, freeway interchanges and other improvements to maximize the use of transportation facilities.	Funds distributed to cities and the County on a per capita basis. Annually each jurisdiction develops a Five Year Capital Improvement Plan for Local Streets Projects that is consistent with local, regional, and State transportation plans.	Funds are disbursed to local jurisdictions monthly upon receipt of the annually adopted Local Street Five Year Plan.
BP **Safe Routes to School (State & Federal)** Applicant: Cities/Counties Disbursement Agency: CalTrans Source: State (AB-57); Federal (MAP-21) Funding Type: Grant Process: Apportionment/Competitive	The program's aim is to increase the number of children who walk or bicycle to school by funding projects that remove the barriers that currently prevent them from doing so. Those barriers include lack of infrastructure, unsafe infrastructure, lack of programs that promote walking and bicycling through education/ encouragement programs aimed at children, parents, and the community.	The SR2S program funds construction projects to improve the safety of students who walk or bike to school. Improvements must be made on public property. The facilities should include pedestrian facilities, traffic calming, traffic control devices, bike facilities, and public outreach.	Funds will be apportioned to each Caltrans District on the basis of student enrollment as determined by the California Department of Education.	
BP **Sustainable Transportation Planning Grant Program** Applicant: Cities Disbursement Agency: MPOs and others Source: Caltrans (from FHWA) Funding Type: Planning Grant Process: Competitive	Strategic Partnership Program offers funding for transportation planning studies in partnership with CalTrans to provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability.	Planning goals include; 1) improve multimodal mobility and accessibility for all people; 2) preserve the multimodal transportation system; 3) support vibrant economy; 4) foster livable and healthy communities and promote social equity; and 5) practice environmental stewardship	CalTrans releases annual statewide notice of funding availability for planning grants which are available to MPOs.	Highly competitive program.

Bicycle/Pedestrian Project Funding Sources

Sources of Funding	Overview	Criteria	Process	Considerations
BP **Surface Transportation Block Grant (FAST Act)** Applicant: Cities Disbursement Agency: MPOs Source: FHWA (FAST Act) Funding Type: Grant Process: Formula	The STBG promotes flexibility in State and local transportation decisions and provides flexible funding to best address State and local transportation needs.	STBG funds cannot be used from local roads and collectors; but can be used for pedestrian and bike projects among many others. The STBG requires all the Surface Transportation Program eligibilities and in addition, requires states to create and operate an office to design, implement, and oversee P3 initiatives.	A percentage of a State's STBG apportionment (after set-asides for Transportation Alternatives) is to be obligated in the following areas in proportion to their relative shares of the State's population.	Funds allocated to MPOs based on population.
BP **Congestions Mitigation and Air Quality Improvement Program (CMAQ)** Applicant: Cities Disbursement Agency: MPOs Source: FHWA (FAST Act) Funding Type: Grant Process: Formula	Funds may be used for a transportation project or program that is likely to contribute to the attainment or maintenance of a national ambient air quality standard, with a high level of effectiveness in reducing air pollution.	Funds may be used for transportation projects likely to contribute to the attainment or maintenance of a national ambient air quality standard, with a high level of effectiveness in reducing air pollution, and be included in the Metropolitan Planning Organization's (MPO's) current transportation plan and transportation improvement program (TIP) or the current state transportation improvement program (STIP) in areas without an MPO.	FAST Act directs FHWA to apportion funding as a lump sum for each State then divide that total among apportioned programs. Once each State's combined total apportionment is calculated, funding is set-aside for the State's CMAQ Program.	Improvement in air quality from project required.

Urban Greening/Environmental Project Funding Sources

Sources of Funding	Overview	Criteria	Process	Considerations
UG **Urban and Communities Forestry Grants Program** Applicant: Cities/Counties Disbursement Agency: Dept. of Forestry and Fire Source: CCI (from Cap&Trade) Funding Type: Grant Process: Competitive	Through the California Climate Investments (CCI) Urban & Community Forestry Grant Program, CAL FIRE works to optimize the benefits of trees and related vegetation through multiple-objective projects	These projects further the goals of the California Global Warming Solutions Act of 2006 (AB 32), result in a net greenhouse gas benefit, and provide environmental services and cost-effective solutions to the needs of urban communities and local agencies. Co-benefits of the projects include increased water supply, clean air and water, reduced energy use, flood and storm water management, recreation, urban revitalization, improved public health, and producing useful products such as bio-fuel, clean energy, and high quality wood.		
UG **California Urban Greening Grant Program** Applicant: Cities/Counties Disbursement Agency: CA Natural Resources Agency Source: CCI (from Cap&Trade) Funding Type: Grant Process: Competitive	This new program is a competitive program that supports projects that reduce GHG emissions by establishing and enhancing parks and open space; greening lands and structures; establishing green streets and alleyways; using natural solutions to improve air and water quality and reduce energy consumption; and creating more walkable and bikeable trails that enable residents to access work, schools and commercial centers without having to drive automobiles.	Eligible urban greening projects will reduce GHG emissions and provide multiple additional benefits, including, a decrease in air and water pollution or a reduction, conversion of an existing built environment into green space, incorporate green infrastructure solutions that improve sustainability.	The applicant is required to submit an application, which is evaluated by the state and projects are selected that are likely to make the maximum impact.	
UG **Infill Infrastructure Grant Program (IIG)** Applicant: Developers Disbursement Agency: Cities Source: CAHCD Funding Type: Grant Process: Competitive	Funded by Proposition (Prop 1C) 1C, the Housing and Emergency Shelter Trust Fund Act of 2006, the primary goal is to promote infill housing development.	IIG is grant assistance, available as gap funding to infrastructure improvements required for specific residential or mixed-use infill development. IIG serves to aid in new construction and rehabilitation of infrastructure that supports higher-density affordable and mixed-income housing in locations designated as infill.	Funds are allocated through a competitive process, based on the merits of the individual infill projects and areas. Some of the application selection criteria includes housing density, project readiness, access to transit, proximity to amenities, and housing affordability.	Funding only for qualifying infill project

