Oxnard Vision Plan

HIGH QUALITY TRANSIT AREA PILOT PROJECT

Southern California Association of Governments

April 2019

SCAG

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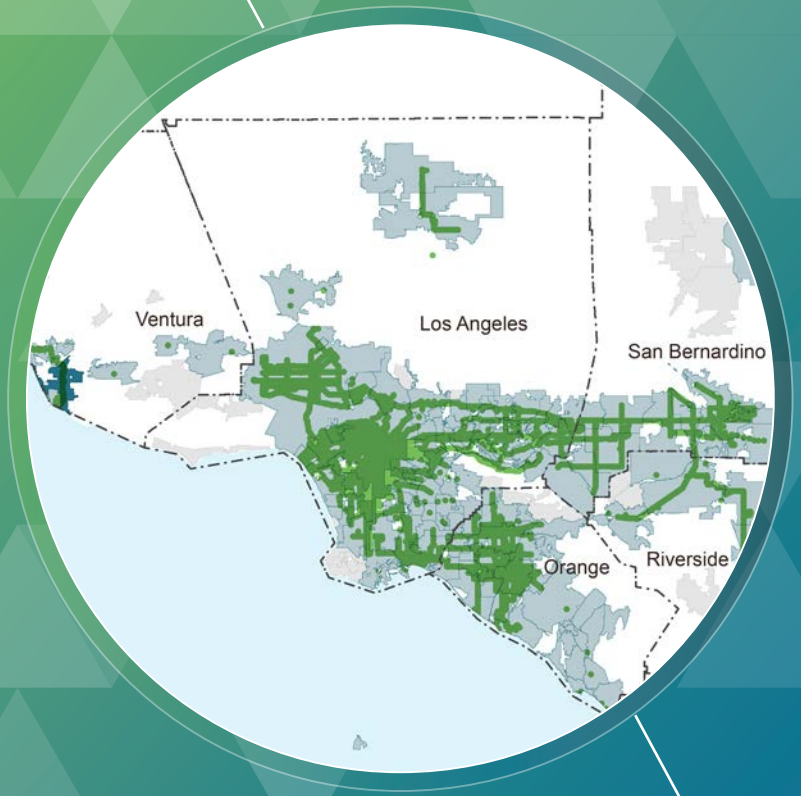
Part 1

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

Oxnard 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 growth near high quality transit through actionable transit-oriented development (TOD) projects
- Promote higher-density 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 affordable housing

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 Oxnard HQTA Study Area. The Profile also includes a summary of previous planning efforts.

Part 3: Outreach

Outreach efforts included public meetings and reoccurring correspondence with City of Oxnard 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 Oxnard 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.

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 growth in 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.

Oxnard HQTA - 2048 Vision

Key Opportunities

- The Pilot Project Area is located in the downtown area, which already has pedestrian alleys connecting major commercial streets.
- A Street has an existing "main street" character.
- The City is drafting a new downtown development code that allows for greater, TOD-compatible densities at Plaza Park and the Oxnard Transit Center.
- Oxnard Boulevard has multiple surface parking lots which may be developed into more active uses.
- The Royal Palms Mobile Home Park may be re-imagined as a more walkable, diverse housing cluster.

For illustrative and visioning purposes only; the ultimate buildout will be determined through a specific plan update, further discussions with property owners, and interested developers.

Vision Plan Goals

#1: Linear circulation and/or open space elements that unify the parcels which comprise the HQTA Pilot Project Area

#2: Establish a new model of a lively self-contained urban village for young workers and multi-generational households

#3: Capitalize on Oxnard's thriving biomedical industry, tech industry, and large student population with a transit-adjacent innovation hub

#4: Create a 21st Century employment cluster that allows employees to live and work within walking distance of a Metrolink Station

#5: Incorporate modern technology and best practices to ensure longterm environmental sustainability

Major Development Areas (MDA)

Major Development Areas contain clusters of complementary priority projects. An MDA phasing strategy is provided in Part 6 (Implementation).

- MD 1 Oxnard Transit Center Block
- MD 2 Carnegie Museum / Plaza Park Block
- MD 3 Royal Palms Mobile Home Park
- MD 4 Infill along Oxnard Boulevard

Priority Projects

Priority projects are targeted infrastructure or public realm improvements that could catalyze development and private investment in the Pilot Project Area. Funding sources for each priority project type and a priority project phasing strategy are provided in Part 6 (Implementation).

Bicycle Projects

- B 1 Bike Hub
- B 2 Rail Path Bicycle Trail
- B 3 B Street Bicycle Track
- B 4 North-South Bicycle Connection
- B 5 East-West Bicycle Connection

Pedestrian/Greening Projects

- PG 1 Transit Plaza
- PG 2 Green Alleyways
- PG 3 Festival Street
- PG 4 Street Grid at Mobile Home Park
- PG 5 Infill Public Parks
- PG 6 Rail Bicycle Path Greening
- PG 7 Tree Canopy Gap Closure
- PG 8 3rd Street Bridge Vertical Transportation and Bridge Sidewalk Improvements
- PG 9 Oxnard Blvd / 4th St Scramble Crosswalk

Corridor Projects

- C 1 3rd Street
- C 2 4th Street
- C 3 5th Street
- C 4 Oxnard Boulevard
- C 5 A Street
- C 6 B Street
- C 7 C Street

Parking and Transit Projects

- PT 1 Reconfigured Bus Bays
- PT 2 Transit Priority Corridors
- PT 3 Arterial Bus Rapid Transit
- PT 4 New Public Parking Structures

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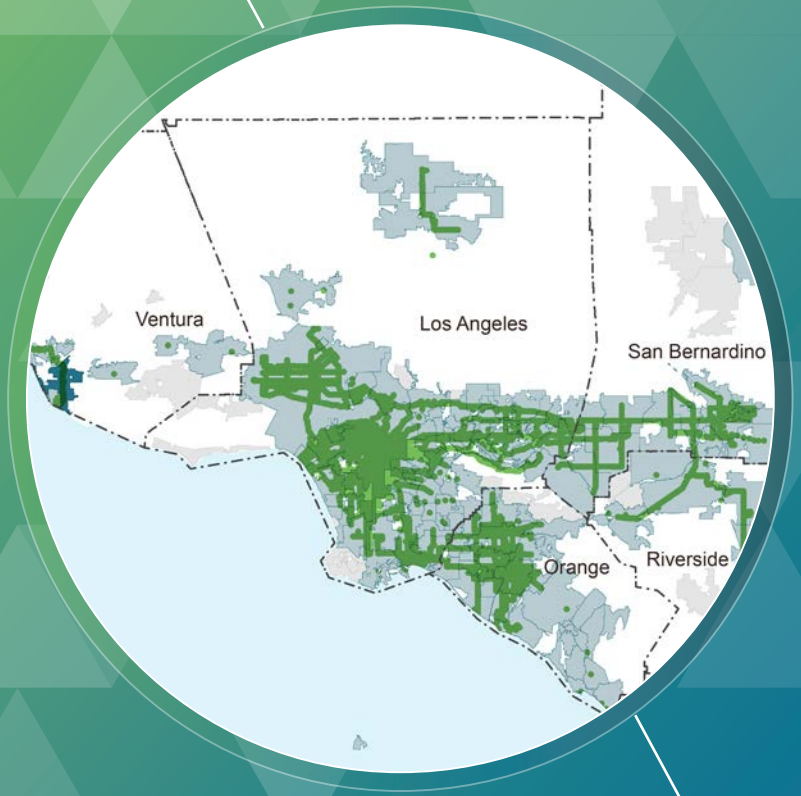
Part 2
Station Area Profile

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
- Oxnard High Quality Transit Area
- Oxnard Transit Center

Socioeconomic Profile
- Demographic Profile
- Employment Profile
- Employment Trends

Previous Planning Efforts
- City of Oxnard Downtown Street Tree Master Plan (2003)
- City of Oxnard Downtown Strategic Plan (2005)
- Downtown Oxnard Mobility and Parking Management Plan (2009)
- City of Oxnard Bicycle & Pedestrian Facilities Master Plan (2011)
- DETOD Feasibility and Funding Options Report (2012)
- CNU Downtown Oxnard Vision Plan Charrette (2016)
- Oxnard Downtown Zones & Design Guidelines (DRAFT, December 2018)

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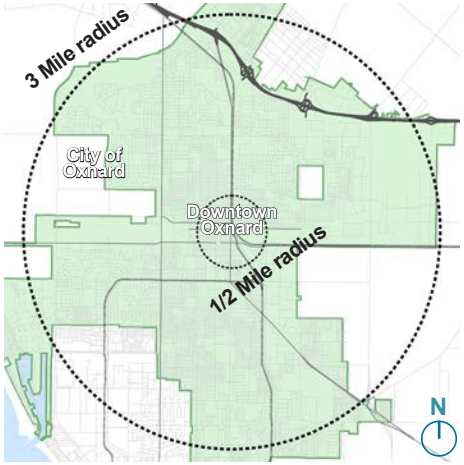
Oxnard High Quality Transit Area

The City of Oxnard's High Quality Transit Area (HQTA) is located in the Downtown Oxnard Central Business District (CBD) and includes properties on the east side of the rail line between 2nd Street and Roosevelt Avenue. The HQTA includes the Downtown Metrolink station at the Oxnard Transit Center, which is served by the Ventura Line passenger rail as well as has Gold Coast Transit, Ventura County Transportation Commission (VCTC), and Amtrak as bus service operators.

The HQTA is largely comprised of 1- to 2-story industrial and commercial uses and surface parking lots; many parcels are vacant and parking lots within the Pilot Project Area remain largely open during peak hours. The City's aim is to enhance the HQTA with high quality transit-oriented development.

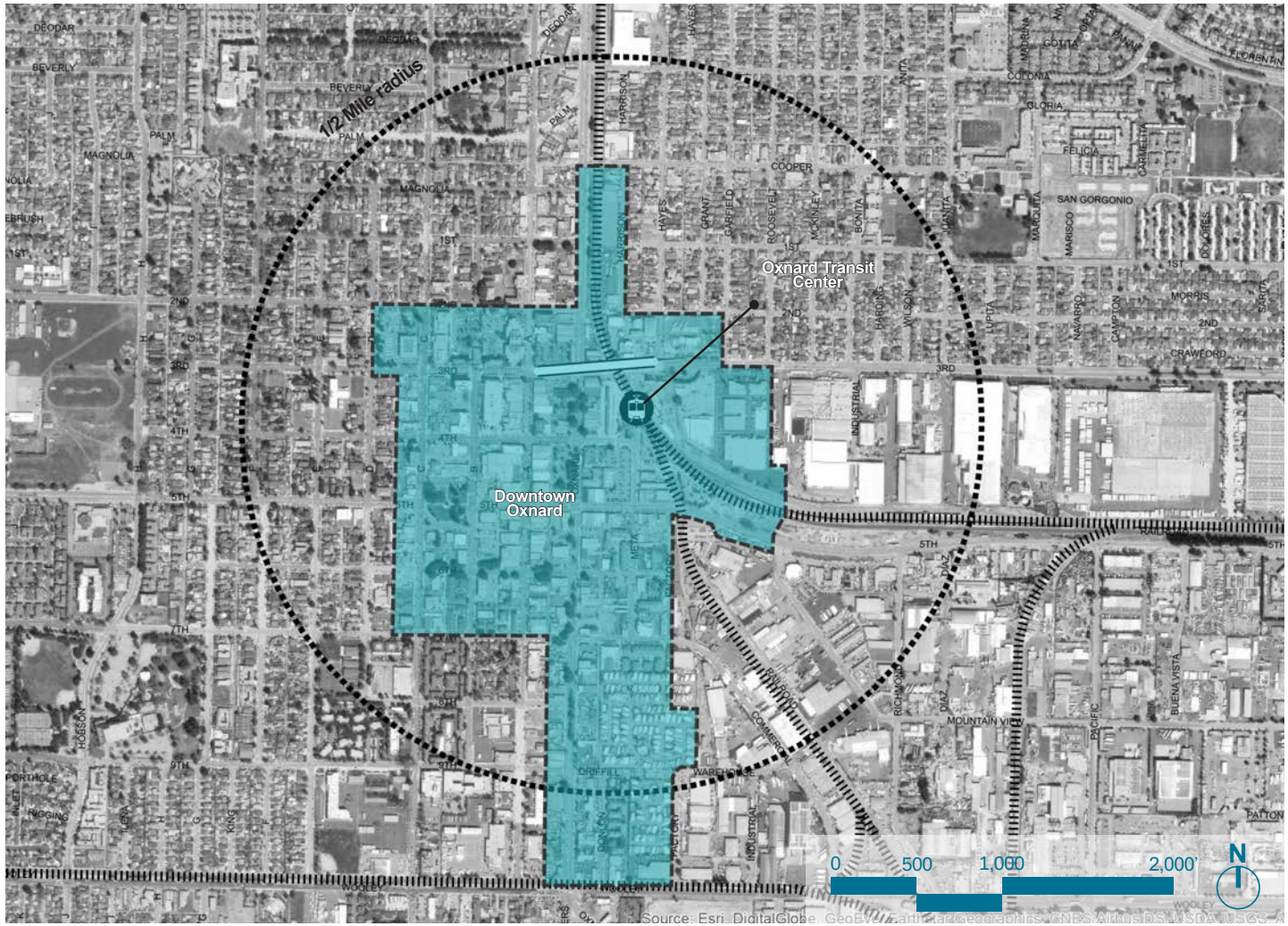


Metrolink Station and Corridor

City of Oxnard Boundary

Pilot Project Area

1/2 Mile Radius: Typical comfortable walkable distance, not considering barriers



Oxnard Transit Center

The Oxnard Transit Center (OTC) is serviced by 10 bus lines with peak frequencies at 40+ minutes for many routes. Bus operators with stops at the OTC include Gold Coast Transit, VCTC, and Greyhound. Gold Coast Transit and the VCTC have identified and are currently studying the potential for more frequent service on popular local bus routes which may reverse declining ridership at the OTC.

The OTC is within Downtown and less than half a mile away from the Oxnard Civic Center. This rich mix of existing land uses presents an opportunity to catalyze high-quality, mixed-use residential/commercial projects to attract and retain employees.

The Metrolink Station has a 110 stall surface parking lot east of the platform with an additional 50 stalls of 2-hour limited parking next to the station. On weekdays between 4:00 a.m. and 9:00 a.m. there are 4 inbounding trains from OTC to Los Angeles Union Station (LAUS). There are 6 daily inbound/outbound Metrolink trains at the OTC; more frequent service is needed to boost ridership.

The OTC has a layover area with a capacity for 10 buses. The station building houses Gold Coast Transit's call center as well as other administrative offices for transit operators. The OTC provides free parking for guests, and overnight parking is permitted.

The OTC offers options for Metrolink riders to transfer to Amtrak lines.

Metrolink: Ventura 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 1/2 mile

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

Metrolink Station and Corridor

Pilot Project Area

Oxnard Transit Center

Demographic Profile

The City of Oxnard constitutes 1.8% of the land area of Ventura County and accounts for nearly one-fourth of its population.

The Study Area*** comprises of nearly 4.3% of the population of the City and has a higher population density than the City.

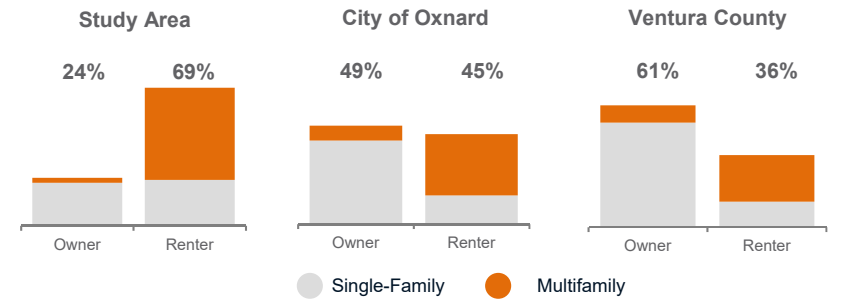
Oxnard's population growth is expected to outpace that of the County over the next ten years. The City and the Study Area have a greater share of Hispanic population compared to the County.

More than half the population in the County has college education, but both the City and the Study Area have a larger number of high school dropouts.

Both the County and City have relatively higher household incomes but the Study Area comprising of homeless shelters and retirement homes has a much lower median household income and higher unemployment rate.

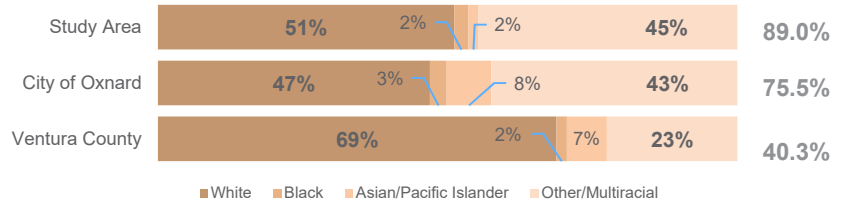
DEMOGRAPHICS (2017)	Study Area	City of Oxnard	Ventura County
Total Population	8,929	208,362	861,790
Pop. Density (Per Sq. Mile)	11,303	7,613	458
Annual Growth Rate			
Historic (2010-2017)	0.77%	0.74%	0.65%
Projected (2017-2027)	1.19%	2.19%	0.70%
Total Households	2,259	51,967	276,677
Average HH Size	3.82	4.00	3.09
Annual Growth Rate			
Historic (2010-2017)	0.44%	0.61%	0.51%
Projected (2017-2027)	1.30%	3.40%	0.81%
Median Age	29.9	29.9	37.2
0-17 years	31%	28%	24%
18-64 Years	60%	62%	62%
64 Years and Over	10%	10%	14%
Jobs per Household*	4.3	1.1	1.1
Unemployment Rate**	7.5%	5.7%	5.1%
Median Household Income	$35,014	$62,044	$81,522

HOUSING TENURE (2016)

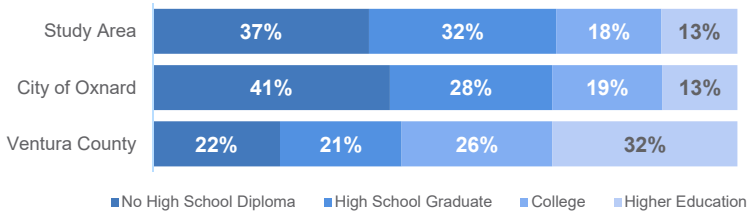


MOBILITY (2016)	Study Area	City of Oxnard	Ventura County
Average Commute Time (in mins.)	NA	25	26
Cars per Household*	NA	0.0	0.0
Public Transit Users	NA	1%	1%
Solo Drivers	NA	74%	78%
Others	NA	25%	21%

Racial and Ethnic Composition (2017)



Educational Attainment (2017)



* HR&A Advisors, Inc.

**Percentage of population 16 years and over in the labor force.

*** Study Area is defined as a 5-minute drivetime from the Oxnard Metrolink station and is not the typical half-mile radius around the station.

Sources: Social Explorer, ACS 2015 5-year estimates, SCAG Growth Forecast 2012, SCAG TAZ Forecast 2008, Dept. of Finance E5 2007.

Employment Profile

The Study Area is a major job center with 9,600+ jobs, includes the City's Central Business District, and constitutes nearly 16% of Citywide jobs.

Nearly 98% of workers in the Study Area travel from outside the Study Area.

According to SCAG employment forecasts, job growth in the City and the Study Area is likely outpace the County over the next ten years.

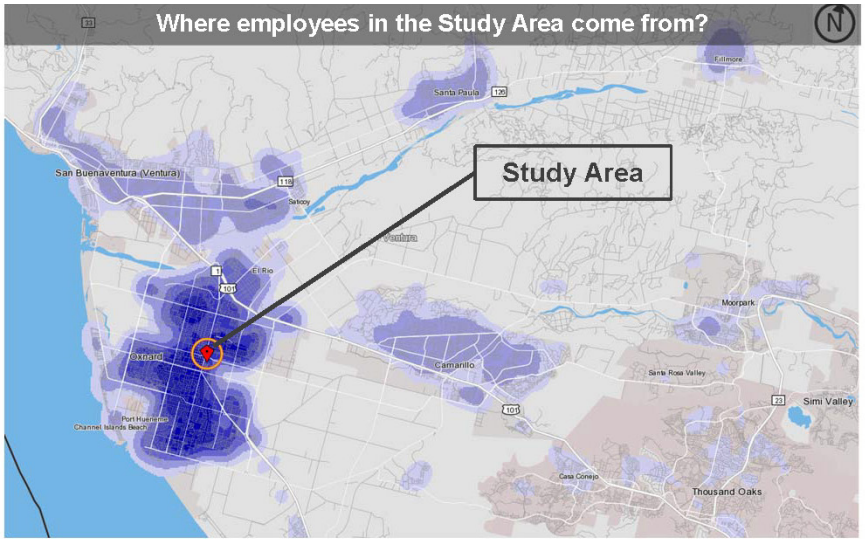
While the household income in the Study Area is the lower than the City and the County, the earnings per job in the Study Area is the highest, reflecting the location of high paying jobs, but not necessarily employing surrounding residents.

The City of Oxnard has been a hub of mineral and natural gas extraction historically, and the Natural Resources sector is one largest employment sectors.

EMPLOYMENT (2015)	Study Area	City of Oxnard	Ventura County
Total Worker Population	9,643	59,294	304,533
Job Density (per sq. mile)	12,206	6,144	64
Annual Growth Rate			
Historic (2010-2015)	5.3%	2.0%	1.2%
Projected (2017-2027)	0.7%	1.6%	0.8%
Average Earnings per Job*	$75,630	$70,583	$66,970
Top Three Industry Clusters			
	Natural Resources 48%	Education & Medical 22%	Education & Medical 21%
	Government 18%	PD&R 20%	PD&R 16%
	PD&R 10%	Natural Resources 17%	Government 14%

** Includes wages, salaries, supplements (additional employee benefits), and proprietor income. Approximated by zip code.*

Sources: LEHD, Social Explorer, ACS 2015 5-year estimates, SCAG Growth Forecast 2012, SCAG TAZ Forecast 2008.



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") i**ncludes 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, construction, public administration and other administrative and support services.

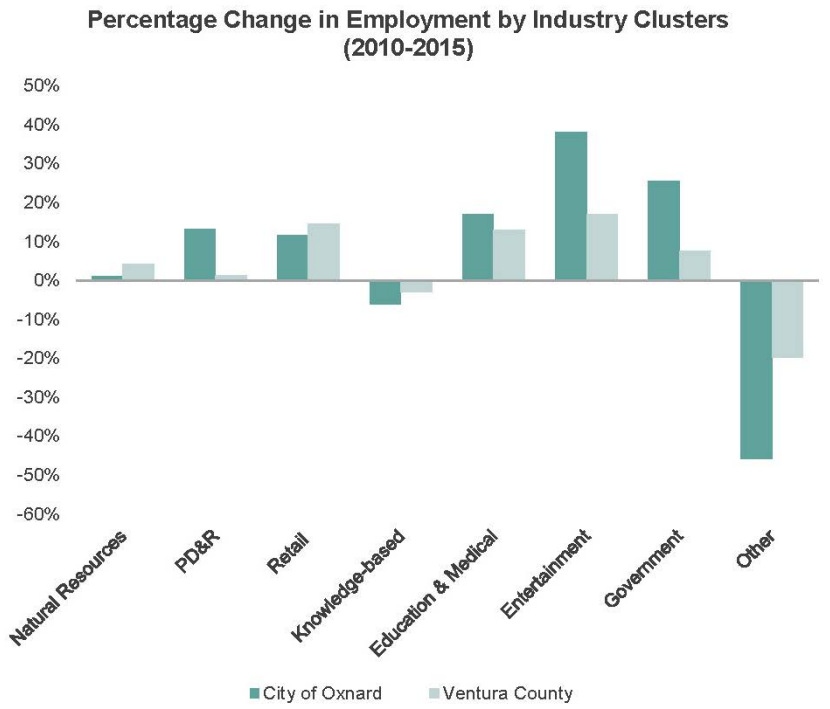
Employment Trends

The Study Area along with the City and the County have gained jobs between 2010 and 2015. The Study Area has witnessed 22% net gain in jobs between 2010 and 2015. However, some of this gain may be due to relocation of jobs within the City.

The City has gained most jobs in the Education and Medical sector, followed by Government sector. The fastest growing employment sector in the City and the County is Entertainment, followed by Government, Education and Medical.

EMPLOYMENT TRENDS	Study Area	City of Oxnard	Ventura County
Employment Growth in Industry Clusters (2010-2015)			
Natural Resources	1,131	113	1,254
Production, Distribution, and Repair	511	1,416	582
Retail	(83)	630	4,205
Knowledge-based	177	(274)	(1,254)
Education and Medical	296	1,886	7,427
Entertainment	(16)	1,430	4,956
Government	187	1,547	3,071
Other	(22)	(1,055)	(2,090)
Net Gain of Jobs (2010-2015)	2,181	5,693	18,151

Negative numbers in parenthesis



HQTA Opportunities

- The Study Area is located in Oxnard's Central Business District and is the largest employment hub of the City of Oxnard; with the highest job density and highest earnings per worker.
- The HQTA also includes the Oxnard Transit Center, which offers multi-modal transportation, including bus and rail.
- The area is already a job center and is witnessing significant developments, both market-rate and affordable housing.
- The Study Area can become a vibrant mixed use center with complementary residential uses and amenities.
- The Study Area currently offers high-paying jobs and attracts employees from the region. But lack of high-quality residential developments in the area has resulted in the disconnect between the resident population and the workers.
- The Study Area also has high job density and could offer ancillary uses such as retail and food services, along with job training and vocational education centers that could serve as supporting services to the Central Business District.

City of Oxnard Downtown Street Tree Master Plan (2003)

The 2003 Downtown Street Tree Master Plan identifies the existing tree canopy in the Downtown and sets forth guidelines to increase tree canopy coverage and establish a consistent species arrangement. The analysis indicated that the existing mix of tree species was too varied and caused sidewalk disruption. The plan identified surface parking lots fronting major streets as major opportunity areas to introduce large canopy trees.

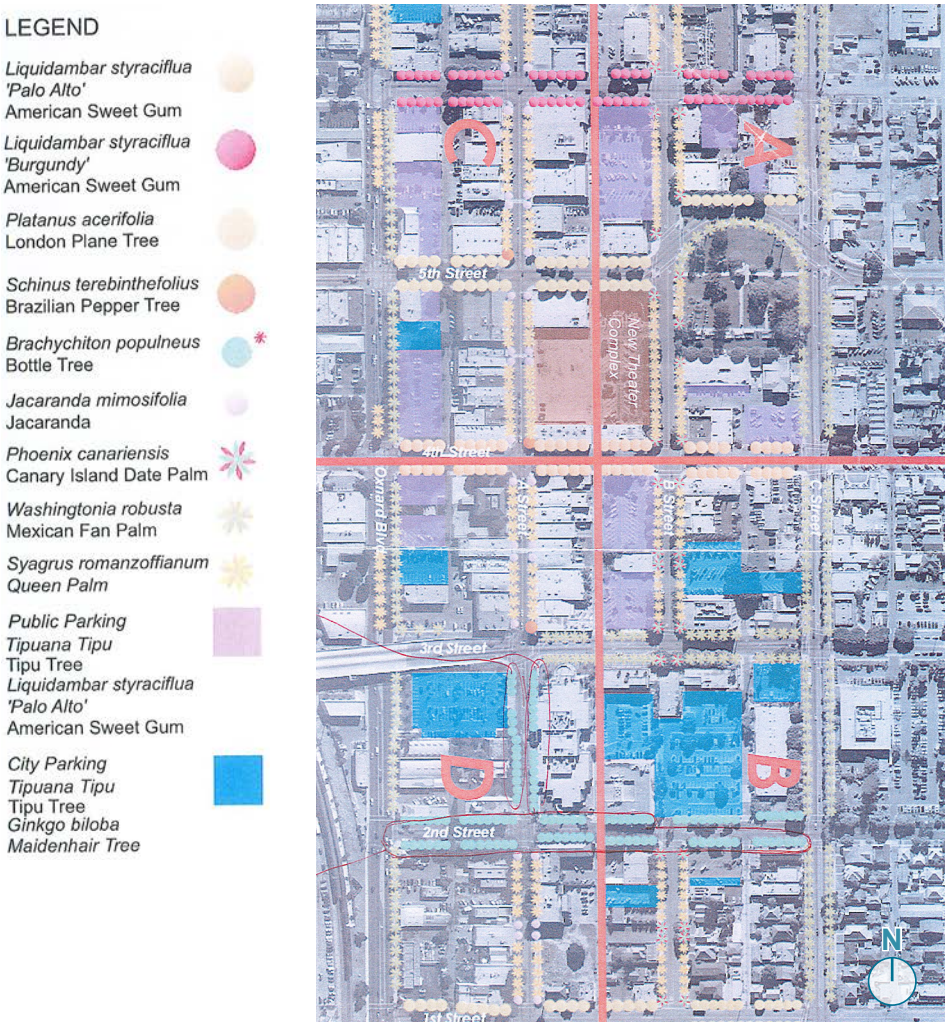
Principles

- **SPATIAL ORDER**: The use of trees as sculpture or decoration is incidental to fundamental spatial arrangement in urban design.
- **SPATIAL DEFINITION USING TREES**: Bands of trees can achieve coherence by establishing an ordered continuity of trunk spacing and branch texture.
- **SIMPLE ORDER WITH FEW SPECIES**: Growing conditions of the city do not permit the multi-layered species diversity that is characteristic of natural woodland. A haphazard arrangement of trees in an effort to duplicate nature fails because it lacks the complex organization of woodland organisms that gives the forest complex layered composition.
- **ARRANGEMENTS IN PURPOSEFUL PATTERNS**: Our habit of considering geometric composition as static comes from the limitations of two-dimensional representation in drawings. Moving through space formed by a row or grid becomes a rhythm similar to a kaleidoscope with each twist compounding a fixed number of elements. Rows of trees create a discrete pedestrian space at the edge of the street. These trees connect and extend the geometry, rhythms, and scale of urban buildings while creating a safety barrier from the perceived danger of vehicular traffic.

Tree Species

- **OXNARD BOULEVARD**: Mexican Fan Palm (*Washingtonia robusta*). Replace *Melaleucas* in median planters with Queen palms.
- **A STREET**: Queen Palm (*Syagrus romanzoffianum*). Continue the existing pattern with Jacarandas at intersections and mid-blocks. Keep existing Brazilian Pepper (*Schinus terebinthefolius*) until unhealthy, then replace them with Jacarandas.
- **B STREET**: Queen Palm (*Syagrus romanzoffianum*). Canary Island Date Palms (*Phoenix canariensis*) at intersections and mid-block, terminating at the facade of the new Civic Center, and continuing beyond the parking lot. Decomposed granite will be used in the planters of Canary Island Date Palms rather than tree grates.
- **C STREET**: Mexican Fan palm (*Washingtonia robusta*). Continue the existing pattern.
- **2ND STREET**: Bottle-Tree (*Brahychiton populneus*).
- **3RD STREET**: Mexican Fan Palm (*Washingtonia robusta*) and I Canary Island Date Palm (*Phoenix canariensis*) at the corners of B and 3rd Streets.
- **4TH STREET**: American Sweet Gum (*Liquidambar styraciflua* 'Palo Alto).
- **5TH STREET**: London Plane Trees (*Platanus acerifolia* 'Bloodgood').

Street Tree Master Plan Map



Source: City of Oxnard Downtown Street Tree Master Plan (2003)

City of Oxnard Downtown Strategic Plan (2005)

The 2005 Downtown Strategic Plan supercedes the Downtown District Master Plan (1996). The Specific Plan's study area occupies a portion of the Oxnard Transit Center District, the Civic Center District, the Plaza Arts and Entertainment District, and the "A" Street Retail District.

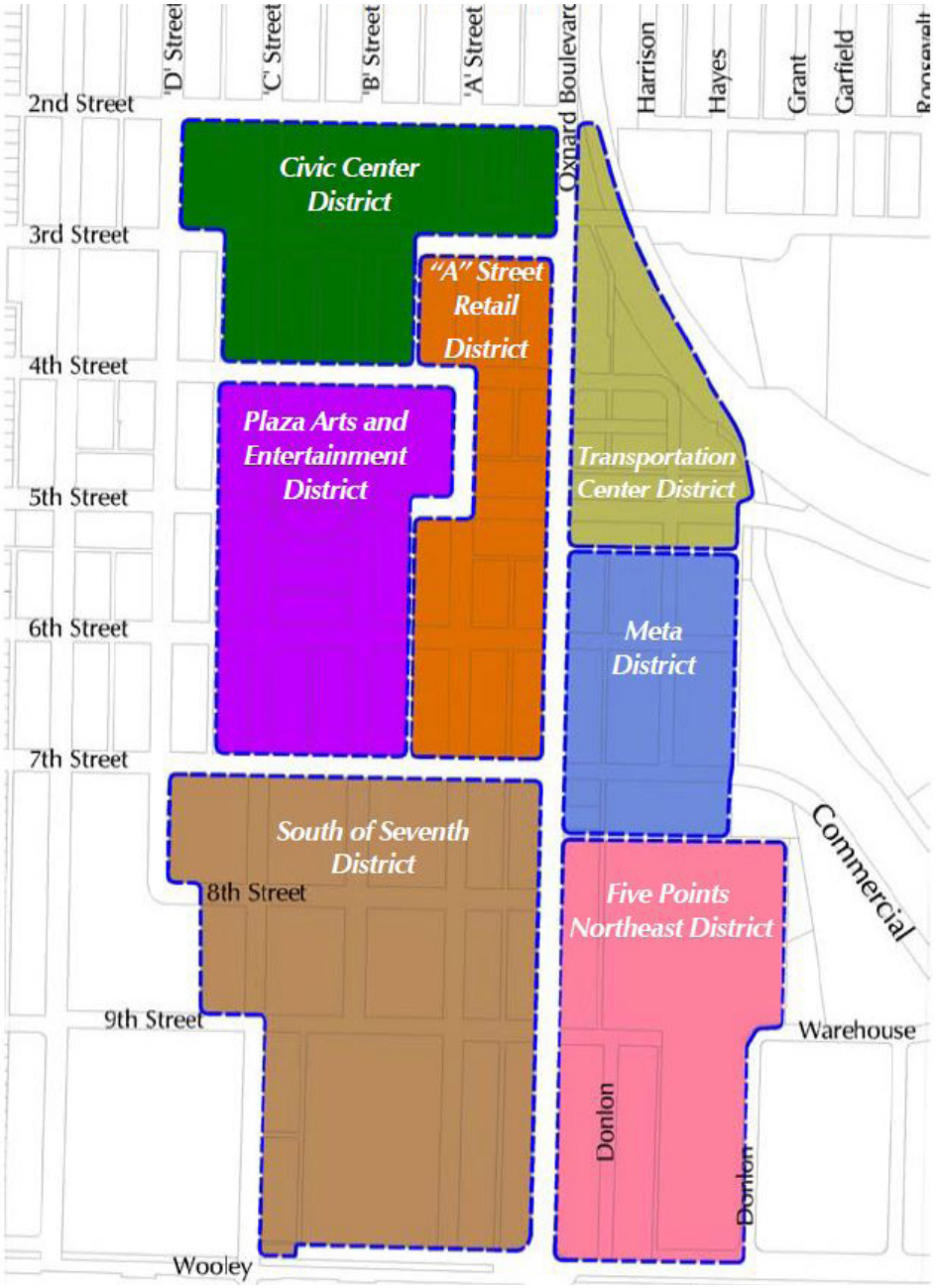
Goals

- **GENERATE A SENSE OF PLACE**: Implement strategies and projects that add coherence to Downtown Oxnard's inconsistent architectural and streetscape patterns.
- **INCREASE ECONOMIC VITALITY**: Encourage the development of new retail and office uses to add to the employment centers within and around Downtown.
- **IMPROVE PEDESTRIAN ACCESS**: A network of pedestrian paths is proposed throughout the downtown that includes attractive amenities such as improved crossing conditions.

Sub-Areas

- **CIVIC CENTER DISTRICT:** Intends to use the Civic Center's renovation project as a catalyst for new public and private office development
- **PLAZA ENTERTAINMENT AND ARTS DISTRICT:** Encourage and enhance existing and proposed arts and entertainment uses. Streetscape and pedestrian amenity improvements.
- **"A" STREET RETAIL DISTRICT:** Establish a typical "downtown, Main Street" corridor environment with a mix of 2- to 4-story retail and offices, live/work, and residential mixed-use. State Highway traffic intended to be rerouted from Oxnard Boulevard to Rice Avenue to reduce vehicle speeds and traffic volumes in the downtown.
- **OXNARD TRANSIT CENTER DISTRICT:** Encourage a service/restaurant plaza around the Oxnard Transit Center with ample public space for visitors.
- **META DISTRICT:** Establish a mixed-use urban neighborhood through the addition of medium-density infill residential and neighborhood-oriented retail development.
- **SOUTH OF SEVENTH DISTRICT:** Add new medium-high density residential infill developments to create an urban residential neighborhood.
- **FIVE POINTS NORTHEAST DISTRICT:** Utilize vacant properties along Oxnard boulevard to generate mixed-use infill developments.

Downtown Districts



Source: City of Oxnard Downtown Strategic Plan (2005)

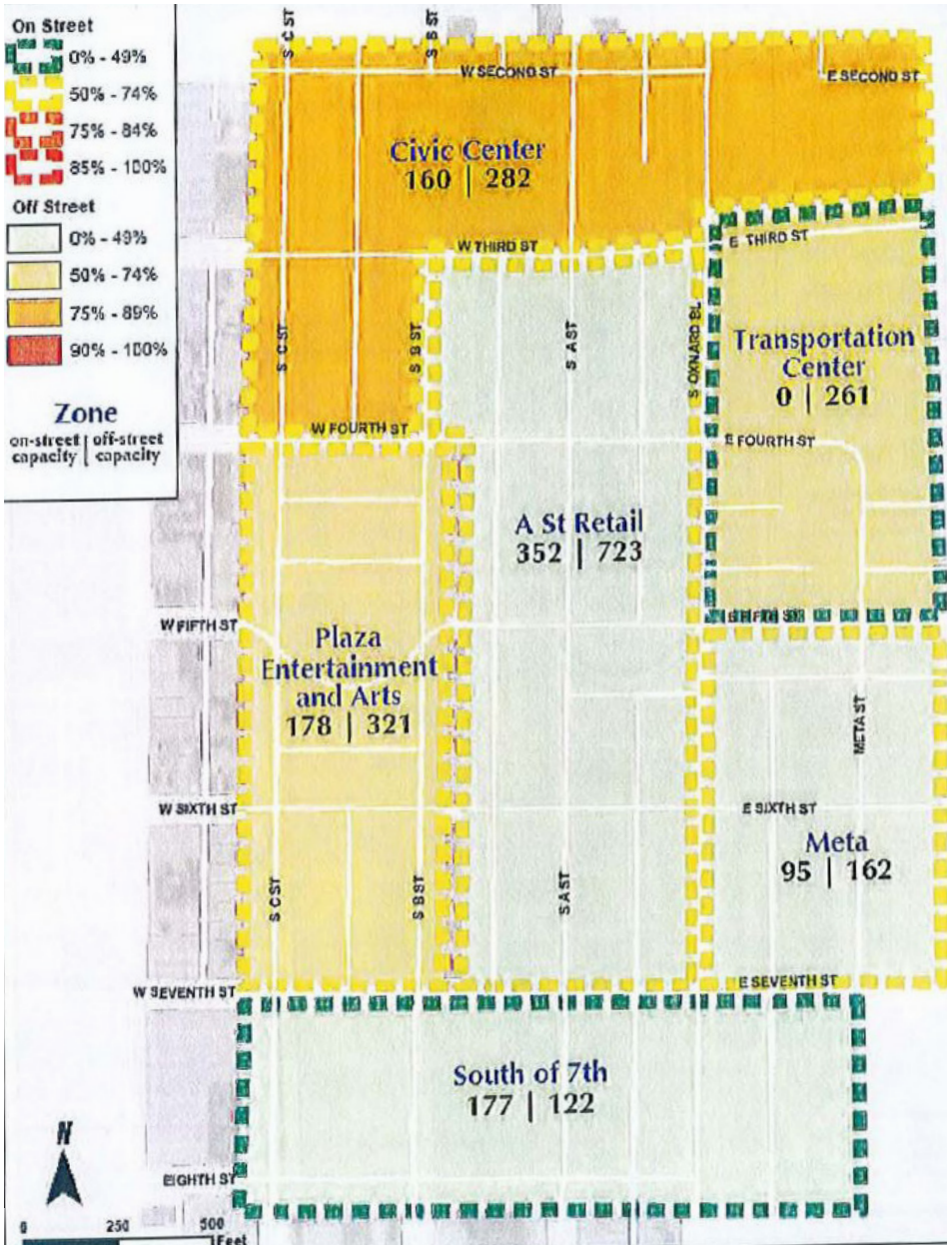
Downtown Oxnard Mobility and Parking Management Plan (2009)

The 2009 Downtown Oxnard Mobility and Parking Management Plan identifies a variety of recommendations to achieve a more efficient parking supply arrangement in the downtown area.

Recommendations

- **PARK ONCE STRATEGY**: Reconfigure the existing parking supply with shared structures that allow users to park once and walk to any of their destinations in the downtown.
- **REDUCE MINIMUM PARKING REQUIREMENTS**: Develop and implement an in-lieu fee to provide for shared parking facilities and reduce the total number of spaces required to meet actual demand.
- **INSTALL NEW PARKING METERS / INVEST METER REVENUES**: Monetize the available on-street parking locations for reinvestment in priority Downtown programs, such as pedestrian infrastructure improvements.
- **PROVIDE UNIVERSAL TRANSIT PASSES**: Universal transit passes increase the usage of multi transit line routes as well as overall transit ridership, increasing transit accessibility for employees and students of major employment/education nodes.
- **REQUIRE PARKING CASH OUT**: This mandates an equal subsidy be provided to employees who commute to work if that employer subsides off-street employee parking. This encourages employees to take transit or carpool to work.
- **CREATE A RESIDENTIAL PARKING BENEFIT DISTRICT**: Provide free parking permits for the surrounding residential neighborhoods to the residents and allow visitors to pay to use surplus street parking to prevent spillover parking demand on residential streets.
- **CONSTRUCT NEW PARKING STRUCTURE WHEN NEEDED**: Any new parking structures should be publicly owned and managed, and only constructed after the existing surplus parking supply is exhausted.

Peak Hour Parking Occupancy



Source: Downtown Oxnard Mobility and Parking Management Plan (2009)

City of Oxnard Bicycle & Pedestrian Facilities Master Plan (2011)

The 2011 Bicycle & Pedestrian Facilities Master Plan supercedes an earlier plan of the same name from 2002 that builds upon prior attempts to improve bicycle and pedestrian amenities in the City of Oxnard. The Plan also includes recommendations from the Ventura County-wide Bicycle Master Plan (2007) and the County of Ventura Board of Supervisors Bicycle Vision (2005). If all recommended facilities are implemented, the proposed additions to bicycle and pedestrian networks were estimated to reduce Oxnard's vehicle miles raveled (VMT) by over 12,000,000 miles per year.

Goals

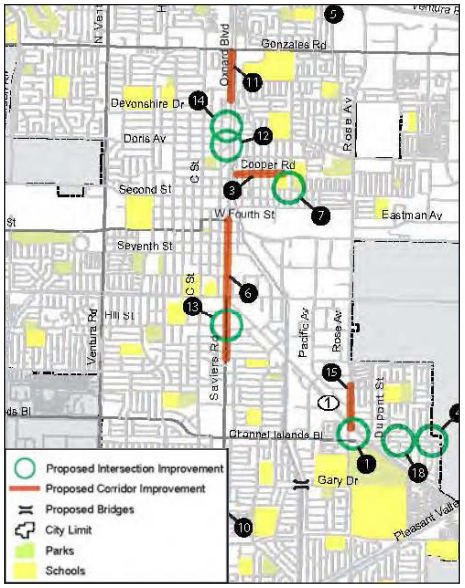
- **EXPAND BICYCLE/PEDESTRIAN FACILITIES**: Improve connectivity within the city through the expansion of new bicycle and pedestrian facilities and amenities.
- **CONNECT NETWORKS TO ACTIVITY CENTERS**: New and existing bicycle and pedestrian networks should connect to major activity centers (e.g., civic, employment, and retail centers).
- **IMPROVE BICYCLE/PEDESTRIAN SAFETY**: Introduce road design and policy interventions that improve the safety of cyclists and pedestrians.
- **PRIORITIZE ACTIVE TRANSPORTATION**: Increase the bicycle mode share in the city and elevate the priority of cyclists and pedestrians.

Sub-Areas

- **ENTRADA DR-GARFIELD AVE**: Introduce new bicycle boulevard facilities to intersect with existing and proposed bike lanes.
- **5TH ST:** Improve bike lanes with added bicycle facilities.
- **SNOW AVE-TORERO DR-LIMONERO PL- MARTIN LUTHER KING JR DR-JUANITA:** Introduce new bicycle boulevard facilities to intersect with existing proposed bike lanes.
- **C STREET-CANTERBURY WAY -COURTLAND ST:** Introduce new bicycle boulevard facilities to intersect with existing and proposed bike routes and boulevards.
- **WOOLEY RD:** Connect existing bike lanes with new bike facilities (lanes/routes) on unconnected segments
- **ROSE AVE:** Connect the gap in the existing bike lanes along Rose Avenue around 3rd Street.
- **OXNARD BLVD / CHANNEL ISLANDS BLVD / ROSE AVE:** Improve sidewalk on bridge and improve intersection of Rose / Oxnard
- **CHANNEL ISLANDS BLVD / MERCED AND EL DORADO:** Install missing sidewalk segment; stripe crosswalks across Channel Islands Boulevard

Prioritized Bicycle Projects

Prioritized Pedestrian Projects



Prioritized Corridor Projects

Project Name	Treatment	Quantity	Units	Unit Cost	Estimated Cost
Corridors					
Cooper Rd (Hayes Ave to Juanita Ave)	Crosswalk	8	EA	$260 /each	$2,080
	RRFB	1	EA	$26,000 /each	$26,000
	Subtotal				$28,080
Oxnard Blvd (South of Vineyard to Oxnard Service Rd)	Sidewalk	370	FT	$7.9 /foot	$2,915
	Curb and Gutter	370	FT	$33.8 /foot	$12,506
	Curb Ramp	1	EA	$6,500 /foot	$6,500
	Subtotal				$21,921
Oxnard Blvd (Gonzales Rd to A Street)	Sidewalk	1100	FT	$7.9 /foot	$8,667
	Curb and Gutter	1100	FT	$33.8 /foot	$37,180
	Crosswalk	1	EA	$260 /each	$260
	Subtotal				$46,107
Oxnard Blvd (Orchard Pl to 101 Overpass)	Sidewalk	1370	FT	$7.9 /foot	$10,794
	Curb and Gutter	1370	FT	$33.8 /foot	$46,306
	Curb and Gutter Removal	1370	FT	$10 /foot	$14,248
	Intersection Geometry Modification	1	EA	$1,300,000 /each	$1,300,000
	Crosswalk	1	EA	$260 /each	$260
	Subtotal				$1,371,608

Source: City of Oxnard Bicycle & Pedestrian Facilities Master Plan (2011)

DETOD Development Feasibility and Funding Options Report (2012)

The 2012 DETOD (Downtown East Transit Oriented District) Development Feasibility and Funding Options Report is a follow-up analysis of redevelopment opportunity sites in the northeast portion of Downtown Oxnard. This area was identified in the 2011 General Plan as a new "urban village." The Report determined through a proforma analysis that the proposed land uses and development patterns were not feasible under assumed market conditions, but a variety of public and private initiatives could achieve revitalization goals in the long-term. The report recommended a 3-phased development approach around the Oxnard Transit Center, with immediate development to be concentrated nearest the center.

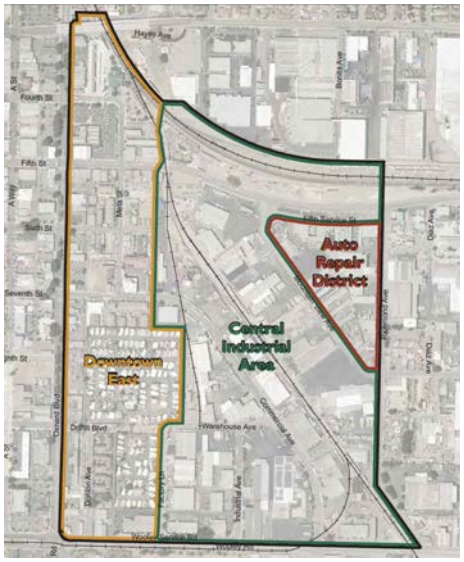
Goals

- **REDEVELOP UNDER UTILIZED SITES**: Introduce new development that is the highest and best use for lots that are currently vacant or under-preforming.
- **ADD INFILL MULTIFAMILY HOUSING**: The report addresses the projected housing demand for the city by highlighting residential development opportunities.
- **ASSEMBLE ADJACENT PROPERTIES**: Combining adjacent parcels will ease the design challenge for new redevelopment projects, and will simplify land ownership in the future.

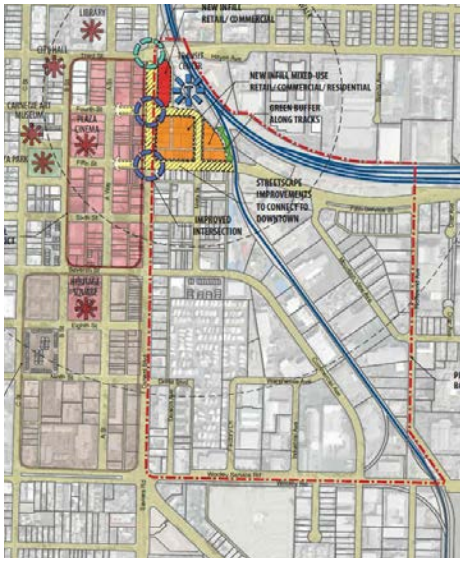
Downtown East Sub-Area

- **LAND USE:** High-density transit-oriented infill development projects to be built incrementally on vacant or underutilized sites. Minimal commercial along Oxnard Boulevard and Wooley Road. A green buffer between the Central Industrial Sub-Area
- **MOBILITY:** Streetscape and intersection improvements are proposed near the Oxnard Transit Center to promote a walkable environment. The report also suggested new streets in the southern portion of the sub-area to break up the major superblocks to the north and south of Eighth Street.

DETOD Sub-Areas



Downtown East Sub-Area Phase 1



Downtown East Sub-Area Phase 2

Downtown East Sub-Area Phase 3

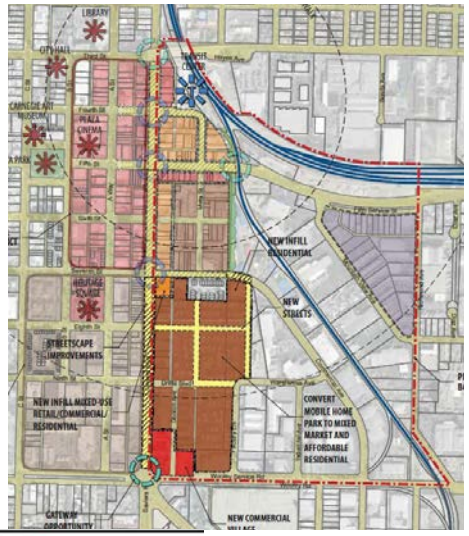


FIGURE 6:
DETOD LAND USE AND PHASING PROGRAM: PHASE 3

Source: DETOD Development Feasibility and Funding Options Report (2012)

CNU Downtown Oxnard Vision Plan (2016)

The 2016 Downtown Oxnard Vision Plan builds upon previous planning efforts to suggest phased reorganization of Oxnard Boulevard. This plan synthesizes multiple previous plans to generate priority projects for the downtown area.

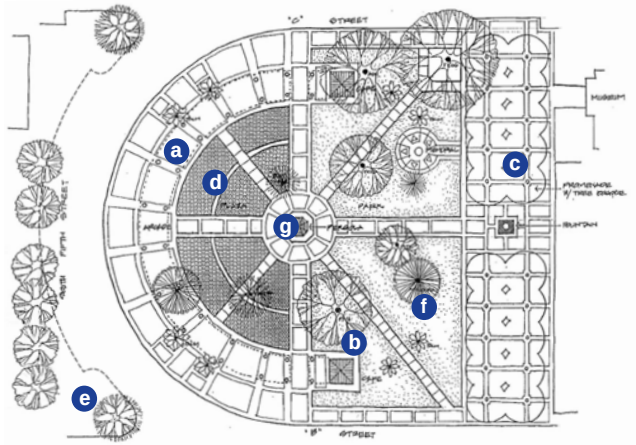
Goals

- **SUPPORT INFILL DEVELOPMENT:** Introduce new development that is the highest and best use for lots that are currently vacant or under-preforming. A significant portion of this new development should be housing.
- **IMPLEMENT THE DOWNTOWN PARKING MANAGEMENT PLAN**: The report follows the 2009 Downtown Oxnard Mobility and Parking Management Plan's recommendations for a park once district and shared parking strategy.

Sub-Areas

- **OXNARD BOULEVARD:** Implement a phased approach to redevelopment along Oxnard Boulevard. Primary phase would include streetscape improvements and lane re-striping. Secondary phase would include medium-scale infill development. Final phase would include large scale infill development.
- **OXNARD / 3RD GATEWAY:** Introduce placemaking features on Oxnard Boulevard at the 3rd Street bridge to create a visual marker for entering downtown such as improved signage, murals, and landscaping.
- **A STREET:** Make A Street Downtown Oxnard's definitive "Main Street". Make the street the primary bike boulevard of downtown.
- **PLAZA PARK:** Improvements to Plaza Park include a new colonnade and pergola, new pavilions and kiosks, new pavement, and landscaping. Additionally, infill development around the park should be consistent with a high-quality "restaurant row".

Plaza Park Enhancements



1993 Plaza Park Master Plan

Plaza Park Enhancements: *The basic recommendation is to complete the 1993 Park Master Plan.*

- a *New Colonnade/Pergola*
- b *Small Flexible Pavillions/Kiosks*
- c *Repaved/Landscaped Parking Plaza*
- d *New Hardscaped Plaza*
- e *Sidewalk/Corner Plazas*
- f *Existing Park*
- g *Existing Pagoda*

Oxnard Blvd Phased Transition

Phase 1: Street Reconfiguration: *Narrower vehicular lanes support slower speeds and, counter-intuitively higher volumes of traffic.*

Phase 2: Potential Mixed-Use Infill Development: *Ground floor retail has a much better chance of success, with on-street parking and wider, more comfortable pedestrian spaces on the sidewalks.*

Phase 3: Mixed-Use Infill up to 5 Stories: *New taller buildings might be set back an additional 10 feet, providing 20 foot sidewalks, as found in many of the most successful, mature downtowns in the country.*

A Street Proposed Condition

a *A Street (Decoto Ave to 3rd St): New bike lanes (either colored green as shown or simply striped with white paint) along with new street trees in existing empty tree planters, new pedestrian-scale street lights, and new mid-block crosswalk with curb extensions and palm trees to mark the crossing. Such improvements could surely be made in phases, as funding allows.*

b *A Street (3rd St to 7th St): Back-in angled parking, landscape enhancements at mid-block crosswalks, bike corrals, and parklets can all add life to A Street's retail environment.*

Source: CNU Downtown Oxnard Vision Plan (2016)

Oxnard Corridor Community Transportation Improvement Plan (2016)

The Oxnard Corridor Community Transportation Improvement Plan (OCCTIP) was adopted in 2016 as part of CalTrans' Community-Based Transportation Planning Program, Catalyst Project for Sustainable Strategies Pilot Program. The OCCTIP helps to achieve the goals of the Oxnard General Plan, AB 32, and SB 375. OCCTIP does this by converting vehicle-priority roads to walkable "main streets." The Plan establishes 8 road segments of focus; Segments 4 and 8 are entirely or partially within the HQTA Pilot Project Area.

Corridors

- **STATE ROUTE 1 (PACIFIC COAST HIGHWAY):** A 656-mile north-south route and is part of the California Scenic Highway System.
- **OXNARD BOULEVARD**: The principal entrance to Oxnard from both the north and south and functions as a primary arterial.
- **STATE ROUTE 232 (VINEYARD AVENUE):** A four-mile north-south route that extends from Oxnard Boulevard to State Route 118 within Ventura County.
- **VINEYARD AVENUE**: Provides an important connection between Route 101 and central Oxnard via Oxnard Boulevard.
- **FIFTH STREET**: The principal east-west street serving the Central Business District of Oxnard and eastward across the Oxnard Plain for 12 miles.

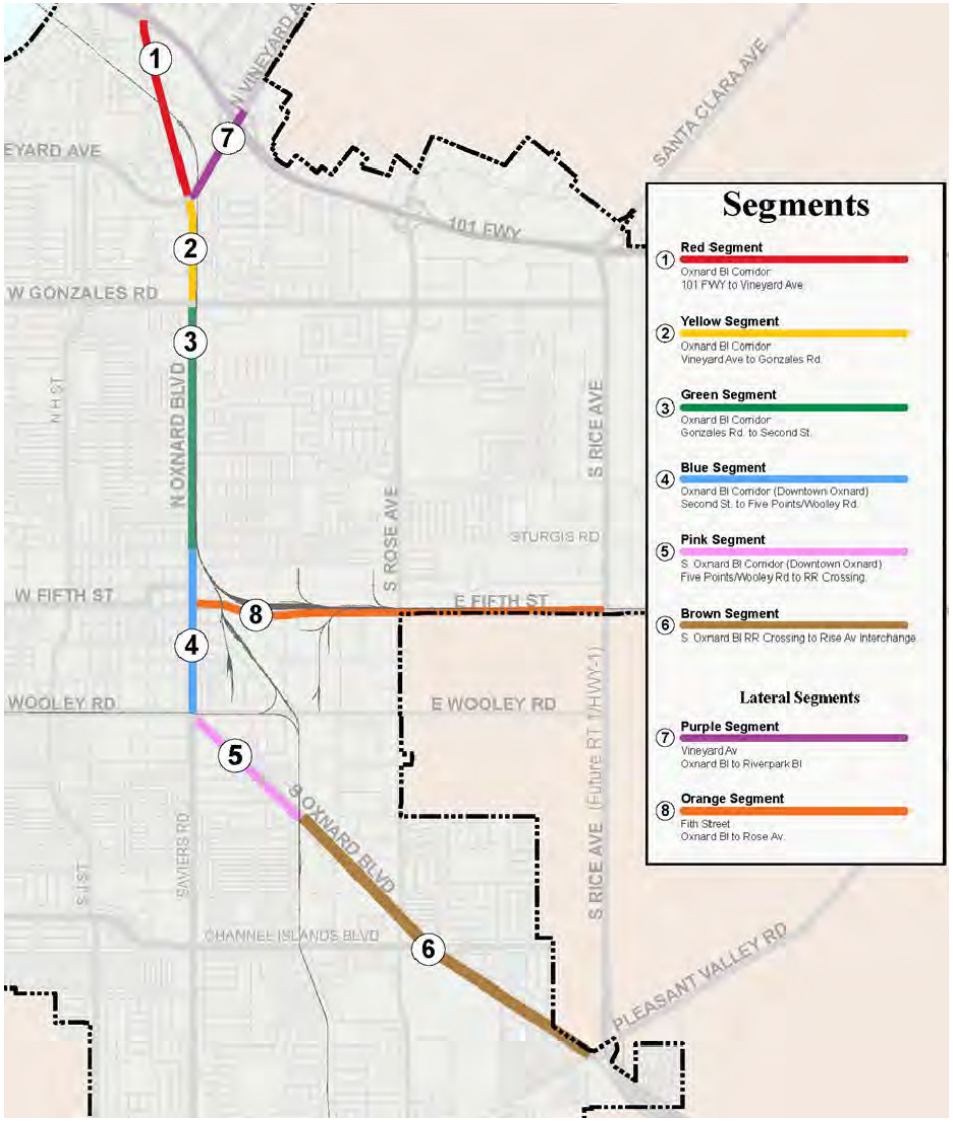
SEGMENT 4 - Oxnard Boulevard (Downtown) between 2nd Street and Five Points

- **Existing Conditions Summary:** This segment is a 4 lane corridor in Downtown Oxnard with a raised landscaped median, sidewalk on both sides, no bicycle facilities, and no transit stops. Building frontages are directly behind the back of walk. There are a number of driveways and the available right-of-way is limited.
- **Recommendations Summary:** This section focuses on the downtown corridor and includes "Complete Streets" and "Options for Capital Improvements." Shared bike lanes, wide sidewalks, cross walks, reduction of the median, bus stops and narrowing the through-way from four- to two-lanes are among the options that will be ultimately decided by the City of Oxnard.

SEGMENT 8a - Fifth Street between Oxnard and Rose Avenue

- **Existing Conditions Summary:** This segment has four lanes with sidewalk on both sides up to the rail crossing. There is sidewalk on the southern side until Mountainview Avenue. There are no bicycle facilities or continuous pedestrian facilities.
- **Recommendations Summary:** This section focuses on "Complete Streets" and "Options for Capital Improvements" in central Oxnard. Shared bike lanes, sidewalks, cross walks, bus stops and widening Fifth Street from two- to four-lanes are all recommended improvements. These improvements will result in increased connectivity and additional capacity along the industrial corridor.

OCCTIP Segment Overview Map



Source: Oxnard Corridor Community Transportation Improvement Plan (2016)

Oxnard Downtown Code (DRAFT, December 2018)

The December 2018 draft of the Oxnard Downtown Code document represents a comprehensive update to development standards for new construction in the Downtown. The plan divides Downtown Oxnard into three zones: Downtown Core (DT C), Downtown General (DT G), and Downtown Edge (DT E).

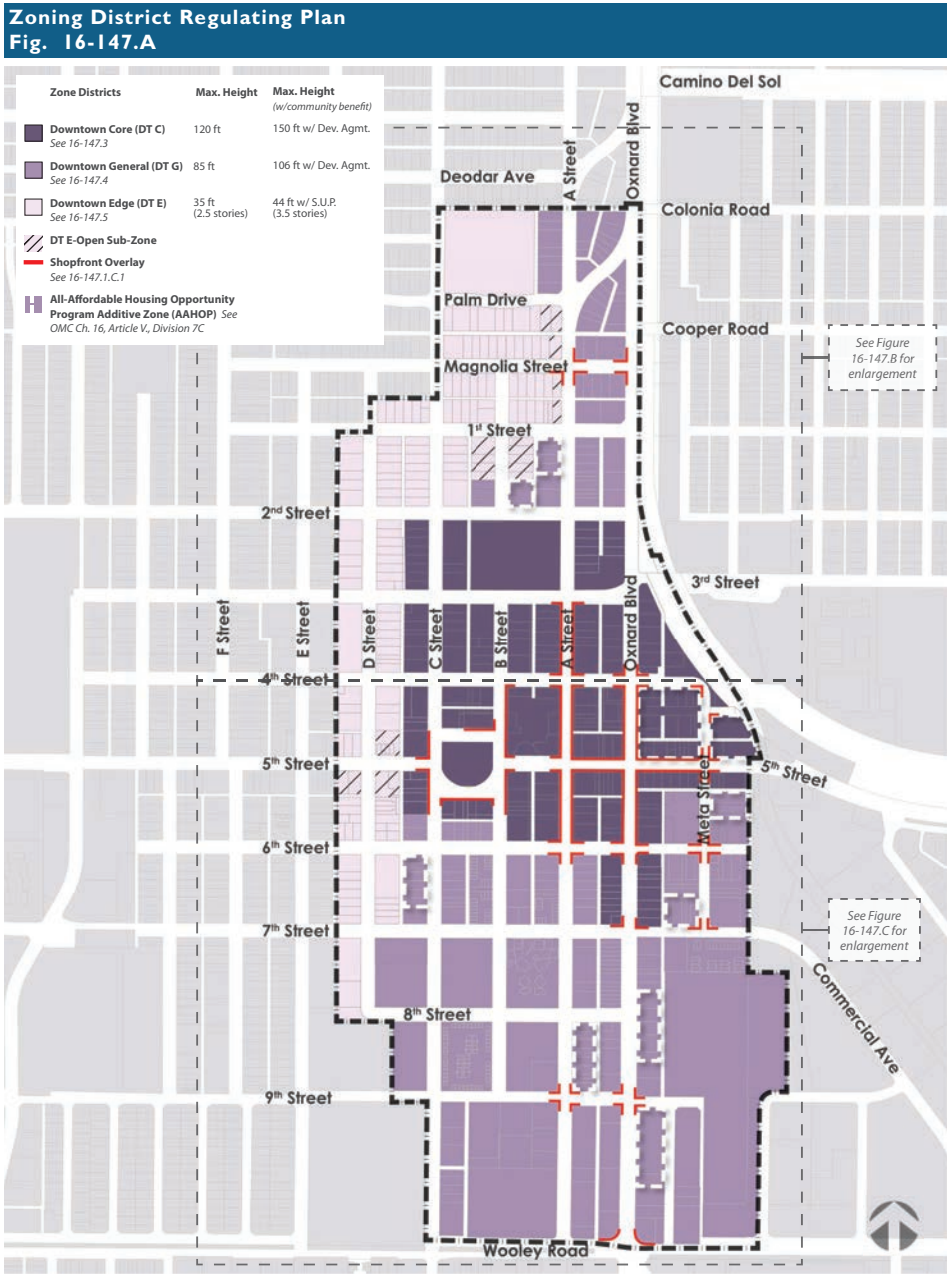
Goals

- **CREATE A VIBRANT DOWNTOWN:** Institute development standards that generate appropriately-scaled buildings that serve as vibrant social and commercial focal points within walking distance of many homes and transit.
- **DEVELOP THE NEIGHBORHOOD CHARACTER:** Use subzones to institute stricter development standards where necessary to preserve existing character, and more lenient standards where necessary to distinguish an area lacking character.

Zones

- **DOWNTOWN CORE (DT C):** DT C zone is the highest density zone in the Draft Code and is generally clustered around the Oxnard Transit Center and Plaza Park. This zone is characterized by lively, pedestrian-oriented retail, restaurant, service, and art gallery ground floor uses, with housing and offices on upper floors or behind shopfronts lining the street. On historic "A" Street between 3rd and 6th streets service and office uses are not allowed. Building facades are simple and planar, with many ground-floor shopfronts set on or very near the lot lines, with simple arrangements of recessed window openings stacked above the shopfronts. This arrangement follows TOD best practices and helps create an attactive, dynamic street presence for pedestrians. Building heights can be up to 120 feet tall, or 150 feet tall when community benefits are included.
- **DOWNTOWN GENERAL (DT G):** This zone is characterized by a mix of non-residential ground floors frontages with shopfronts and residential ground floors set back behind pedestrian-oriented frontages and resident/visitor access via dooryards, stoops, and spacious lobbies. Buildings can be up to 106 feet tall when community benefits are included.
- **DOWNTOWN EDGE (DT E):** This zone is characterized by a mix of housing types with residential ground floors setback behind pedestrian-oriented frontages with resident and visitor access via dooryards, stoops, and porches. Buildings can be up to 3.5 stories in height when community benefits are included.

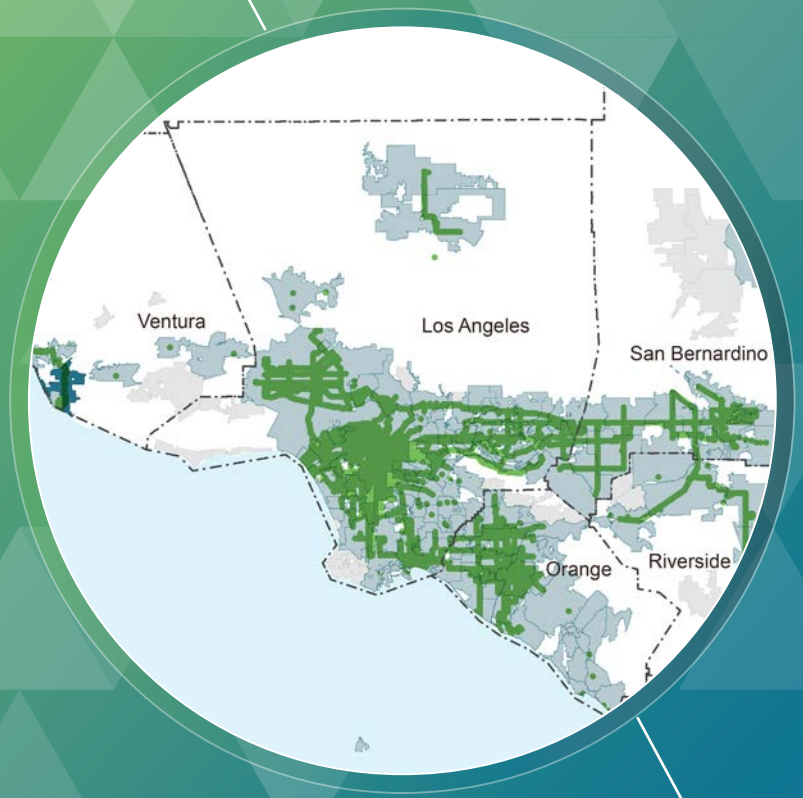
Sub-Areas Map (DRAFT, December 2018)



Source: Oxnard Downtown Code (DRAFT, December 2018)

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

- **Developers – RDA Development, DALY Group and RK Real Estate Partners - 6/12/2018**
- **Transit Providers – Gold Coast Transit and Ventura County Transportation Commission (VCTC) - 6/12/2018**
- **Business Owners – Meta St & 7th St and B St & 4th St - 6/12/2018**

Developers – RDA Development, DALY Group and RK Real Estate Partners - 6/12/2018

The purpose of the Stakeholder meetings was to bring together the City of Oxnard, stakeholders, and the consultant team to discuss coordination and direction of the project. The meeting consisted of introductory comments from the consultant team to facilitate discussion of multiple topics. Topics of discussion included project goals, the vision plan process and other topics important to local transit providers, property owners and developers. The following is a summary of the main discussion items.

RK Real Estate Developers

- The train schedule is a problem
  - Limited service to Los Angeles
- Vibrancy in downtown needs to be created
  - Walkability
  - Mixed-Use
  - Bikeshare
  - Zipcars
  - Higher paying jobs
- Both private and public investment need to work in tandem

DALY Group

- DALY Group are the developers for the Wagon Wheel project
- Getting to downtown on Oxnard Blvd from Fwy 101 is difficult
  - Truck traffic
  - Traffic lights don't seem to be synchronized
- There are numerous commercial vacancies
- There needs to be a 24 hr presence in downtown
- There is more TOD opportunity at the Moorpark Metrolink Station than at the Oxnard Metrolink Station due to additional service to and from Los Angeles; need to contact Metrolink to determine if additional service is possible at OTC
- Land assembly can be difficult in downtown as properties are owned by multiple family members
- There needs to be more time given to developers to close on escrow
- DALY Group is looking to redevelop the Mitsubishi car dealership along Oxnard Blvd
  - Affordable Housing Advisory Board (AHAB) site
  - 75% has to be affordable
  - Surface/tuck under parking
  - Type V construction
  - If land was given at a discount, developers can possibly do 50+ du/acre on podiums
- Get local owners for businesses such as breweries
- Encourages start-ups and incubators
- Encourages "flex space" in mixed-use projects to allow the market to dictate
- Encourages some horizontal mixed-use to reduce costs e.g. venting a ground floor restaurant in a mixed-use building can be very costly
- 5th St is extremely difficult for accessing downtown
- Demand for residential is strong especially the rental market
- Micro units will work in Oxnard
  - In Ventura 300-500 s.f. studios are in high demand, renting at $4/s.f.
- Unbundle the parking as it's not very viable for developers to deal with current parking requirements

RDA Development

- There is a perception problem in Oxnard with homelessness
- The "brand" in Oxnard is and should be different from Riverpark; the Oxnard brand should be one of authenticity
- Provide a vision beyond what potential may be possible

Transit Providers – Gold Coast Transit and Ventura County Transportation Commission (VCTC) - 6/12/2018

- Origin/Destination survey will be completed this year
- Routes 7, 8, and 9 go to the Oxnard Transit Center
- Ridership has decreased the last few years
- Gold Coast Transit will send Consultant Team and relevant studies including ridership data and 5-7 year transit improvement plan
- Current bus routes will likely change next year after a new service on Ventura Rd is implemented
    - New service has a grant
    - New service will go to Oxnard College and the Naval Base
    - Local neighborhood routes will be rerouted as a result of the new service on Ventura Rd
- Route 6 along C St which goes to and from Ventura provides approximately 50% of the ridership for Gold Coast Transit
- Gold Coast Transit has not provided a new service on Oxnard Blvd due to:
    - Not much residential density
    - Sidewalks are nonexistent in many segments north of Downtown
    - Crosswalks are minimal along Oxnard Blvd north of Downtown
- There is more ridership to Ventura College than there is to Oxnard College
    - Ventura College has limited parking
    - The route to Ventura College is more direct
    - Headways for Ventura College are every 25 minutes as opposed to every 45 minutes for Oxnard College
- There will be a 1-year pilot program for free rides to any of the colleges in Ventura County
- BRT has been considered on Oxnard Blvd
    - Long term solution
    - Funding is a critical issue – no sales tax currently in Ventura City.
    - Gold Coast Transit would like to see BRT proposed in the HQTA vision for Oxnard including cost estimates
- Today the busiest transit intersection is at 4th St and B St where numerous routes converge and transfers occur
    - Routes come down C St then split onto 4th St
    - 1,000 daily boardings at this intersection
    - Need for improvements in amenities for waiting areas (shelters, lighting etc)
- Acquisition for properties north and south of Plaza Park was approved last night
- There will be an RFP for development advisory service on Gold Coast Transit's current site location
    - Gold Coast Transit will be moving to 1901 Auto Center Dr
    - Gold Coast is looking for recommendations on how to redevelop their current site – will issue feasibility study RFP
    - Gold Coast wants to hold on to the property to be able to generate revenue in order to meet the 20% farebox recovery ratio
- The connection on the 3rd St bridge needs to be improved
- A tunnel underneath the Metrolink tracks may be feasible
- The City will ask if Public Works envisions moving their facilities from their current sites adjacent to 3rd St bridge and to the tracks
- The trains currently back up to Cooper Rd and Colonia Rd
- Ventura County section of Metrolink service has been cut back
    - There is more service at the Moorpark Station; many Oxnard residents drive there
    - There has been a decrease in ridership
    - Babyboomers are retiring
    - Young professionals want to live close to Los Angeles
- Walkability and lighting needs to be improved throughout
- Funding for rail takes away funding for transit
- Gold Coast Transit is looking to implement a bikeshare program. Bikeshare operated by a transit service can go towards credits on buying electric buses by 2026 as mandated
- 13k-14k travel to Santa Barbara
- 67k travel to Los Angeles

Business Owners – Meta St & 7th St and B St & 4th St - 6/12/2018

B St & 4th St (North of Plaza Park)

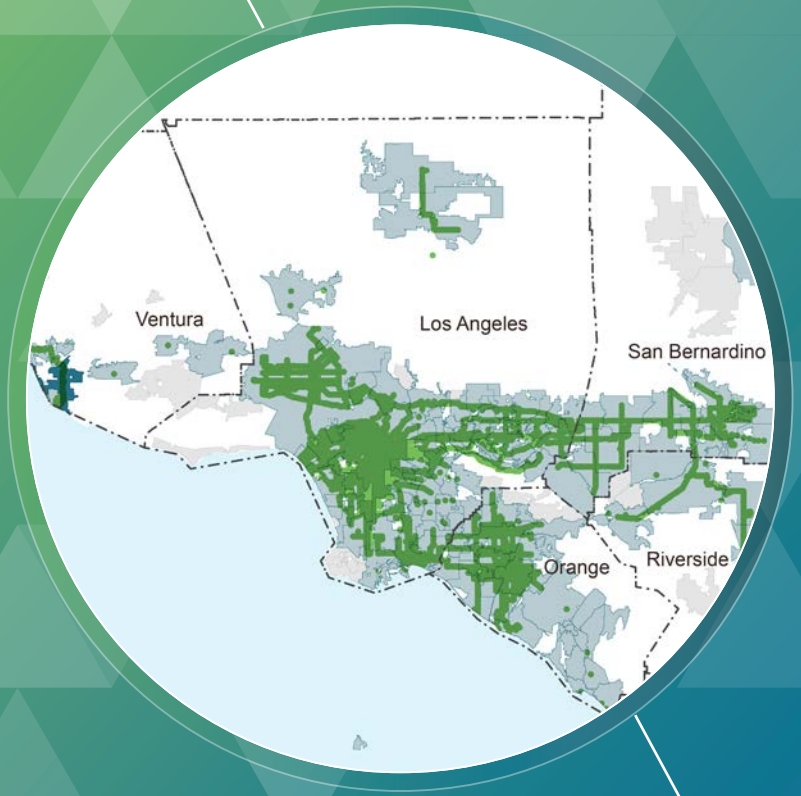
- 4-5 years with the property
- Has another property on A St
- Realtor and attorney are current tenants
- More residents in downtown would be good for businesses
- Wants to see better businesses/retail in downtown
- An adult school/vocational training school would be a good service to have
- Bring in music performances at Plaza Park to attract people

Meta St & 7th St (Clinicas)

- Much of the clientele walks and takes bus
- Improvements to safety (personal) and walkability is needed in downtown
- Clinicas has a need to expand and a current need for more parking
- Clinicas is open to having a partnership to introduce residential
- Clinicas primarily serves the under-insured and those with no insurance
- Festivals such as the Salsa festival in downtown can help be a major draw and attract investment in downtown

- Downtown will be competing with Riverpark's regional draw, adjacent to the freeway but the City acknowledges Downtown does not want to be Riverpark and should be different and have an authentic sense of place
  - Historic bones of downtown are important to preserve
  - Introduction of the arts into downtown (arts hub)
  - There will be parking options for owners (reduced requirements)
  - There is a summer Concert Series at Heritage Square but not at Plaza Park

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

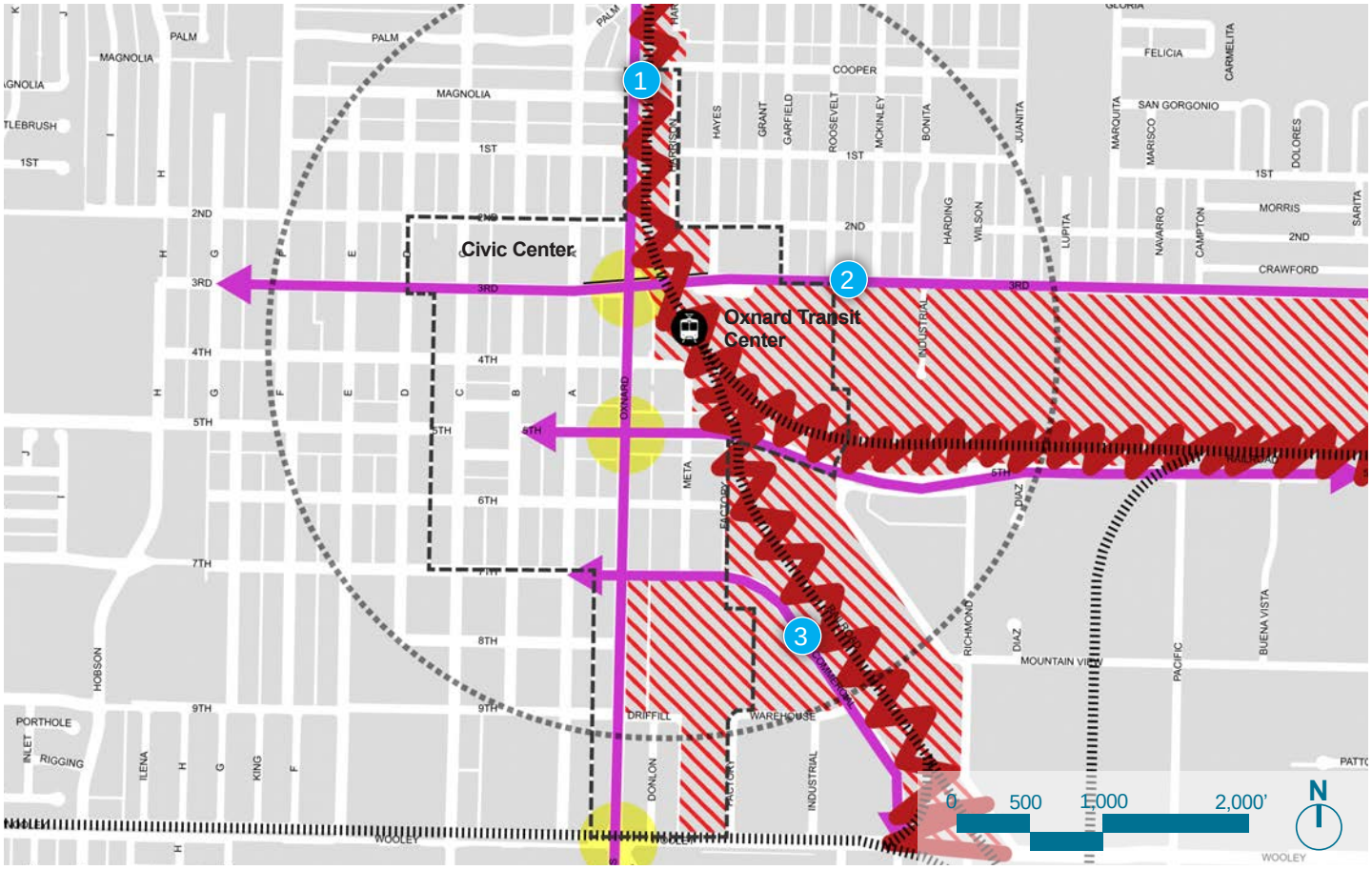
Constraints

Physical Barriers: The major physical barriers in the Pilot Project Area are the Metrolink rail spurs. There are few access points across the rail corridor and this separation limits the ease of station accessibility with adjacent residential neighborhoods to the northeast of Downtown.

Pedestrian and Bicycle Safety: Oxnard Boulevard's intersections at 3rd Street, 5th Street, and Wooley Road have a high incidence rate of vehicle-pedestrian and -cyclist collisions.

Superblock: Blocks that are over 300 feet long in at least one dimension are not pedestrian friendly, as it often takes much longer for pedestrians to reach their destination on-foot.

High Traffic Volume Corridors: These corridors have heavy traffic volumes, fast vehicle speed limits, and a high incidence rate of vehicle-pedestrian/cyclist collisions. Oxnard Boulevard operated as State Highway 1 (Pacific Coast Highway) until only recently, and as such the corridor heavily prioritizes vehicular traffic over active modes of transportation. Additional care should be taken at these corridors to ensure adequate level of service is maintained and while safety and traffic calming measures are implemented.



Rail line acting as an unsightly physical barrier

Superblock along 3rd Street

Auto-oriented road along Commercial Avenue

Opportunities

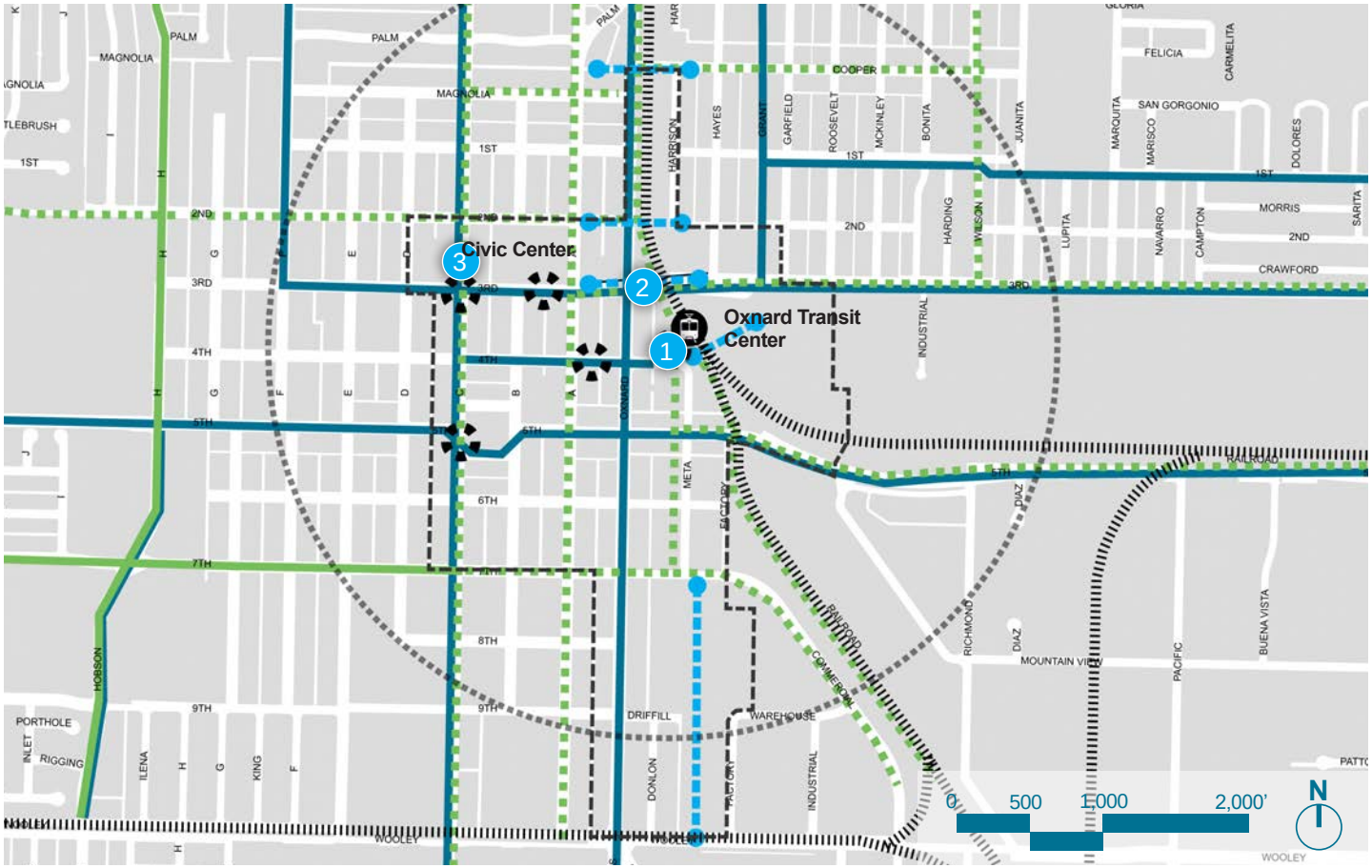
Street Grid: The core of Downtown has a consistent, walkable street grid, and many blocks have north-south alleyways that present an opportunity to create multi-modal pedestrian and bicycle paths through the Pilot Project Area.

Connected Bicycle Network: A relatively consistent street grid and wide streets presents the opportunity to connect existing bike lanes and routes to improve bicycle connectivity in the Pilot Project Area. Additional possibility of a bike corridor along the rail tracks and additional bike-friendly bridges over the rail.

Pedestrian Connections: Multiple locations for pedestrian connections across barriers within the Pilot Project Area, including an improved 3rd Street Bridge.

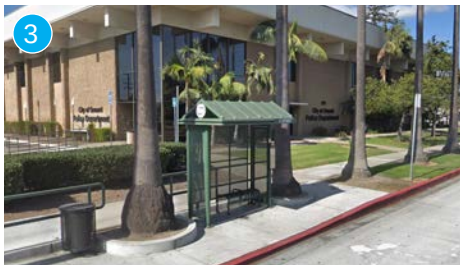
Transit Priority Corridors: Many of the major streets in Downtown Oxnard have the potential for transit amenities (bus shelter) and bus-only lanes that raise the convenience and appeal of public transit over personal vehicle travel modes.

High Priority Transit Stops: Improvements to the facilities at these transit stops will make the overall HQTA a more pleasant transit destination for commuters.



Oxnard Transit Center bus bays

3rd Street Bridge



Bus shelters near the Civic Center

Constraints

Underutilized Surface Parking Lots: The overabundance of surface parking lots leaves many lots under-filled, even during peak hours. These lots are often located along major corridors like Oxnard Boulevard and A Street, and take up prime space best suited for mixed-use developments.