Parking and Transit Infrastructure Funding Sources

Sources of Funding	Overview	Criteria	Process	Considerations
PT **Proposition C - Transit Centers, Park-n-Ride** Applicant: Developers Disbursement Agency: LA Metro Source: Sales Tax Funding Type: Grant Process: Call for Projects	A voter-enacted (1990) ½-cent sales tax for public transit purposes.	Capital costs of transit centers including facilities, access improvements, landscaping, bike lockers, rehabilitation, and other amenities. Capital costs and rehabilitation of park-and-ride lots, including freeway bus stops incorporated into a transit center or park-and-ride lot, used exclusively by transit and ride-sharing patrons during normal working hours.	Funds flow to Metro which allocates to itself and other agencies according to the Metro Formula Allocation Procedure, the Metro Call for Projects, and Metro Board actions. A Funding Agreement (FA) is executed for each project in the Metro Call for Projects. These funds can be leveraged by bonding for capital projects.	
PT **FTA Section - 5310, 5316, 5317 Programs** Applicant: Transit Agencies/Cities Disbursement Agency: LA Metro Source: FTA Funding Type: Grant Process: Competitive	Federal transit law, as amended by MAP-21, requires that projects funded under the Section 5310, Section 5316, and Section 5317 Programs are included in a locally developed, coordinated public transit-human services transportation plan. The 2016-2019 Coordinated Public Transit-Human Services Transportation Plan for Los Angeles County ("Coordinated Plan") was formally adopted by the Metro Board of Directors in July 2015.	FTA grant programs include Section 5310 (Enhance Mobility of Seniors and Individuals with Disabilities Program), Section 5316 (Job Access and Reverse Commute Program), and Section 5317 (New Freedom Program).	The solicitation is a competitive selection process that will result in the award of available federal grants apportioned by the Federal Transit Administration (FTA) to eligible agencies through Metro. Approved awards will be authorized by way of fully executed Funding Agreement by/between successful applicant and Metro.	
PT **BEYOND Framework Funds Program** Applicant: Member Agencies Disbursement Agency: WRCOG Source: Funding Type: Grant Process: Formula	BEYOND is an economic development and sustainability local assistance funding program designed to enable member agencies to develop and implement plans and programs aimed at improving quality of life in Western Riverside County.	Agencies may ask request the funds: 1) To develop plans and/or implement projects; 2) To provide a match for grants and other funding opportunities; and 3) To pool resources with other member agencies for larger projects that affect economic development, water, education, environment, health, and transportation.	The BEYOND Core funding is a non-competitive, fixed amount of funding available to member agencies. Once approved of Core funding, members can apply for project-based funding.	
PT **Local Transit Funds (LTF) Transportation Development Act (TDA) SB 325** Applicant: Cities Disbursement Agency: Cities and Counties Source: CalTrans Funding Type: Grant Process: Discretionary	Local Transportation Fund (LTF), is derived from a ¼ cent of the general sales tax collected statewide. The State Board of Equalization, based on sales tax collected in each county, returns the general sales tax revenues to each county's LTF. Each county then apportions the LTF funds within the country based on population.	These funds can be used for transit capital expenditures, operations, or a combination thereof. Standard practice is LTF funds are assumed to be used for operations first, then as a local match for federally funded capital projects when State Transit Assistance (STA) funds can't be used.	It is a three-step process: (1) apportionment, (2) allocation, and (3) payment. Annually, the Transportation Planning Agencies (TPAs) determine each area's share of the anticipated LTF.	Allocation discretionary action by regional planning organization.

Parking and Transit Infrastructure Funding Sources

Sources of Funding	Overview	Criteria	Process	Considerations
PT **Cap and Trade - Transit and Intercity Rail Capital Program** Applicant: Cities Disbursement Agency: MPOs Source: CalTrans Funding Type: Grant Process: Call for Projects	The Transit and Intercity Rail Capital Program (TIRCP) to provide grants from the Greenhouse Gas Reduction Fund to fund transformative capital improvements that will modernize California's intercity, commuter, and urban rail systems, and bus and ferry transit systems to reduce emissions of greenhouse gases by reducing congestion and vehicle miles traveled throughout California.	Primary Criteria: Reduce GHG emissions; Increase ridership; Integrate the services of the State's various rail and transit operations; Improve safety. Secondary Criteria: Reducing VMT; Promoting housing development near transit; Improve area for more jobs and housing to increase locational efficiency; Expanding existing rail and public transit systems; Enhancing the connectivity, integration, and coordination of the State's various transit agencies; Implementing clean vehicle technology.	Apply to TIRCP call for projects.	Requires an EIR for high rating in the competitive process.
PT **Cap and Trade - Low Carbon Transit Operations Program (LCTOP)** Applicant: Cities Disbursement Agency: Transit Agencies Source: CalTrans Funding Type: Grant Process: Competitive	The Low Carbon Transit Operations Program (LCTOP) is one of several programs that are part of the Transit, Affordable Housing, and Sustainable Communities Program established by the California Legislature in 2014 by Senate Bill 862.	The LCTOP was created to provide operating and capital assistance for transit agencies to reduce greenhouse gas emission and improve mobility, with a priority on serving disadvantaged communities.	(1) Lead agency must be listed on SCO letter. (2) Verify the project is in the list of eligible projects. (3) Verify project meets criteria. (4) Submit required documents requested in LCTOP guidelines.	Applicable for all transit projects. But needs commitment from other funding sources.
PT **Buses and Bus Facilities Grant Program - 5339** Applicant: Cities Disbursement Agency: Transit Agencies (Buses) Source: FTA Funding Type: Grant Process: Competitive	The Bus & Bus Facilities Infrastructure Investment Program makes federal resources available to states and direct recipients to replace, rehabilitate and purchase buses and related equipment and to construct bus-related facilities including technological changes or innovations to modify low or no emission vehicles or facilities.	FTA will prioritize projects that demonstrate how they will address significant repair and maintenance needs, improve the safety of transit systems, deploy connective projects that include advanced technologies to connect bus systems with other networks and support the creation of ladders of opportunity.	Funds remain available for obligation for four fiscal years. This includes the fiscal year in which the amount is made available or appropriated plus two additional years.	Valley Transit authority and Metrolink could apply for this. Funding is provided through formula allocations and competitive grants.
PT **Urbanized Area Formula Grants - 5307** Applicant: Cities Disbursement Agency: MPOs/Transit Agencies Source: FTA Funding Type: Capital/ Planning Grant Process: Formula	The Urbanized Area Formula Funding program makes federal resources available to urbanized areas and to governors for transit capital and operating assistance in urbanized areas and for transportation-related planning.	Funds are primarily used for operations and maintenance but can be used for capital projects, including the purchase of vehicles. Eligible activities include: planning, engineering, design and evaluation of transit projects and other technical transportation-related studies.	Funding is allocated via formulas. Funds requires a 20% local match. Future funds can potentially be bonded under the Certificate of Participation Program.	