Utilities: These fixed utility sites located north and east of the Oxnard Transit Center would be prime locations for new development due to their proximity to Downtown Oxnard, however the Department of Public Works has no plans for relocating the facilities.

Vacant Land: Vacant parcels reduce economic value of surrounding properties. These are a mixture of larger parcels suitable for redevelopment and smaller parcels suitable for infill residential development.

Non-complementary Uses: This parcel is the Gold Coast Transit administrative office site. GCT will be relocating to another site in the future, but at present takes up valuable real estate near Downtown and adjacent residential neighborhoods.

Oxnard City Water Services Plant

Parking lot occupying valuable street frontage

Under-filled parking lot at the Civic Center

Opportunities

LAND USE

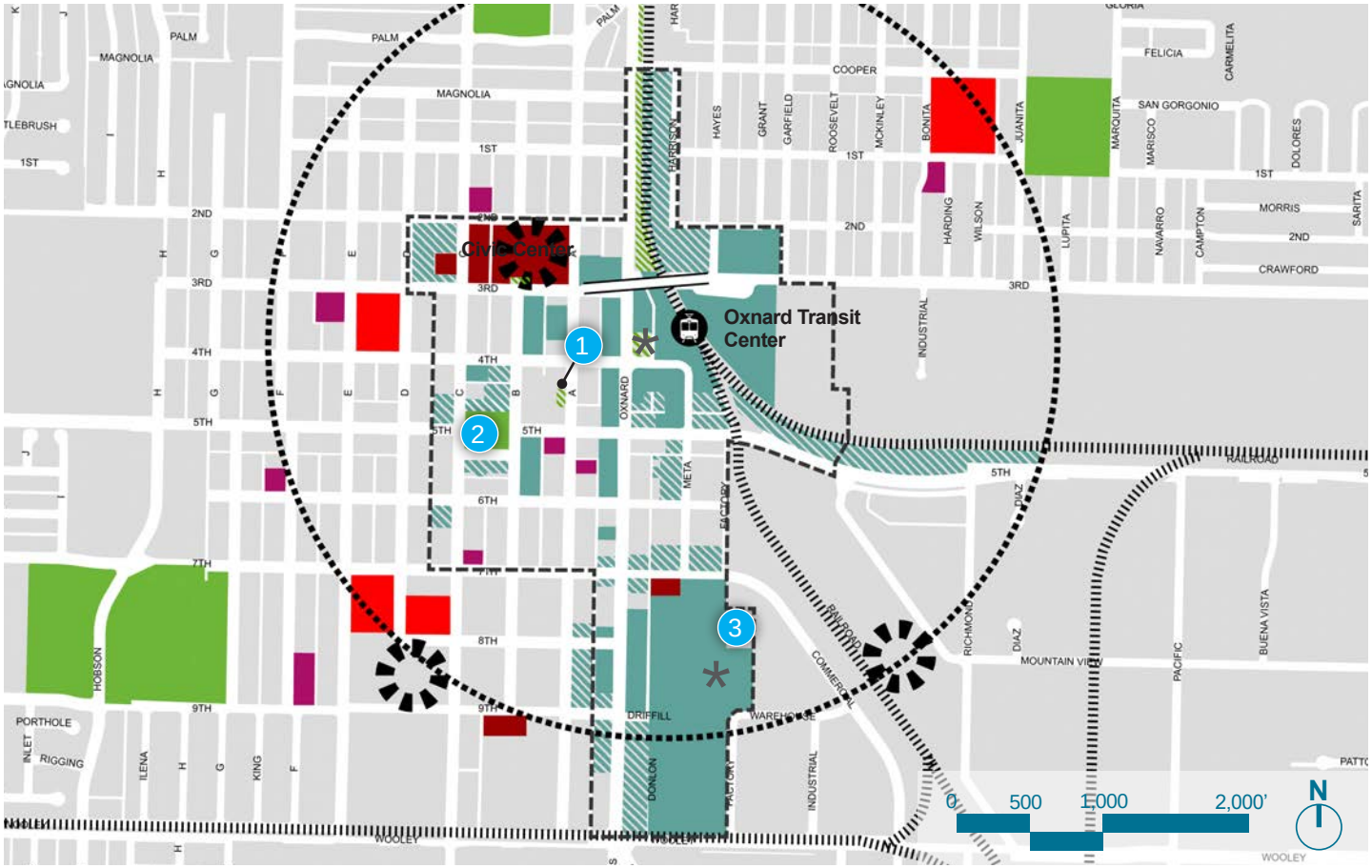
Major Redevelopment Opportunities (asterisk indicates Catalytic Projects): The majority of these sites are publicly owned lots concentrated along major corridors like Oxnard Boulevard and 5th Street. These sites are suitable for the highest relative density in the Pilot Project Area.

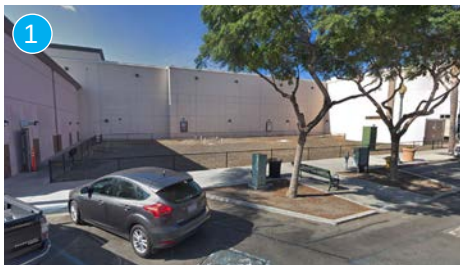
Secondary Redevelopment Opportunities: Secondary sites include opportunities for smaller-scale infill development and privately-owned lots adjacent to major redevelopment opportunities that could become complimentary uses if redeveloped.

Park / Open Space: Existing and potential new parks provide neighborhood anchors and could be elevated in importance and use.

(1) (2) (3) **Community Institutions:** (1) Civic institutions and community centers; (2) schools; and (3) religious organizations. These existing neighborhood-serving uses increase the social capital of the neighborhood and should be preserved.

Major Employment Centers: The Civic Center and the existing industrial uses adjacent to Downtown are major employers for the City of Oxnard. Additionally, the Oxnard Center for Employee Training is a critical resource for vocational training programs.





Unutilized parcel behind the Plaza Stadium Theater

Plaza Park

Royal Palms Mobile Home Park

Opportunities

Residential
- Single-family
- Rowhouses
- Multi-family

Commercial:
- Main Street Commercial
- Redevelopment Opportunities
- Adaptive Reuse

Community Institutions:
- Civic Center
- Oxnard Transit Center
- Plaza Park

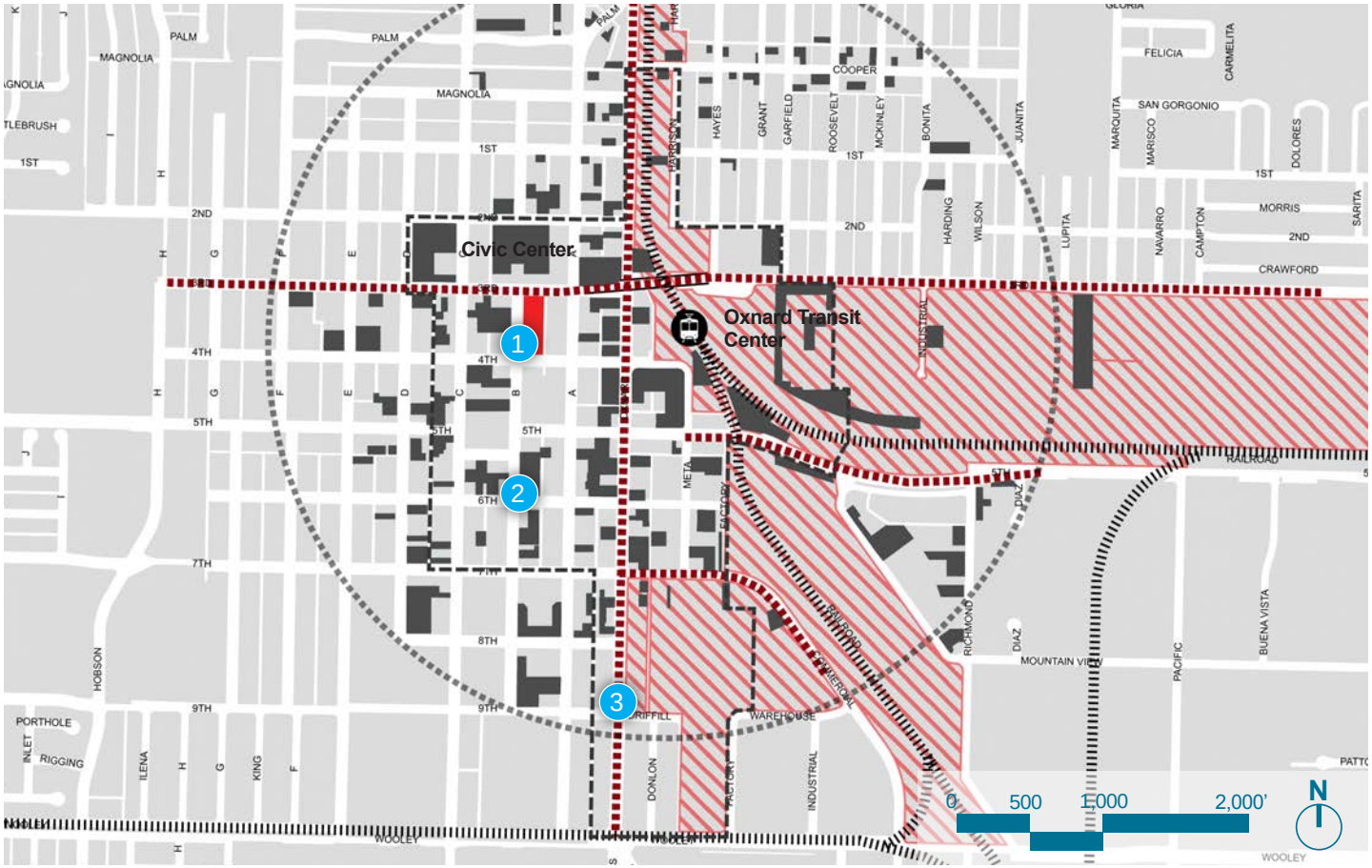
Constraints

Surface Parking: Many lots along major corridors are occupied by surface parking lots, which discourage pedestrian movement. These lots pose barriers to walkability Downtown, but may also offer opportunities for redevelopment. There is a significant concentration of parking lots along Oxnard Boulevard due to the presence of auto-oriented uses.

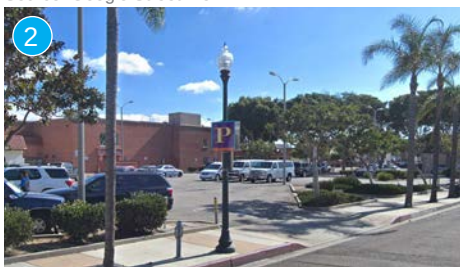
Structured Parking: The lone structured parking building occupies prime real estate by the Civic Center but limits the curb appeal and street activity in the area.

Corridor Constraint: These are corridors identified as barriers to adjacent walkable environments of Downtown Oxnard due to high traffic volumes and limited pedestrian crossings, street landscaping, and traffic-calming measures.

Superblock: Blocks that are over 300 feet long in at least one dimension are not pedestrian friendly, as it often takes much longer for pedestrians to reach their destination on-foot. Shorter blocks with a regular, predictable grid system provide direct connections to transit and major destinations.



Downtown's only parking structure is owned by the City; Source: Google Street View



A surface parking lot ; Source: Google Street View

Auto-oriented superblock along Oxnard Boulevard ; Source: Google Street View

Opportunities

URBAN DESIGN

Historic Resources: Many buildings in Downtown Oxnard are designated as historic. Preserving these buildings in future redevelopment proposals will help form the base for Downtown Oxnard's sense of place.

Existing Alleys: The consistent pattern of alleys bisecting the blocks in the downtown presents the opportunity for multi-modal pathways that can add character to the area with landscaping, public art, and outdoor dining.

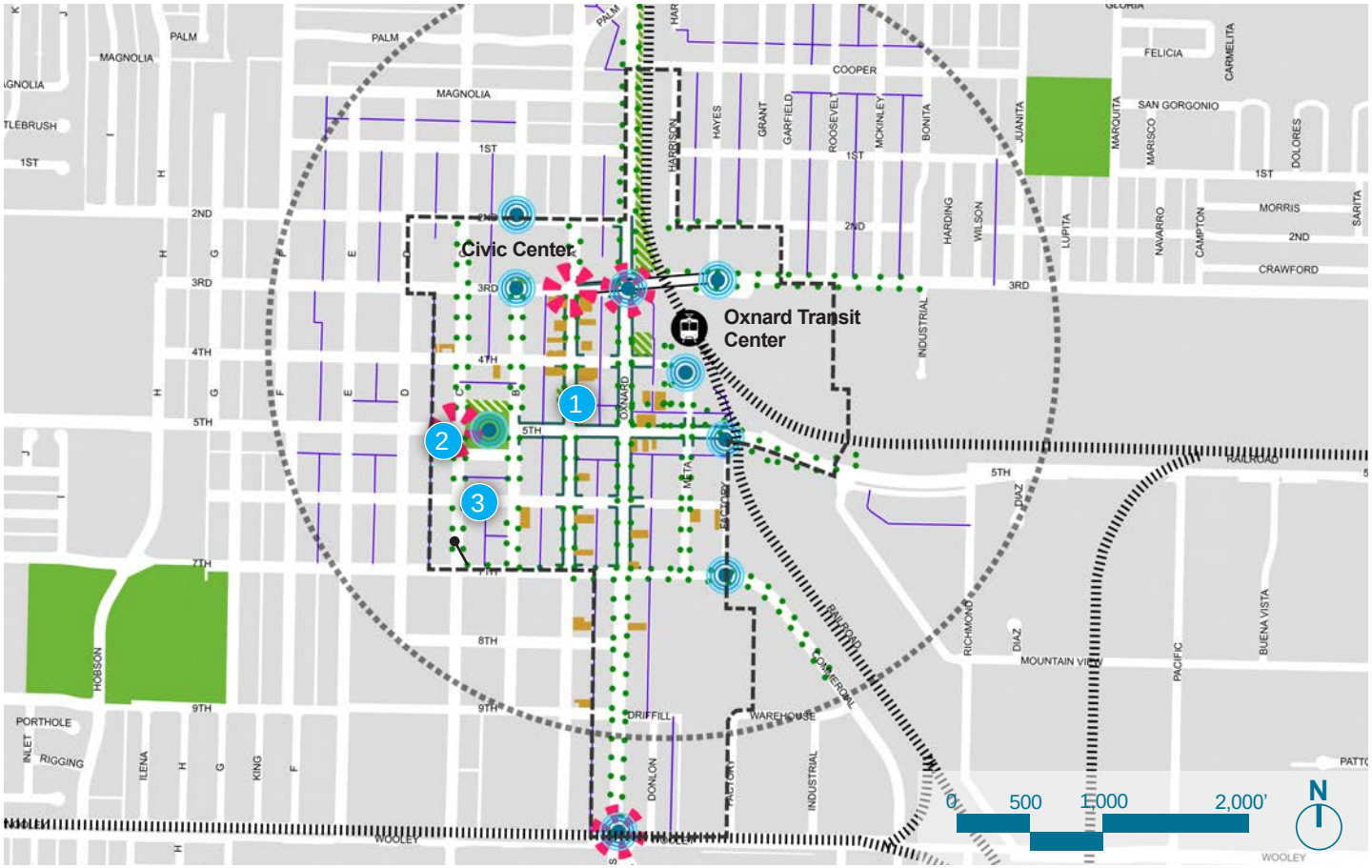
Greening / Environmental Benefits: Street trees should be implemented along major corridors wherever possible to fulfill the Downtown Street Tree Master Plan.

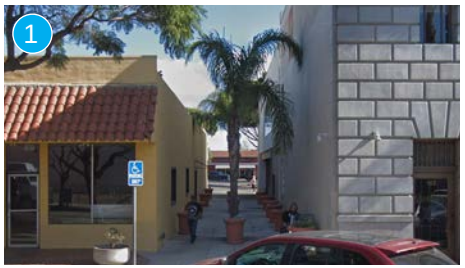
Open Space / Parks: Open space can be a catalyst for creating neighborhood centers, especially in front of the Civic Center at B Street and along the rail spurs.

Vista Terminus: Points where streets end and shifts in the street grid provide opportunities for visual nodes such as architecturally significant / taller buildings, landmarks and/or open space. These vista terminus can indicate edges of or entrances into the Pilot Project Area to foster a more defined sense of place.

Streetscape and Facade Improvements: These are critical street frontages along major corridors that would benefit from streetscape and facade improvements. New beautification elements such as attractive signage and lighting along sidewalks could enhance the character of Downtown. In addition, new pedestrian-friendly facades could increase pedestrian traffic in the Pilot Project Area.

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



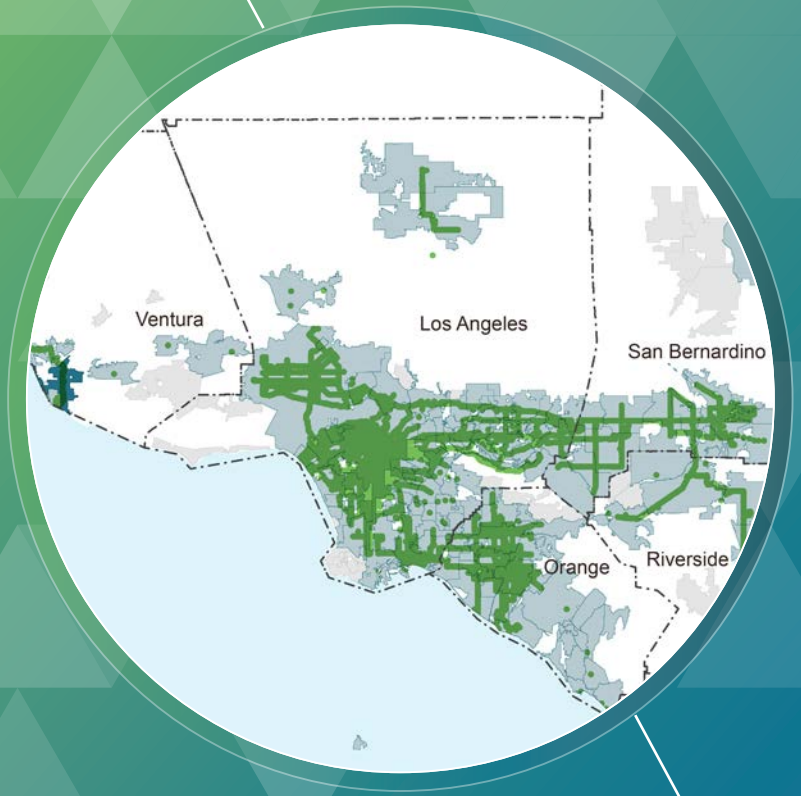


Existing alley between A Street and Oxnard Boulevard

Consistent signage identifying Downtown landmarks

Historic/unique facade in Downtown

Part 5
Vision



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Part 5

Vision

A - OVERVIEW

Vision Plan Goals

Framework Plan

Pilot Project Area - 2018

Pilot Project Area - 2048 Potential Buildout

Priority Projects

Vision Plan Goals

The Downtown Oxnard HQTA Vision Plan brings a much needed, cohesive sense of place to the Downtown area that will make it an exciting place to live, work, shop, and recreate in Ventura County. The overall goal is to create a truly unique experience that is based on the excellent historic urban fabric, something not found in large shopping centers elsewhere in Ventura County. 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 five 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

Pedestrian circulation through the downtown will be facilitated by the creation of pedestrian paseos and complete street enhancements to existing streets. Public realm amenities include enhancements such as enhanced street lighting, street trees and parkways, bioswales, and more. These corridors will also provide safer, attractive connections to future bus rapid transit stations and Oxnard Transit Center. Scramble crosswalks, signalized intersections, bike lanes, curb extensions, pedestrian refuge islands, and other traffic calming elements along Oxnard Boulevard and other major corridors will help to reduce vehicle/pedestrian and vehicle/cyclist collisions. A safer and more walkable Downtown will encourage more foot traffic about the retail-oriented streets, increasing economic activity over time.

Goal #2: Increase the housing stock to maintain an appropriate balance of commercial and non-commercial uses in the downtown

Increasing the housing supply within the downtown area will achieve the critical mass of residents necessary for a healthy downtown. Much of Downtown is visited by daytime workers and customers, but activity slows significantly during evenings and weekends. New residents will lead to more evening and weekend activity, which is necessary for an active, economically sustainable, and vibrant downtown atmosphere.

Goal #3: Create an integrated mobility that balances of vehicular movement, bicycles, and pedestrians

This vision takes advantage of publicly-owned land to build shared parking facilities at key sites throughout the Pilot Project Area. This will free up much of the land along Oxnard Boulevard and A Street that is currently occupied by under-used surface parking lots. In their place will be an array of new pedestrian paths and bicycle amenities that will allow visitors to travel about the Downtown without the aid of a vehicle. Utilizing the existing alleyways between buildings along A Street and Oxnard Boulevard, enhanced pedestrian paseos will allow for greater connectivity to the new developments around the Oxnard Transit Center.

Commercial plaza; Oxnard, CA

Goal #4: Develop a more robust transit system anchored by a reconfigured Oxnard Transit Center to promote greater transit efficiency and increase ridership

This plan builds upon the Ventura County Transit Commission (VCTC) and Gold Coast Transit's efforts to increase ridership on the Metrolink line and local routes primarily through improvements to the Oxnard Transit Center. A more centralized station building will alleviate train passengers' current issue with a long walking distance between the station and the platform, and will add additional administrative office space and break facilities for transit operators. New bicycle facilities will also make the center more attractive to cyclists. The reconfigured transit plaza will add more efficient arterial bus bays as well as facilities suitable for a bus rapid transit (BRT) line in the future. The improved Oxnard Transit Center will provide direct transit access to a revitalized, mixed-use core in the blocks surrounding the station.

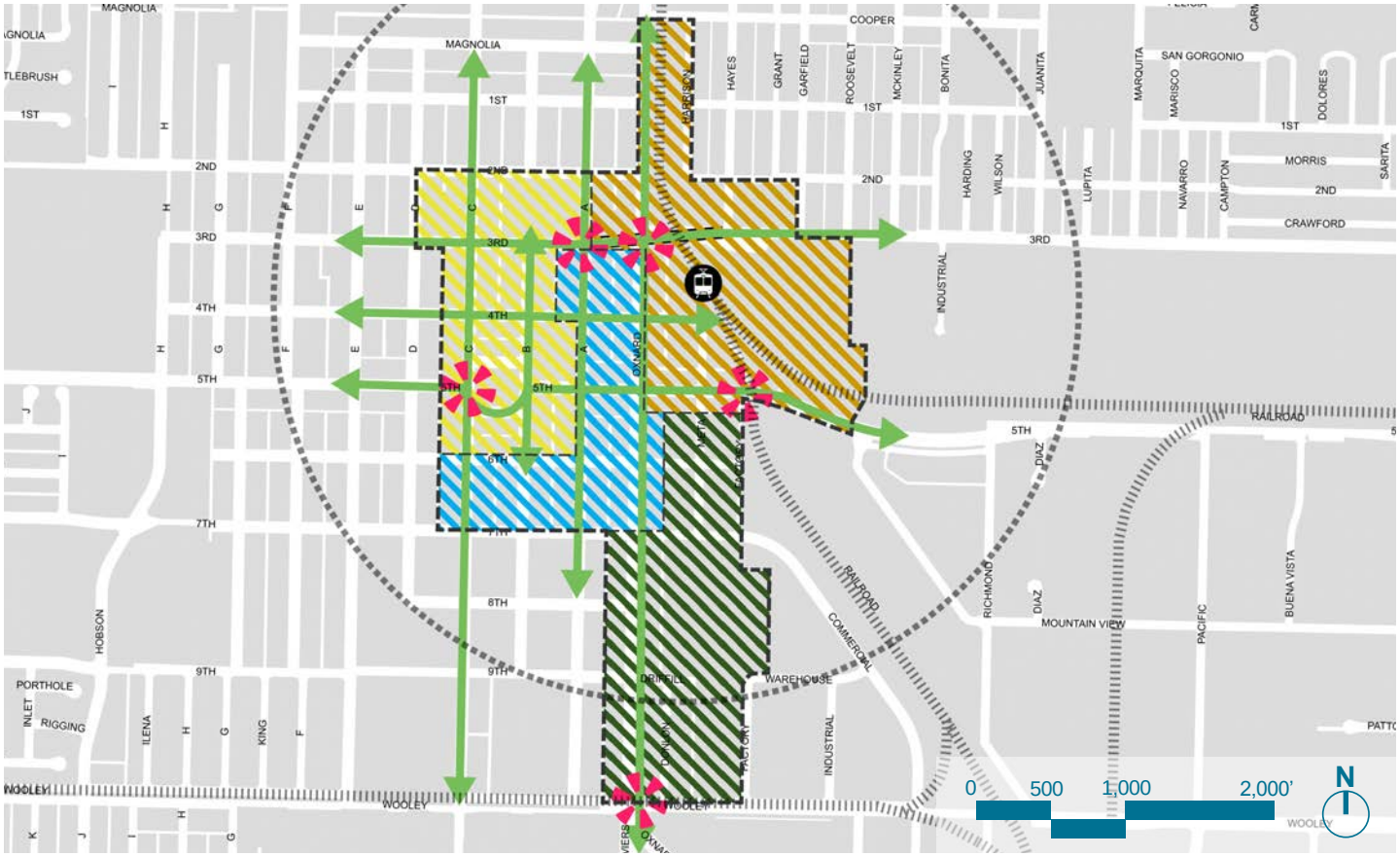
Goal #5: Re-establish Downtown Oxnard's regional image as the "place to be" for shopping, culture, and entertainment

This plan capitalizes and expands upon many of Downtown Oxnard's key assets: walkable, retail-oriented streets, transit amenities, and historic resources such as the Carnegie Museum to create a unified sense of place. The Plan introduces unique treatments at each of the Pilot Project Area's "gateways," or critical entry points with enhancements to the 3rd Street Bridge, a greenway along the rail corridor, and more. The western portion of the Pilot Project Area has been re-imagined as a civic, festival, and cultural hotspot to provide unique, attractive programing. These enhancements will make Downtown Oxnard offer a vibrant, pedestrian-focused alternative to life-style centers and auto-oriented regional shopping destinations.

Framework Plan

The Vision Plan enhances Downtown's sense of place through development, streetscape, and infrastructure improvements in four unique districts: Oxnard Transit District, Downtown Commercial District, Civic Arts District, and Meta Housing 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 Downtown gateways identified at the following intersections: 5th Street / C Street, 5th Street / Railroad, 3rd Street / A Street, 3rd Street / Oxnard Boulevard, and Oxnard Boulevard / Wooley Road. These gateways could invite public art installations and signage to Downtown, and will serve as visual markers to reinforce the emerging Downtown Oxnard brand as a vibrant, walkable destination within Ventura County.



Downtown Oxnard Gateway

Oxnard Transit District: The immediate area around the Oxnard Transit Center will be anchored by high-density TOD projects and a reorganized Oxnard Transit Center. Public parks and shared district parking facilities will allow for an urban environment with a defined sense of place.

Downtown Commercial District: This district will be characterized by adaptive reuse of historic buildings that will share parking structures with new mixed-use buildings along Oxnard Boulevard, and supplemented by enhanced east-west north/south pedestrian paths.

Civic Arts District: Major enhancements include the redesign of B Street into a flexible civic and festival boulevard, the relocation of the Children's Museum to a more prominent corner fronting Plaza Park, and dense mixed-use development projects.

Meta Housing District: This medium density district will primarily consist of new housing to replace the existing mobile home park and a network of new streets that break up superblocks and reconnect the street grid.

3rd Street: Improvements include placemaking gateway elements at the Oxnard Boulevard intersection, a new sidewalk on the southern side of the 3rd Street bridge as well as a pedestrian elevator and stair case at the Oxnard Transit Center.

4th Street: 4th Street will be re-imagined as a multi-modal promenade and transit core.

5th Street: 5th Street will become the primary east-west bike corridor in Downtown.

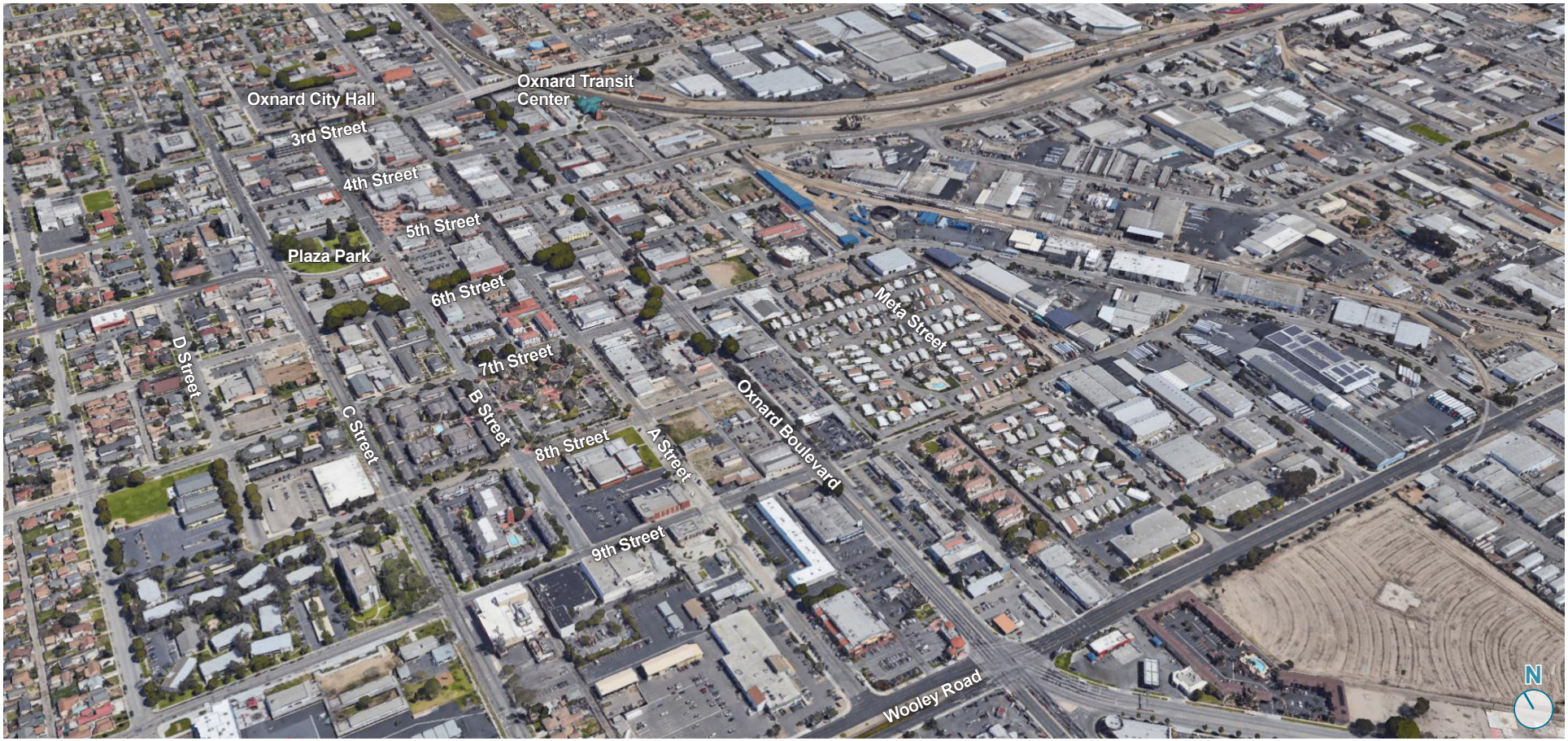
Oxnard Boulevard: A reconfigured Oxnard Transit Center will make Oxnard Blvd. the primary north-south transit corridor while streetscape improvements will improve walkability.

A Street: A Street will see streetscape improvements and substantial facade preservation.

B Street: B Street will see a dramatic transformation into a civic and festival gathering space with bike facilities, streetscape greening, and defined programming.

C Street: C Street is a potential alternate north-south transit corridor in Downtown.

Pilot Project Area - 2018



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 update and further discussions with property owners and interested developers.

Cumulative Land Use Mix and Buildout Potential

Districts are areas within the Pilot Project Area that are envisioned in the buildout scenario to contain similar building densities and typologies. The districts for this Vision Plan are listed below; the buildout scenario land use totals are summarized at right.

- **Oxnard Transit District**
- **Downtown Commercial District**
- **Civic Arts District**
- **Meta Housing District**

Residential Units 3,610

Residential Sq. Footage 3,466,350 sq. ft.

Office Square Footage 290,010 sq. ft.

Retail Square Footage 409,100 sq. ft

Parking 7,110 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.

Major Development Areas (MDA)

Major Development Areas contain clusters of complementary priority projects which may catalyze the development envisioned by the buildout scenario. An MDA phasing strategy is provided in Part 6 (Implementation).

- MD 1 Oxnard Transit Center Block
- MD 2 Carnegie Museum / Plaza Park Block
- MD 3 Royal Palms Mobile Home Park
- MD 4 Infill along Oxnard Boulevard

Priority Projects

Corridor Projects

- C 1 3rd Street
- C 2 4th Street
- C 3 5th Street
- C 4 Oxnard Boulevard
- C 5 A Street
- C 6 B Street
- C 7 C Street

Bicycle Projects

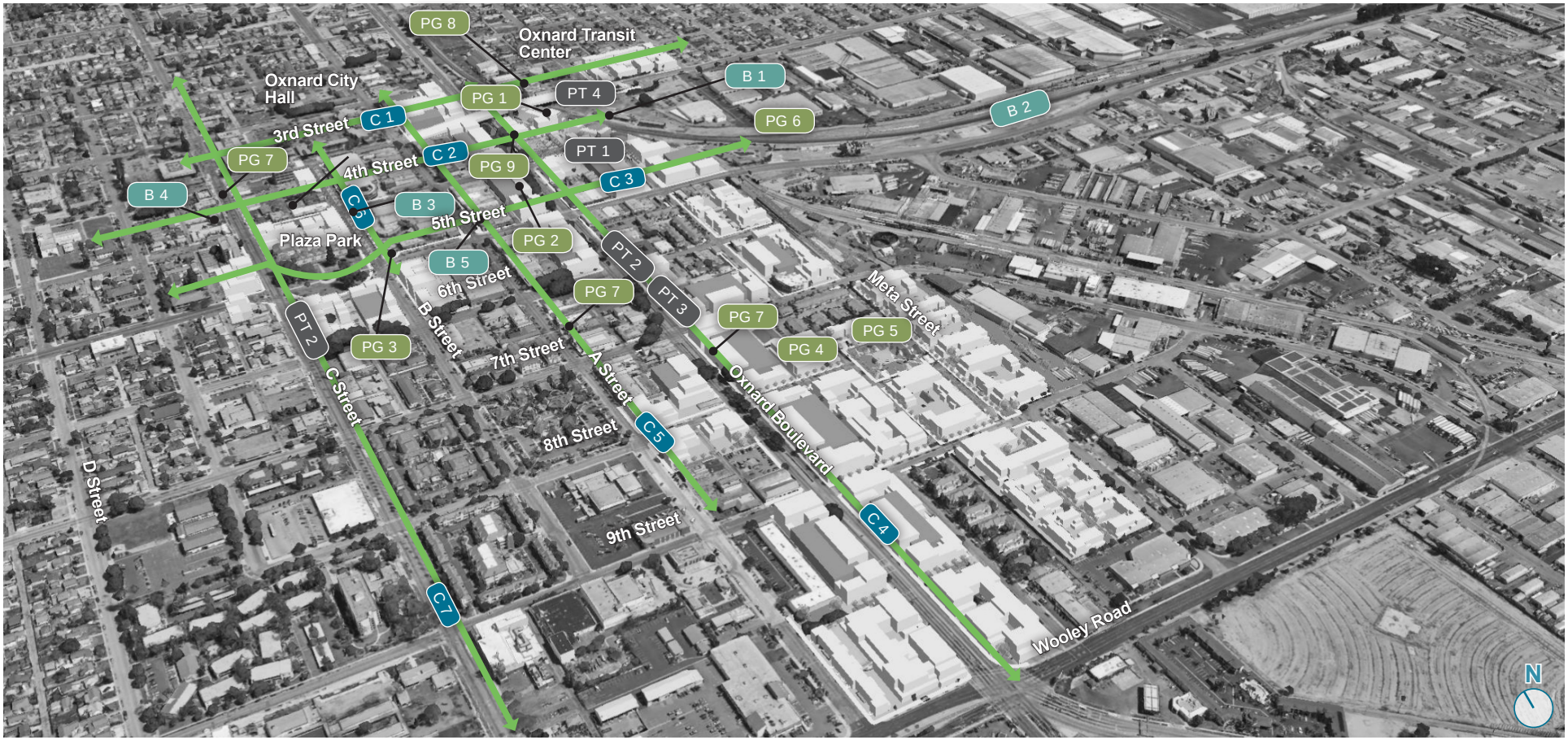
- B 1 Bike Hub
- B 2 Rail Path Bicycle Trail
- B 3 B Street Bicycle Track
- B 4 North-South Bicycle Connection
- B 5 East-West Bicycle Connection

Pedestrian/Greening Projects

- PG 1 Transit Plaza
- PG 2 Green Alleyways
- PG 3 Festival Street
- PG 4 Street Grid at Mobile Home Park
- PG 5 Infill Public Parks
- PG 6 Rail Bicycle Path Greening
- PG 7 Tree Canopy Gap Closure
- PG 8 3rd Street Bridge Vertical Transportation and Bridge Sidewalk Improvements
- PG 9 Oxnard Blvd / 4th St Scramble Crosswalk

Parking and Transit Projects

- PT 1 Reconfigured Bus Bays
- PT 2 Transit Priority Corridors
- PT 3 Arterial Bus Rapid Transit
- PT 4 New Public Parking Structures



Part 5

HQTA Vision

B - LAND USE STRATEGY

Development Opportunity Sites

Regulating Concept Plan

Major Development Areas

- **Oxnard Transit District**
- **Downtown Commercial District**
- **Civic Arts District**
- **Meta Housing District**

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. These lots are to be utilized for large-scale, catalytic projects. Sites are suitable for the demolition of existing structures and infill development, typically replacing surface parking lots or land owned by the City.

Secondary Opportunity Sites

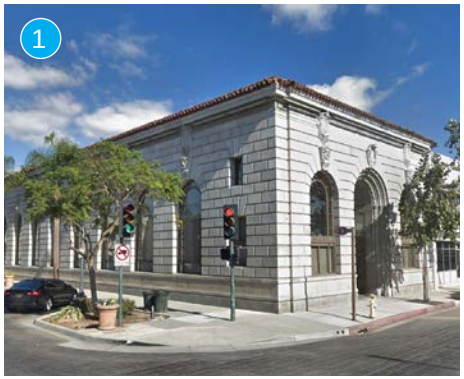
Secondary sites are excellent opportunities for smaller infill developments adjacent to primary opportunity sites, especially on corner properties at key intersections. Additionally, buildings with unique facades have been marked as secondary sites for their potential as adaptive reuse projects providing new retail, office, or residential.

Tertiary Opportunity Sites

Tertiary sites could add additional character to the downtown station area through redevelopment, but require negotiations with private property owners. Tertiary sites also include parcels that are small, irregularly shaped, or are otherwise difficult to redevelop in the short term.

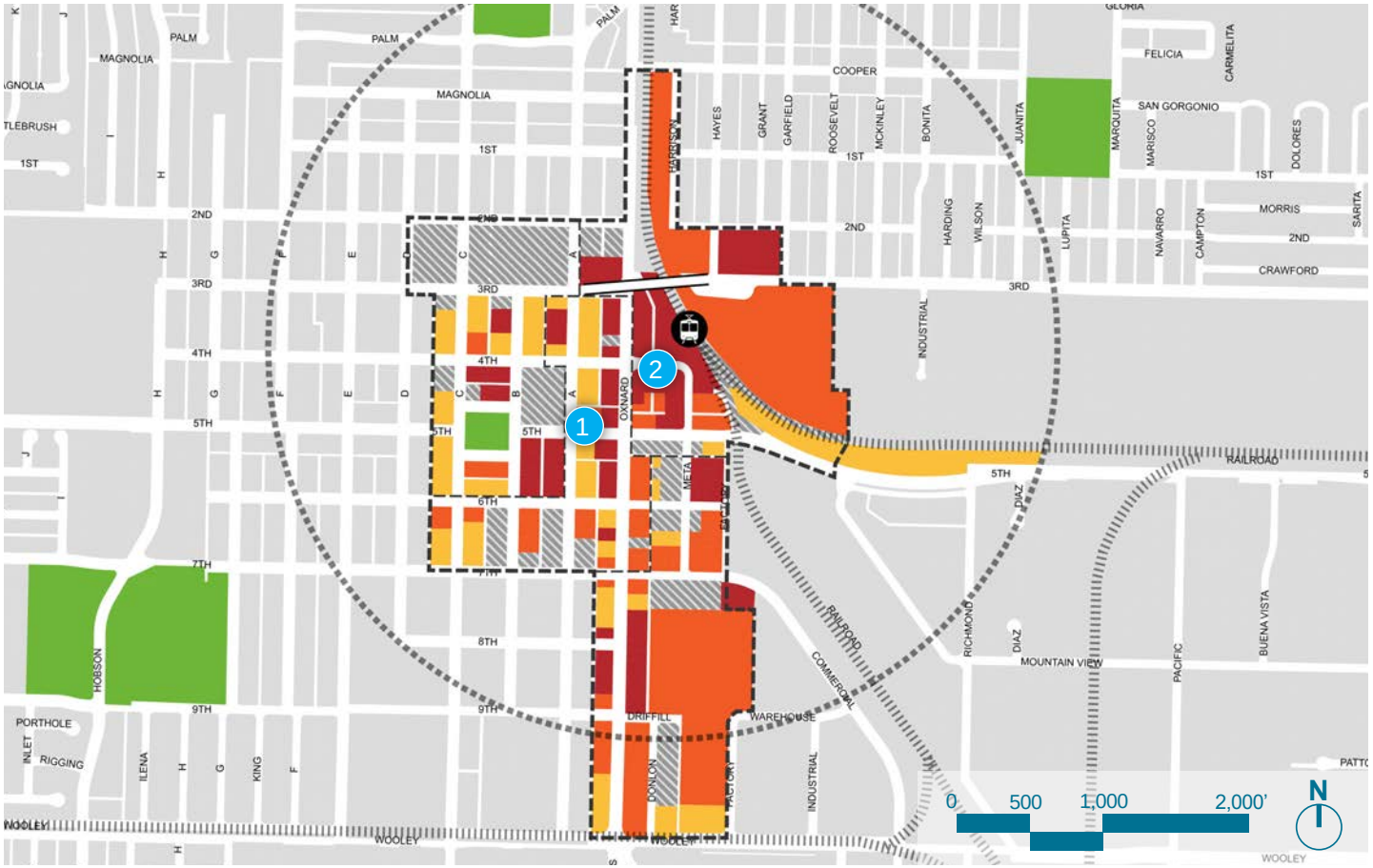
Areas Not Considered Opportunity Sites

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. These areas include existing residential housing stock and key community resources such as the Civic Center.



View of historic building at A Street and 5th Street with unique facades to be preserved for adaptive reuse projects. Source: Google Street View

View of the Oxnard Transit Center from 4th Street . Source: Google Street View



Regulating Concept Plan

The Regulating 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.

The Regulating Concept Plan is illustrative, and is consistent with the development standards allowed by the December 2018 Draft Oxnard Downtown Code, which is expected to be adopted in 2019.

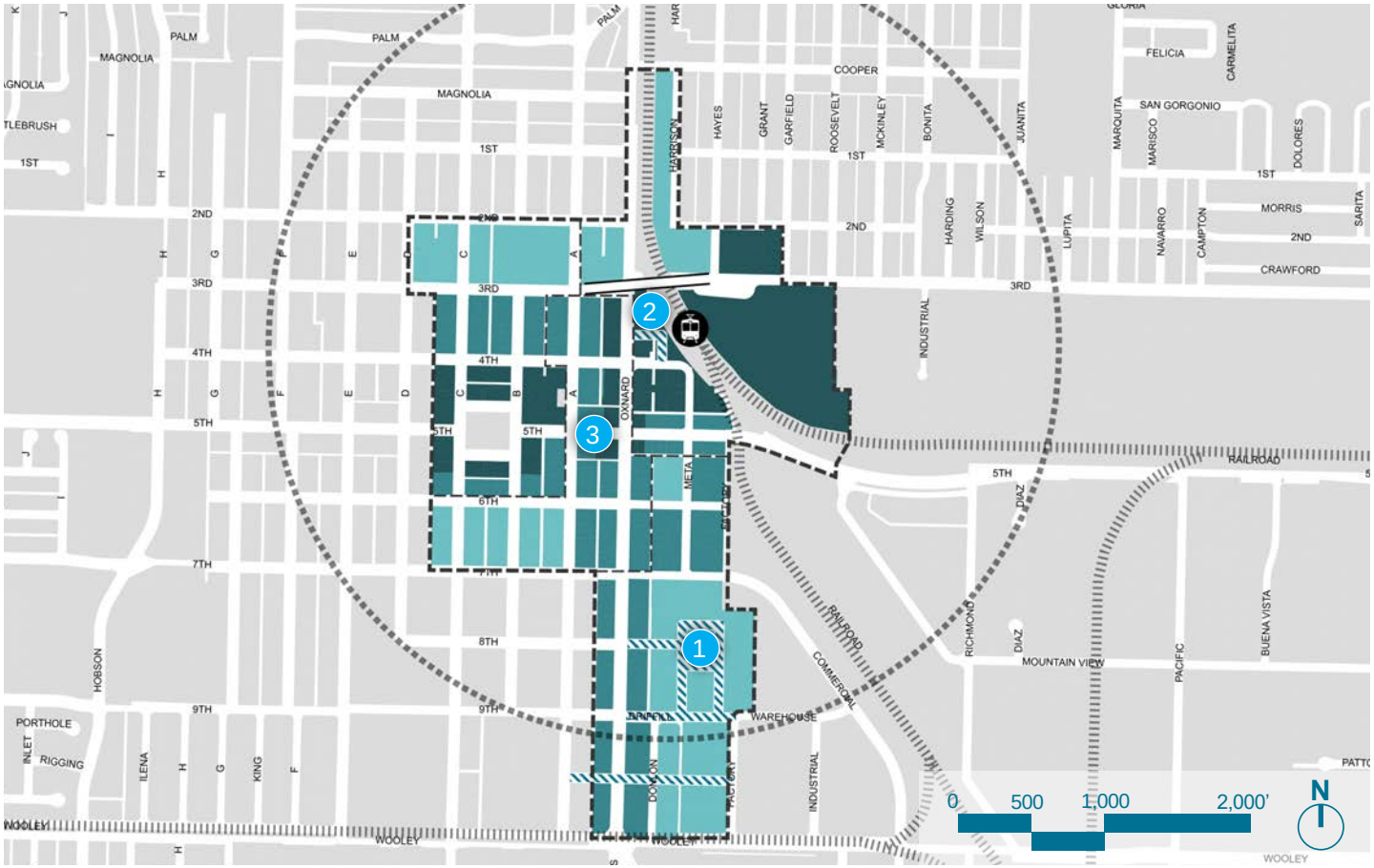
Multi-family housing centered around a central courtyard

Higher density mixed-use buildings oriented around a public park/green space

"Main Street" commercial on 5th Street in Downtown Oxnard. Source: Google Street View

New Streets

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	4-6	II-C-D-2
Flex/ Hybrid	4-6	II-C-C-3
Commercial Block/ Liner	1-3	II-C-C-3
Townhouse/ Small Lot Subdivision	up to 3	II-C-B-2
Live/ Work	up to 3	II-C-B-3



Major Development Areas

MD 1 Oxnard Transit Center Block Redevelopment

This vision suggests that the transit offices be rehoused in a more centralized mixed-use building that fronts a new public plaza. New streets will divide the large block to make space for a public park and plaza, street-facing retail, and mixed-use buildings. Much of this land is owned by the City and could be offered as joint development projects to generate revenue for general operating costs.

MD 2 Carnegie Museum / Plaza Park Block Redevelopment

The block bounded by Plaza Park and 4th Street is envisioned as substantially redeveloped to take advantage of prime land fronting the new festival B Street and an expanded Plaza Park. The Carnegie Art Museum will be preserved and complimented with a new proximate cultural center across from Plaza Park, creating a cultural hub for downtown Oxnard.

New Oxnard Transit Center Building

Mixed-use Transit Buildings as Destinations

New Transit Plaza at Oxnard Boulevard with scramble crosswalk at 4th Street

New Developments

Community Parks Activated by Diverse Programming

New High-Density Mixed-use Surrounding Plaza Park

Infill Residential Development

High-Density Housing Adjacent to Train Stations

New High-Density Mixed-use Residential along Meta

Shared Parking Structure

Parking Structures Hidden Behind Mixed-use Buildings

Shared Parking Accessed via Existing Alleys

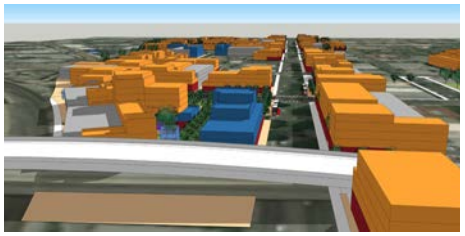
Major Development Areas

MD 3 Royal Palms Mobile Home Park Redevelopment

This vision plan recommends the Royal Palms Mobile Home Park located at the southeast corner of the Pilot Project Area be redeveloped into higher-density housing. The superblock on which the mobile home park sits should be divided with new streets and paths to improve vehicular and pedestrian circulation by reconnecting the street grid. A central town square where these new streets meet would provide recreational amenities for local residents.

MD 4 Infill along Oxnard Boulevard

This vision anticipates the many lots owned by public and private entities in Downtown Oxnard, particularly near the Oxnard Transit Center, being gradually redeveloped into mixed-use buildings that suit the character of Downtown. Surface parking lots on Oxnard Boulevard will be redeveloped into mixed-use developments. A series of new shared parking structures should be added when necessary to form localized parking districts to accommodate this new development.



New Housing

Residential promenades shared for public use

Diverse housing types integrated with open space

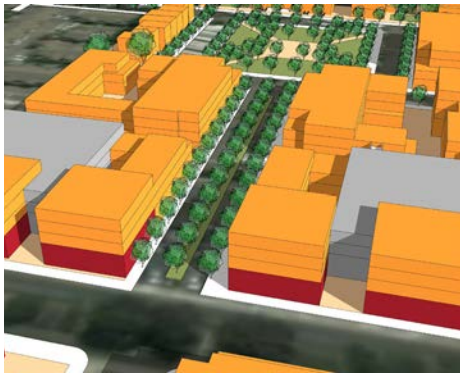
New Developments

Mixed-use infill enhances the pedestrian experience

New mixed-use infill along Oxnard Boulevard

New Streets

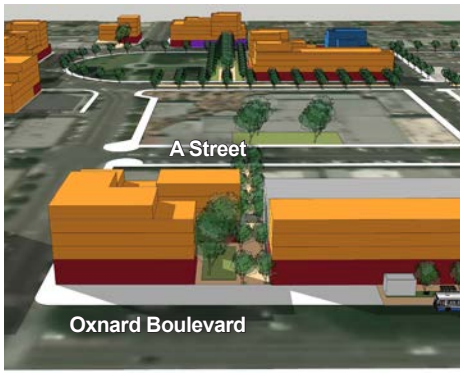
Wider sidewalks improve the streetscape experience



New street from Oxnard Boulevard

Shared Parking Structure

Parking structures hidden behind mixed-use buildings



Shared Parking accessed via pedestrian paseos

Oxnard Transit District

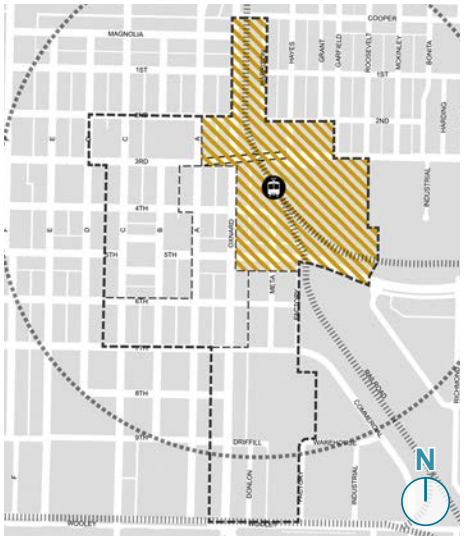
Illustrative Plan

The 2048 vision for the Transit District is built upon key transit and infrastructure investments including a reconfigured Oxnard Transit Center, bicycle facilities, and enhancements to the 3rd Street Bridge. These investments, among others, could help to catalyze a significant amount of growth in the district while linking Downtown Oxnard to a significant transit asset. Properties neighboring the Metrolink Station should be marked for high density development as permitted by local market conditions, leading to an extension of Downtown Oxnard and locating a critical mass of residents and workers near a key transit asset. Parking would be provided in multi-story structures and would be shared by the uses on site.

Northeast of the station, new medium-density residential development will replace the existing Gold Coast Transit property as a better transition to the dense land uses proposed for Downtown.

Key Elements

1. **Land banking for future high density/intensity development surrounding the Metrolink Station.**
2. **District-wide parking plan with shared parking and a parking monitoring and pricing scheme**
3. **Medium-density, 4-6 story development planned as part of earlier phases, wrapped around parking structures.**
4. **New station building integrated into mixed use development and shared commuter parking structure.**



- New Buildings
- Parking Structure
- Public Open Space (Hardscape and/or Softscape)
- Private/Semi-Public Open Space

Transit courts as the heart of high-density TODs

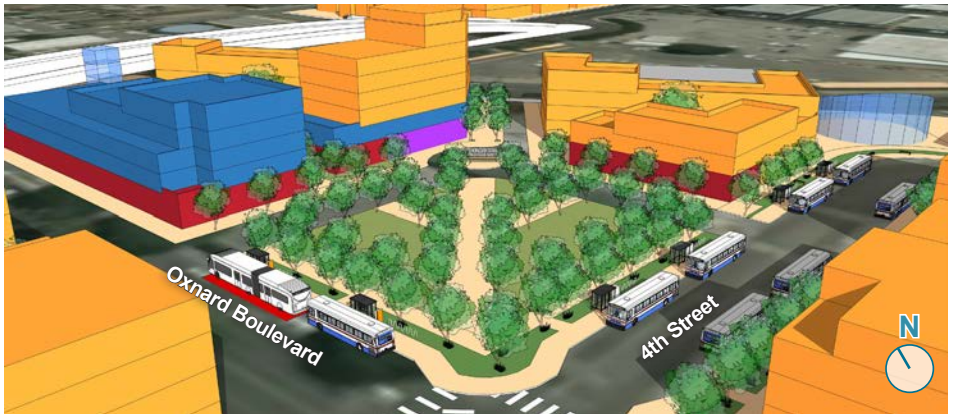
Plazas/Civic greens provide a sense of place

Oxnard Transit District

The proposed new Oxnard Transit Center building is seven stories to add a landmark structure in the Downtown, effectively maximizing development and ridership generation potential next to the County's premier transportation hub.

The Oxnard Transit District includes two of the Downtown Gateways identified in this Vision Plan: at the 3rd Street Bridge and at the 5th Street / Railroad intersection. The Oxnard Transit Center tower along with the new bridge vertical transportation will help define the northern entry point at the 3rd Street bridge, while higher density developments and greenways parallel to Meta Street will define the eastern 5th Street gateway.

Multiple uses within walking distance of transit

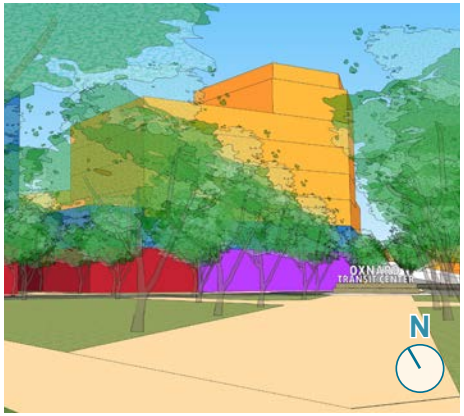


The new transit plaza looking northeast towards rebuilt Oxnard Transit Center

Transit plazas programmed to become community assets

4th Street bus bays/mobility hub, looking northeast

Bike Hubs and/or Transit Buildings as Civic Icons



New Transit Plaza Looking Northeast

Meta Street Bus Bays Looking Northeast

Oxnard Transit District

Land Use Mix and Targets

There are ample opportunities to create a vibrant transit village along Center Street. The 2048 vision builds upon many of the key parcels that are owned by the City of Oxnard to make select infrastructure investments that will catalyze a mix of transit-supportive uses.

In the short-term, Type V or modified podium construction, up to five stories, will likely be supported by the market. Parking will be provided with four new parking structures. Most of the street frontage along Oxnard Boulevard should consist of active uses such as neighborhood-serving retail, cafés, and live/work units.

Potential Buildout Land Use Mix*

* 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.

Residential Units 580

Residential Sq. Footage 583,380 sq. ft.

Office Square Footage 164,430 sq. ft.

Retail Square Footage 118,880 sq. ft

Parking Capacity 1,480 stalls

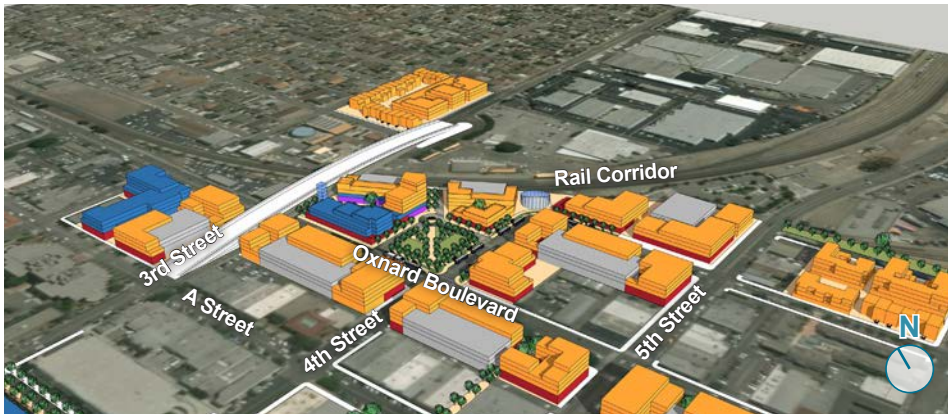
Average Net Dwelling Units/Acre

80+	51 - 80	30 - 50	< 30

Average Net FAR

4.0 +	3.0 - 3.9	2.0 - 2.9	< 1.9

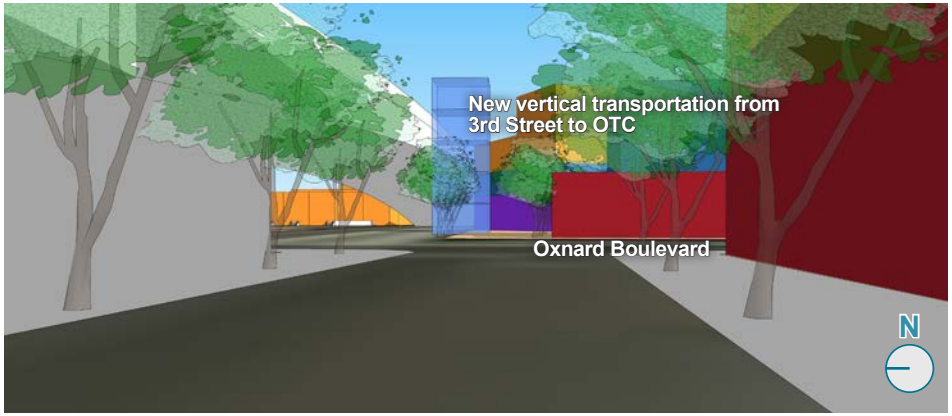
- Multi-Family Residential
- Retail
- Office
- Oxnard Transit Center
- Parking Structure
- Public Open Space
- Private/Semi-Public Open Space



The Oxnard Transit District looking Northeast

The Oxnard Transit District looking Northwest

Enhancements to Bridge Underpass



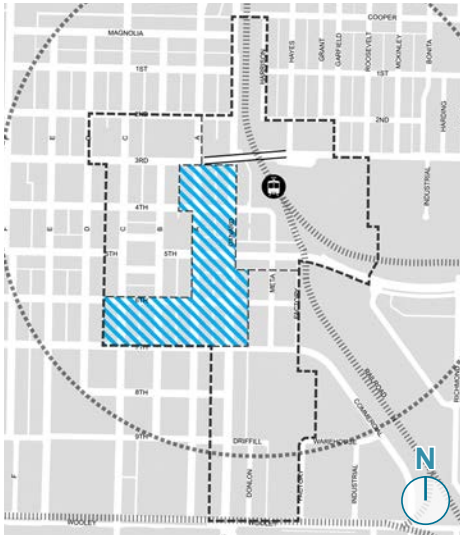
Northern Connection into the Transit District at 3rd Street Bridge and Oxnard Boulevard

Downtown Commercial District

Illustrative Plan

This district capitalizes on the existing character of downtown commercial buildings located along A Street. Many of these buildings will be preserved, while new developments along Oxnard Boulevard will offer shared parking structures to serve new and existing office, retail, and residential uses.

This plan also takes advantage of the existing alley network near the core of Downtown Oxnard. Alleys running east-west will be enhanced to increase pedestrian traffic between A Street and Oxnard Boulevard, and to increase connectivity from the Oxnard Transit Center to shopping and entertainment opportunities.



New Buildings

Parking Structure

Public Open Space (Hardscape and/or Softscape)

Private/Semi-Public Open Space

Variation in Building Form and Heights Enrich Walkability

Green Roofs Further Improves Pedestrian Environments

Key Elements

1. New mixed-use infill development along Oxnard Boulevard.
2. Improved pedestrian paseos.
3. Medium-density, 4-5 story development planned as part of earlier phases, wrapped around parking structures.

Downtown Commercial District

Improvements to the Downtown Commercial District will be centered around enhancing the existing “Main Street” character. A more robust street canopy and additional street furniture and dining facilities will enliven the street. Additionally, existing pedestrian paths between A Street and B Street or Oxnard Boulevard will see enhanced lighting, furniture, and landscaping to encourage pedestrian mid-block traffic.

Enhancing the Public Realm with Outdoor Dining Areas

Existing Downtown Retail Along A Street

Mixed-use Building with a Deck Activates the Street

Vacant Parcel at Terminus of Pedestrian Paseo Between Oxnard Boulevard (Transit District) and A Street

Pedestrian Paseos Provide Connections

Existing Pedestrian Connection Between B Street (Downtown and Civic District) and A Street

Downtown Commercial District

Land Use Mix and Targets

As the name of the district implies, the ground-floor uses of new developments within the Downtown Commercial District will be retail-oriented. These buildings will have residential apartment units above.

The district makes up a relatively small proportion of the total proposed development. This is because this Vision Plan has marked the majority of the buildings along A Street for preservation due to their massing and character, which is appropriate for a "Main Street" downtown of this size. As such, the majority of proposed development for this district is along the west side of Oxnard Boulevard. These developments will have neighborhood-serving retail on the ground floor and residential apartments above. No additional office space is proposed for this district.

Potential Buildout Land Use Mix*

* 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.

Residential Units 370

Residential Sq. Footage 333,280 sq. ft.

Office Square Footage 0 sq. ft.

Retail Square Footage 54,940 sq. ft

Parking Capacity 800 stalls

Average Net Dwelling Units/Acre

80+	51 - 80	30 - 50	< 30

Average Net FAR

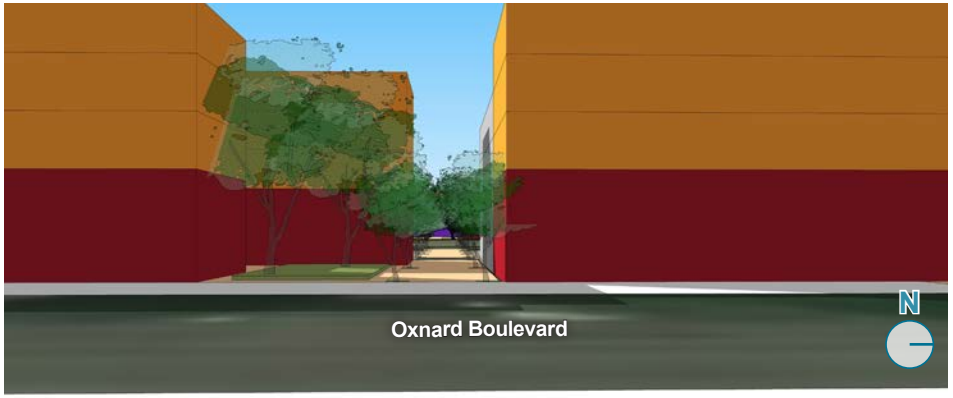
4.0 +	3.0 - 3.9	2.0 - 2.9	< 1.9

- Multi-Family Residential
- Retail
- Office
- Oxnard Transit Center
- Parking Structure
- Public Open Space
- Private/Semi-Public Open Space

High-Density Mixed-use along Oxnard Boulevard

Shared Parking Opportunities for the Downtown Commercial District Accessed via Existing Alleys

Paseos Integrate the Pedestrian Network with Buildings



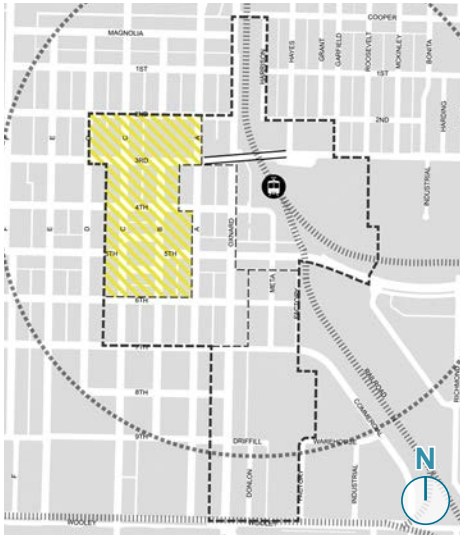
Enhancement of Existing Pedestrian Connections Connecting the Downtown and Civic Districts with the Transit District

Civic Arts District

Illustrative Plan

Development around Plaza Park will be the tallest proposed in this Vision Plan in accordance with the draft Downtown Development Code. Five and six story buildings will frame the park to give it a more defined presence in the downtown.

The centerpiece for the Civic Arts District will be a redesigned B Street. A center rambla will connect the civic center to Plaza Park and will allow for public events to take place in the street. In addition, the existing Carnegie Art Museum and new museums and cultural centers will provide additional cultural anchors near the park.



- New Buildings
- Parking Structure
- Public Open Space (Hardscape and/or Softscape)
- Private/Semi-Public Open Space

Parking “Rambla” in Lancaster, CA

Parking “Rambla” is Pedestrianized in Lancaster, CA

Key Elements

1. B Street festival/civic rambla.
2. Expanded Plaza Park.
3. Medium-density, 5-6 story development planned as part of earlier phases.

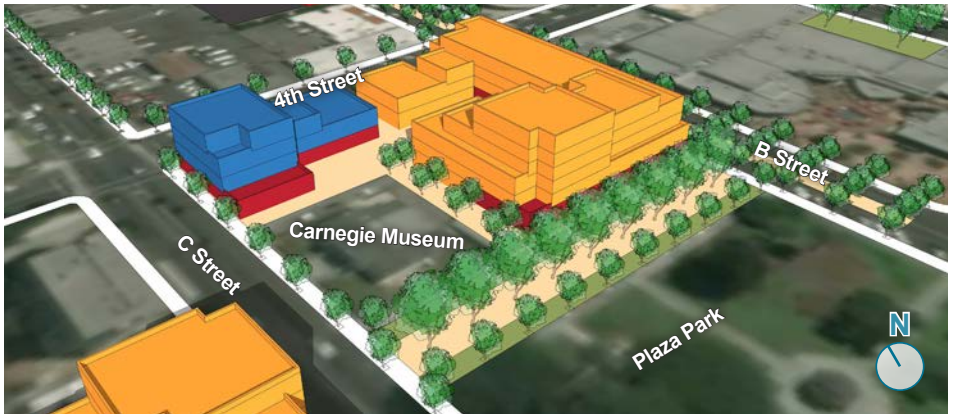
Civic Arts District

Buildings in this district are arranged with streetside or park-adjacent dining and seating areas to activate public spaces.

Sidewalks as community rooms for Multiple Uses

A new alley lining the northern edge of Plaza

Tuck-Under Parking Court as a shared amenity



Carnegie Museum / Plaza Park Block development looking northeast

Development around a circular plaza Square Park in Old Town Orange, CA

Carnegie Museum/Plaza Park block development looking west down a new retail corridor next to Plaza Park

Civic Arts District

Land Use Mix and Targets

This district will be a mix of civic, office, and retail. The building west of Plaza Park at the intersection of 5th Street and C Street are envisioned as the location for a new museum or cultural center. This will expand the area's presence as a museum and civic destination. Unique signage throughout the district will encourage pedestrian traffic about the area and between these new and existing uses to further strengthen the theme.

Potential Buildout Land Use Mix*

* 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.

Residential Units 520

Residential Sq. Footage 464,260 sq. ft.

Office Square Footage 42,100 sq. ft.

Retail Square Footage 69,400 sq. ft

Parking Capacity 840 stalls

Average Net Dwelling Units/Acre

80+	51 - 80	30 - 50	< 30

Average Net FAR

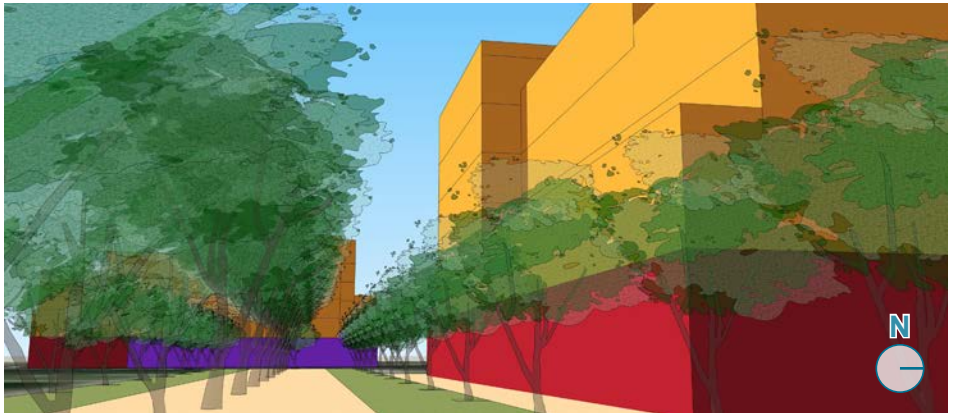
4.0 +	3.0 - 3.9	2.0 - 2.9	< 1.9

- Multi-Family Residential
- Retail
- Office
- Museum/Cultural Center
- Parking Structure
- Public Open Space
- Private/Semi-Public Open Space

Civic Arts District Looking North via a Pedestrian Paseo Connecting with Plaza Park

Carnegie Museum / Plaza Park Block Development Looking Northwest

A Hardscape Promenade with Landscape Amenities



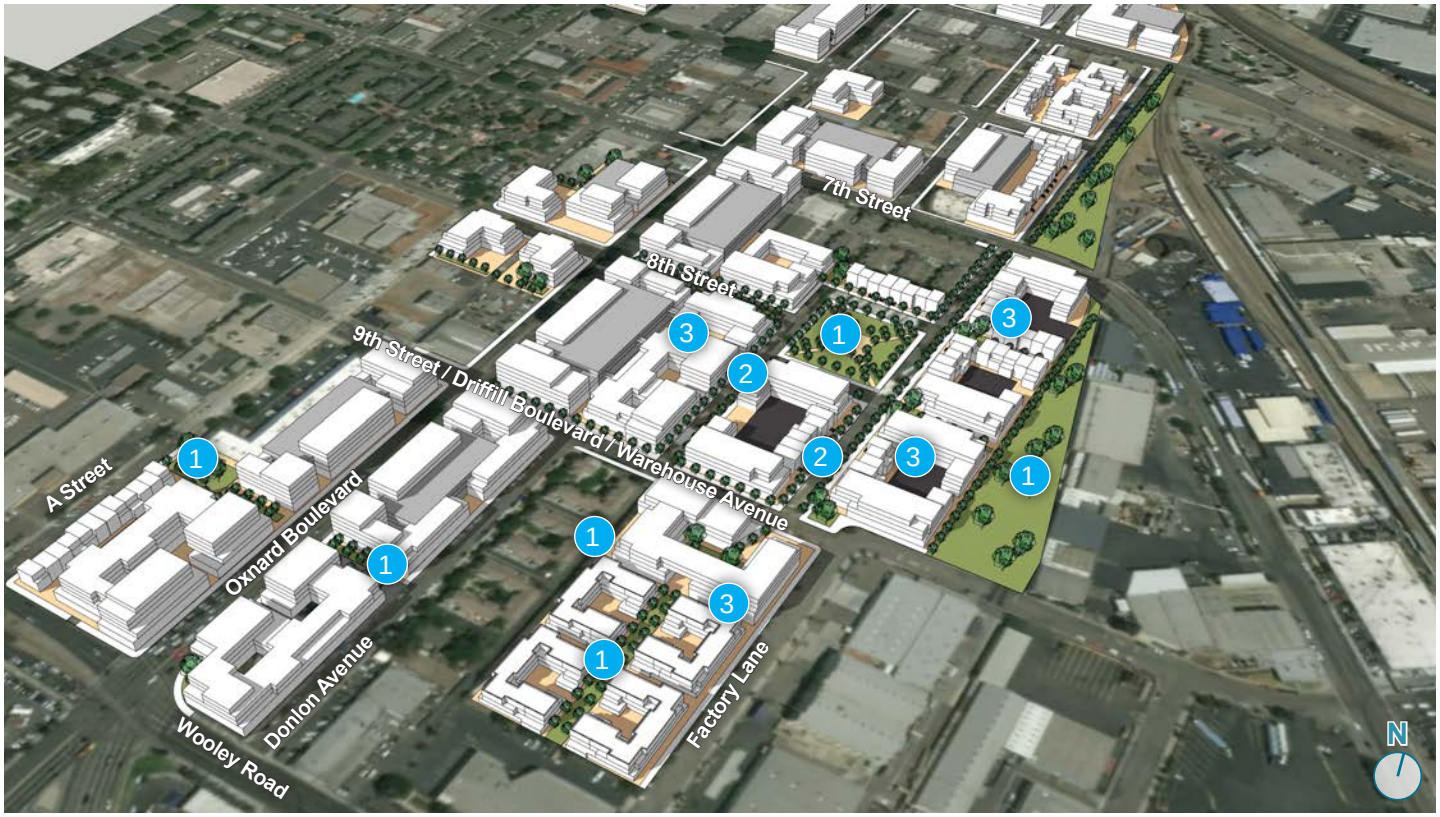
Carnegie Museum / Plaza Park Block Development Looking West down an New Alley along Plaza Park

Meta Housing District

Illustrative Plan

The Meta Housing District re-imagines the Royal Palms Mobile Home community into an open neighborhood. New courtyard apartments and townhomes will line a public plaza in the center of the existing superblock. This plaza will be framed by a network of new streets that reconnect the street grid from 9th Street to 7th Street in the north-south direction and from Oxnard Boulevard to Meta Street in the east-west direction. New streets will divide the area to improve circulation and reconnect the existing street grid.

This Vision Plan adds new pedestrian access points to better divide the blocks fronting Oxnard Boulevard between 9th Street and Wooley Road as an alternative to providing vehicular access. These pedestrian ways will provide critical connections to Oxnard Boulevard, which may someday feature an arterial bus rapid transit line with frequent service to the Oxnard Transit Center and beyond.



New Buildings

Parking Structure

Public Open Space (Hardscape and/or Softscape)

Private/Semi-Public Open Space

Key Elements

1. **Parks and plazas between low scale buildings to break up building facades and establish a visual connection to the paseos.**
2. **New streets to re-establish the existing grid to promote enhanced circulation.**
3. **Medium-density, 3-4 story development planned as part of earlier phases.**

Mixed-use contributes to pedestrian friendly streets

Neighborhood Square as a Communal Gathering Space

Meta Housing District

The new developments replacing the mobile home park will be varied in typology and scale. Both apartments and for-ownership residences are envisioned. Rowhouses and multi-story apartment buildings will line public parks and new streets.

Prominent Mixed-use Residential along Primary Corridors

The Meta Housing District as an Integrated Pattern of Diverse Housing, Commercial Activity and Open Space

Higher-Density Housing at the Single-Family Scale

A New Street Connects Oxnard Boulevard to a New Square

Diverse Residential Types Accessed/Parked via Alleys

New Pedestrian Paseos Connect the New Square, an Edge Park and Housing

Meta Housing District

Land Use Mix and Targets

The Meta Housing District will provide retail and office spaces along Oxnard Boulevard to replace existing vacant or underutilized parcels, such as the multiple car dealerships. Additionally, new community organization space will transition the northern end of the district nicely from the Transit District.

The vast majority of the uses will be residential, anchored by an open plaza at the site of the Royal Palms Mobile Home Community. The new residential will be a mix of townhomes or rowhouses and courtyard-style apartments.

Potential Buildout Land Use Mix*

* 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.

Residential Units 2,140

Residential Sq. Footage 2,085,430 sq. ft.

Office Square Footage 83,480 sq. ft.

Retail Square Footage 165,880 sq. ft

Parking Capacity 3,740 stalls

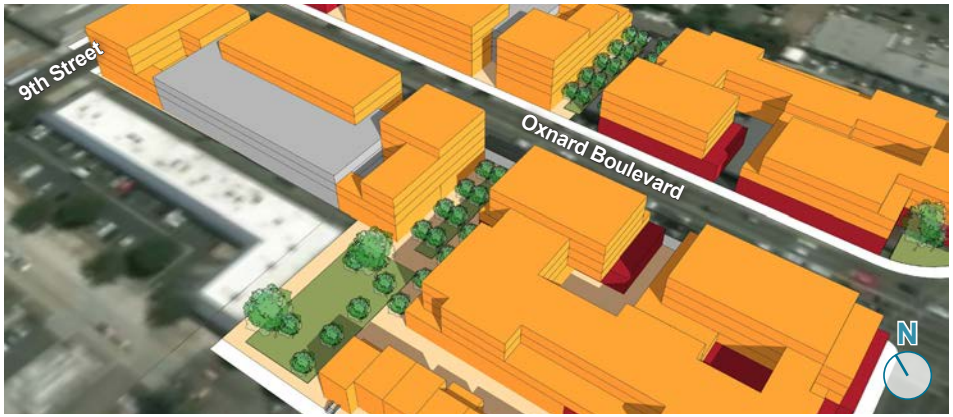
Average Net Dwelling Units/Acre

80+	51 - 80	30 - 50	< 30

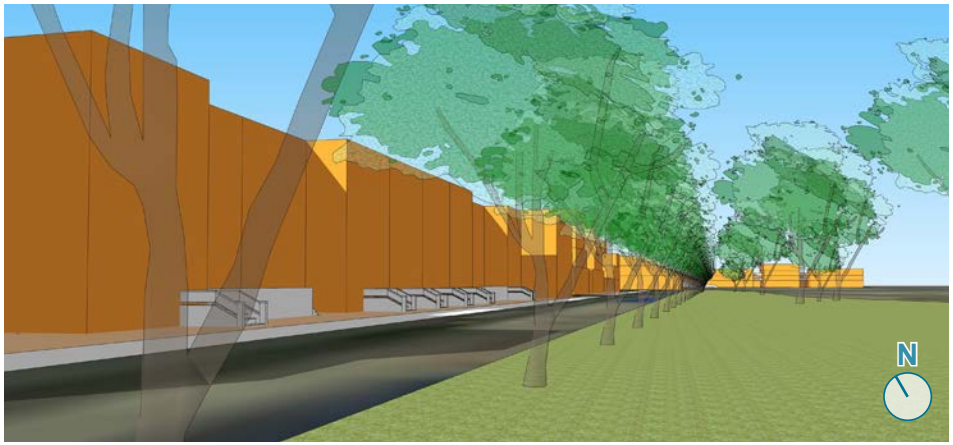
Average Net FAR

4.0 +	3.0 - 3.9	2.0 - 2.9	< 1.9

- Multi-Family Residential
- Retail
- Parking Structure
- Public Open Space
- Private/Semi-Public Open Space



New East-West Pedestrian Connections Across Oxnard Boulevard



Townhouses Lining the Edge of a New Park

Neighborhood Pocket Park

Mixed-Use Connected via Public Courtyards and Parks

New Square between Oxnard Boulevard and a New Park

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Part 5

HQTA Vision

C - INFRASTRUCTURE AND PUBLIC REALM STRATEGY

Priority Projects

Bicycle Network

Pedestrian/Greening Network

Parking and Transportation Network

Key Improvements

- C 1 **3rd Street**
- C 2 **4th Street**
- C 3 **5th Street**
- C 4 **Oxnard Boulevard**
- C 5 **A Street**
- C 6 **B Street**
- C 7 **C Street**

Priority Projects

Corridor Projects

- C 1 3rd Street
- C 2 4th Street
- C 3 5th Street
- C 4 Oxnard Boulevard
- C 5 A Street
- C 6 B Street
- C 7 C Street

Bicycle Projects

- B 1 Bike Hub
- B 2 Rail Path Bicycle Trail
- B 3 B Street Bicycle Track
- B 4 North-South Bicycle Connection
- B 5 East-West Bicycle Connection

Pedestrian/Greening Projects

- PG 1 Transit Plaza
- PG 2 Green Alleyways
- PG 3 Festival Street
- PG 4 Street Grid at Mobile Home Park
- PG 5 Infill Public Parks
- PG 6 Rail Bicycle Path Greening
- PG 7 Tree Canopy Gap Closure
- PG 8 3rd Street Bridge Vertical Transportation and Bridge Sidewalk Improvements
- PG 9 Oxnard Blvd / 4th St Scramble Crosswalk

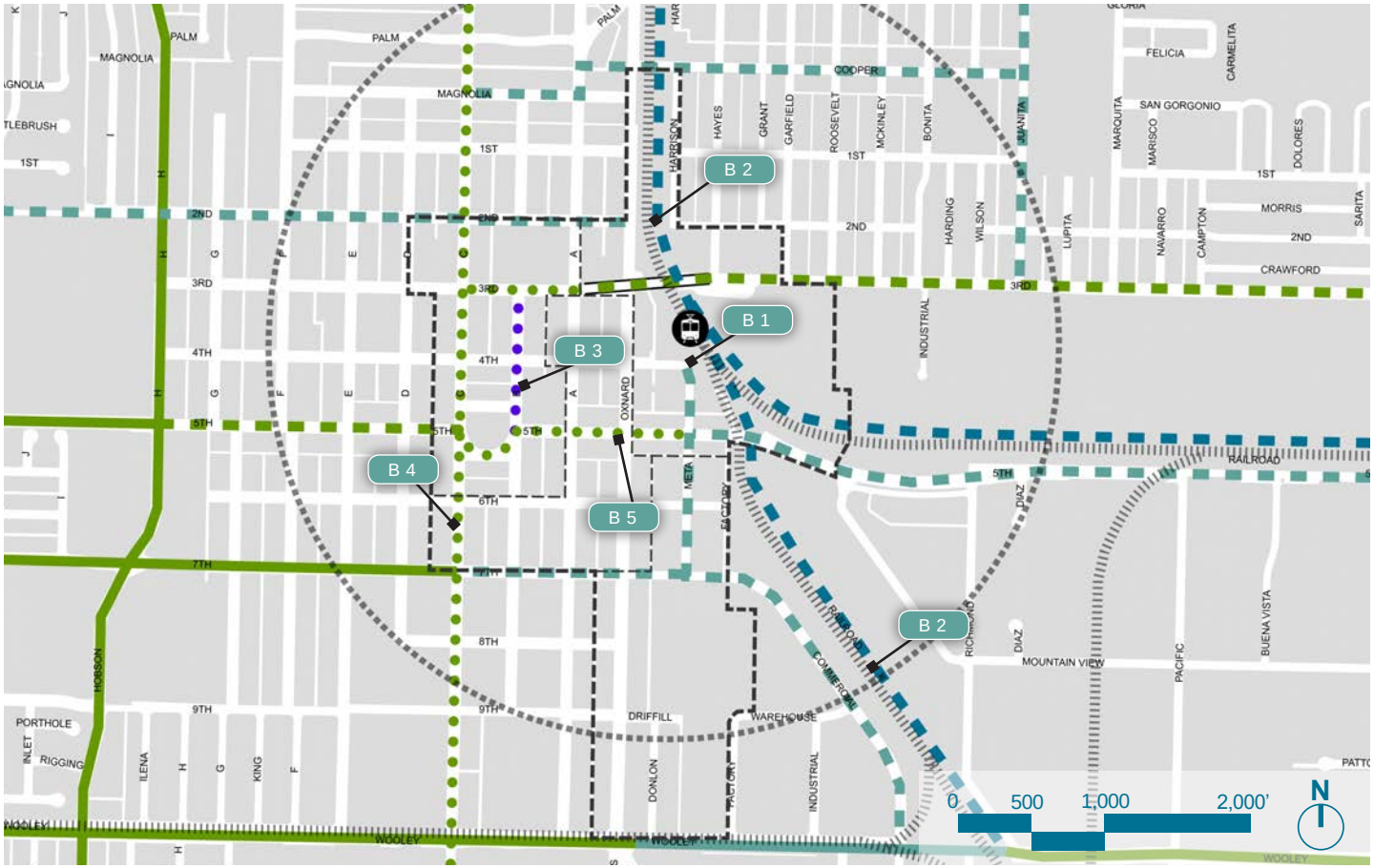
Parking and Transit Projects

- PT 1 Reconfigured Bus Bays
- PT 2 Transit Priority Corridors
- PT 3 Arterial Bus Rapid Transit
- PT 4 New Public Parking Structures

Bicycle Network

Bicycle improvements as part of the Vision Plan are proposed in order to create a connected network of protected bicycle facilities that serve many destinations and multiple neighborhoods surrounding the Pilot Project Area. A connected network of bicycle facilities will provide more benefits such as higher bicycle ridership and improved safety than a few (potentially unconnected) individual projects while creating a district that is easier, and more enjoyable to bike and walk than drive.

This plan generally follows the proposed routes and lanes identified in the Oxnard Bicycle and Pedestrian Master Plan (OBPMP), as the recommendations are suitable for the width and projected traffic conditions. However, the OBPMP proposes Class III bicycle facilities on C Street, while this plan recommends Class II bike lanes. Additionally, the HQTA Vision Plan deviates from the OBPMP with the addition of Class II bicycle lanes on a segment of 5th Street from C Street to Meta Street and a Class IV cycle track on the segment of B Street from 3rd Street to 5th Street. These deviations will provide smoother transitions between existing facilities, and can be accomplished with the street improvements proposed in the following pages of this plan.



Priority Projects

B 1 Bike Hub

A bike hub with storage, repair, and showering facilities, is proposed near the Oxnard Transit Center.

B 2 Rail Path Bicycle Trail

The new rail-adjacent Class I trail will provide cyclists with a safe path of travel in the north-south direction through the Pilot Project Area as it is separated from vehicle traffic.

B 3 B Street Cycle Track

B Street will be redesigned to accommodate a center cycle track to provide cyclists with a regional shaded trail in the heart of downtown.

B 4 North-South Bicycle Connection

C Street has been identified as the primary north-south bicycle corridor as it connects to existing Class II lanes outside of the Pilot Project Area.

B 5 East-West Bicycle Connection

5th Street has been identified as the primary east-west bicycle corridor as it connects to existing Class II lanes outside of the Pilot Project Area.