Parking and Transit Infrastructure Funding Sources

Sources of Funding	Overview	Criteria	Process	Considerations
PT **California Infrastructure State Revolving Loan Fund (I-Bank)** Applicant: Cities Disbursement Agency: State of California Source: Funding Type: Financing Process: Rolling Application	The ISRF Program provides financing to public agencies and non-profit corporations sponsored by public agencies for a wide variety of infrastructure and economic development projects (excluding housing). ISRF Program funding is available in amounts ranging from $50,000 to $25 million, with loan terms for the useful life of the project up to a maximum of 30 years.	Applicant must demonstrate project readiness and feasibility to complete construction within 2 years after the I-Bank's financing approval. In this context, "complete a project" the portion of the project financed by the I-Bank must meet construction contract specifications for completeness and/ or ability to operate.	Funding applications are continuously accepted. The I-Bank Board of Directors makes the financing decision. Examples of eligible sources of financing repayment includes: Enterprise/ Sewer Special Funds, leases of Borrower assets, property taxes or property-related assessments, voter-approved General Fund debt.	Financing option for project rather than funding source. All other funding sources must be committed prior to financing approval.
PT **Transportation Infrastructure Finance and Innovation Act (TIFIA)** Applicant: Cities Disbursement Agency: Caltrans Source: USDOT Funding Type: Financing/Guarantee Process: Rolling Application	Strategic goal of the TIFIA is to leverage limited Federal resources and stimulate capital market investment in transportation infrastructure by providing credit assistance in the form of direct loans, loan guarantees, and standby lines of credit (rather than grants) to projects of national or regional significance.	The TIFIA credit program offers three distinct types of financial assistance – direct loans, loan guarantees, and standby lines of credits. Major criteria include creditworthiness; foster partnerships that attract public and private investment for the project; ability to proceed at an earlier date or reduced lifecycle costs; Reduces contribution of federal grant assistance to the project; construction contracting process can commence no more than 90 days from execution of a TIFIA credit instrument.	DOT reviews creditworthiness of project sponsor (sponsor must pay $100,000) and then DOT may request oral presentation. DOT will evaluate and give recommendation to DOT Credit Council, DOT Credit Council makes recommendation to the Secretary. DOT will notify sponsor if project is approved. Project sponsor must satisfy all program requirements, DOT will issue term sheet, credit agreement, and will disburse funds.	Source of credit assistance, but needs a revenue source to service the debt payments. Applicable for Parking Structure/Districts.
PT **Pilot Program for TOD Planning funded by CIG Program** Applicant: Cities Disbursement Agency: Caltrans Source: USDOT Funding Type: Planning Grant Process: Competitive	The Pilot Program for TOD Planning helps support FTA's mission of improving public transportation for America's communities by providing funding to local communities to integrate land use and transportation planning with a transit capital investment that is seeking or recently received funding through the Capital Investment Grant (CIG) Program.	Comprehensive planning funded through the program must examine ways to improve economic development and ridership, foster multimodal connectivity and accessibility, improve transit access for pedestrian and bicycle traffic, engage the private sector, identify infrastructure needs, and enable mixed-use development near transit stations.	Competitive funding application	Metrolink could apply for this. LA Metro got for WSAB corridor.
PT **Capital Investment Grant (Small Starts) - 5309** Applicant: Cities Disbursement Agency: Transit Agencies Source: FTA Funding Type: Grant Process: Discretionary	This is FTA's primary grant program for funding major transit capital investments, including heavy rail, commuter rail, light rail, streetcars, and bus rapid transit. It is a discretionary grant program unlike most others in government.	Project Justification Criteria: Mobility improvements; Environmental benefits; Congestion relief; Cost-effectiveness; Economic development; Supportive land uses and land use policy. Financial Commitment Criteria: Current financial conditions of project operator; Commitment of funds; Financial capacity and reasonableness of assumptions.	Application to Small Starts required. Instead of an annual call for applications and selection of awardees by the Federal Transit Administration (FTA), the law requires that projects seeking CIG funding complete a series of steps over several years to be eligible for funding.	Highly competitive and requires commitment from other non-federal sources.