Existing

- Class II (Bike Lane)
- Class III with sharrow (shared lane)

Proposed (Oxnard BMP)

- Class I (Bike Path)
- Class II (Bike Lane)
- Class III with sharrow (shared lane)

Proposed (HQTA)

- Class II (Bike Lane)
- Class IV (Cycle Track)

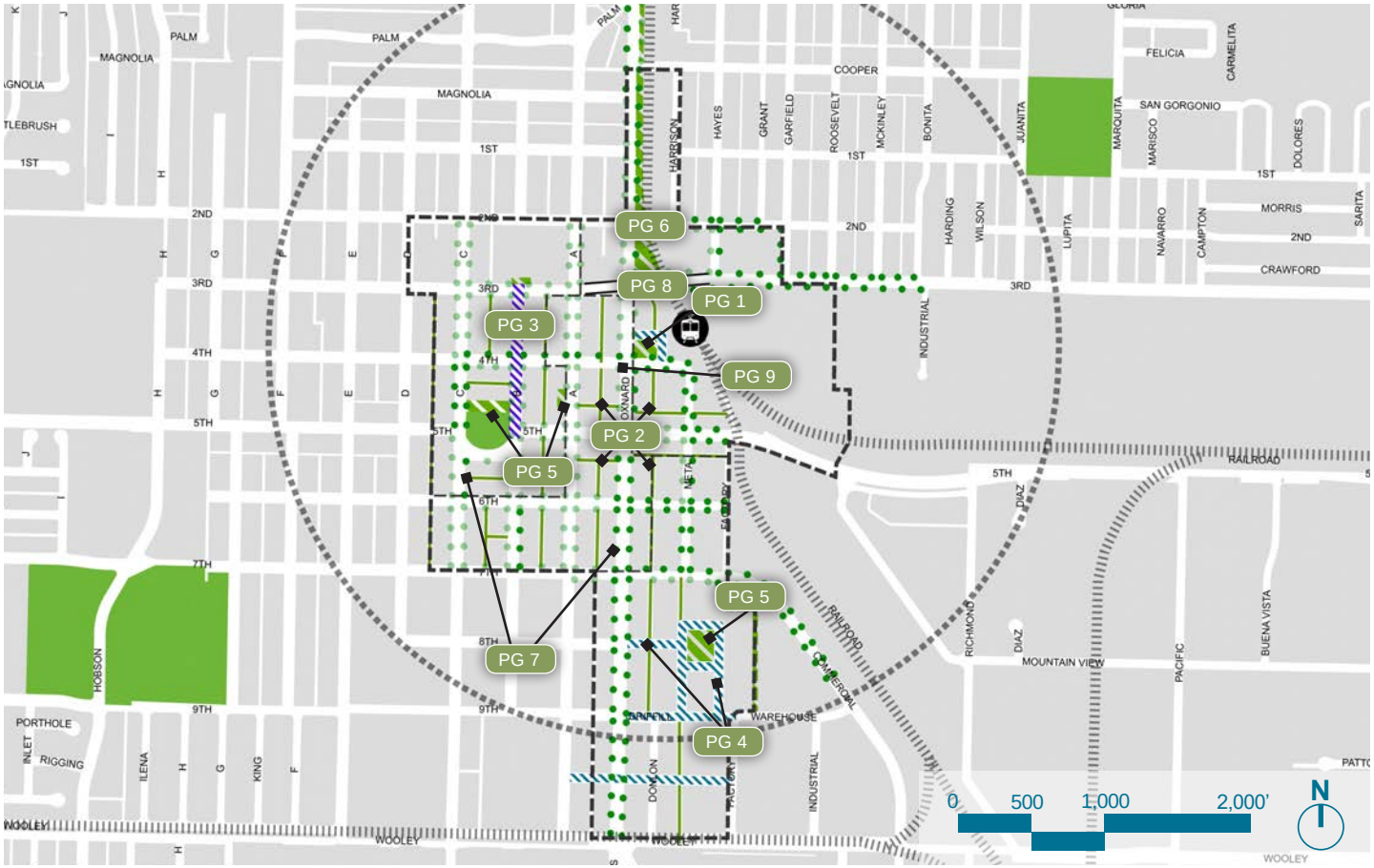
Pedestrian / Greening Network

Landscape, open space, and pedestrian improvements of the Vision Plan not only complement, but should be associated with envisioned bicycle improvements. A Street is the Pilot Project Area's "Main Street" and already has many walkable characteristics, such as wide sidewalks and consistent street trees. The pedestrian vision for the Pilot Project Area extends these characteristics to other major north-south and east-west corridors to maximize the impact of improvements for increasing walkability and boosting transit ridership. Existing tree canopies should be evaluated for consistency with the Downtown Street Tree Master Plan, while new projects should enforce conformity with the Plan.

To create a more walkable downtown and increase pedestrian circulation about the Oxnard Transit Center in the Pilot Project Area, this Vision Plan proposes a network of improved alleyways as well as new streets to divide the superblocks between 7th Street and Wooley Road. Street trees and a number of public and private parks are proposed along these streets.

Priority Projects

- PG 1 Transit Plaza
- PG 2 Green Alleyways
- PG 3 Festival Street
- PG 4 Re-established Street Grid at Mobile Home Park
- PG 5 Infill Public Parks
- PG 6 Rail Bicycle Path Greening
- PG 7 Downtown Tree Canopy Gap Closure
- PG 8 Vertical Transportation at Oxnard Transit Center to 3rd Street Bridge and Bridge Sidewalk Improvements
- PG 9 Scramble Crosswalk at Oxnard Blvd / 4th Street Intersection



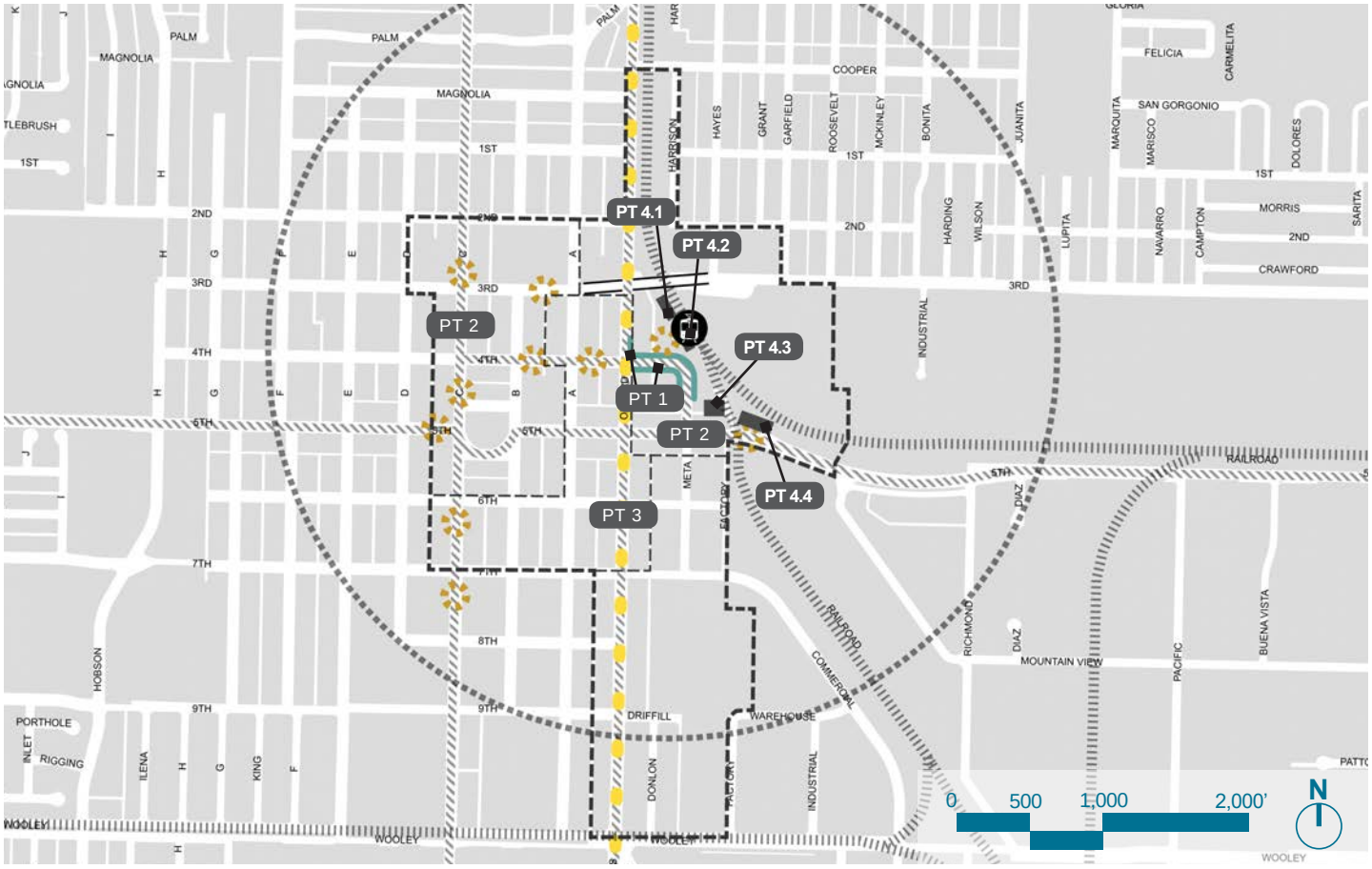
- Enhanced / Green Alleyways
- Existing Street Trees
- Proposed Street Trees
- New Festival Street
- New / Expanded Public Park
- New Streets

Parking and Transportation Network

Transit connectivity and circulation are critical for the HQTA. Downtown Oxnard has several critical bus stops within the HQTA, concentrated primarily along C Street and 4th Street. Oxnard Boulevard has the potential to become a bus rapid transit (BRT) corridor, which would enhance bus service throughout the City of Oxnard with a centralized north-south rapid bus service. Since 4th Street leads to the Oxnard Transit Center, it also has potential for enhanced bus service amenities.

Several new public and private shared parking structures are proposed to support the envisioned development density for the Pilot Project Area. The table at right details the parking capacity at the four new public structures. Parking demand was calculated using the standards given in the June 2018 Draft Oxnard Downtown Zones & Design Guidelines, which is expected to be completed by Winter 2018.

Parking Structure	Floors	Parking Capacity
4.1	3	179 stalls
4.2	3	139 stalls
4.3	3	283 stalls
4.4	3	226 stalls



Priority Projects

PT 1 Reconfigured Bus Bays
This plan proposes to reorient the bus bays at the Oxnard Transit Center to be street-side along Oxnard Boulevard, the portion of 4th Street east of Oxnard Boulevard, and on Meta Street north of 5th Street. This will provide administrative office space for transit providers, break facilities for bus operators, and more convenient boarding for bus routes.

PT 2 Transit Priority Corridors
C Street and/or Oxnard Boulevard will be the primary north-south transit corridors, 5th Street will be the primary east-west transit corridor, and 4th Street will provide critical transit connections from the Oxnard Transit Center to C Street.

PT 3 Arterial Bus Rapid Transit
The restructuring of Oxnard Boulevard, as well as the reoriented Oxnard Transit Center, will provide facilities for a bus rapid transit (BRT) stop at or around the Oxnard / 4th Street Intersection, as well as key TOD hubs along Oxnard Boulevard.

PT 4 New Public Parking Structures
There are four proposed public parking structures, detailed in the table above.

Key Transit Stops
Reconfigured Bus Bays
Potential BRT Corridor
Transit Priority Corridor
New Parking Structure

Key Improvements

Oxnard Transit Center

The Oxnard Transit Center and land directly adjacent to the center will see a major transformation into a mixed-use hub. The bus bays will be realigned to run street-side along 4th Street and Meta Street to free up space for a plaza or park as well as new development. The block will be anchored by a new Oxnard Transit Center and mobility hub building centered along the platform.

PG 1 Transit Plaza

Centennial Plaza Oxnard Transit Center; Sparks, NV

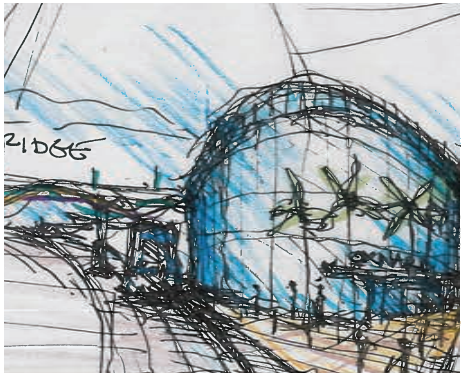
Proposed Oxnard Transit Center Plaza with arterial bus bays on and a scramble crosswalk.

PT 1 Reconfigureded Bus Bays

Long Beach Transit Mall; Long Beach, CA

Proposed: Arterial bus bays and Bike Hub

B 1 New Bike Hub Building



Sketch of proposed bike hub building concept

Rendering of proposed bike hub building concept

Key Improvements

PG 8 3rd Street Bridge

The 3rd Street Bridge will receive placemaking treatments to make it a focal point and gateway marker for Downtown. The bridge will gain a sidewalk on the southern side an a new elevator from the transit station to better facilitate pedestrian circulation from the Oxnard Transit Center and the residential neighborhoods northeast of the station.

PG 8 Vertical Transportation

The 3rd Street Bridge will receive placemaking treatments to make it a focal point and gateway marker for Downtown. The bridge will gain a sidewalk on the southern side an a new elevator from the transit station to better facilitate pedestrian circulation from the Oxnard Transit Center and the residential neighborhoods northeast of the station.

Bridge Lighting

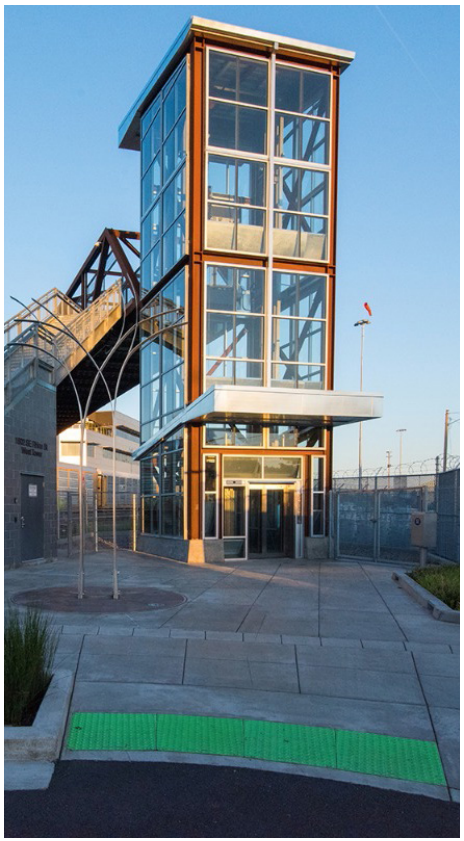
35-W Bridge; Minneapolis, MN

Meydan Bridge in Dubai

New Sidewalk

Existing 3rd Street Bridge with Missing Sidewalk on South Side

Pedestrian Elevator and Stairwell



Elevator at Lafayatte Pedestrian Bridge; Portland, OR

Elevator at Gibbs St Pedestrian Bridge; Portland, OR

Key Improvements

PG 5 Plaza Park

The parking lot adjacent to Plaza Park will become an extension of the park. Replacement parking stalls will be incorporate into the parking provided by new adjacent development to provide a larger public gathering space for the community. In addition, the redesigned B Street will provide the location for regular farmers markets.

PG 2 Green Alleyways

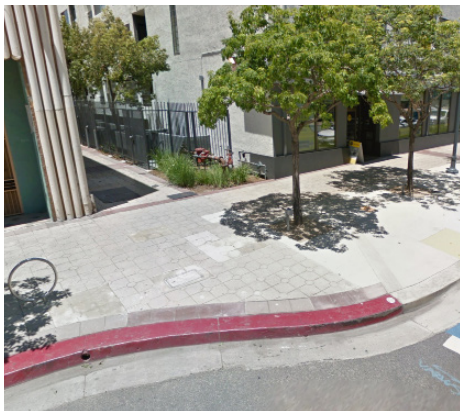
The existing alleyway network in the Downtown will be enhanced with placemaking and pedestrian amenities to facilitate increased pedestrian traffic. General improvements include lighting, signage, landscaping, and unique paving patterns to define the alleys as a connected network.

Park Expansion

Proposed Plaza Park extension

Landscaping

Double row of trees along a pedestrian path/sidewalk



Pine Avenue Green Alley, Long Beach, CA

Proposed alleyway improvements near Plaza Park

Proposed alleyway improvements near Oxnard Blvd.

C 1 3rd Street

3rd is a primary east-west corridor in Downtown with a bridge that connects the core of downtown to the residential neighborhoods to the northeast. This Vision capitalizes on 3rd Street's connections to surrounding neighborhoods and the Civic Center which fronts 3rd Street by add gateway features to distinguish the entrance to Downtown Oxnard. On street parking is replaced to accommodate bike lanes and the center turn lane will have a landscaped median with gateway signage..

Lane Width Reduction: Existing travel lane widths can be reduced to 12' wide. The center turn lane will be reconfigured to accommodate a 10' wide left turn lane and a 4' wide raised median at the intersection..

Gateway Element / Wayfinding Signage: Addition of monument signage at key locations such as the terminus of the B Street Festival and along the 3rd Street Bridge.

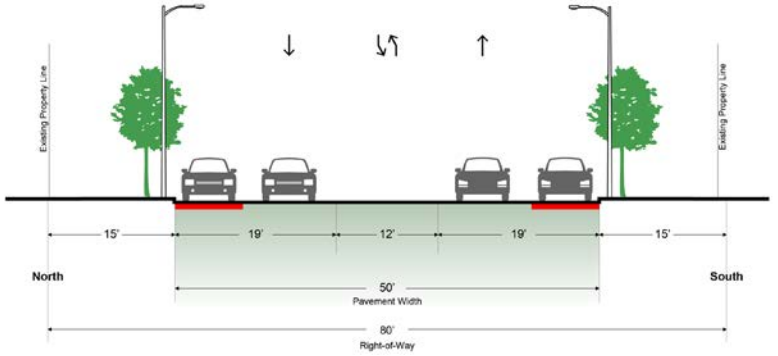
Unique Paving: Addition of a unique paving pattern or painted feature on the pavement at the 3rd Street and B Street intersection to mark the front of the Civic Center and the terminus of the B Street festival shared way.

Bicycle Lanes: Addition of a bicycle lanes along 3rd Street in place of on-street parking. These parking stalls will be accommodated in district parking lots formed by new developments.

Protected Bicycle Intersection: Addition of a protected intersection at the C Street intersection.

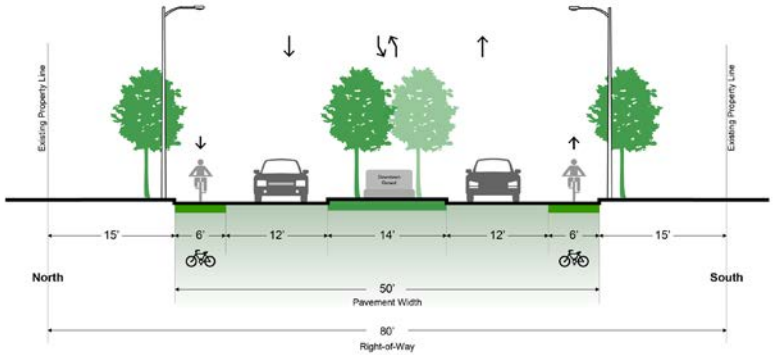
Pedestrian Push Button: Addition of a pedestrian push button at the existing crosswalks at the 3rd Street / B Street intersection to facilitate safer and more convenient crossings for pedestrians.

Existing - Typical Section*

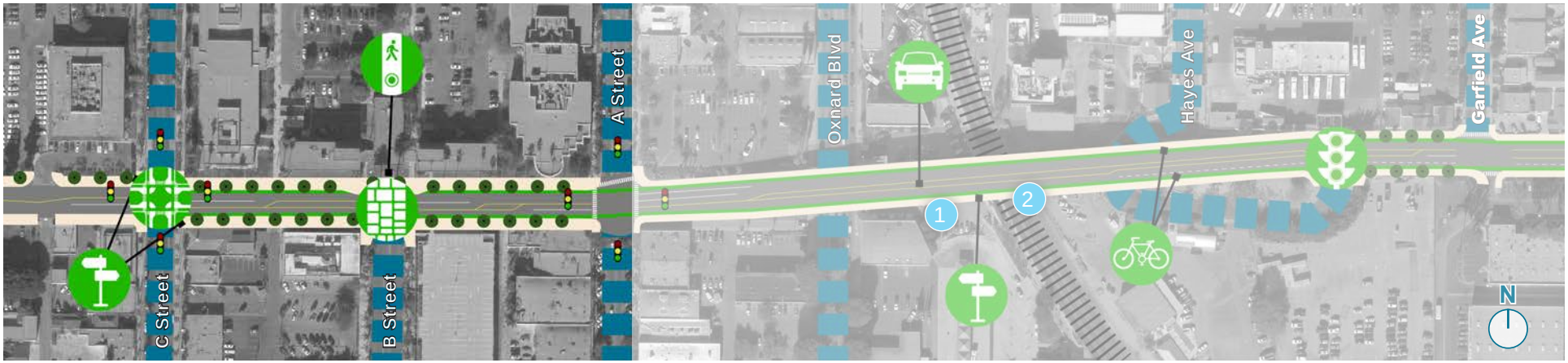


* Dimensions were estimated from aerial imagery. Official dimensions will require a street survey. Source: Google Maps.

Proposed - Typical Section**



** All cross sections to be refined through public/city input. Right turn lane from westbound 3rd Street to northbound A Street will be retained.



C 1 3rd Street (Bridge)

The 3rd Street bridge connects the core of downtown to the residential neighborhoods to the northeast. Proposed improvements to the bridge include the addition of gateway signage near the Oxnard Transit, a new sidewalk on the south side of the bridge, and bicycle lanes. These improvements will help make the 3rd Street bridge a defining feature of Downtown Oxnard.

1. **Vertical Transportation to OTC:** A new staircase and elevator leading from the Oxnard Transit Center to the 3rd Street bridge will shorten the distance cyclists and pedestrians will need to travel from the residential neighborhoods northeast of Downtown. See Project PG 8 for more detail.
2. **Sidewalk and Lighting:** A sidewalk on the south side of the bridge will permit access to the vertical transportation to the OTC. New lighting will help distinguish the bridge as a landmark feature. See Project PG 8 for more detail.

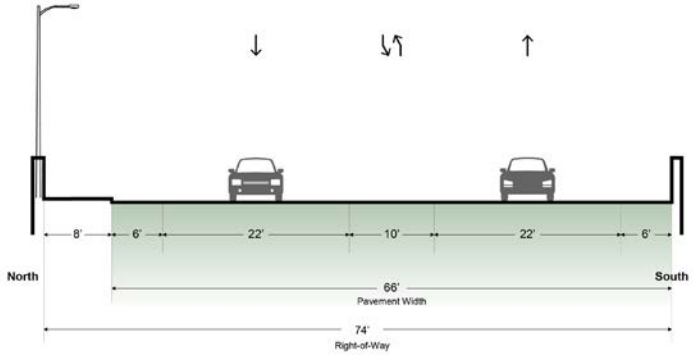
Lane Width Reduction: Existing travel lane widths can be reduced to accommodate bike lanes and a new sidewalk on the south side of the bridge.

Gateway Element / Wayfinding Signage: Addition of monument signage at key locations such as the terminus of the B Street Festival and along the 3rd Street Bridge.

Bicycle Lanes: Addition of bicycle lanes on the 3rd Street bridge.

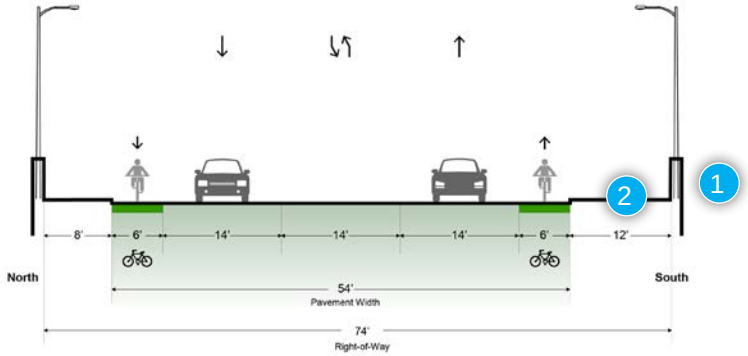
Signalized Intersection: Addition of a three-way traffic signal and crosswalks at the intersection of 3rd Street and Hayes Avenue.

Existing - Bridge Section*

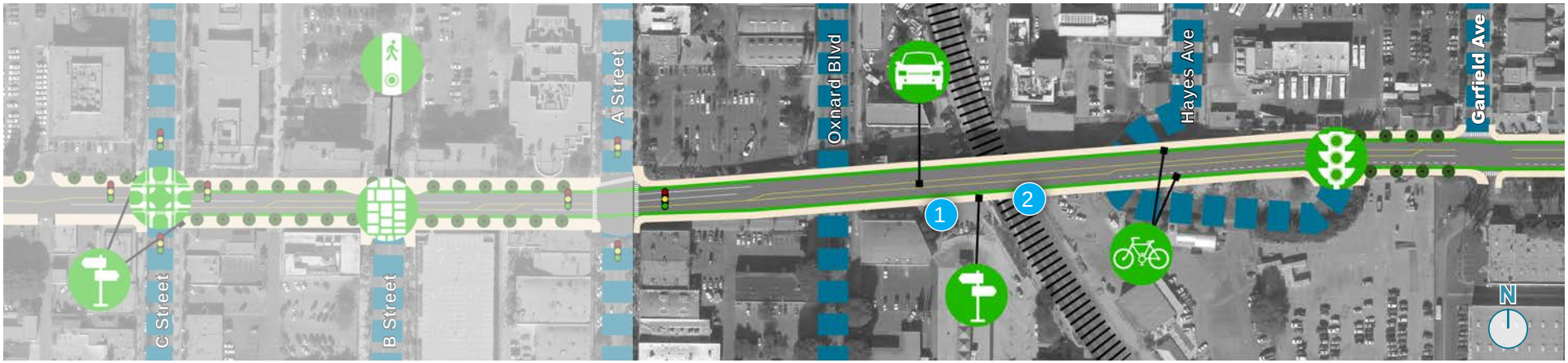


* Dimensions were estimated from aerial imagery. Official dimensions will require a street survey. Source: Google Maps.

Proposed - Bridge Section**



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



C 2 4th Street

4th Street will become a promenade and major transit interchange. As indicated by stakeholder interviews with Gold Coast Transit, the B Street / 4th Street intersection is amongst the busiest in the downtown due to overlapping alignments of multiple transit routes. This Vision implements several improvements to make transit accessibility along 4th Street more convenient for both bus operators and riders, as well as adds critical improvements for pedestrian connectivity to the newly enhanced B Street.

(Option) Bus-only Lanes: Addition of bus-only lanes on 4th Street replacing existing on-street parking to facilitate bus traffic from major north-south corridors C Street and Oxnard Boulevard. Alternatively, enhanced bus service may operate in a shared vehicular travel lane to retain on-street parking.

Enhanced Bus Stop: Improved street furniture and signage at key bus stops at the 4th Street / Oxnard Boulevard intersection and new arterial bus bays east of Oxnard Boulevard. These enhanced stops may be converted to BRT stops if necessary.

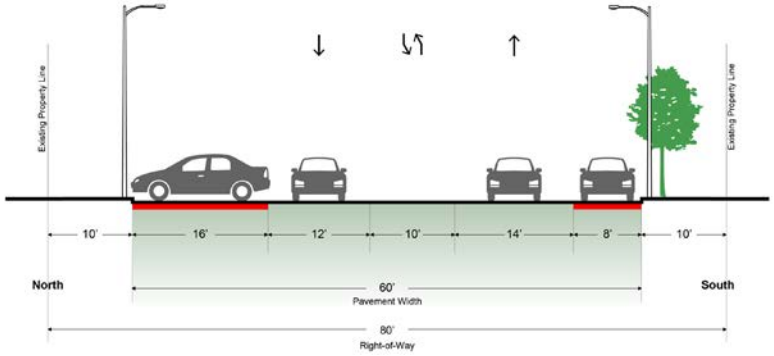
Wayfinding Signage: Addition of a wayfinding signage near the OTC at the 4th Street / Oxnard Boulevard intersection and at the 4th Street / B Street intersection.

Scramble Crosswalk: Addition of a scramble crosswalk at the intersection of 4th Street and Oxnard Boulevard.

Unique Paving: Addition of unique pavers along the sidewalk to match the B Street festival pavement treatments to continue activity and character from the core of Downtown Oxnard to the OTC.

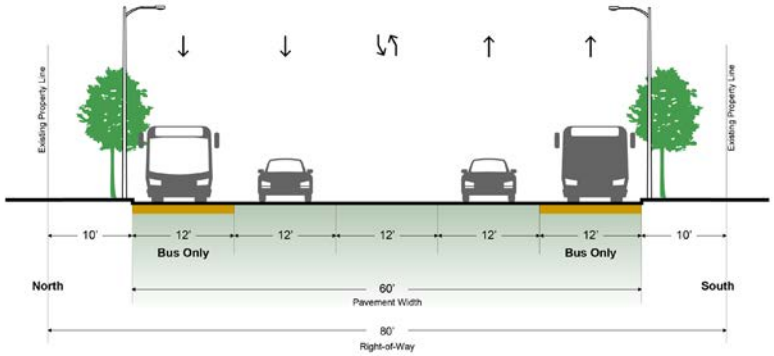
Greenway / Street Trees: Introduce shade trees and parkways in canopy gaps along 4th Street.

Existing - Typical Section*



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

Proposed - Typical Section**



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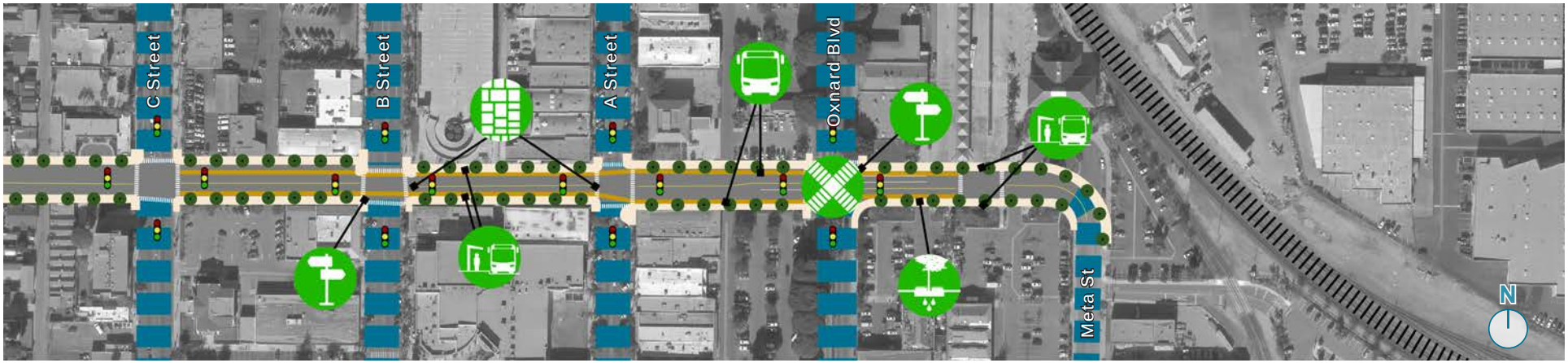


C 3 5th Street

5th Street will become a major transit and bicycle corridor. 5th Street has the option of replacing on-street parking on the westbound side with a bus-only lane to better facilitate transit routes turning from Oxnard Boulevard and Meta Street to return to C Street, the primary north-south transit corridor in the downtown. Alternatively, the northern parking lane may be replaced with a cycle track as illustrated below and at right to similarly facilitate transfers between bicycle routes.

Lane Width Reduction: Existing travel lane widths can be reduced to 12' wide on outer lanes and 11' wide on the center turn lane.

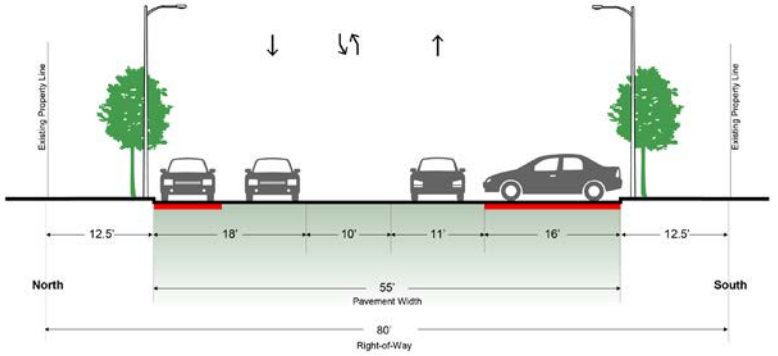
Bicycle Lane: Addition of a 6' wide bike lanes on either side of 5th Street in place of on-street parking won the north side of the street. These parking stalls will be accommodated in district parking lots formed by new developments.
OPTION: Add a bus-only lane in place of on-street parking on the north side to ease bus travel from the Oxnard Transit Center to Oxnard Boulevard or C Street.

Scramble Crosswalk: Addition of scramble crosswalks at the B Street and C Street intersections.

Protected Intersection: Reconfiguration of existing curb extensions to create protected intersections at intersecting Class II and IV bicycle facilities on C Street and B Street.

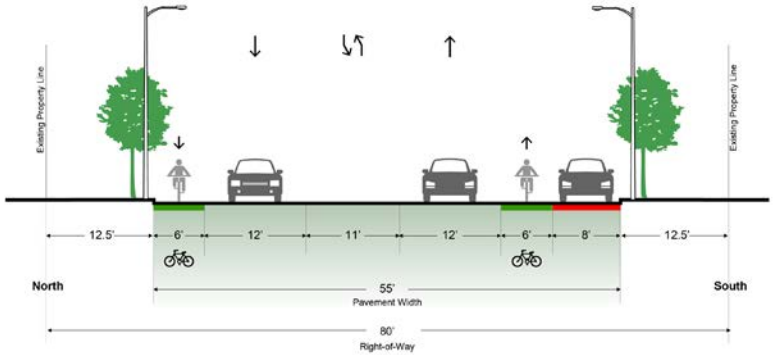
Greenway / Street Trees: Introduce shade trees and parkways in canopy gaps along 5th Street.

Existing - Section (A Street – Meta Street)*



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

Proposed - Section (A Street – Meta Street)**



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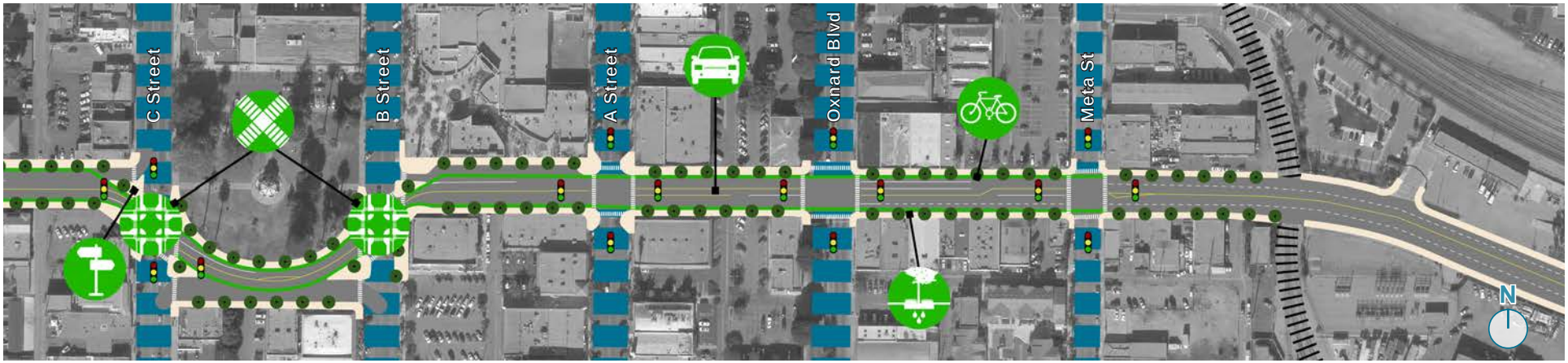


C 4 Oxnard Boulevard (North)

Oxnard Boulevard is an auto-oriented street, but lacks facilities for efficient bus routes despite being a major cross street for the Oxnard Transit Center. The proposed enhancements will make the street more comfortable for pedestrians and transit users, including arterial bus stops near the Oxnard Transit Center and a scramble crosswalk at the 4th Street / Oxnard Boulevard intersection. A reconstructed median will include landscaping and pedestrian refuges at mid-block points to facilitate safer pedestrian crossings.

1. **Reconstructed Median:** Reduced width, new refuges, and new landscaping.
2. **Arterial Bus Rapid Transit (BRT):** Re-striped outer travel lanes to accommodate potential arterial BRT (lane would be shared with vehicular traffic).

Shopfront Overlay: Refer to private frontage guidelines in Oxnard Downtown Code (DRAFT, December 2018).

Lane Width Reduction: Existing outer travel lane widths can be reduced to 12' wide and the center turn lane can be reduced to 10' wide to accommodate wider sidewalks for pedestrian and transit user amenities.

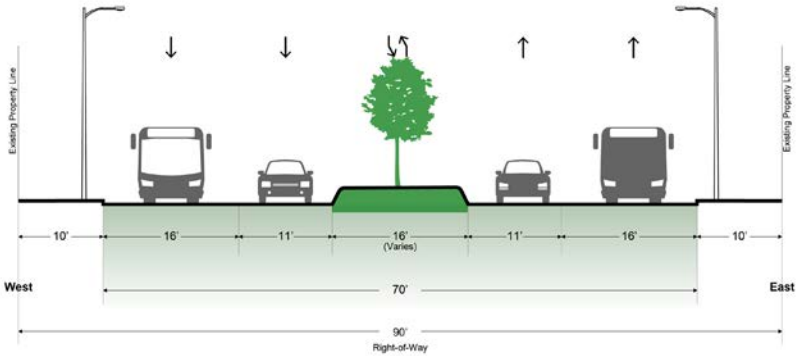
Enhanced Bus Stop / Shelter for BRT: Improved street furniture and signage at key bus stops at the 4th Street / Oxnard Boulevard intersection. These enhanced stops may be converted to BRT stops if necessary.

Gateway Element / Wayfinding Signage: Addition of a monument signage at key Downtown entry point on 3rd Street Bridge overlooking Oxnard Boulevard.

Scramble Crosswalk: Addition of a scramble crosswalk at the intersection of 4th Street and Oxnard Boulevard.

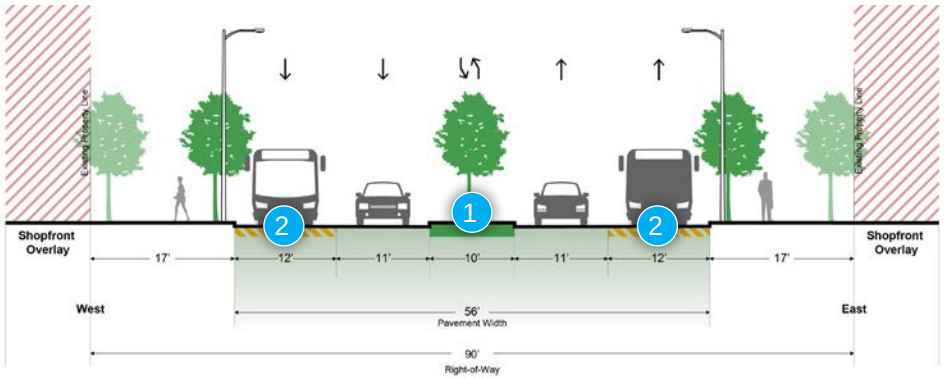
Refuge Islands: Addition of mid-block pedestrian refuge islands at the reconstructed median.

Existing - Typical Section*



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

Proposed - Typical Section**



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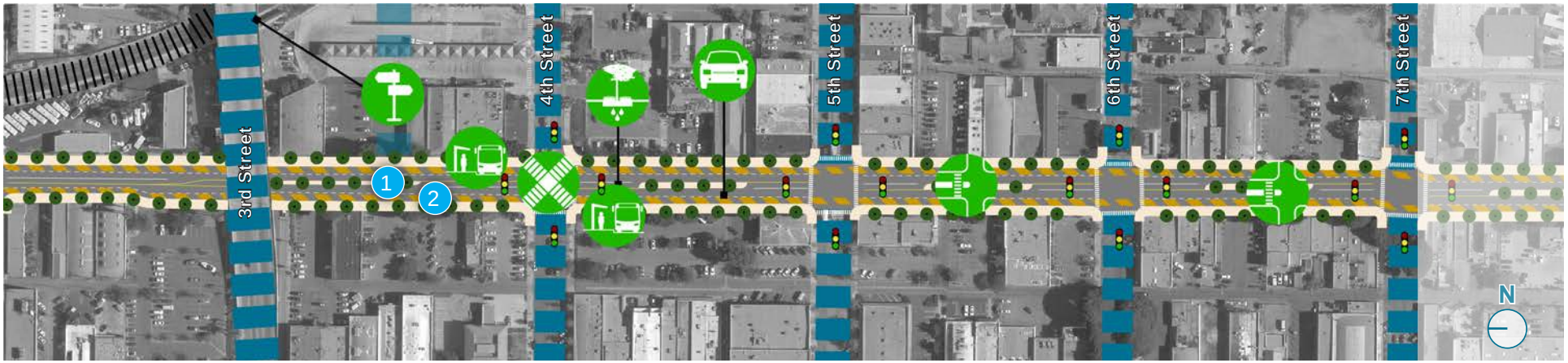


C 4 Oxnard Boulevard (South)

Improvements to the southern portion of Oxnard Boulevard within the Pilot Project Area include a potential new intersection at 8th Street to facilitate circulation to a revitalized Royal Palms Mobile Home Park. Center aisle landscaped median improvements continue south until Wooley Road.

1. **8th Street Extension:** A potential street extension to access Royal Palms.
2. **Potential "10th Street":** A potential new street and intersection at the superblocks between 9th Street and Wooley Road.
3. **Wooley Road / Oxnard Boulevard Intersection:** This complex intersection will need to be revisited in future studies for intersection improvements.

Shopfront Overlay: Refer to private frontage guidelines in Oxnard Downtown Code (DRAFT, December 2018).

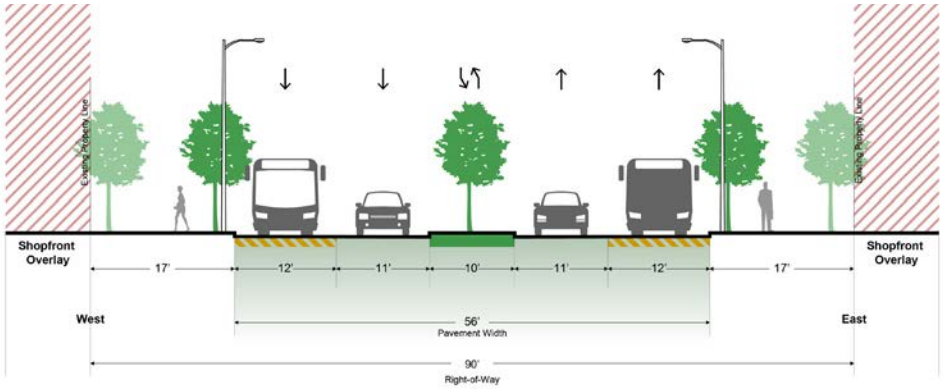
Gateway Element / Wayfinding Signage: Addition of a monument signage at key Downtown entry point at Oxnard Boulevard / Wooley Road intersection.

Lane Width Reduction: Existing outer travel lane widths can be reduced to 12' wide and the center turn lane can be reduced to 10' wide to accommodate wider sidewalks for pedestrian and transit user amenities.

Signalized Intersection: Addition of a traffic signal and crosswalks at the intersection of Oxnard Boulevard and 8th Street, if warranted.

Refuge Islands: Addition of mid-block crossings and pedestrian refuge islands at the reconstructed median.

Proposed - Typical Section**



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

Arterial Bus Rapid Transit Station, St. Paul, MN

SbX Bus Rapid Transit, San Bernardino, CA

C 5 A Street

A Street is the primary commercial corridor for Downtown Oxnard with a unique main street feel. The existing character is preserved in this Vision Plan, and enhanced with right-of-way greening and pedestrian amenities. Similar to the CNU Downtown Oxnard Vision Plan (2016), this Vision proposes parklets and replanted mid-block planters to enhance connections to the east-west pedestrian paseos that connect A Street to Oxnard Boulevard and B Street.

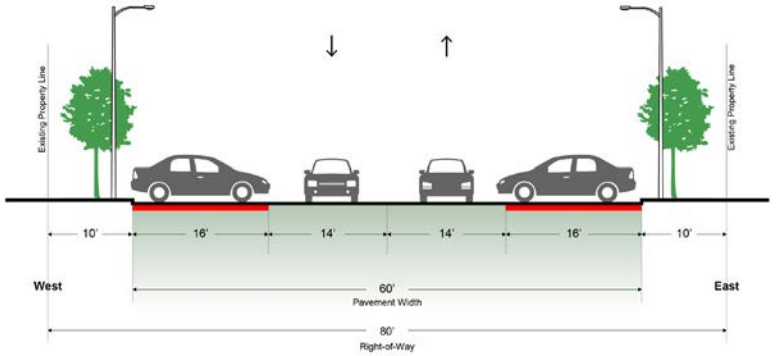
1. **Green Alley Pedestrian Connections:** Enhanced mid-block crossings along A Street will provide more clear connections to the enhanced pedestrian alleys between Oxnard Boulevard and B Street.
2. **District Parking:** On-street parking replaced by parklets may be accommodated in nearby parking lots and structures.
3. **Infill Semi-Public Park:** This Vision recommends the unused parcel behind the Plaza Stadium theater become a park to take advantage of the existing mid-block crossing which connects to an A Street-Oxnard Boulevard pedestrian paseo.
4. **Reverse Angle Parking:** Reverse angle on-street parking was proposed for A Street by the CNU Downtown Oxnard Vision Plan (2016); Mission Avenue in Oceanside, CA is a successful precedent for this type of parking arrangement.

Curb Extensions: Addition of curb extensions at the 2nd Street / A Street intersection.

Pedestrian Push Button: Addition of a pedestrian push button at the existing mid-block crosswalks along A Street between 3rd Street and 6th Street to facilitate safer and more convenient crossings for pedestrians.

Mid-Block Parklets: New landscaping, bicycle racks, and pedestrian lighting fixtures at existing mid-block curb extensions along with new adjacent parklets in existing diagonal parking stalls.

Existing - Typical Section*



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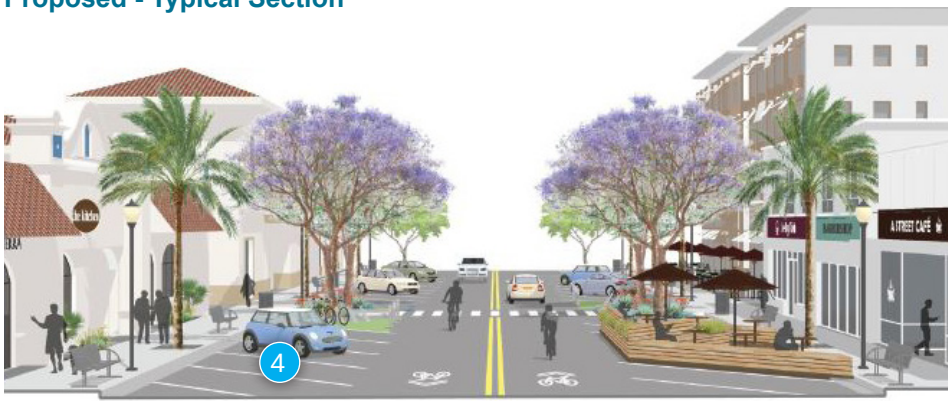
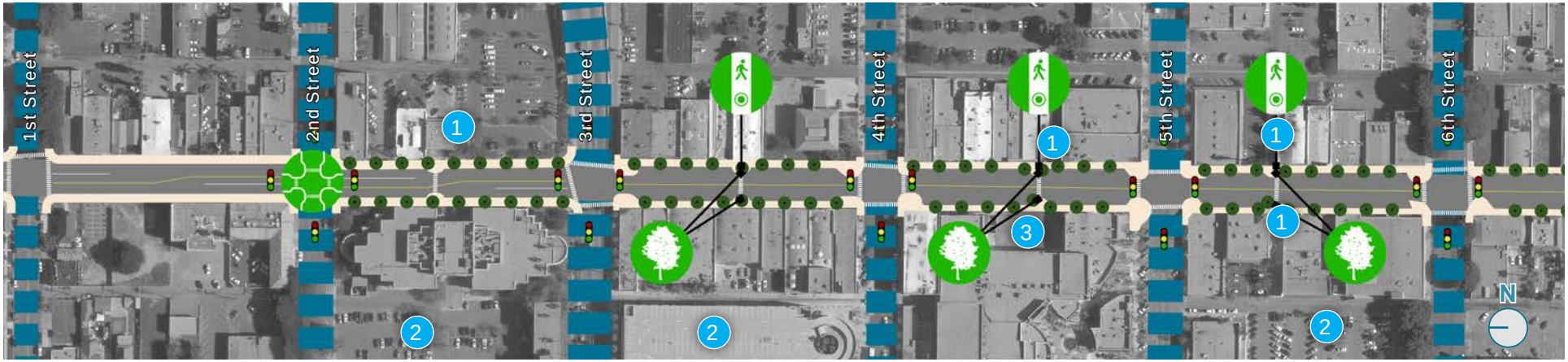
Proposed - Typical Section



Source: CNU Downtown Oxnard Vision Plan (2016)



C 6 B Street

B Street has been completely re-imagined as multi-modal, festival and civic street with a center aisle rambla to provide a pedestrian and cyclist-friendly connection from Plaza Park to the Civic Center. The rambla will be flexible enough to serve as the new site for the Downtown Oxnard Farmers Market, which currently operates on Thursdays in the Plaza Park parking lot.

1. **Removable Bollards:** The bollards will prevent through-traffic during farmers markets and other street festivals.
2. **Relocated Farmers Market:** On-street parking will be reserved for vendor trucks during events while the center rambla will act as a promenade with event seating.
3. **District Parking:** On-street parking stalls lost in the conversion of existing angled stalls to parallel stalls will be accommodated in parking lots and structures provided by new adjacent developments.

Unique Paving: Addition of a unique paving pattern or painted feature on the pavement at the 3rd Street / B Street intersection to mark the front of the Civic Center and the terminus of the B Street festival shared way.

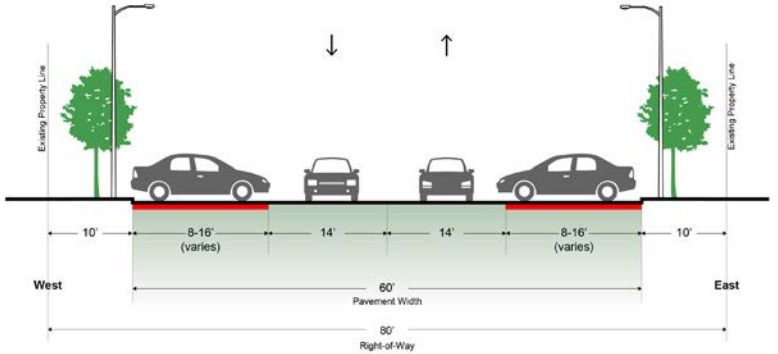
Scramble Crosswalk: Addition of a scramble crosswalk at the 5th Street / B Street intersection.

Cycle Track: Addition of a bi-directional cycle track on the center aisle of B Street between 3rd Street and 5th Street. As an alternative, with further study, the center aisle may become a multi-use path to allow both pedestrian and cyclist traffic.

Enhanced Bus Stop / Shelter: Improved street furniture and signage at key transit stop at the intersection of 4th Street and B Street.

Greenway / Street Trees: Introduce additional shade trees along the center aisle rambla/cycle track.

Existing - Typical Section*



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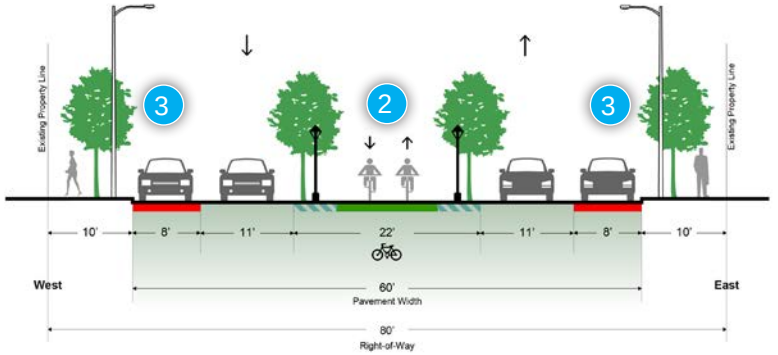

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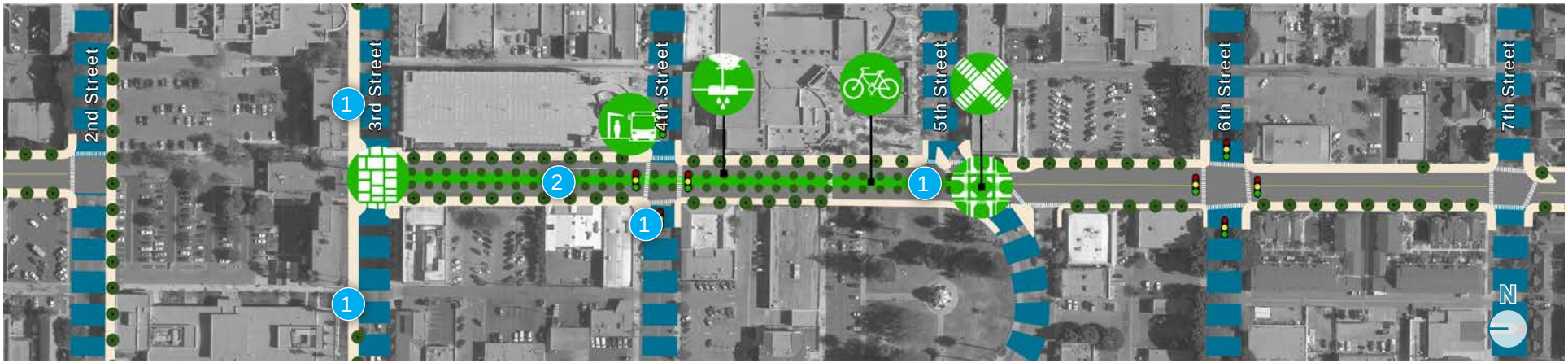


C 7 C Street

C Street is both a major travel north-south corridor for both buses and cyclists. Improvements to existing transit shelters will make bus travel along C Street more pleasant for commuters. With the addition of bicycle lanes, cyclists will have a relatively unobstructed north-south bicycle corridor to connect to other existing bicycle facilities outside the Pilot Project Area. This Vision proposes BRT facilities along Oxnard Boulevard, and recommends C Street as the alternate BRT corridor if more viable.

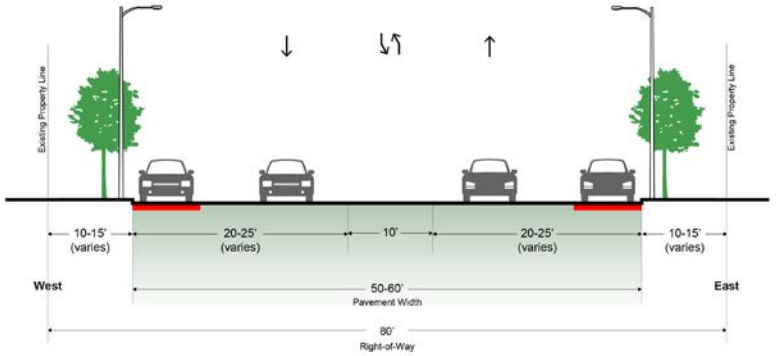
Lane Width Reduction: Existing travel lane widths can be reduced to 12' wide to accommodate bike lanes.

Enhanced Bus Stop / Shelter: Improved street furniture and signage at key transit stops along C Street. These enhanced stops may be converted to BRT stops if necessary.

Bicycle Lane: Addition of bicycle lanes along C Street.

(Option) Bus Rapid Transit: If BRT is more feasible along C Street than along Oxnard Boulevard, replace C Street on-street parking with bus rapid transit or bus-only or -priority lanes instead of adding bicycle lanes.

Existing - Typical Section*



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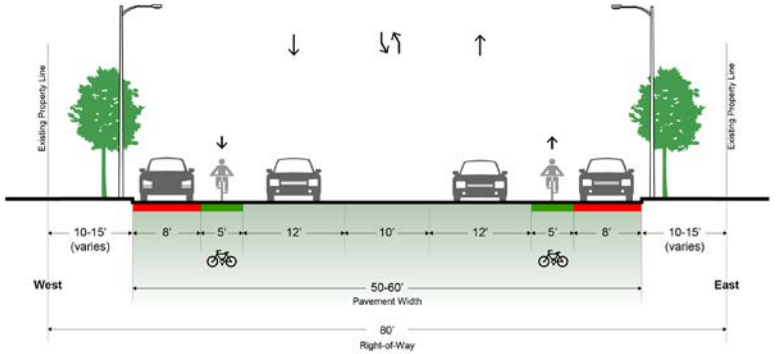
Proposed - Typical Section**



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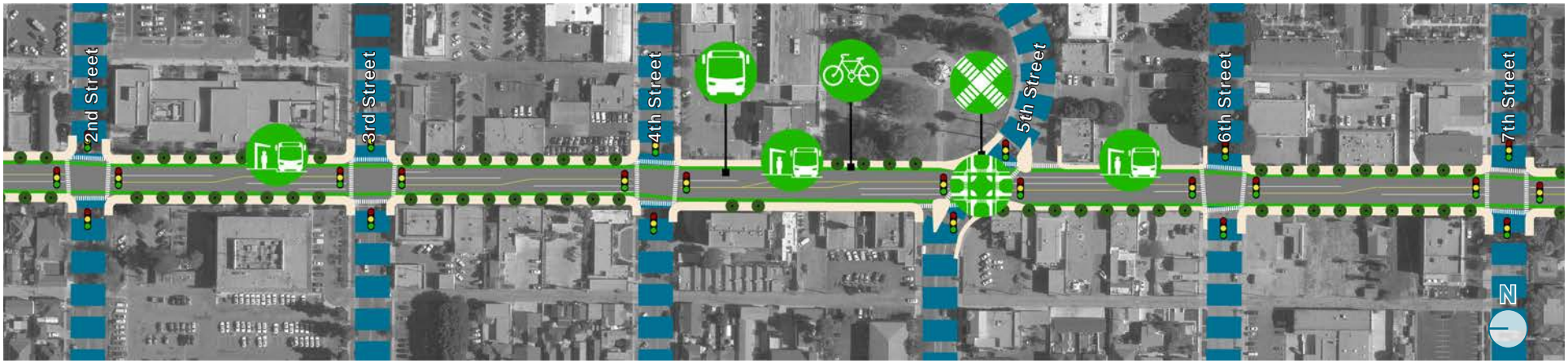

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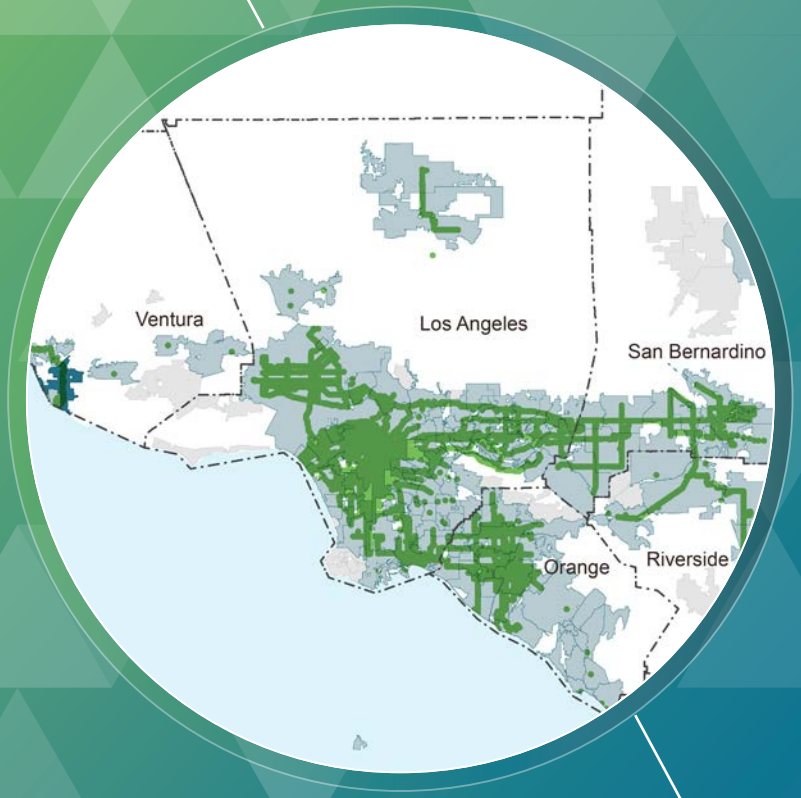
Part 6

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). Projects that fall within multiple MDAs are summarized following the MDA profiles.

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 Amenity Zones and other 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.

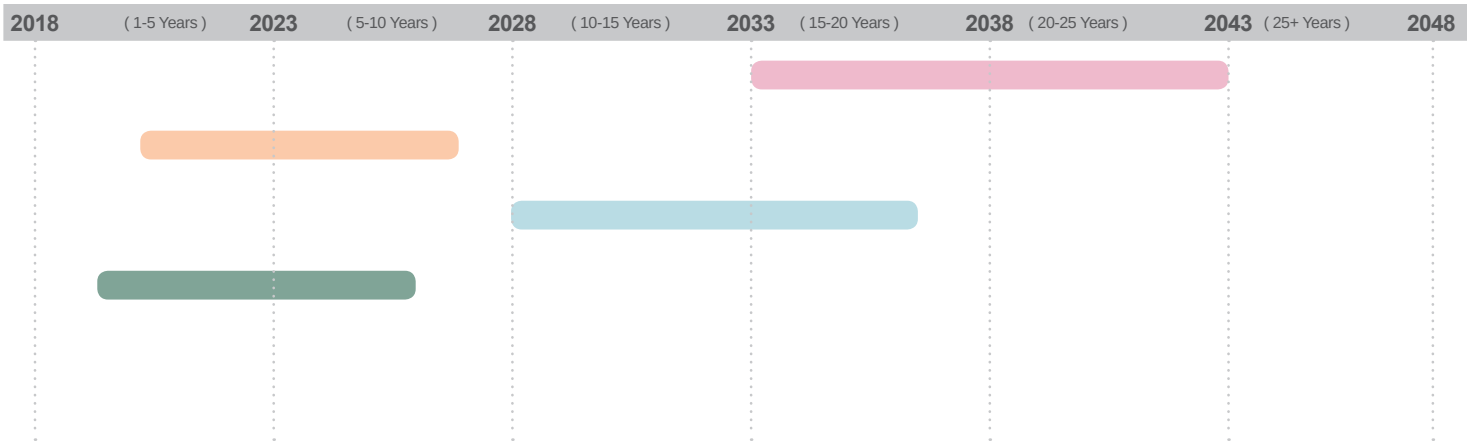
Metrics

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

- MD 1 Oxnard Transit Center Block
- MD 2 Carnegie Museum / Plaza Park Block
- MD 3 Royal Palms Mobile Home Park
- MD 4 Infill along Oxnard Boulevard



Priority Oxnard 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 City of Oxnard's 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

MD 1 Oxnard Transit Center Block Redevelopment MDA Priority Projects

The transit offices will be rehoused in a more centralized mixed-use building that fronts a new public plaza. New streets will divide the large block to make space for a public park and plaza, street-facing retail, and mixed-use buildings. Much of this land is owned by the City and could become revenue-generating joint development projects that could add to general operating funds.

Priority Projects within MD 1	General Timeline	Stakeholders	Cost Estimate*	Cost Estimate Assumptions	Potential Funding Sources
B 1 **Bike Hub** A bike hub with storage, repair, and showering facilities is proposed near the Transit Center.	Start 2033 → End 2043	- City of Oxnard	$13.10M - $19.65M	Precedent: Bikestation in Washington D.C.(2010)	BP Active Transportation Program (ATP) BP Surface Transportation Block Grant PT Infrastructure State Revolving Fund VC TIF/ EIFD
PG 1 **Transit Plaza** Landscaping, seating, lighting, and other park amenities.	Start 2033 → End 2043	- City of Oxnard	*More detailed design documentation is required to provide accurate cost estimates*	*N/A*	
PG 8 **3rd Street Bridge Vertical Transportation and Bridge Sidewalk Improvements** New sidewalk along the south side of the 3rd Street Bridge connecting to a new pedestrian staircase and elevator.	Start 2033 → End 2043	- City of Oxnard			
PT 1 **Reconfigured Bus Bays** Curb extensions, new sidewalks, and arterial bus bays along Oxnard Boulevard, 4th Street, and Meta Street.	Start 2033 → End 2043	- City of Oxnard - VCTC - Gold Coast Transit	$1.86M - $2.726M	Precedent: UC Riverside Mobility Hub (2018)	PT SB-325 State Transit Assistance PT Infrastructure State Revolving Fund VC TIF/ EIFD VC Parking Fees/ Congestion Pricing
PT 4 **New Public Parking Structures** Four new public parking structures around the Oxnard Transit Center.	Start 2033 → End 2043	- City of Oxnard - Private Developers	$24.81M - $33.08M	827 stalls in 4 structures at $30,000 - $40,000 per stall	

Other Associated Projects (see pages 87 and 88 for more detail)

C 1 **3rd Street Corridor Improvements,** C 2 **4th Street Corridor Improvements,** C 3 **5th Street Corridor Improvements,** C 4 **Oxnard Boulevard Corridor Improvements,** B 2 **Rail Path Bicycle Trail,** PG 6 **Rail Bicycle Path Greening,** PT 2 **Transit Priority Corridors,** PT 3 **Arterial Bus Rapid Transit**

* All rough order of magnitude cost estimates are conceptual and assume no modifications to utilities or cost escalation beyond 2018. The cost of Amenity Zones and other private property improvements have not been included.

MD 2 Carnegie Museum / Plaza Park Block Redevelopment MDA Priority Projects

The block bounded by Plaza Park and 4th Street will be substantially redeveloped to take advantage of prime land fronting the new festival B Street and an expanded Plaza Park. The Carnegie Art Museum will be preserved and a new museum could be located across from the Art Museum and Plaza Park, creating a cultural hub for downtown Oxnard.

Priority Projects within MD 2	General Timeline	Stakeholders	Cost Estimate*	Cost Estimate Assumptions	Potential Funding Sources
B 3 **B Street Bicycle Track** B Street will be redesigned to accommodate a center cycle track to provide cyclists with a safe, shaded path in the heart of downtown.	Start 2020 → End 2026	- City of Oxnard	*Cost of project included in cost estimation for Project* C 6	*N/A*	BP Active Transportation Program (ATP) BP Surface Transportation Block Grant BP Congestion Mitigation and Air Quality Improvement Program (CMAQ) VC TIF/ EIFD
PG 3 **Festival Street** Regularly programmed public events, removable bollards, farmers markets, etc. For more details see Project C 6 and Project B 3.	Start 2020 → End 2026	- City of Oxnard	*Cost of project included in cost estimation for Project* C 6	*N/A*	

Other Associated Projects (see pages 87 and 88 for more detail)

- C 1 **3rd Street Corridor Improvements**
- C 2 **4th Street Corridor Improvements**
- C 3 **5th Street Corridor Improvements**
- C 6 **B Street Corridor Improvements**
- C 7 **C Street Corridor Improvements**
- B 4 **North-South Bicycle Connection**
- B 5 **East-West Bicycle Connection**
- PT 2 **Transit Priority Corridors**

* All rough order of magnitude cost estimates are conceptual and assume no modifications to utilities or cost escalation beyond 2018. The cost of Amenity Zones and other private property improvements have not been included.

MD 3 Royal Palms Mobile Home Park Redevelopment MDA Priority Projects

The mobile home park at the southeast corner of the Pilot Project Area will be redeveloped into higher-density housing. The superblock on which the mobile home park sits will be divided with new streets and paths to improve vehicular and pedestrian circulation by reconnecting the street grid. A central town square will provide recreational amenities for local residents.

Priority Projects within MD 3	General Timeline	Stakeholders	Cost Estimate*	Cost Estimate Assumptions	Potential Funding Sources
PG 4 **Street Grid at Mobile Home Park** New street paving, sidewalks, landscaping, lighting, and signalized intersections.	Start 2028 → End 2035	- City of Oxnard - Private Developers	$5.07M - $6.91M	Construction of new street network approximately 0.45 miles long	BP Active Transportation Program (ATP) ER Public-Private Partnership/ Joint Development VC TIF/ EIFD VC Developer Impact Fee

Other Associated Projects (see pages 87 and 88 for more detail)

- C 4 **Oxnard Boulevard Corridor Improvements**
- B 2 **Rail Path Bicycle Trail**
- PG 6 **Rail Bicycle Path Greening**
- PT 2 **Transit Priority Corridors**

* All rough order of magnitude cost estimates are conceptual and assume no modifications to utilities or cost escalation beyond 2018. The cost of Amenity Zones and other private property improvements have not been included.

MD 4 Infill along Oxnard Boulevard MDA Priority Projects

The many lots owned by public and private entities in Downtown Oxnard will be gradually redeveloped into mixed-use buildings that suit the character of Downtown, particularly near the Oxnard Transit Center. Surface parking lots on Oxnard Boulevard will be redeveloped into mixed-use developments. A new shared parking structures will be added when necessary to form localized parking districts.

Priority Projects within MD 4	General Timeline	Stakeholders	Cost Estimate*	Cost Estimate Assumptions	Potential Funding Sources
PG 2 **Green Alleyways** New landscaping, signage, and lighting.	Start 2020 → End 2025	- City of Oxnard - Private Developers	*More detailed design documentation is required to provide accurate cost estimates*	*N/A*	BP Active Transportation Program (ATP) UG Urban and Community Forestry Program

Other Associated Projects (see pages 87 and 88 for more detail)

- C 4 **Oxnard Boulevard Corridor Improvements**
- B 2 **Rail Path Bicycle Trail**
- PG 5 **Infill Public Parks**
- PG 6 **Rail Bicycle Path Greening**
- PG 7 **Tree Canopy Gap Closure**
- PT 2 **Transit Priority Corridors**
- PT 3 **Arterial Bus Rapid Transit**

* All rough order of magnitude cost estimates are conceptual and assume no modifications to utilities or cost escalation beyond 2018. The cost of Amenity Zones and other private property improvements have not been included.

Priority Projects in Multiple Major Development Areas

Priority Projects	General Timeline	Stakeholders	Cost Estimate*	Cost Estimate Assumptions	Potential Funding Sources
C 1 **3rd Street Corridor Improvements** Lane Width Reduction, Gateway Element / Wayfinding Signage, Unique Paving, Bicycle Lanes, Protected Intersection, Signalized Intersection	Start 2025 → End 2030	- City of Oxnard	$6.63M - $9.04M	Minor surface street interventions, substantial bridge interventions	BP Active Transportation Program (ATP) BP Surface Transportation Block Grant UG Urban and Community Forestry Program UG Urban Greening Grant Program VC TIF/ EIFD
C 2 **4th Street Corridor Improvements** Bus-only Lanes, Enhanced Bus Stop, Wayfinding Signage, Scramble Crosswalk, Enhanced Paving	Start 2025 → End 2035	- City of Oxnard - VCTC - Gold Coast Transit	$0.89M - $1.48M	Moderate interventions from C St to Meta St	
C 3 **5th Street Corridor Improvements** Lane Width Reduction, Bicycle Lanes, Scramble Crosswalk, Protected Intersection, Greenway / Street Trees / Bioswale	Start 2020 → End 2025	- City of Oxnard	$1.02M - $1.45M	Moderate interventions from D St to Meta St	
C 4 **Oxnard Boulevard Corridor Improvements** Reconstructed Median, Enhanced Bus Stop / Shelter for BRT, Gateway Element / Wayfinding Signage, Scramble Crosswalk, Refuge Islands	Start 2020 → End 2025	- City of Oxnard - VCTC - Gold Coast Transit	$10.63M - $14.49M	Complete street reconstruction from Wooley Rd to 2nd St	
C 5 **A Street Corridor Improvements** Curb Extensions, Mid-Block Crosswalks / Refuge Islands, Parklets, Greenway / Street Trees / Treelets	Start 2022 → End 2024	- City of Oxnard	$0.52M - $1.05M	Moderate interventions from Wooley Rd to 2nd St	
C 6 **B Street Corridor Improvements** Removable Bollards, Enhanced Paving / Civic Plaza, Scramble Crosswalk, Cycle Track, Enhanced Bus Stop / Shelter, Greenway / Street Trees	Start 2022 → End 2024	- City of Oxnard	$2.29M - $3.12M	Complete street reconstruction from 3rd St to 5th St	
C 7 **C Street Corridor Improvements** Lane Width Reduction, (Potential) Bus Rapid Transit, Enhanced Bus Stop / Shelter, Bicycle Lanes	Start 2023 → End 2026	- City of Oxnard - VCTC - Gold Coast Transit	$0.35M - $0.44M	Moderate interventions from Wooley Rd to 2nd St	
B 2 **Rail Path Bicycle Trail** The new rail-adjacent Class I trail will provide cyclists with a safe path of travel in the north-south direction through the Pilot Project Area as it is separated from vehicle traffic.	Start 2025 → End 2035	- City of Oxnard	*More detailed design documentation is required to provide accurate cost estimates*	*N/A*	BP Active Transportation Program (ATP) BP Surface Transportation Block Grant UG Infill Infrastructure Grant Program (IIG) VC TIF/ EIFD
B 4 **North-South Bicycle Connection** Bike lanes and amenities along C Street. For more details see Project C 7.	Start 2023 → End 2026	- City of Oxnard	*Cost of project included in cost estimation for Project C 7*	*Lane re-striping for bicycle lanes estimated at $25 - $30 per linear foot*	

Priority Projects in Multiple Major Development Areas (cont.)

Priority Projects	General Timeline	Stakeholders	Cost Estimate*	Cost Estimate Assumptions	Potential Funding Sources
B 5 **East-West Bicycle Connection** Bike lanes and amenities along 5th Street. For more details see Project C 3	Start 2022 → End 2024	- City of Oxnard	*Cost of project included in cost estimation for Project C 3*	*Lane re-striping for bicycle lanes estimated at $25 - $30 per linear foot*	BP Active Transportation Program (ATP) BP Surface Transportation Block Grant UG Infill Infrastructure Grant Program (IIG) VC TIF/ EIFD
PG 5 **Infill Public Parks** New landscaping, pavement, lighting, seating, signage, etc.	Start 2024 → End 2030	- City of Oxnard	*More detailed design documentation is required to provide accurate cost estimates*	*N/A*	UG Urban and Community Forestry Program UG Urban Greening Grant Program UG Infill Infrastructure Grant Program (IIG)
PG 6 **Rail Bicycle Path Greening** Site cleanup, new landscaping, pavement, lighting, seating, signage, etc.	Start 2025 → End 2035	- City of Oxnard			
PG 7 **Tree Canopy Gap Closure** New landscaping (tree wells).	Start 2020 → End 2024	- City of Oxnard			
PT 2 **Transit Priority Corridors** Enhanced bus stops and shelters along Oxnard Boulevard. Cost estimate may vary if C Street is selected as the north-south Transit Priority Corridor.	Start 2020 → End 2026	- City of Oxnard - VCTC - Gold Coast Transit	*Cost of project included in cost estimation for Projects C 2 and C 4*	*Enhanced bus shelters and lane restriping*	PT SB-325 State Transit Assistance PT Buses and Bus Facilities Grant Program
PT 3 **Arterial Bus Rapid Transit** Facilities for a bus rapid transit (BRT) stop at or around the Oxnard Boulevard / 4th Street Intersection. Cost estimate may vary if C Street is selected as the north-south Transit Priority Corridor.	Start 2020 → End 2026	- City of Oxnard	*More detailed design documentation is required to provide accurate cost estimates*	*N/A*	

* All rough order of magnitude cost estimates are conceptual and assume no modifications to utilities or cost escalation beyond 2018. The cost of Amenity Zones and other private property improvements have not been included.

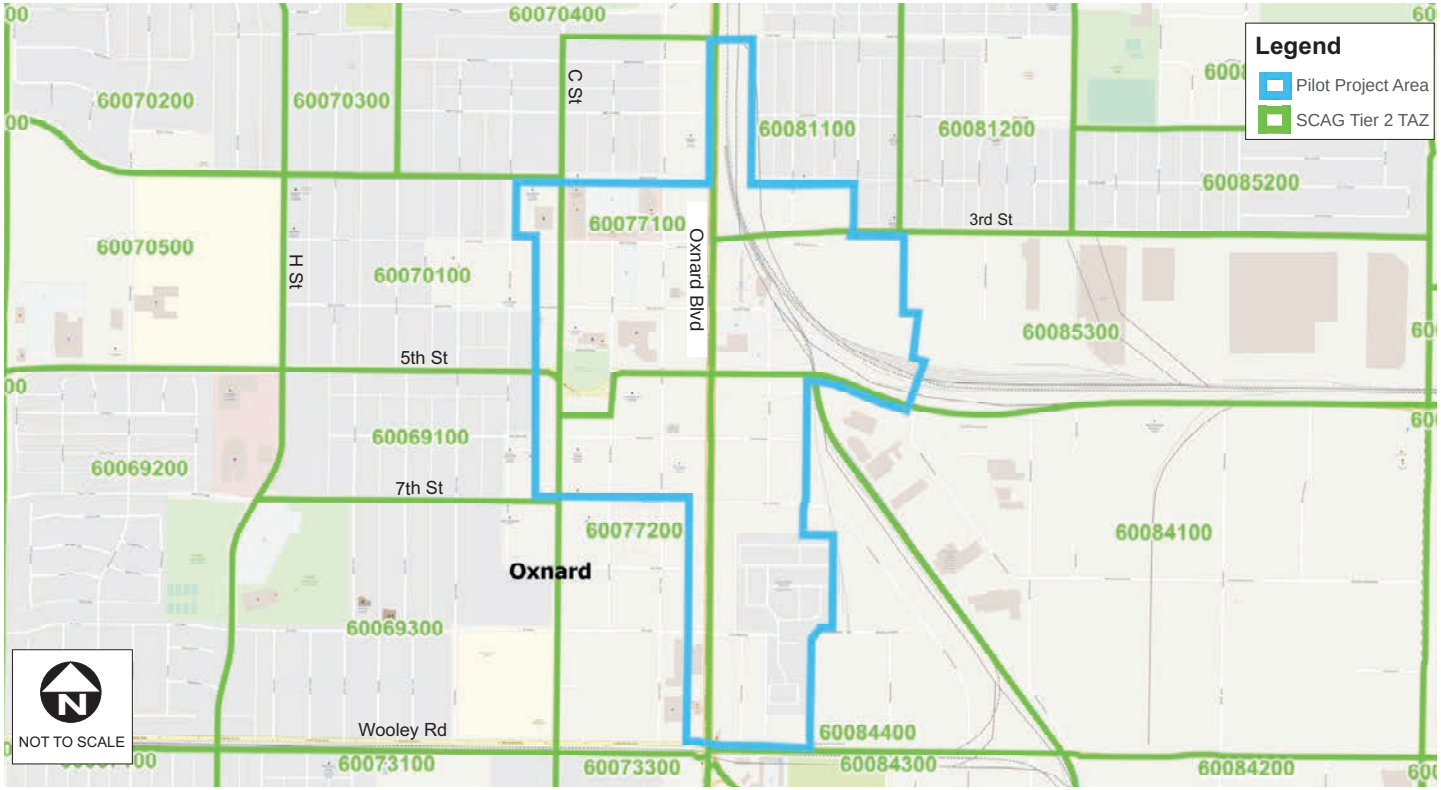
Metrics Overview

The Oxnard HQTA Pilot Project Vision Plan is made up of four districts: Oxnard Transit District, Downtown Commercial District, Civic Arts District, and Meta Housing District. The districts consist of or overlap with seven 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 Oxnard 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:

50 - 60% decrease
in non-freeway vehicular delay (per capita)

5 - 10% increase
in transit mode share (as a percentage of total travel trips)

50 - 55% decrease
in vehicular miles traveled (VMT) (per capita)

45 - 50% decrease
in vehicular hours traveled (VHT) (per capita)

SCAG Model Output Data

Socio Economic Data (input)

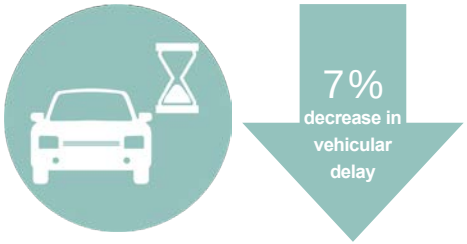
	Households	Population	Retail Employment	Non-Retail Employment
2016	1,989	8,036	451	6,287
2040 (No Build)	2,331	8,594	688	7,000
2040 (Vision Plan)	5,941	18,704	1,508	7,958

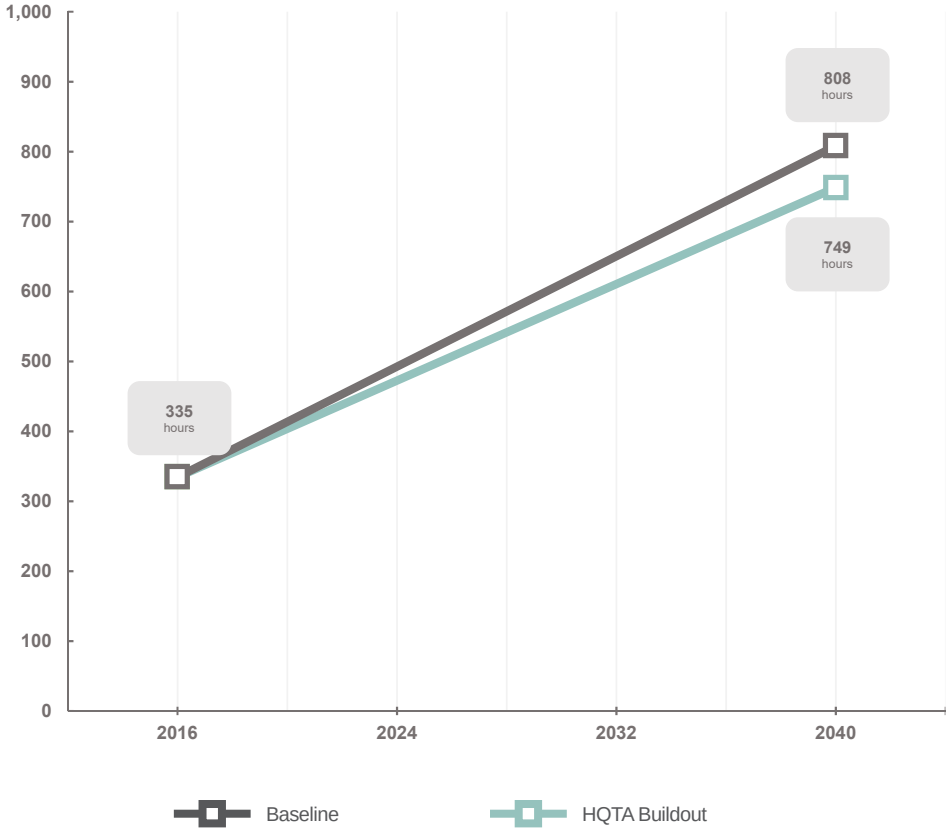
Additional Factors which may Affect Outcomes

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 Oxnard Pilot Project Area can potentially achieve a 7% decrease in non-freeway vehicular delay in hours total, and a 57% decrease in non-freeway vehicular delay per capita by the year 2040 compared to baseline delay projections.

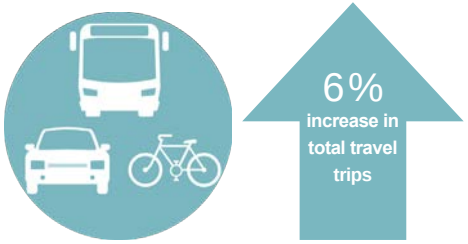




SCAG Model Output Data

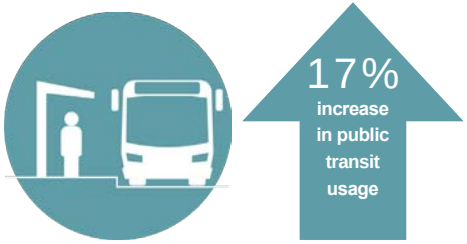
Transit Mode Share

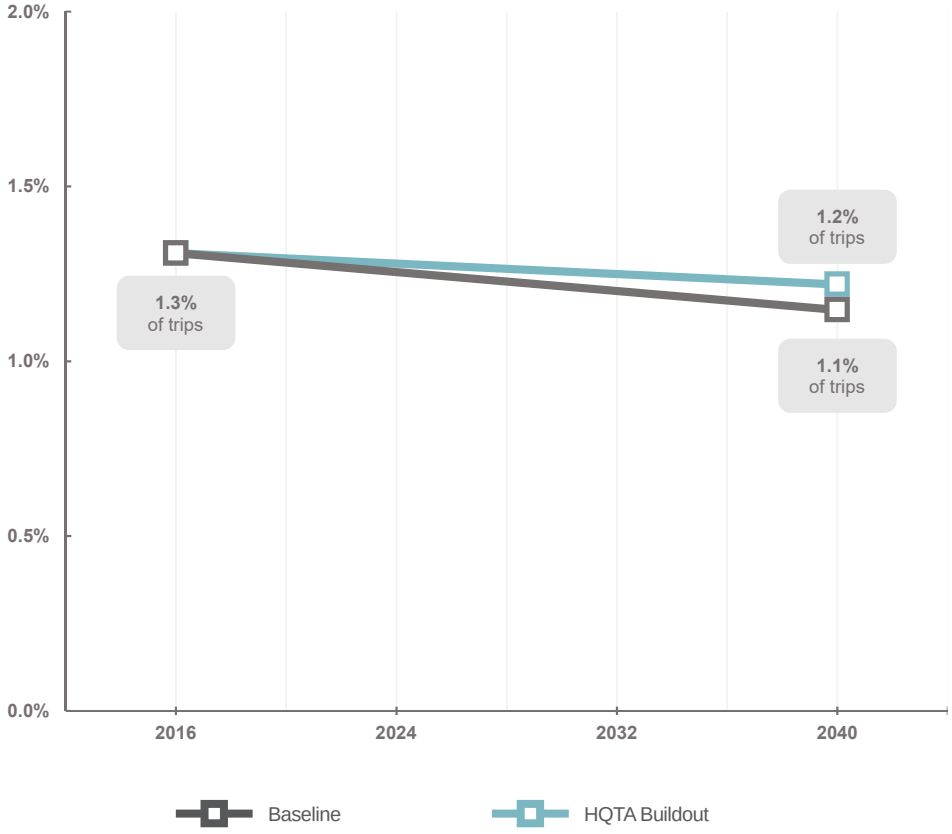
Transit usage estimates are limited to the Pilot Project Area boundary. The Oxnard Pilot Project Area can potentially achieve a 6% increase in the proportion of travel trips by public transit to other modes by the year 2040 compared to baseline transit usage projections.