Major Developments Funding Sources - Economic Revitalization

Sources of Funding	Overview	Criteria	Process	Considerations
ER **New Markets Tax Credit** Applicant: Developer Disbursement Agency: Local CDEs Source: US-Treasury Funding Type: Financing Process: Competitive	The NMTC Program incentivizes community development and economic growth through the use of tax credits that attract private investment to distressed communities. The NMTC Program enables the Community Development Financial Institution (CDFI) to allocate tax credit authority to Community Development Entities (CDEs) through a competitive application process. CDEs use their authority to offer tax credits to investors in exchange for equity in the CDE. Using the capital from these equity investments, CDEs can make loans and investments to businesses operating in low-income communities on better rates and terms and more flexible features than the market.	The NMTC Program enables the Community Development Financial Institution (CDFI) to allocate tax credit authority to Community Development Entities (CDEs) through a competitive application process. Funding can be used only for commercial development such asmanufacturing, food, retail, housing, health, technology, energy, education, and childcare.	NMTC process begins with applying for a CDE certification. Next, the CDE will need to apply to the current Allocation round, which typically begins in May and awards are announced in the winter of the same year. Once the awards are announced, the allocation agreement has to be closed. The final step is an ongoing reporting and compliance documentation.	Creating a separate entity is critical for accessing NMTC dollars.
ER **Community Development Block Grant (CDBG)** Applicant: Developer Disbursement Agency: Cities and Counties Source: US-HUD Funding Type: Grant Process: Formula	The Community Development Block Grant (CDBG) is a flexible program that provides communities with resources to address a wide range of unique community development needs. The CDBG program works to ensure decent affordable housing, to provide services to the most vulnerable in our communities, and to create jobs through the expansion and retention of businesses.	Not less than 70 percent of CDBG funds must be used for activities that benefit low- and moderate-income persons. In addition, each activity must meet one of the following national objectives for the program: 1) benefit low- and moderate-income persons, 2) prevention or elimination of slums or blight, or 3) address community development needs having a particular urgency.	The annual CDBG appropriation is allocated between States and local jurisdictions based on a formula comprised of several measures of community need, including the extent of poverty, population, housing overcrowding, age of housing, and population growth lag in relationship to other metropolitan areas.	Directly disbursed to counties and cities based on formula.
ER **CDBG - Section 108 Loan Guarantee Program** Applicant: Cities Disbursement Agency: Local Govt. or State Source: US-HUD Funding Type: Loan Guarantee Process: Competitive	Section 108 offers state and local governments the ability to transform a small portion of their Community Development Block Grant (CDBG) funds into federally guaranteed loans large enough to pursue physical and economic revitalization projects capable of revitalizing entire neighborhoods.	Source of financing for certain community development activities, such as housing rehabilitation, economic development, and large-scale physical development projects. All projects and activities must meet one of	The borrower will be required to secure the loan by pledging current or future CDBG allocations to either repay the loan or secure it. In addition, the borrower may be required to pledge additional security to the loan which may include property liens or other collateral.	

Major Developments Funding Sources - Economic Revitalization

Sources of Funding	Overview	Criteria	Process	Considerations
ER **Historical Preservation Tools - Historic Rehabilitation Tax Credit** Applicant: Developers Disbursement Agency: Cities Source: US Parks Funding Type: Financing Process: Rolling Application	The Federal Historic Rehabilitation Tax Credit program is administered by the National Park Service and the State Office of Historic Preservation.	The Federal Historic Preservation Tax Incentives Program encourages private investment in the re-use of historic buildings. The program provides for a 20% income tax credit for the rehabilitation of income-producing buildings that are "certified historic structures." A smaller tax credit (10%) is available for non-certified buildings constructed before 1936.	Building owners must complete a three-part application process to qualify for the credit. In Part 1, the applicant verifies that the property is listed in or eligible for the National Register. Part 2 provides a description of the proposed work for approval, utilizing the Secretary of the Interior's Standards for Rehabilitation. Part 3 compares the actual project work with the Part 2 description and verifies that the project has met the Standards.	Only applicable to income-producing properties.
ER **California Organized Investment Network (COIN)** Applicant: Cities Disbursement Agency: Insurance Companies Source: CA Insurance Funding Type: Financing Process: Rolling Application	COIN is a collaborative effort between the California Department of Insurance, the insurance industry, and advocates for investments in low-income communities. This voluntary program facilitates insurance industry investments that benefit California's environment and its low-to-moderate (LMI) income and rural communities.	COIN researches, sources, structures and certifies that investment in a wide range of innovative opportunities and deliver competitive rates of return. Investments must benefit California's environment or its low-to-moderate income or rural communities through economic development, job creation, access to transit or healthcare or improvements in education.	COIN extensively researches investment opportunities for insurers and publishes Investment Bulletins for high impact or guided investments that are believed to be safe and solvent, offer competitive financial returns, and benefit California's environment, LMI, and rural communities.	Attracts private investments for community economic development. Can be used for access to transit as well as healthcare and education-related development
ER **Choice Neighborhood** Applicant: Cities/Developers Disbursement Agency: Local Government Source: US-HUD Funding Type: Capital/Planning Grant Process: Competitive	The Choice Neighborhoods program provides competitive Planning Grants and Implementation Grants to enable communities to revitalize struggling neighborhoods with distressed public housing or HUD-assisted housing through a comprehensive approach to neighborhood transformation.	Planning Grants enable local leaders to undertake a comprehensive planning process, working closely with housing residents, broader community members, businesses, and a range of local stakeholders. Implementation Grants support communities that have undergone a comprehensive planning process and are ready to implement their plans.	HUD established a mapping tool for the purposes of establishing neighborhood eligibility and to assign points for certain rating factors. This mapping tool will overlay the locally defined neighborhood boundaries with data associated with that area and estimate the rates of certain indicators in that neighborhood using a proportional allocation methodology.	It is competitive grant program. Notice of funding availability of announced each year. Applicants can apply for these grants.

Major Developments Funding Sources - Economic Revitalization

Sources of Funding	Overview	Criteria	Process	Considerations
ER **LA County - TOD Planning Grant Program** Applicant: Cities Disbursement Agency: LA Metro Source: Combination of various funds Funding Type: Planning Grant Process: Call for Projects	Metro is responsible for allocating discretionary federal, state and local transportation funds to improve all modes of surface transportation. Metro also prepares the Los Angeles County Transportation Improvement Program (TIP). A key component of TIP is the Call for Projects program, a competitive process that distributes discretionary capital transportation funds to regionally significant projects.	The eight modal categories of funding include regional surface transportation improvement, good movement improvements, signal synchronization and bus speed improvements, transportation demand management, bicycle improvements, pedestrian improvements, and transit capital.	Every other year, Metro accepts Call for Projects applications in eight modal categories. Metro staff ranks eligible projects and presents preliminary scores to Metro's Technical Advisory Committee (TAC) and the Metro Board of Directors for review. Upon approval, the TIP is developed and formally transmitted to the regional and state transportation planning agencies. The TIP then becomes part of the five-year program of projects scheduled for implementation in Los Angeles County.	
ER **EB-5 Immigration Visa Investment** Applicant: Developer Disbursement Agency: Local Jurisdiction Source: USCIS Funding Type: Financing Process: Rolling Application	The EB-5 program allows foreign nationals to achieve permanent residency with an investment that will create 10 new direct or indirect jobs in the United States per investor. These investments typically must be at least $1 million, however in Targeted Employment Areas (TEA) with high unemployment, the minimum qualifying investments are $500,000.	EB-5 funding would be particularly well suited to support new hospitality accommodations, educational facilities, medical facilities, or new offices, as these uses would support a number of new jobs.	Investment can be pooled into a regional investment center, through which a single project can be supported by multiple EB-5 investments, so long as the investment and employment thresholds are met. The only limit to the amount of money that may be invested is the number of jobs the new development will support.	The development needs to be financial attractive to attract investors.
ER **Public- Private Partnerships (P3)**	A public-private partnership is a contractual agreement between a public agency and a private-sector entity whereby "the skills and assets of each sector (public and private) are shared in delivering a service or facility for the use of the general public.	Typically, the private entity provides the capital cost to finance the project and the public agency offers concession leases. The private partner makes upfront or ongoing payments to the public partner in exchange for developing and operating the asset, in exchange for collecting the revenue generated by the asset. There are various forms of public private partnerships depending on the nature of the project's risks and rewards.	P3s are typically large, complex projects such as transportation or social infrastructure	P3s are applicable for all types of projects. Procurement process is complex and require multiple advisors. It is an expensive process. Transaction costs especially are a cause of concern for smaller projects.

Major Developments Funding Sources - Economic Revitalization

Sources of Funding	Overview	Criteria	Process	Considerations
ER **Joint Development Program** Applicant: Developer Disbursement Agency: LA Metro and others Source: Funding Type: Financing Process: Call for Projects	Joint Development is the only value capture mechanisms commonly employed by transit agencies, since the FTA has guidelines that allow certain projects to use public funding.	It can take many forms, ranging from an agreement to develop land owned by the transit agency to joint financing and development of a larger project that incorporates both transit facilities and private development. A joint development agreement can include a cost-sharing agreement, a revenue sharing agreement, or a combination of the two.		JDs require complex financial transactions. The public sector needs advanced real estate knowledge to implement JDs.

Major Developments Funding Sources - Affordable Housing

Sources of Funding	Overview	Criteria	Process	Considerations
AF **Low Income Housing Tax Credit (LIHTC) Program** Applicant: Developers Disbursement Agency: CTCAC Source: US-Treasury Funding Type: Financing Process: Competitive	The LIHTC enables low-income housing sponsors and developers to raise project equity through the sale of tax benefits to investors. The program is regulated and administered by the Internal Revenue, which is part of the U.S. Treasury Department. Recognizing the extremely high cost of developing housing in California, the state legislature authorized a state low income housing tax credit program to augment the federal tax credit program.	Only rental housing projects are eligible for tax credits in both the federal and state programs. The programs have both rent and income restrictions. Under federal law, credit projects must remain affordable for at least 30 years; however, California law generally requires a 55-year extended use period for 9% tax credit projects.	Most credits are sold to corporate or individual investors through public or private syndication	This is a financing source that only affordable housing developers can apply for.
AF **Affordable Housing and Sustainable Communities (AHSC) Program** Applicant: Developers Disbursement Agency: CAHCD Source: Cap&Trade Funding Type: Loan/Grant Process: Competitive	AHSC funds land-use, housing, transportation, and land preservation projects to support infill and compact development that reduce greenhouse gas (""GHG"") emissions. Funding for the AHSC Program is provided from the Greenhouse Gas Reduction Fund (GGRF), an account established to receive Cap-and-Trade auction proceeds.	Eligible activities include affordable housing development, housing-related infrastructure, sustainable transportation infrastructure, transportation-related amenities, and program costs.	Applicants must submit a concept proposal which will be reviewed by the Strategic Growth Committee (SGC) and the respective MPO to rank for priority projects. Priority applicants will be invited to submit a full application.	Highly competitive funding source.
AF **HOME Investment Partnerships Program** Applicant: Developers/Cities Disbursement Agency: CAHCD Source: US-HUD Funding Type: Grant/Low Interest Loan Process: Competitive	Assist cities, counties, developers, including Native American Entities, and nonprofit community housing development organizations (CHDOs) to create and retain affordable housing.	Housing rehabilitation, new construction, and acquisition and rehabilitation, for both single-family and multifamily projects, and predevelopment loans to CHDOs. All activities must benefit lower-income renters or owners.	Grants are provided to cities and counties and low-interest loans are provided to developers. Most assistance is in the form of loans by city and county recipients to project developers to be repaid to local HOME accounts for reuse. Applications are invited through issuance of Notices of Funding Availability (NOFAs).	Funding for affordable housing for developers given to cities/counties.
AF **National Housing Trust Fund (To be announced)** Applicant: Developers/Cities Disbursement Agency: CAHCD Source: US-HUD Funding Type: Soft Loans Process: Competitive	The National Housing Trust Fund (NHTF) is a new federal program administered in California by the Department of Housing and Community Development.	Assist in new construction of permanent housing for extremely low-income households through deferred payment loan or forgivable loans (soft loans).	Applications will be invited through the issuance of Notices of Funding Availability (NOFAs). NHTF will be paired with another State program in a joint NOFA.	