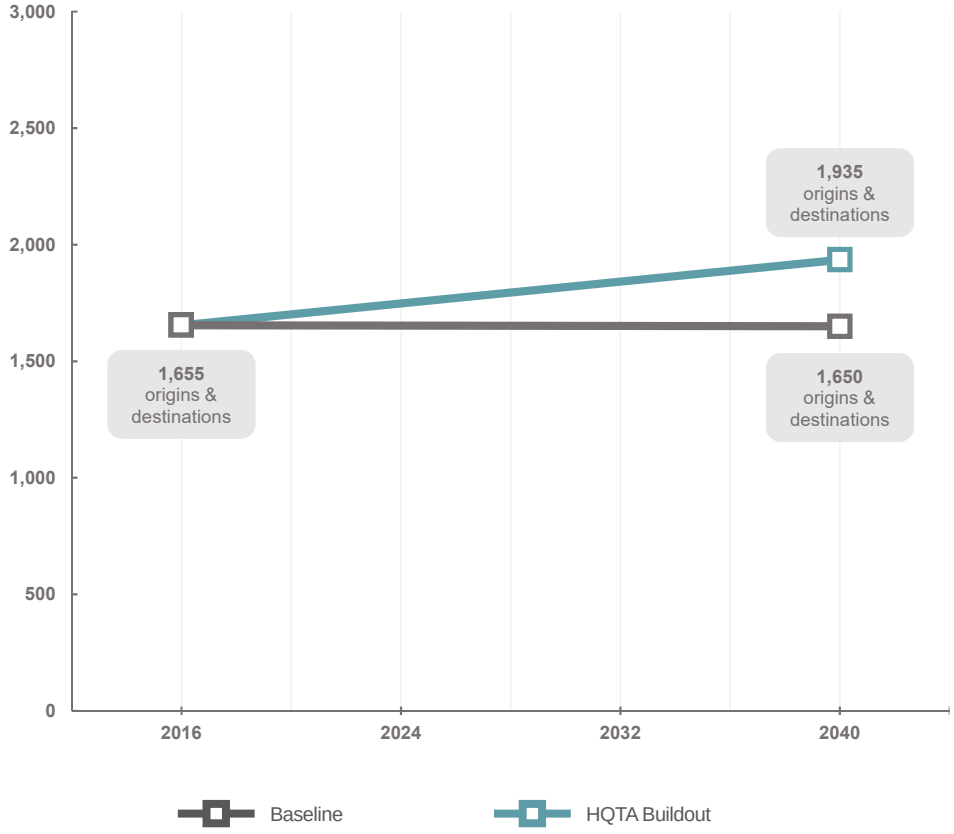


Public Transit Usage

Transit usage estimates are limited to the Pilot Project Area boundary. The Oxnard Pilot Project Area can potentially achieve a 17% increase in public transit origins and destinations by the year 2040 compared to baseline transit usage projections.



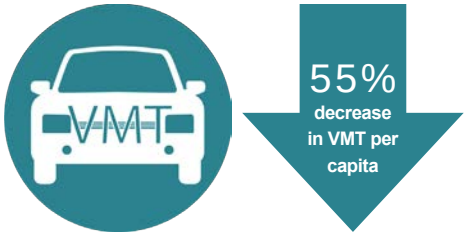




SCAG Model Output Data

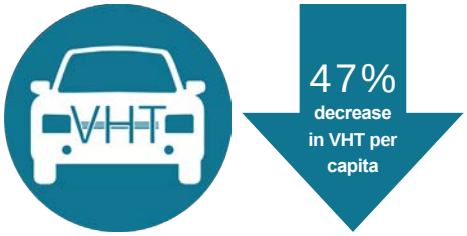
Vehicular Miles Traveled (VMT)

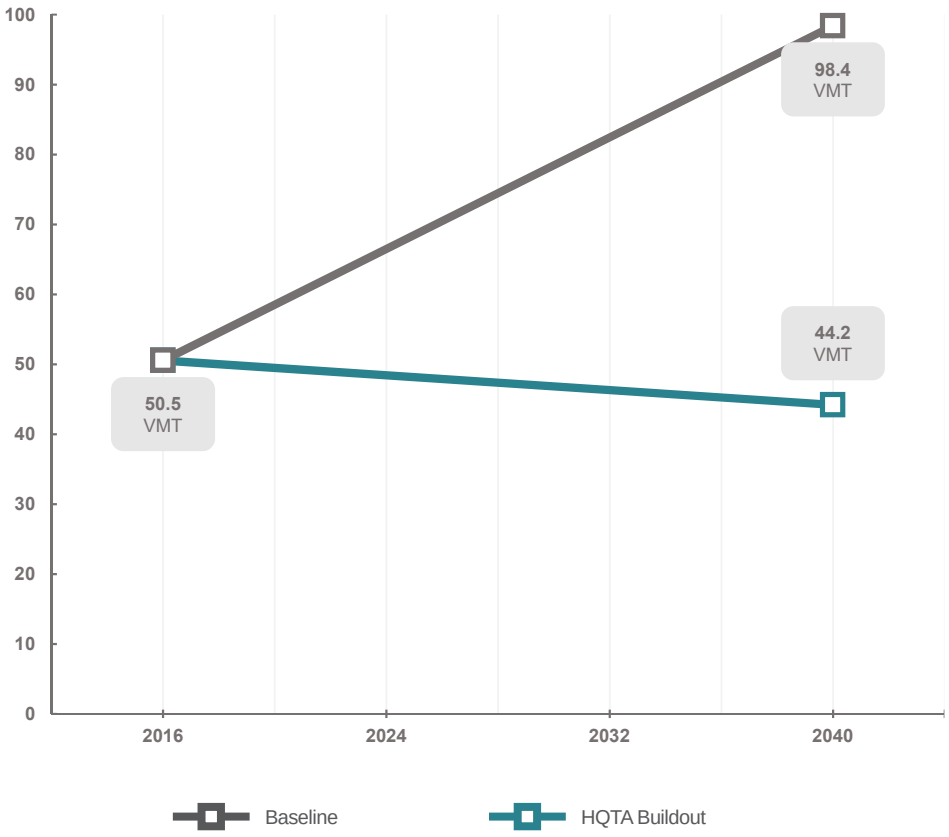
VMT is measured in miles per capita. The Oxnard Pilot Project Area can potentially achieve a 55% decrease in vehicle miles traveled per capita by the year 2040 compared to baseline VMT projections.

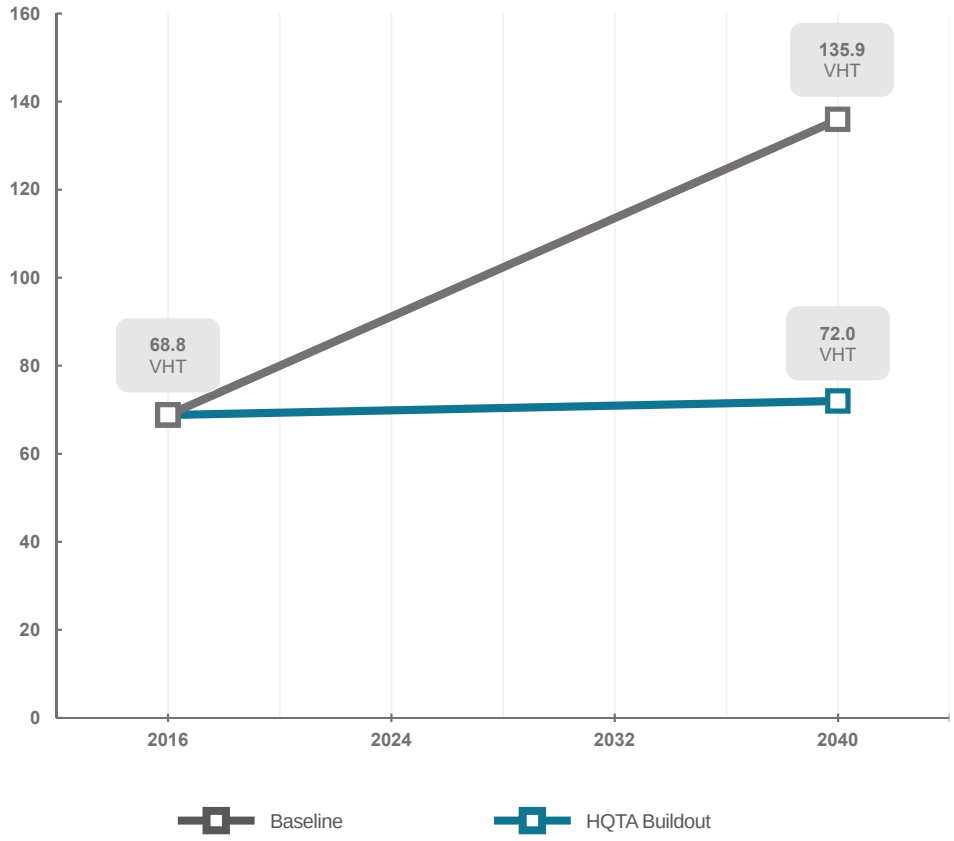


Vehicular Hours Traveled (VHT)

VHT is measured in miles per capita. The Oxnard Pilot Project Area can potentially achieve a 47% decrease in vehicle hours traveled per capita by the year 2040 compared to baseline VHT projections.



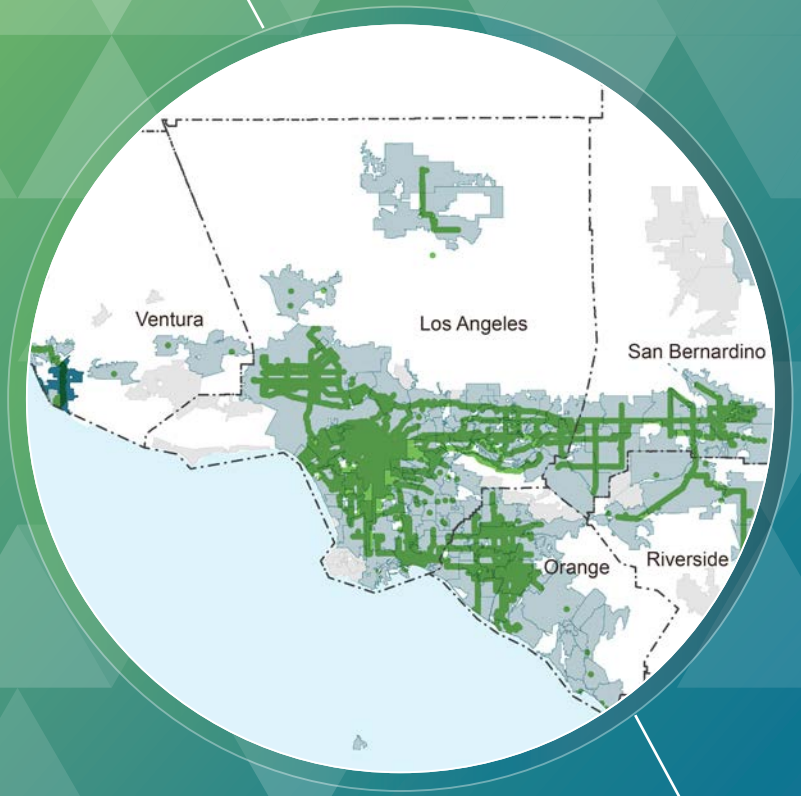




Appendix

A - Existing Conditions Inventory

B - HQTA Toolkit



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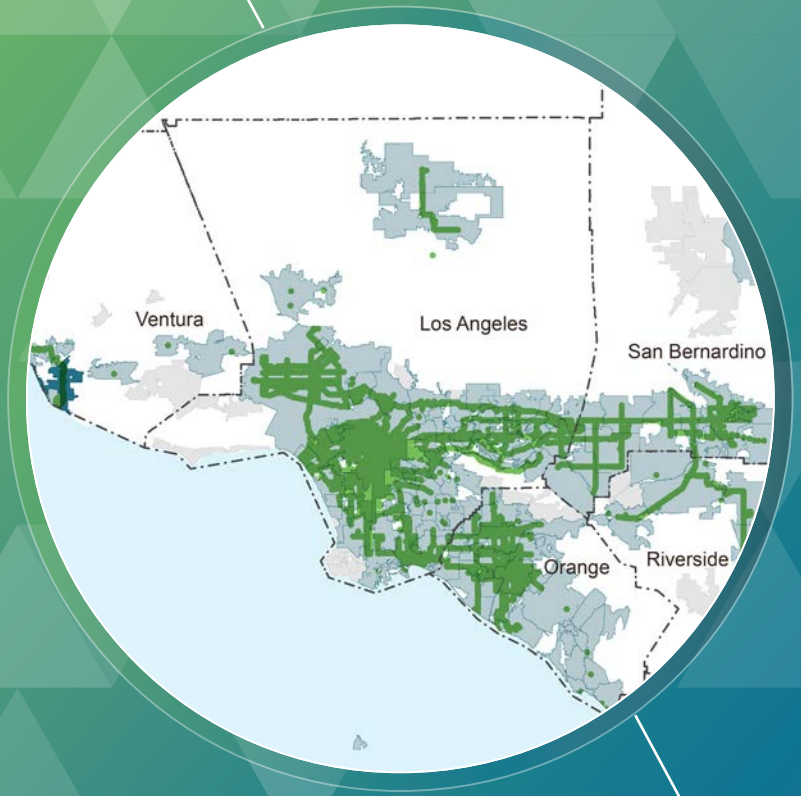
Appendix A
Existing Conditions Inventory

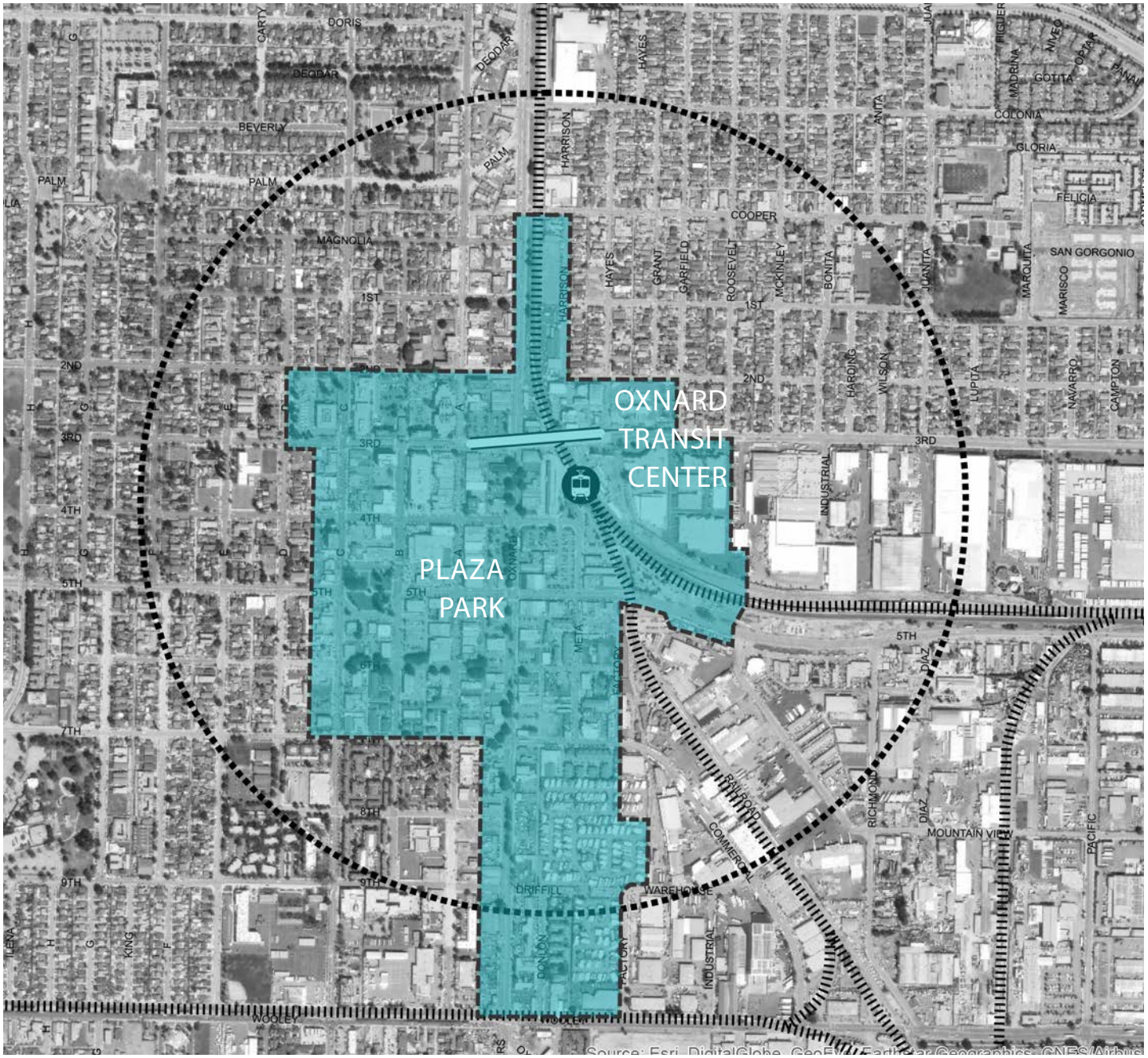


SCAG

Project Area

- A Street, 5th Street, and Highway 1 as major corridors

- Mountain View Corridor could be added



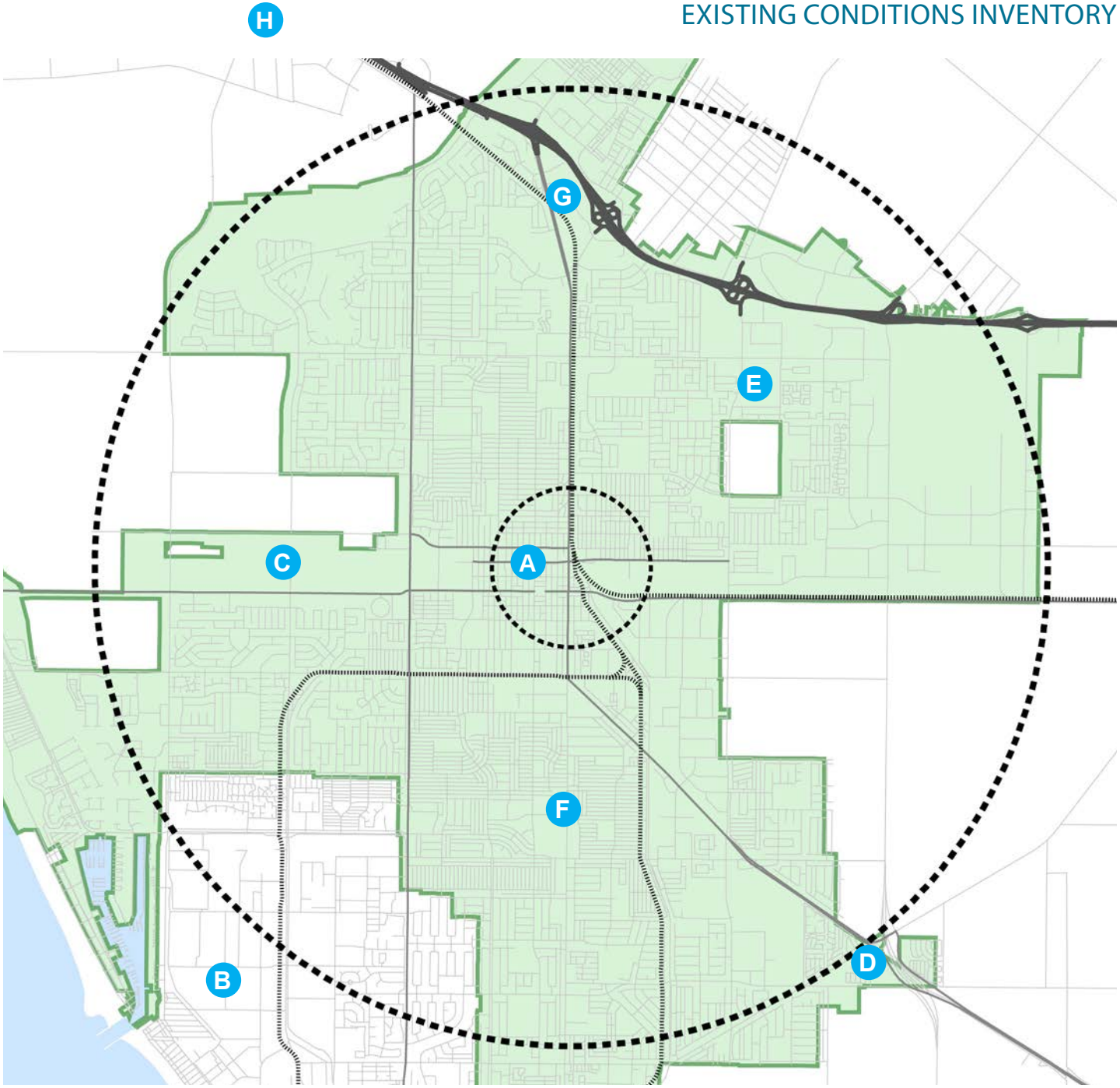
Transportation Center

1/2 mile area

Source: ESRI

Activity Centers

- A Civic Center
- B Naval Base
- C Oxnard Airport
- D Oxnard College
- E St. John's Regional Medical Center
- F Centerpoint Mall
- G Esplanade Shopping Center
- H Ventura Transit Center



Source: Gold Coast Transit

Demographic Profile

OXNARD – MetroLink Station

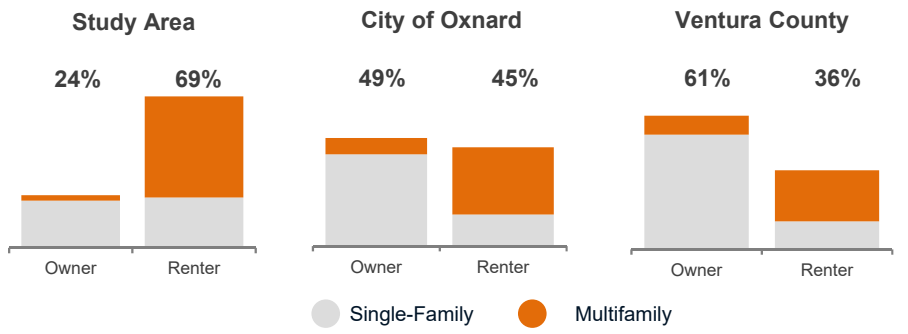
DEMOGRAPHIC PROFILE

- **City of Oxnard** constitutes 1.8% of the land area of Ventura County and accounts for nearly **one-fourth of its population**.
- The Study Area comprises of nearly 4.3% of the population of the City and has a **higher population density than the City**.
- Oxnard's population growth is expected to outpace that of the County over the next ten years.
- The City and the Study Area have a greater share of **Hispanic** population compared to the County.
- **More than half the population in the County has college education**, but both the City and the Study Area have a larger number of high school dropouts.
- Both the County and City have relatively higher household incomes but the Study Area comprising of homeless shelters and retirement homes has a much **lower median household income and higher unemployment rate.**

DEMOGRAPHICS (2017)	Study Area	City of Oxnard	Ventura County
Total Population	8,929	208,362	861,790
Pop. Density (Per Sq. Mile)	11,303	7,613	458
Annual Growth Rate			
Historic (2010-2017)	0.77%	0.74%	0.65%
Projected (2017-2027)	1.19%	2.19%	0.70%
Total Households	2,259	51,967	276,677
Average HH Size	3.82	4.00	3.09
Annual Growth Rate			
Historic (2010-2017)	0.44%	0.61%	0.51%
Projected (2017-2027)	1.30%	3.40%	0.81%
Median Age	29.9	29.9	37.2
0-17 years	31%	28%	24%
18-64 Years	60%	62%	62%
64 Years and Over	10%	10%	14%
Jobs per Household*	4.3	1.1	1.1
Unemployment Rate**	7.5%	5.7%	5.1%
Median Household Income	$35,014	$62,044	$81,522

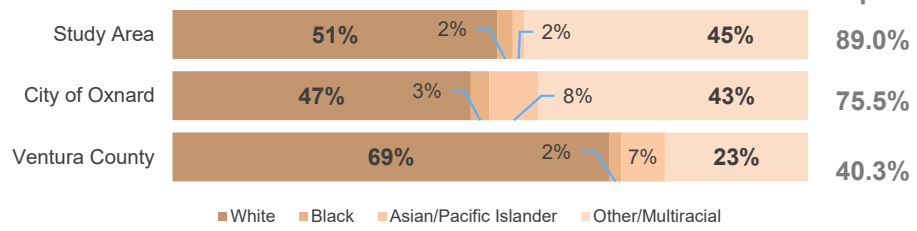
Sources: Social Explorer, ACS 2015 5-year estimates, SCAG Growth Forecast 2012, SCAG TAZ Forecast 2008, Dept. of Finance E5 2007.

HOUSING TENURE (2016)

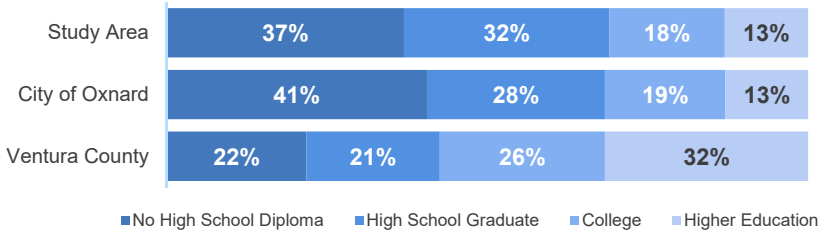


MOBILITY (2016)	Study Area	City of Oxnard	Ventura County
Average Commute Time (in mins.)	NA	25	26
Cars per Household*	NA	0.0	0.0
Public Transit Users	NA	1%	1%
Solo Drivers	NA	74%	78%
Others	NA	25%	21%

Racial and Ethnic Composition (2017)



Educational Attainment (2017)



** HR&A Advisors, Inc.*
***Percentage of population 16 years and over in the labor force.*

Employment Profile

OXNARD – MetroLink Station

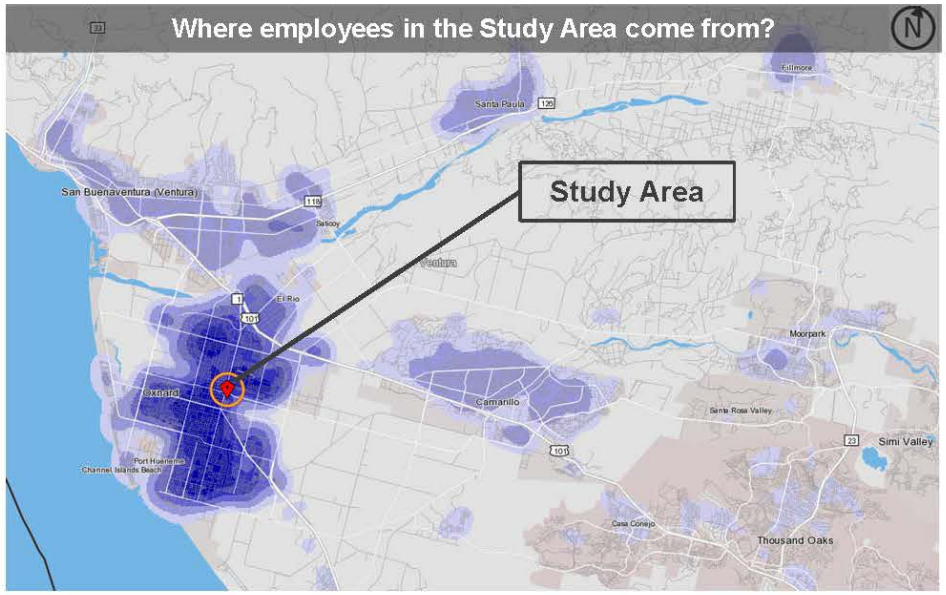
EMPLOYMENT PROFILE

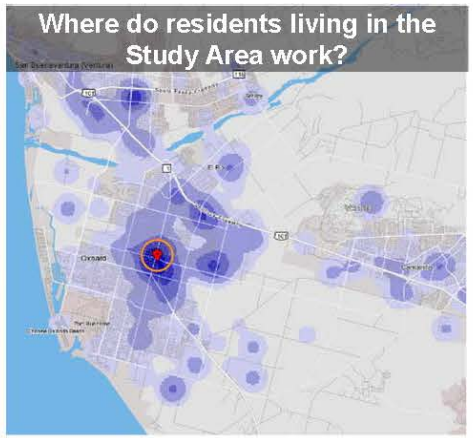
- The Study Area is a major job center with **9,600+ jobs**, includes the City's Central Business District, and constitutes nearly 16 percent of Citywide jobs.
- Nearly **98 percent of workers in the Study Area travel** from outside the Study Area.
- According to SCAG employment forecasts, **job growth in the City and the Study Area is likely outpace the County** over the next ten years.
- While the household income in the Study Area is the lower than the City and the County, **the earnings per job in the Study Area is the highest**, reflecting the location of high paying jobs, but not necessarily employing surrounding residents.
- City of Oxnard has been a **hub of mineral and natural gas extraction historically**, and the Natural Resources sector is one largest employment sectors.

EMPLOYMENT (2015)	Study Area	City of Oxnard	Ventura County
Total Worker Population	9,643	59,294	304,533
Job Density (per sq. mile)	12,206	6,144	64
Annual Growth Rate			
Historic (2010-2015)	5.3%	2.0%	1.2%
Projected (2017-2027)	0.7%	1.6%	0.8%
Average Earnings per Job*	$75,630	$70,583	$66,970
Top Three Industry Clusters			
	Natural Resources 48%	Education & Medical 22%	Education & Medical 21%
	Government 18%	PD&R 20%	PD&R 16%
	PD&R 10%	Natural Resources 17%	Government 14%

** Includes wages, salaries, supplements (additional employee benefits), and proprietor income. Approximated by zip code.*

Sources: LEHD, Social Explorer, ACS 2015 5-year estimates, SCAG Growth Forecast 2012, SCAG TAZ Forecast 2008.





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, construction, public administration and other administrative and support services, **Other** includes other services (excluding public administration).*

Employment Trends

OXNARD – MetroLink Station

EMPLOYMENT TRENDS

- The Study Area along with the City and the County have gained jobs between 2010 and 2015. **The Study Area has witnessed 22 percent net gain in jobs** between 2010 and 2015. However, some of this gain may be due to **relocation of jobs within the City**.
- **The City has gained most jobs in the Education and Medical** sector, followed by Government sector. The **fastest growing employment sectors in the City** and the County are Entertainment, followed by Government and Education and Medical.

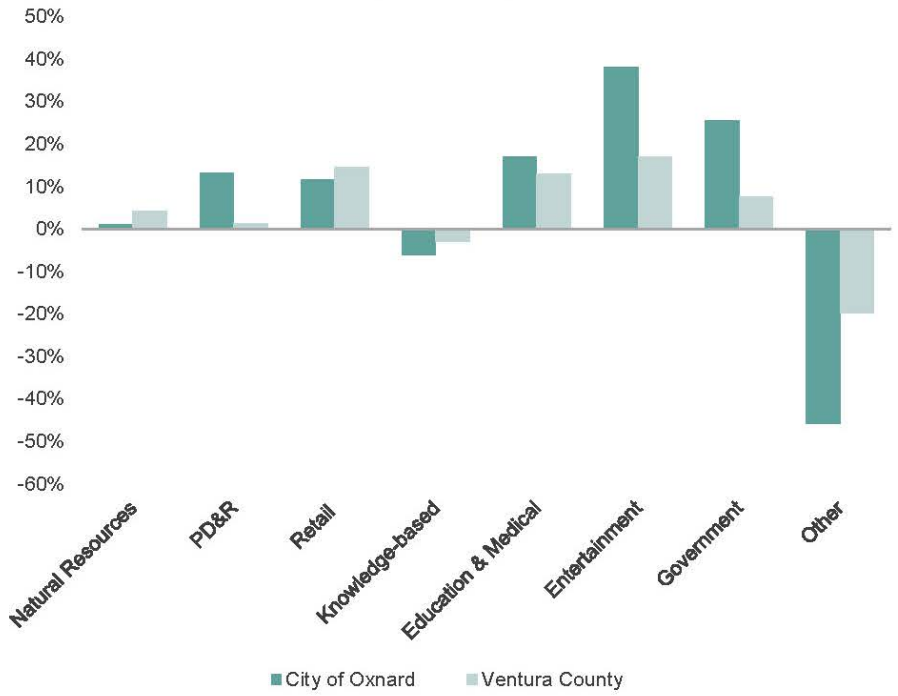
HQTA OPPORTUNITIES

- The Study Area is located in **Oxnard's Central Business District** and is **the largest employment hub** of the City of Oxnard; with the **highest job density and highest earnings per worker**.
- The HQTA also includes the **Oxnard Transit Center**, which offers multi-modal transportation, including bus and rail.
- The area is already a job center and is witnessing **significant developments**, both market-rate and affordable housing. The Study Area can become a **vibrant mixed use center with complementary residential uses and amenities**.
- The Study Area currently offers **high-paying jobs and attracts employees from the region**. But lack of high-quality residential developments in the area has resulted in the disconnect between the resident population and the workers.
- Although the Study Area has added nearly 2,000 new jobs, many of them are in the low employment-density sector of PD&R. Establishing an HQTA could be an appropriate opportunity to **encourage higher employment density sectors**, such as knowledge-based industries to relocate to the area. The HQTA **could offer ancillary uses** such as retail and food services, along with job training and vocational education centers **that could serve as supporting services to the Central Business District.**

EMPLOYMENT TRENDS	Study Area	City of Oxnard	Ventura County
Employment Growth in Industry Clusters (2010-2015)			
Natural Resources	1,131	113	1,254
Production, Distribution, and Repair	511	1,416	582
Retail	(83)	630	4,205
Knowledge-based	177	(274)	(1,254)
Education and Medical	296	1,886	7,427
Entertainment	(16)	1,430	4,956
Government	187	1,547	3,071
Other	(22)	(1,055)	(2,090)
Net Gain of Jobs (2010-2015)	2,181	5,693	18,151

Negative numbers in parenthesis

Percentage Change in Employment by Industry Clusters (2010-2015)



Sources: LEHD

Metrolink Station

- 110 spaces; 3 handicapped spaces

- Utilization of Parking Lot? Future Demand?

- Origin/Destination studies?
- Ridership?

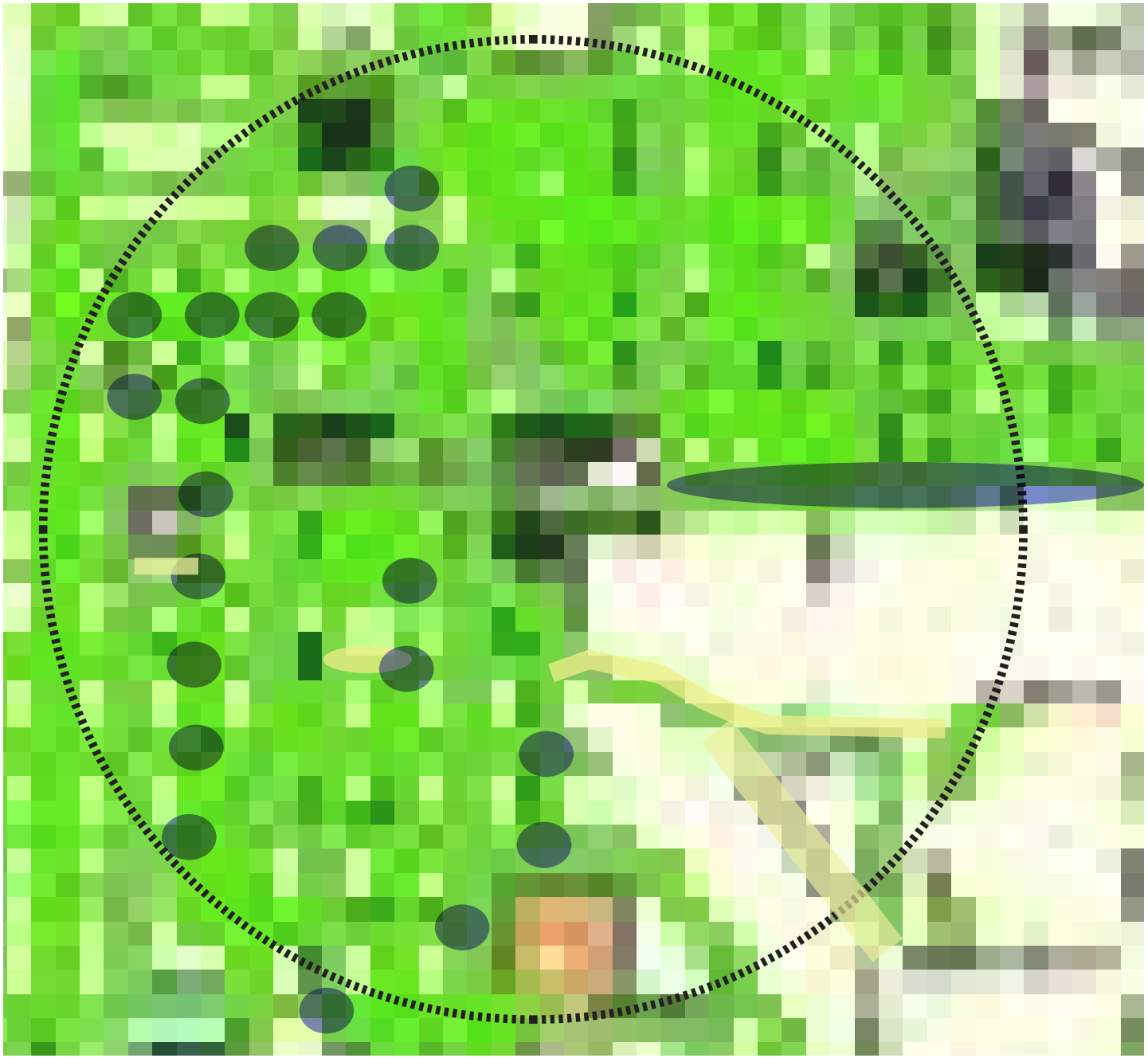
- 3 outbound Metrolink Trains/day; 1hr 15 mins to LAUS; new service to Santa Barbara

- Ventura line 802 weekday boardings/ day, decline from 955 in 2012-2013

Source: ESRI

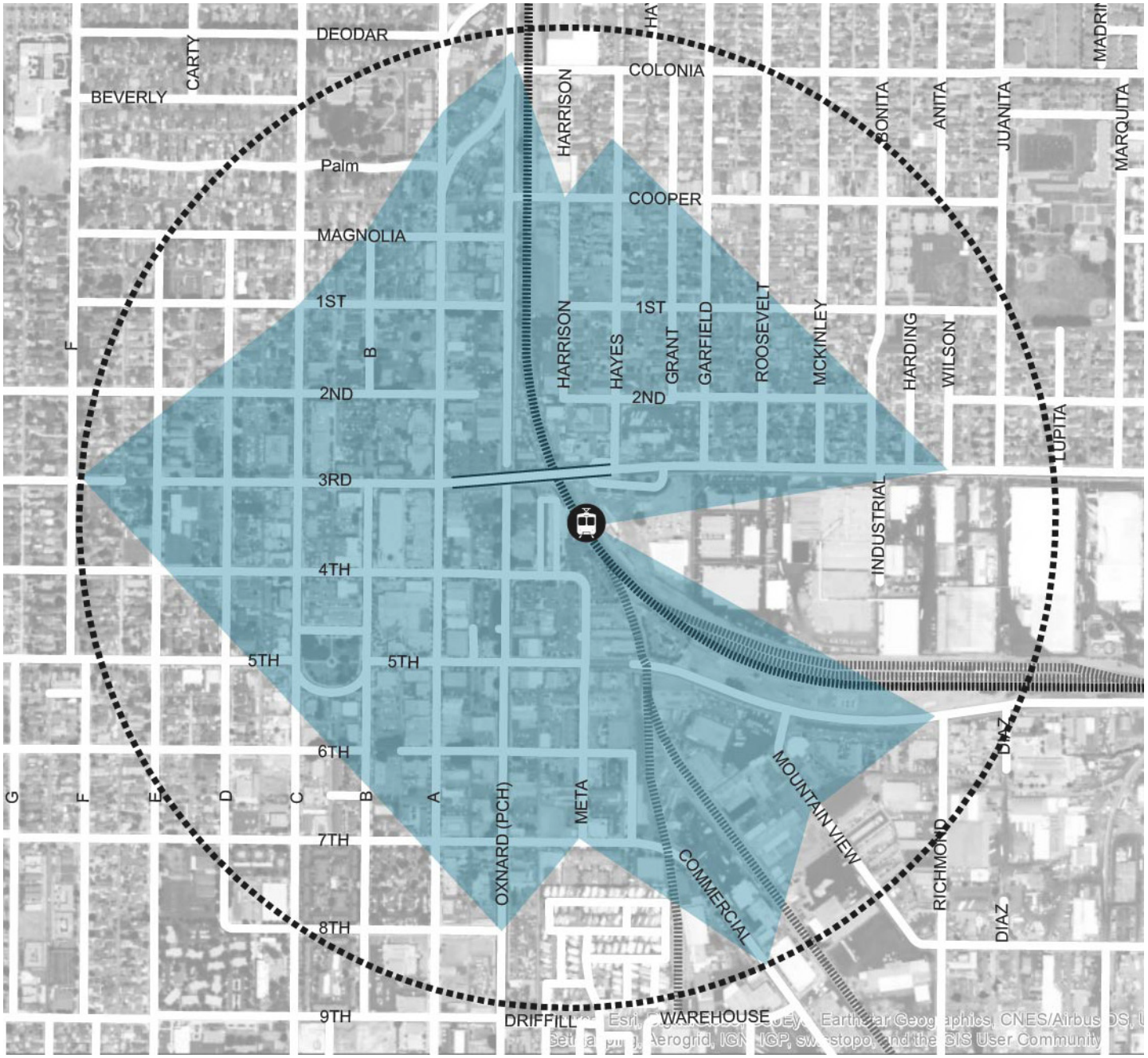
Sidewalks

- Several intersections downtown without striped crosswalks
- Limited connections to Mountain View Industrial
- Typical sidewalk is 5' wide



Source: Oxnard Sidewalk Survey, 2015

Walkshed and Connectivity



Walkshed

Block

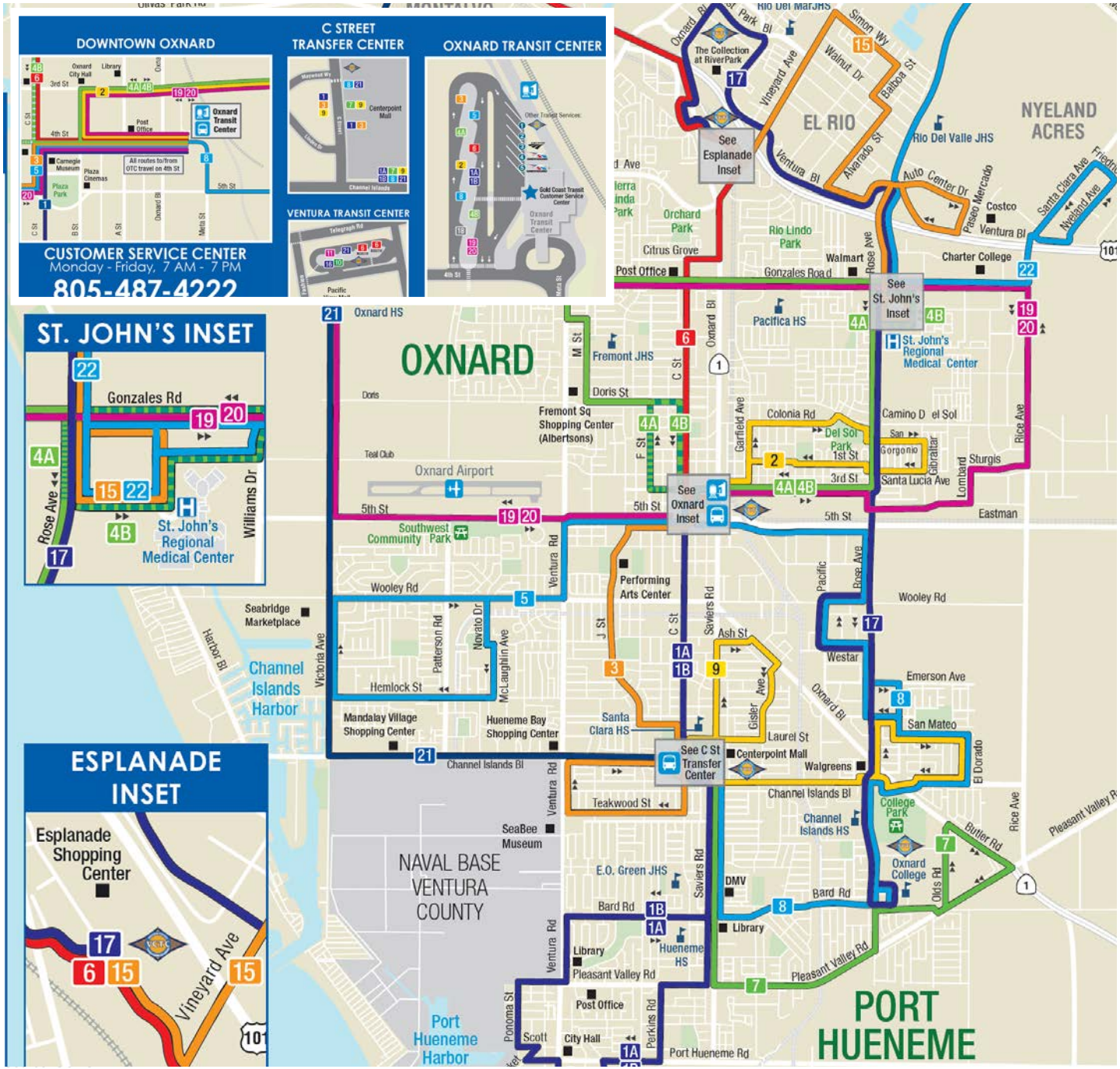
Intersection

0 500 1,000 2,000'

N

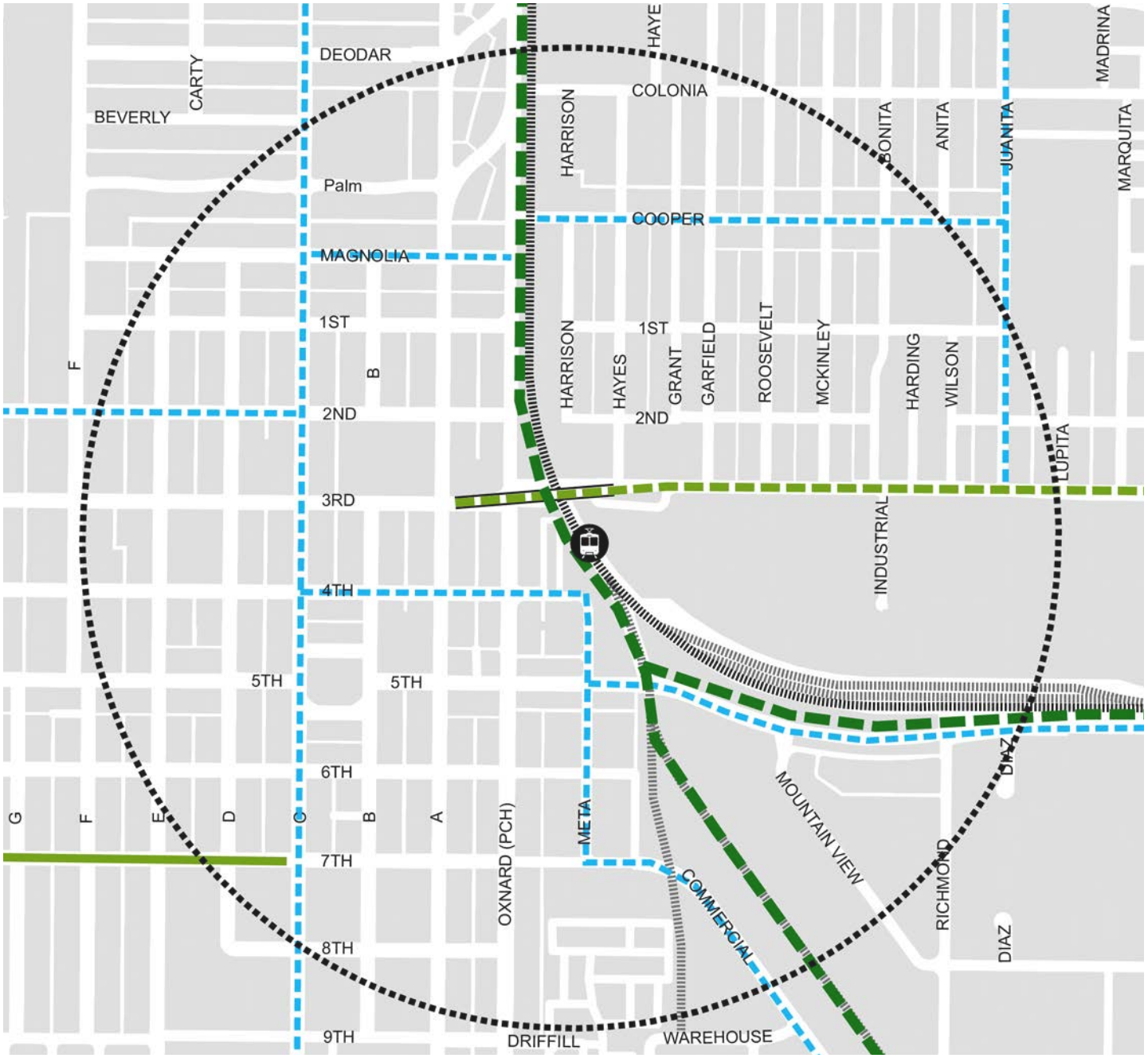
Public Transportation - Gold Coast Transit

- 10 bus lines at Transportation Center
- Peak frequencies 40+ minutes for many routes



Bicycle Facilities - Existing and Proposed

- No bike routes proposed for Highway 1
- 3rd Street Class II route stops at A Street
- No Class II bicycle connections to station



Existing

Class II

Proposed

Class I

Class II

Class III

0 500 1,000 2,000'

N

Source: City of Oxnard Bicycle and Pedestrian Facilities Master Plan, 2012

Bicycle Facilities - Connection from Colonia Road

2.3 Colonia Road | Bicycle Connectivity

To the north of the recommended 3rd Street bridge and library gateway, Deodar Avenue and Palm Drive offer a different type of gateway to A Street. They were originally configured as the northerly access to A Street, mirroring the South Oxnard Boulevard straight shot into A Street at Six Points (now Five Points). The 1993 Downtown District Master Plan recommended enhancing these existing assets to provide another way to entice motorists to enter the Downtown, and that is still a good idea.