Major Developments Funding Sources - Affordable Housing

Sources of Funding	Overview	Criteria	Process	Considerations
AF **Multifamily Bond Financing** Applicant: Developers Disbursement Agency: LACDC Source: Funding Type: Financing Process: Competitive	The County issues tax-exempt bonds to finance low- and moderate-income housing for families.	The projects need to adhere to the Federal and state requirements for tax-exempt multifamily housing bonds. The developers need to set aside 20 percent of the units for low-income tenants. The projects must be located in unincorporated County of Los Angeles.		
AF **Los Angeles County Housing Innovation Fund** Applicant: Developers Disbursement Agency: LACDC Source: Funding Type: Financing Process: Competitive	LACHIF II is a $60 million revolving loan fund providing site acquisition and predevelopment financing for the development of affordable housing in the County of Los Angeles.	For creation of multifamily rental affordable housing located within the County of Los Angeles.	There are three originating lenders leverage LACDC's $19.5 million to create this revolving loan fund.	

District-wide Value Capture Mechanisms

Sources of Funding	Overview	Criteria	Process	Considerations
VC **Transportation utility fees**	Transportation utility fees are assessments on property that are designed to be closely related to transportation demand and can therefore spread the costs of financing local roads or other transportation services among users in a fashion that approximates a user fee	Transportation utility fees are most commonly used for roads, but they can also be used to provide a dedicated funding source for transit systems.	The fee can be a flat fee for each property, or it can apply a formula based on units of housing, number of parking spaces, or square footage. It can also be based on the estimated trip generation rate for a property type.	Does not require voter approval. Chiefly pays for O&M costs. Requires technical feasibility and financial feasibility to cover the construction and operation costs.
VC **Parking Fees/Congestion Pricing**	Congestion pricing is a demand management strategy which allows pricing mechanisms to control demand for services such as parking during peak hours. Congestion pricing has been successfully implemented in several dense, urban core to reduce congestion and raise funds for transportation improvements.	The revenue from the congestion pricing can be used to cover the cost of the tolling system as well as improving transit systems. Typically, congestion pricing requires state legislation and/or voter approval.		
VC **Development Impact Fee**	Development impact fees, system development charges, and connection or facility fees are charges assessed on new development to defray the cost to the jurisdiction of extending public services to the development and cannot be used to fund existing deficiencies.	Impact Fees cannot be used to upgrade existing deficiencies in infrastructure. Fee can be exacted only after establishing reasonable relationship of development impact and impact mitigation.	The fees are generally collected once and are used to offset the cost of providing public infrastructure such as streets and utilities.	
VC **Special Assessment District**	Special districts are considered a value capture tool because they capture the value (or benefit) generated by an improvement or service to provide funding for the improvement or service. Special districts, which can include (but are not limited to) business improvement districts (BIDs) and Special Assessment Districts (SADs). Requires voter approval.	Assessment districts are formed to include a geographical area in which property owners or businesses agree to pay an assessment to fund a proposed improvement or service from which they expect to directly benefit. The amount of the assessment must be directly related to the cost of the improvement and the expected benefit to the property owner.	Special districts can be used either for pay-as-you-go improvements or to finance the issuance of bonds backed by the assessment revenue. Property owners in the district pay an additional tax or fee to pay for the service or improvement in the desired timeframe or to finance a debt obligation in accordance to the property's proportional share of the benefit.	Less risky for local governments since the risk is transferred to property owners. Difficult to implement across large geographies with multiple jurisdictions. Applicable to non-revenue generating infrastructure, however, the benefit generated for the property owners should be direct.

District-wide Value Capture Mechanisms

Sources of Funding	Overview	Criteria	Process	Considerations
VC **Enhanced Infrastructure Finance Districts**	Cities, counties, and special districts can created EIFDs and issue TIF bonds (under special circumstances). An EIFD captures the incremental tax revenue generated by new development related to public capital improvement across multiple jurisdictions. Requires voter approval.	EIFDs can only capture tax revenue net of the moneys payable to school districts or educational funds, subject to approval from taxing authorities. An EIFD can finance traditional public works, as well as transportation, transit, parks and libraries, water and sewer facilities, solid waste disposal, and flood control and drainage. It can also be used for non-revenue generating projects such as bike and pedestrian amenities.	EIFDs are separate government entities, formed through a Joint Power Authority (JPA) consisting of cooperating cities, counties, and special districts. The new EIFD requires these entities to work together to make financing plans that combine a range of permitted funding sources, including tax increment bonds, that are the responsibility of all participants.	Obtaining approvals for EIFDs from tax authorities is challenging. Implementing and administering an EIFD can be complex.
VC **Community Revitalization and Investment Authorities (CRIA)**	In 2015, Governor Jerry Brown signed a law enabling cites to establish CRIAs, which enabled them to capture additional tax revenues for revitalization of neighborhoods. Redevelopment projects can be financed by bonds backed by future tax increment revenues derived from the project.	CRIAs will be able to receive the tax increment on increased property taxes in a subject area with consent from taxing entities including the city, county, and special districts. Twenty-five percent of revenue from the tax increment must be allocated to Low- and Moderate-Income Housing Fund.	There are two ways to create a CRIA; 1) municipalities can directly establish an authority board; and 2) by signing a joint power agreement between city, county, and special districts. Restrictions apply to where CRIAs can be established.	Creation of a CRIA needs to undergo a public hearing process and can be rejected if 50% of the owners and residents protest. Improved infrastructure in underserved communities

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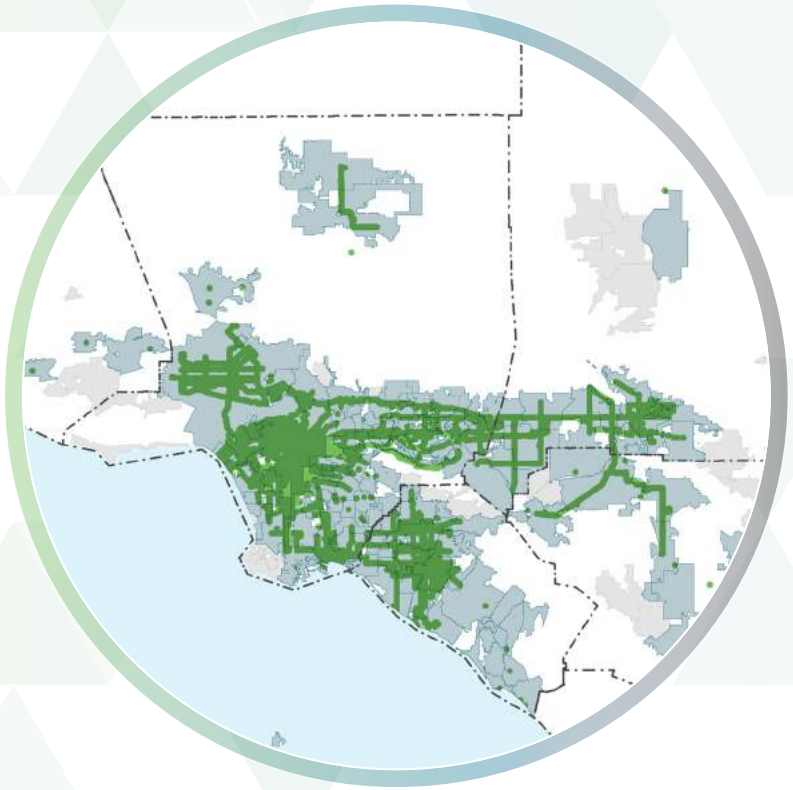
Part III

Additional Resources

B - ADDITIONAL RESOURCES



TOD Place Types - Table of Metrics

Station Survey Walking Tour

Glossary of Abbreviations

HQTA Place Types

		Land Use Mix				Built Environment			
		Residential	Employment	Mixed Use	Civic / Open Space	Intersections per mi²	Average Floors	Floor Range	Total Net FAR
Urban	Urban Mixed Use	18%	16%	45%	21%	200	23	15 - 100	9.0
	Urban Commercial	4%	64%	12%	21%	200	18	15 - 100	6.0
	Urban Residential	64%	4%	12%	21%	200	15	5 - 60	9.0
City	City Mixed Use	28%	17%	35%	20%	200	7	3 - 40	3.4
	City Commercial	1%	82%	4%	14%	200	7	5 - 40	3.1
	City Residential	65%	4%	11%	20%	200	7	5 - 40	2.9
Town	Town Mixed Use	26%	20%	29%	25%	200	4	2 - 8	1.9
	Town Commercial	1%	69%	17%	14%	200	3	2 - 8	1.8
	Town Residential	68%	0%	10%	22%	220	3	2 - 8	1.2
Village / Suburban	Village Mixed Use	43%	14%	14%	28%	220	3	2 - 6	1.0
	Village Commercial	0%	61%	7%	32%	230	2	2 - 6	1.2
	Village Residential	74%	0%	1%	25%	180	3	2 - 5	0.9
	Suburban Multi-family	87%	0%	0%	13%	90	3	2 - 5	1.2
Special Districts	High Intensity Activity Center	14%	37%	41%	8%	130	5	5 - 40	2.5
	Industrial / Office / Residential Mixed High	58%	36%	0%	6%	60	4	1 - 17	2.0
	Office Focus	0%	82%	0%	18%	45	4	2 - 9	1.1
	Campus / University	32%	2%	0%	66%	150	8	3 - 17	1.7

Highest
Above Average
Average
Below Average
Lowest

Note for color shading: For Land Use Mix, Residential Mix, and Employment Mix, color shading is based on land use percentage on 100 point scale; for Built Environment and Average Density per Acre, color shading is based on value for each place type as a percentage of the highest score for each category (e.g. For the Average Floors category, the highest number of floors is 23. The shading for 18 average floors would be 18 / 23 = 78% of shading for 23 floors.)

Average Density per Acre			Residential Mix			Employment Mix		
Households	Employees	Households + Employees	Single Family	Townhouse / Live-Work	Multi-family	Office	Retail	Industrial
85	266	351	0%	0%	100%	80%	20%	0%
8	402	410	0%	0%	100%	93%	7%	0%
131	44	175	0%	0%	100%	22%	78%	0%
44	85	129	0%	3%	97%	60%	40%	0%
4	200	204	0%	0%	100%	77%	23%	0%
58	14	72	0%	3%	97%	40%	60%	0%
21	50	71	0%	0%	100%	75%	25%	0%
5	75	80	0%	0%	100%	68%	32%	0%
18	12	30	0%	47%	53%	47%	53%	0%
10	14	24	30%	29%	41%	42%	58%	0%
2	40	42	0%	0%	100%	49%	51%	0%
10	2	12	52%	48%	0%	100%	0%	0%
32	2	34	0%	11%	89%	85%	15%	0%
24	69	93	0%	6%	94%	20%	80%	0%
45	42	87	0%	4%	96%	73%	16%	11%
0	65	65	0%	0%	0%	93%	2%	5%
31	22	53	0%	0%	100%	64%	36%	0%

Station Survey Walking Tour

After analyzing the HQTA area through mapping and analysis, the next step in defining the station area is a micro-level analysis of the individual blocks, street, buildings, and other individual physical elements in the half-mile station area. To understand these elements from their impact towards facilitating pedestrian activity between land uses and transit, this analysis is best completed as a survey during a walking tour. Metro developed a station survey as part of the First-Last Mile Strategic Plan to begin to assess areas of intervention. The station surveys, "Mainly qualitative, measure performance of each station/stop area. With the end goal of increasing transit ridership and user comfort, urban design elements that are most important for rider comfort and system function" are the focus of the station survey. Parts of the Metro station survey, as well as portions of other station surveys from research of best practices, comprise the station survey below. The format of the developed checklist is broad, and touches upon a range of issues faced by most station areas in the SCAG Region. The survey is organized to broadly assess the following categories: land use, mobility, safety, aesthetics/urban design, and accessibility. Each question is scored on a 1 - 5 scale.

Excellent	5 - 4
Good	3.99 - 3
Fair	2.99 - 2
Poor	1.99 - 1

	Disagree/ Lacking		Somewhat/ Adequate		Agree/ Ample
Land Use					
1. Mix of uses: Different uses that attract different people throughout the day, and week.	1	2	3	4	5
2. Limited Vacancy: There are no, or few empty storefronts.	1	2	3	4	5
3. Few auto-oriented uses: Commercial uses are not mostly located behind surface parking lots.	1	2	3	4	5
4. Location of commercial uses: Retail is concentrated near major arterials and near major transit stops/stations.	1	2	3	4	5
5. Convenient retail: Uses to serve transit users and residents (e.g. grocery, coffee, etc.)	1	2	3	4	5
				Total Points ____	
Pedestrian Amenities and Legibility					
6. Adequate Lighting: Lighting is regularly spaced and directed towards sidewalks/bikeways.	1	2	3	4	5
7. Eyes on the street: Windows, balconies, and entries face the street and public spaces.	1	2	3	4	5
8. Well-maintained public realm: No/minimal litter, trimmed vegetation, sidewalks in good condition.	1	2	3	4	5
9. Buffer for bikes: Bikes are adequately separated from vehicles.	1	2	3	4	5
10. Buffer for pedestrians: Pedestrians are adequately separated from vehicles e.g. by street trees, pedestrian amenities, and infrastructure.	1	2	3	4	5
11. Pedestrian appropriate traffic speeds: Slow traffic due to narrow roads; drivers yield to pedestrians.	1	2	3	4	5
12. Clear traffic signage: Traffic signage is easy to see for vehicles, bikes, and pedestrians.	1	2	3	4	5
13. Overall, the station feels comfortable: The area is perceived as safe for all users: women, children, elderly, etc.	1	2	3	4	5
				Total Points ____	

Station Survey Walking Tour

	Disagree/ Lacking		Somewhat/ Adequate		Agree/ Ample
Urban Design					
14. Sense of place: Unique street characteristic, landmarks, and activity that sets space apart.	1	2	3	4	5
15. Pleasant landscaping: Well-maintained and frequent street trees that provides ample shade.	1	2	3	4	5
16. Pedestrian amenities: Variety of and frequent pedestrian amenities for rest and activity.	1	2	3	4	5
17. Building orientation and frontage: Entrances oriented to sidewalks, buildings built to sidewalk edge; buildings encourage transit access.	1	2	3	4	5
18. Architectural features and design: Visually appealing building design, materials, elements.	1	2	3	4	5
19. Active frontage and transparency: Avoid blank walls along sidewalks, active first-floor uses.	1	2	3	4	5
20. Pleasant walking environment: There is a inviting and interesting experience for all users.	1	2	3	4	5
				Total Points ____	
Accessibility					
21. Sidewalks: Sidewalks are wide enough to accommodate range of uses and multiple users.	1	2	3	4	5
22. Clear, safe crossings: Intersections allow ample time to cross, are frequent, and ADA accessible.	1	2	3	4	5
23. Seamless transit mode transfer: Different modes in close proximity connected by clear paths.	1	2	3	4	5
24. Wayfinding signage: Clear view for pedestrians and bikes, provides clear information/direction.	1	2	3	4	5
25. Parking and pick-up / drop-off: Adequate number of spaces, separated from pedestrians.	1	2	3	4	5
26. Navigating public realm is easy and intuitive: Multiple pathways accessible to all users.	1	2	3	4	5
				Total Points ____	
Mobility / Connectivity					
27. Street design prioritizes transit, bikes, and pedestrians: Street lanes for vehicles are minimal and narrow to encourage slow speed, separated facilities for bus, bikes, and pedestrians.	1	2	3	4	5
28. Transit station connectivity: Transit station(s) is/are clearly visible from major roadways, and have clear signage indicating routes and transfer opportunities.	1	2	3	4	5
29. Vehicle parking: Vehicle parking is hidden behind buildings or underground.	1	2	3	4	5
30. Car share / Bike share: Car share and bike share stations are present within the station area.	1	2	3	4	5
				Total Points ____	

Total Survey Points ____ /30 = Average Survey Points ____

Glossary of Abbreviations

AMI Area Median Income
BRT Bus Rapid Transit
CBD Central Business District
CTOD Center for Transit-Oriented Development
du/ac Dwelling Units per Acre
FAR Floor-Area Ratio
GHG Greenhouse gas
HQTA High Quality Transit Area
HSR High Speed Rail
HRT Heavy Rail Transit
LIHTC Low Income Housing Tax Credit
LRT Light Rail Transit
RTP/SCS Regional Transportation Plan / Sustainable Community Strategy
SCAG Southern California Association of Governments
SB Senate Bill
TOC Transit-oriented community
TOD Transit-oriented development
VMT Vehicle miles travel

Additional Resources

2016-2040 Regional Transportation Plan / Sustainable Communities Strategy
SCAG
Buffalo Green Code: Unified Development Ordinance
City of Buffalo
First-Last Mile Strategic Plan: Path Planning Guidelines
Metro
Toolkit for Transit-Oriented Development Grants
Metropolitan Council
TOD 203 - Transit Corridors and TOD: Connecting the Dots
CTOD
Transit Supportive Planning Toolkit, 2015
Metro
Urban Footprint Technical Summary: Model Version 1.0
Calthorpe Associates
Urban Street Design Guide
National Association of City Transportation Officials (NACTO)
Transit Design Guidelines
Omnitrans, 2013
The Arrive Corridor
Gruen Associates, 2015
Complete Street Design Guide
City of Los Angeles
Long Beach Downtown and TOD Pedestrian Master Plan
Gruen Associates