And there is an additional opportunity at this location. Immediately to the north of Deodar is Colonia Road, and connecting from Oxnard Boulevard to A Street and aligned with Colonia Road is a largely unused public alley. This looks like an opportunity to address, in a small way, the long-standing perception, and reality, of a lack of connection between the La Colonia community on "the wrong side of the tracks" and Downtown Oxnard and it's historically more advantaged neighborhoods. We recommend the following:

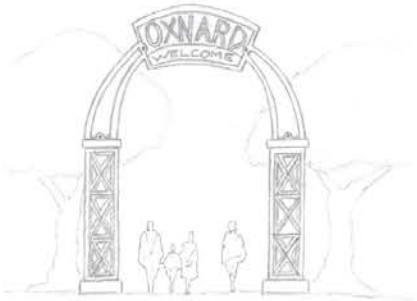
1. Extend the Class I bikeway on the east side of Oxnard Boulevard and the railroad from it's present southerly terminus at the future Camino del Sol, to Colonia Road. This would require a right of way agreement with the railroad and/or owners of the adjacent packing house property.
2. Construct a two-way cycle track along the north side of Colonia Road from the Class I bikeway to Oxnard Boulevard, expand the crosswalk there to include bike lanes to the west side, and improve the unused alley as a multi-use trail from Oxnard Boulevard to A Street.
3. Modify the curb extensions and improve the crosswalk at A Street to connect the alley trail to new Class II bike lanes on A Street, connecting south to Downtown.
4. Optionally, improve the landscape and signage in the curving sections of Deodar and/or Palm, to make it plain that these are gateways to Downtown Oxnard. There are many routes to Downtown, and making them appear more promising to passersby on the Boulevard may be the most effective single strategy for revitalizing the Downtown.

Existing Condition: *The intersection of Oxnard Boulevard and Colonia Road look like exactly what it has historically been - a road for trucks to get to and from packinghouses and the gateway to the poorest neighborhoods of Oxnard. It can be transformed to be a beautiful pedestrian and bicycle connection from a neighborhood with many pedestrians and bicyclists to the rebounding city center.*

Key Plan

Colonia Rd Bicycle Connectivity to 'A' Street

Recommended Linkage: *The Class I bikeway on the east side of the UPRR is extended south to Colonia Road, a two-way cycle-track connects to and across Oxnard Boulevard, and the existing alley to A Street is landscaped and paved as a multi-use path for pedestrians and bikes. This connects to new Class II bike lanes on A Street, and onward south to Downtown. The alley east of A Street could also be improved as a better access to Wilson Park. And, link these recommendations with Existing and Planning City-wide Bicycle and Pedestrian Facilities.*

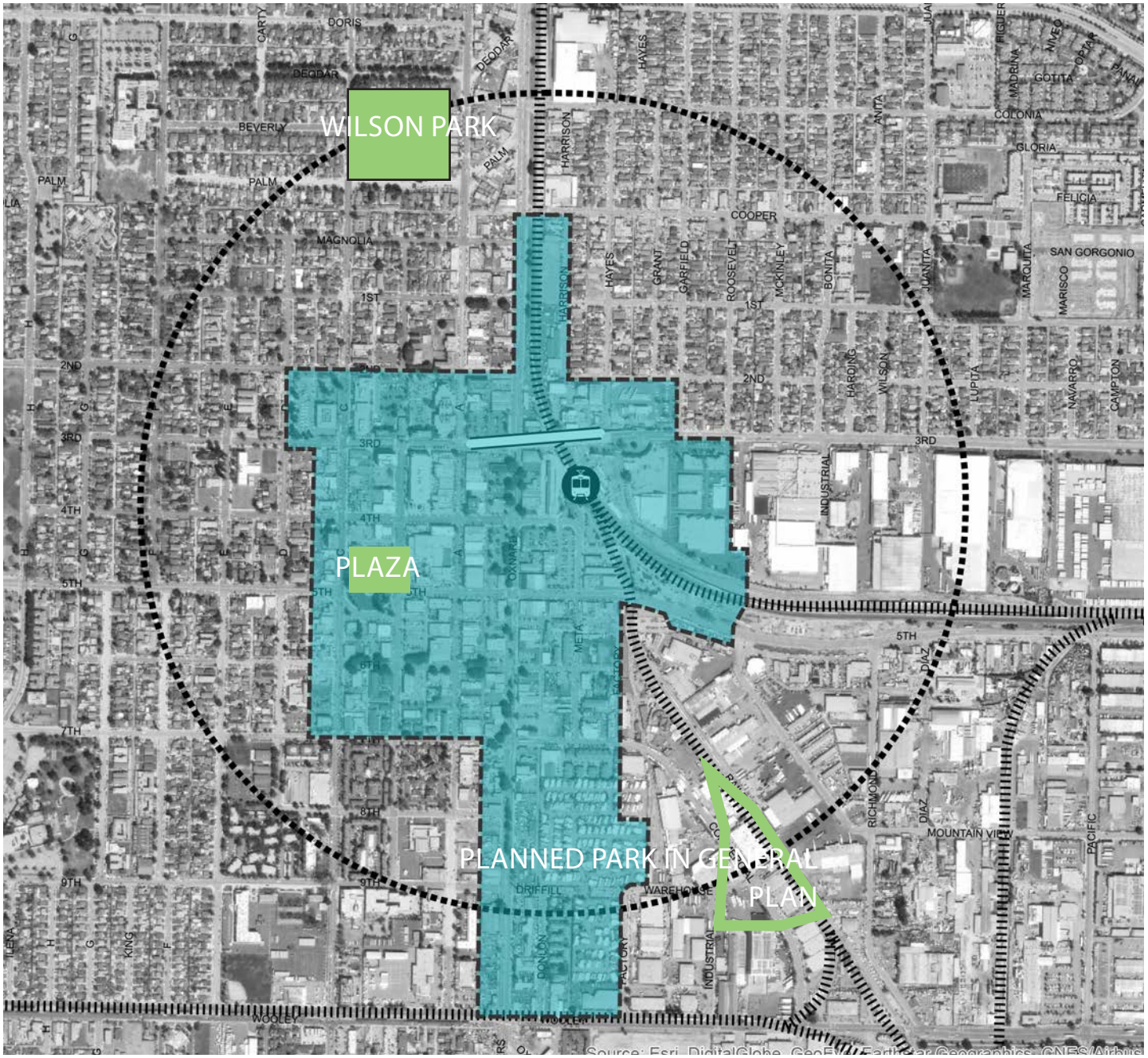


Gateway Elements: *A simple gateway device could transform an unused alley to a signpost for Downtown.*

Source: CNU Design Charrette, 2016

Open Space

- Large park planned at end of rail spur in Mountain View Industrial district
- Opportunity for pocket parks, privately-owned public space (POPS)
- Inconsistent mature street tree canopy



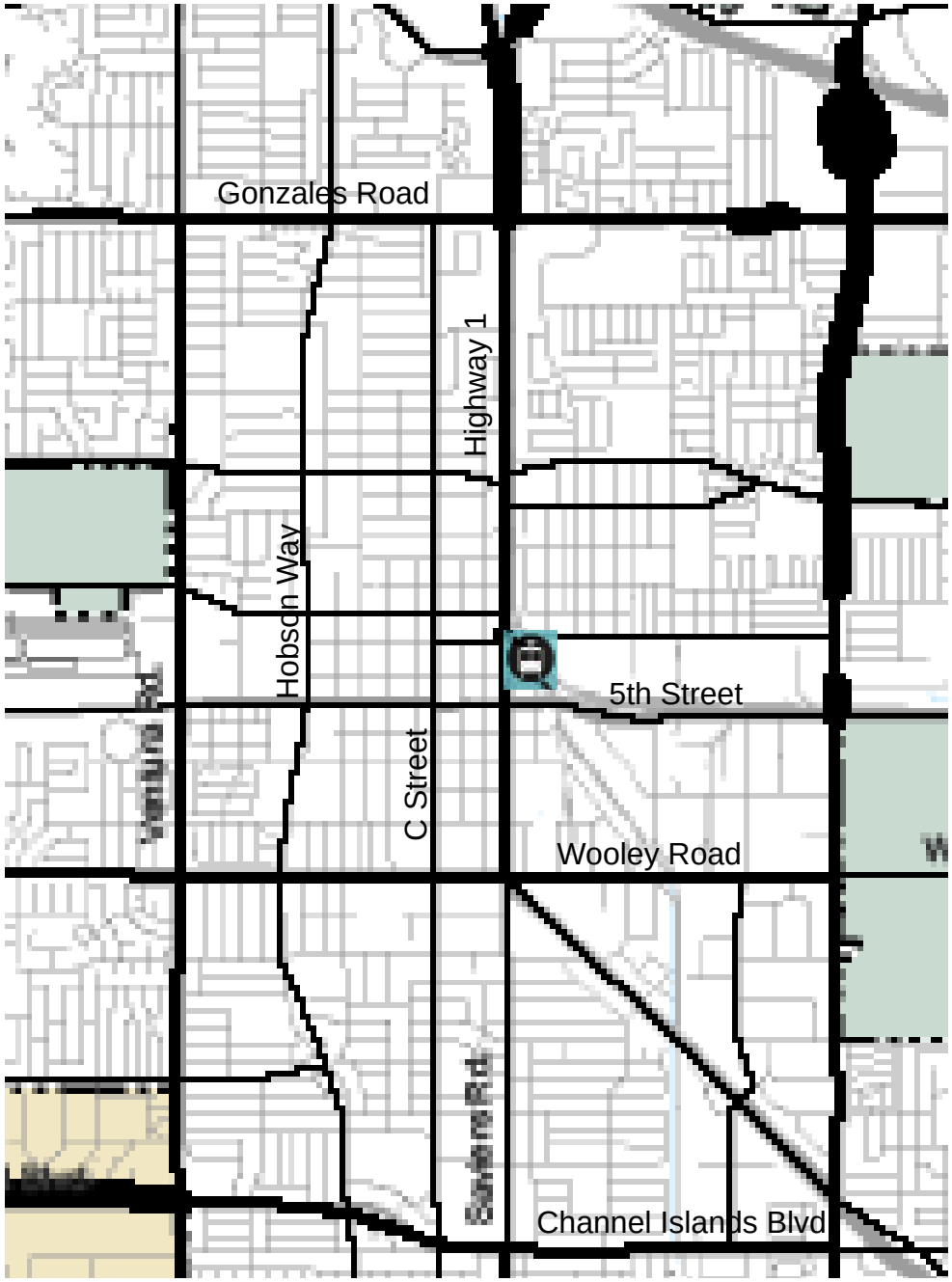
Open Space / Plaza

0 500 1,000 2,000'

N

Source: 2030 Oxnard General Plan

Traffic Volumes



0-25,000

25,001-50,000

50,001-75,000

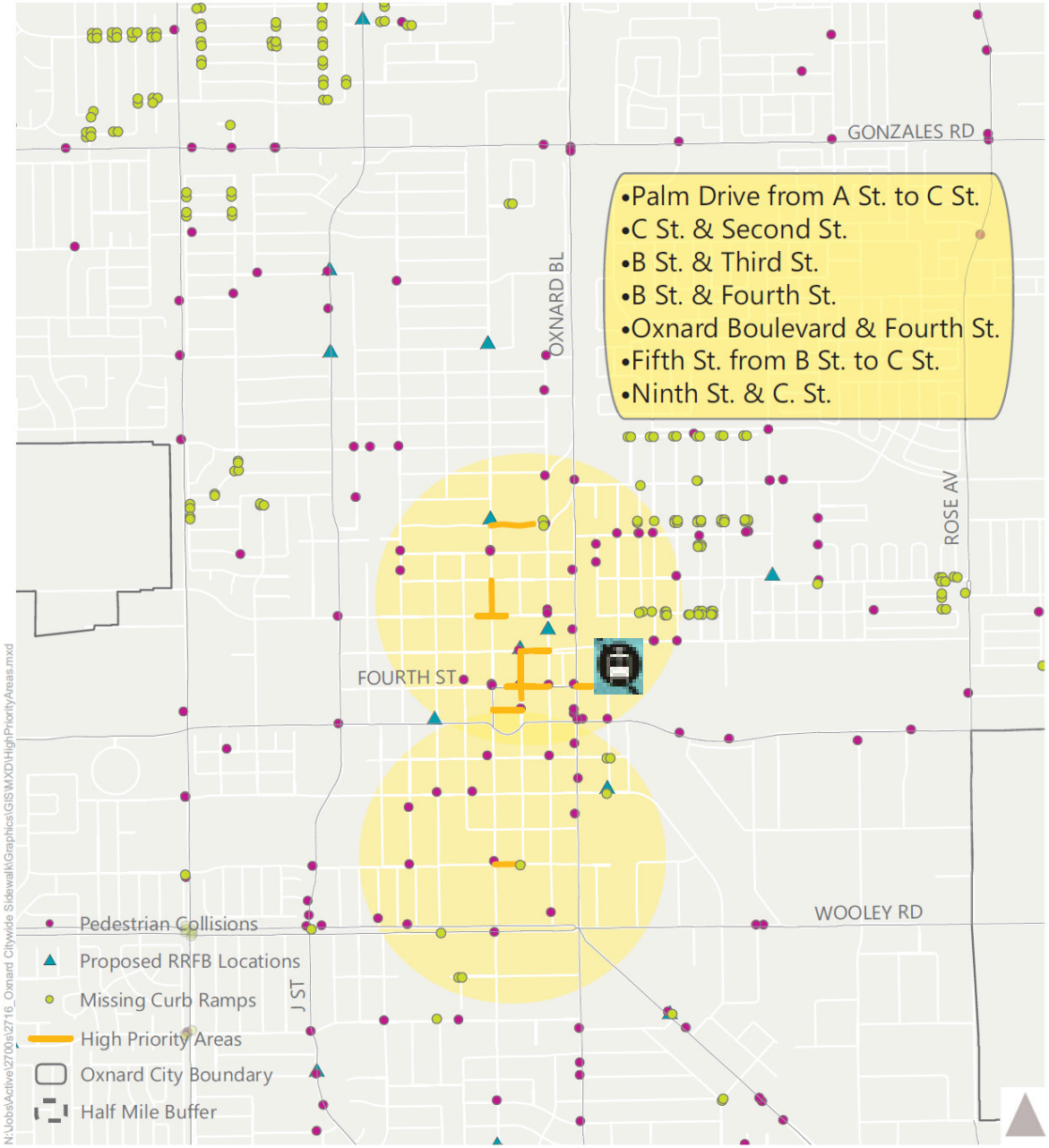
75,001-100,000

Source: City of Oxford 2030 General Plan EIR

Collisions and "High Pedestrian Demand Areas"

- 5th Street has high incidence of pedestrian/ vehicular collisions

- 4th Street noted as a "high priority area"

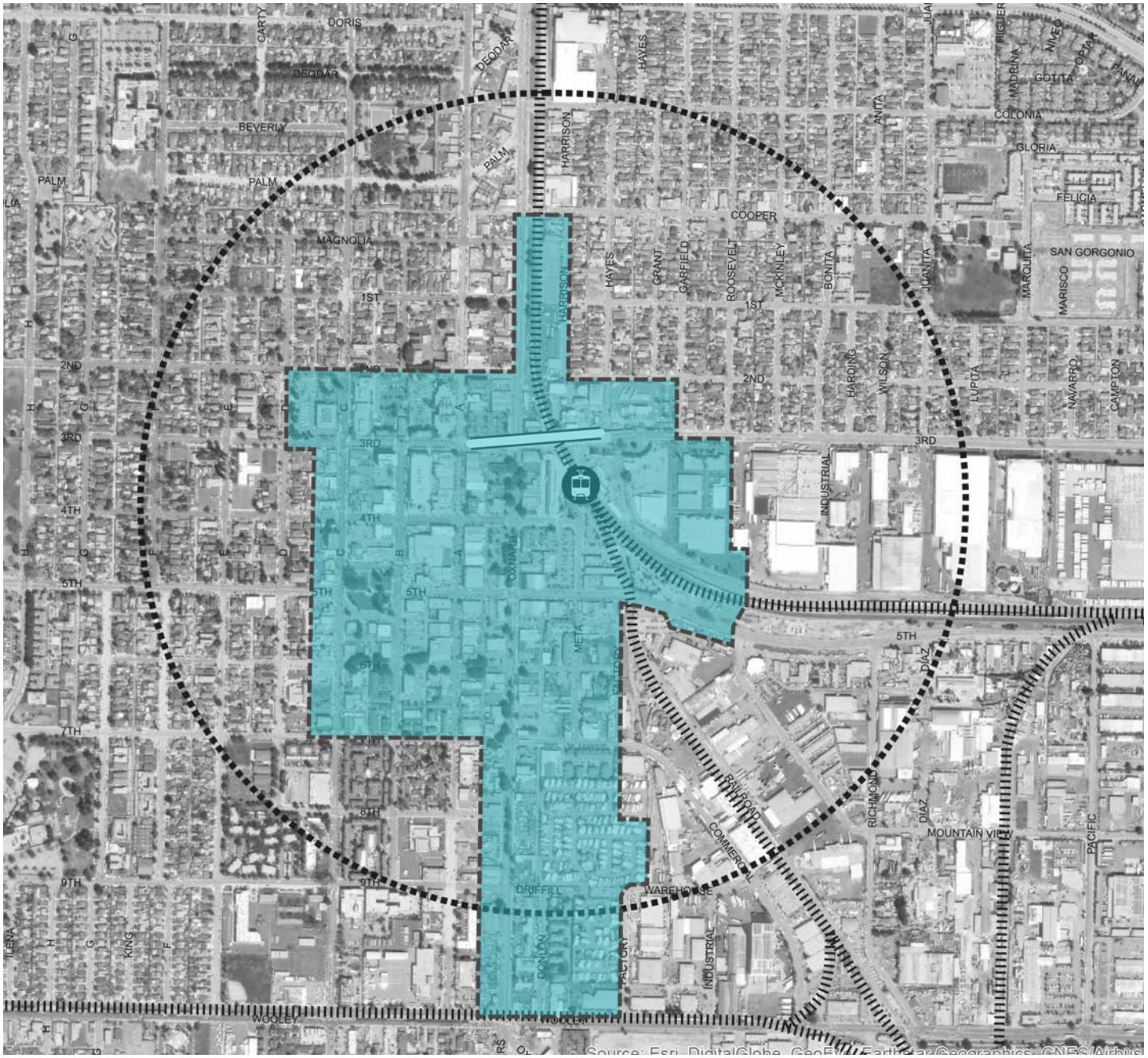


Source: Oxnard Sidewalk Survey, 2015

Rail Lines and Truck Routes

- What is the utilization of rail spurs in project area?

- Potential for bike corridors, rails to trails



Rail line

0 500 1,000 2,000’

N

Source: ESRI

Major Corridors - Oxnard Boulevard/Highway 1

a ***Existing Condition:*** *Two very wide, fast vehicular lanes northbound and southbound, armored raised medians with Australian Paperbark trees, no on-street parking, and sidewalks in most cases either obstructed and lifted by very large Ficus trees or lacking street trees entirely.*

Key Plan

Oxnard Boulevard Transformation

Phase 1: Street Reconfiguration: *Narrower vehicular lanes support slower speeds and, counter-intuitively higher volumes , of traffic.*

Phase 2: Potential Mixed-Use Infill Development: *Ground floor retail has a much better chance of success, with on-street parking and wider, more comfortable pedestrian spaces on the sidewalks.*

Phase 3: Mixed-Use Infill up to 5 Stories: *New taller buildings might be set back an additional 10 feet, providing 20 foot sidewalks, as found in many of the most successful, mature downtowns in the country.*

Source: CNU Design Charrette, 2016

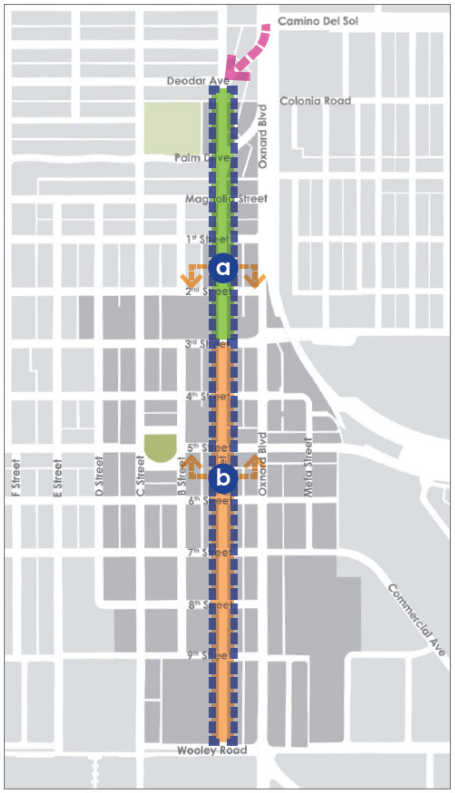
Major Corridors - A Street

Public Frontage Character: *describe*

'A' Street Transformation

a ***Existing Condition (north 'A' St):*** *North of 3rd Street, A Street is a very wide two-lane roadway, generally lacking street trees and pedestrian activity.*

b ***Existing Condition ('A' St Downtown):*** *Two travel lanes and angled parking have been restored to A Street south of 3rd, but more business activity and street beautification are needed.*



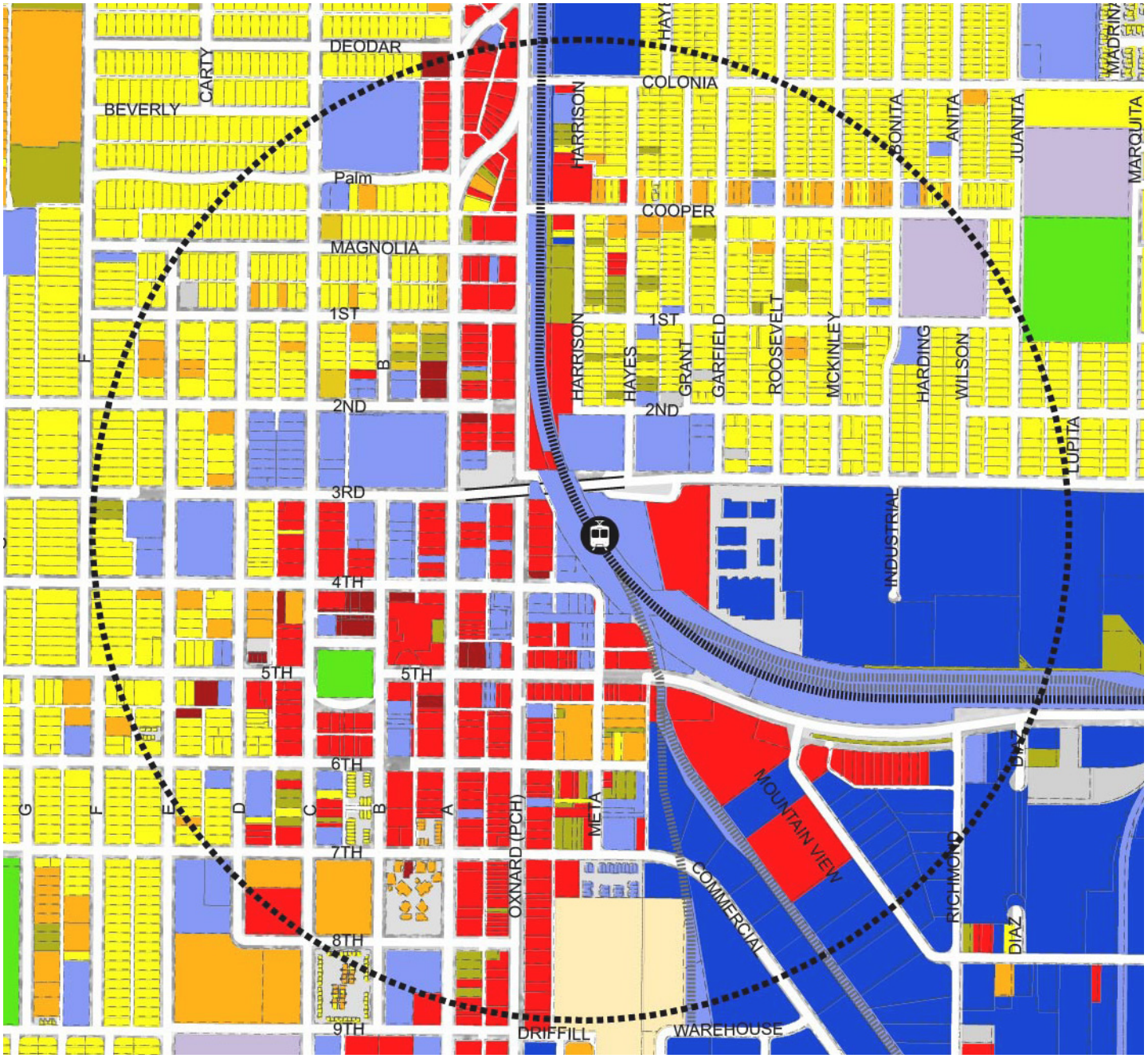
Key Plan

a ***A Street (Deodar Ave to 3rd St):*** *New bike lanes (either colored green as shown or simply striped with white paint) along with new street trees in existing empty tree planters, new pedestrian-scale street lights, and new mid-block crosswalk with curb extensions and palm trees to mark the crossing. Such improvements could surely be made in phases, as funding allows.*

b ***A Street (3rd St to 7th St):*** *Back-in angled parking, landscape enhancements at mid-block crosswalks, bike corrals, and parklets can all add life to A Street's retail environment.*

Source: CNU Design Charrette, 2016

Existing Land Use



Single-family

Multi-family

Commercial

Public Facility

Commercial Industrial

Industrial

Open Space

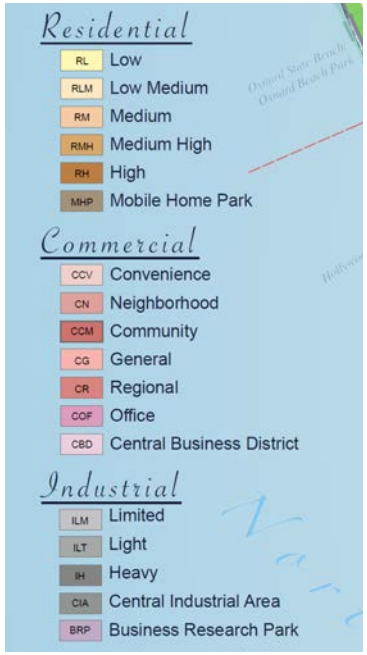
0 500 1,000 2,000'

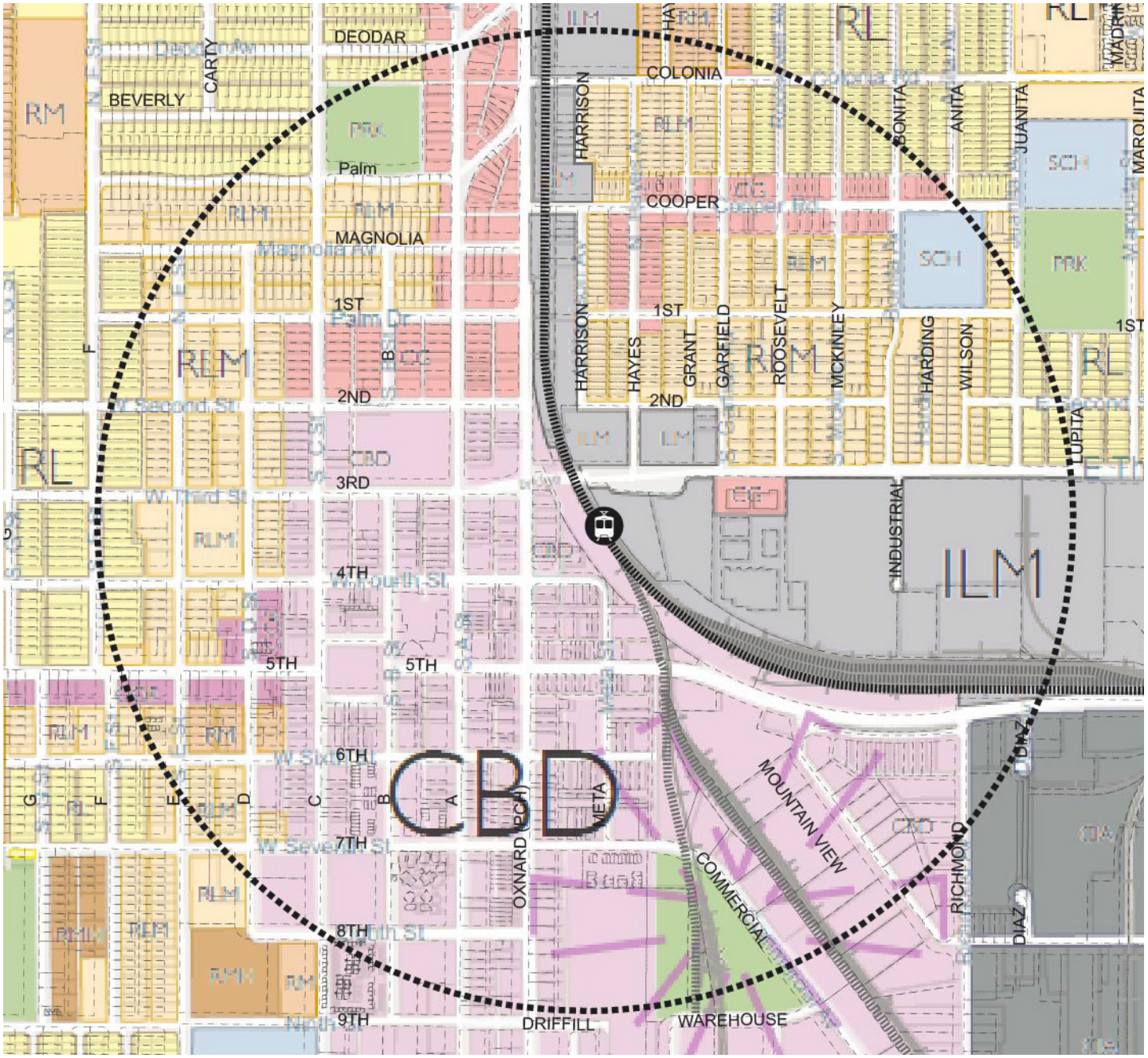
N

Source: SCAG, 2012.

General Plan Land Use

- Mountain View industrial parcels to be up-zoned to CBD
- 6-story height limit; exceptions allowed
- FAR: Commercial 1.5; Office 3.0
- Residential DUPA: 39 units/acre max





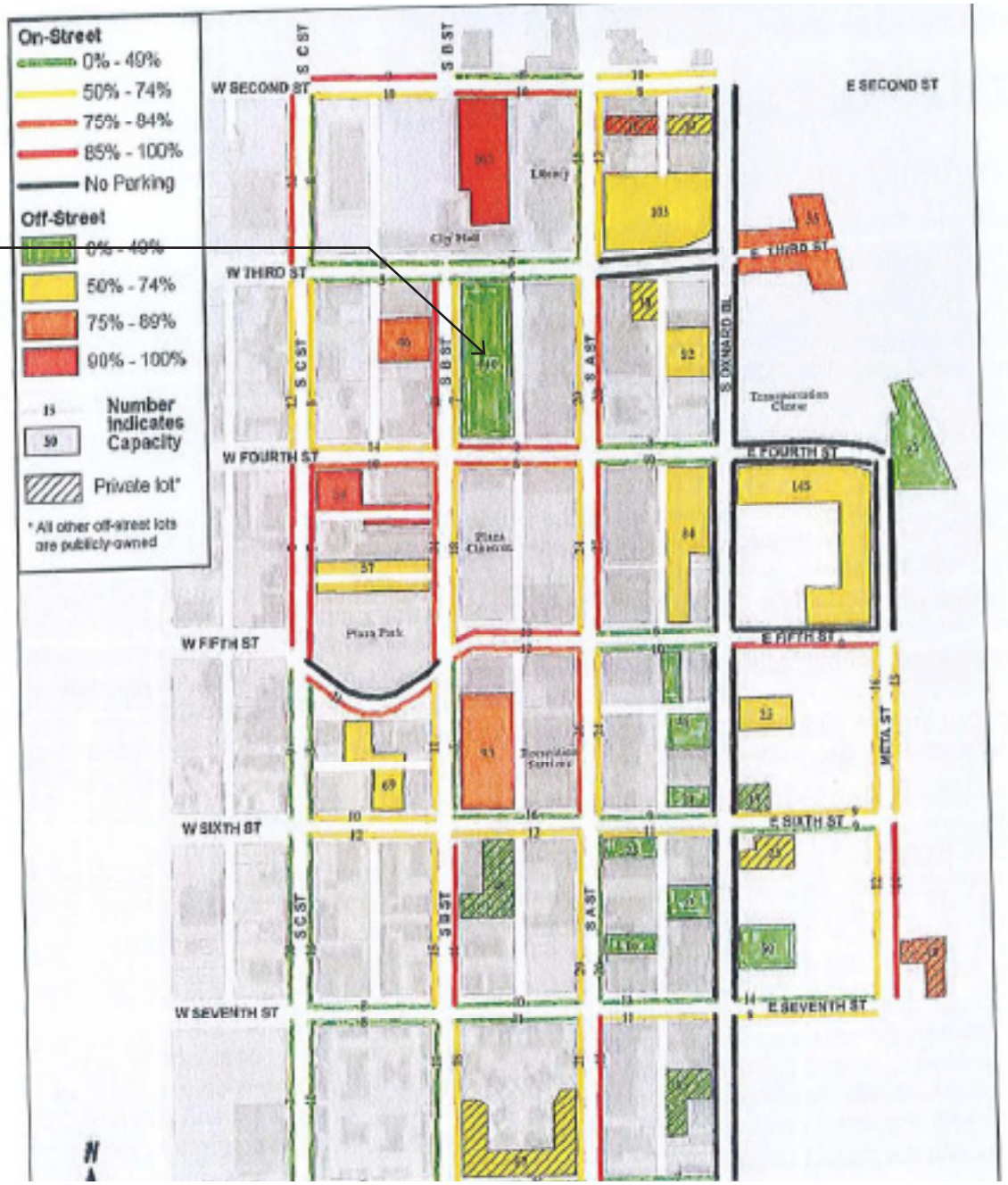
0 500 1,000 2,000'

N

Source: City of Oxnard, September 2014

Parking - Peak Hour Parking Occupancy (12p-1p), October 2007

- Private lots are relatively unused
- High utilization near Civic Center
- Low utilization of City Hall parking structure
- Do any lots charge for parking?



Surface

Structure

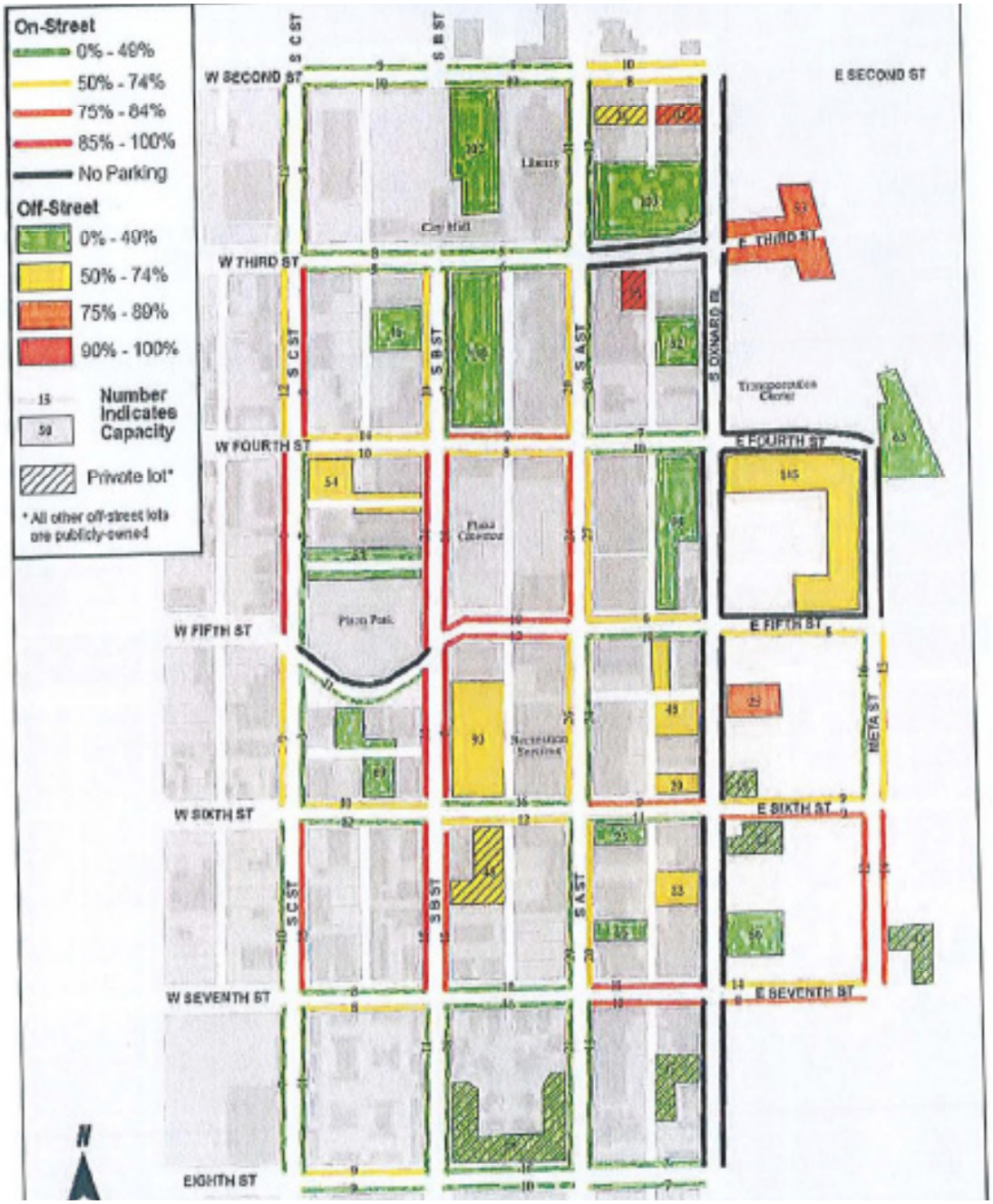
0 500 1,000 2,000'

N

Source: Downtown Oxnard Parking and Mobility Plan

Parking - Peak Hour Parking Occupancy (5p-7p), October 2007

- Utilization along Highway 1 increases
- Relatively little usage of Civic Center Facilities
- On-street parking utilization along B Street and Highway 1 cross streets increases
- Most lots along Highway 1 are publicly-owned - redevelopment opportunity



Surface

Structure

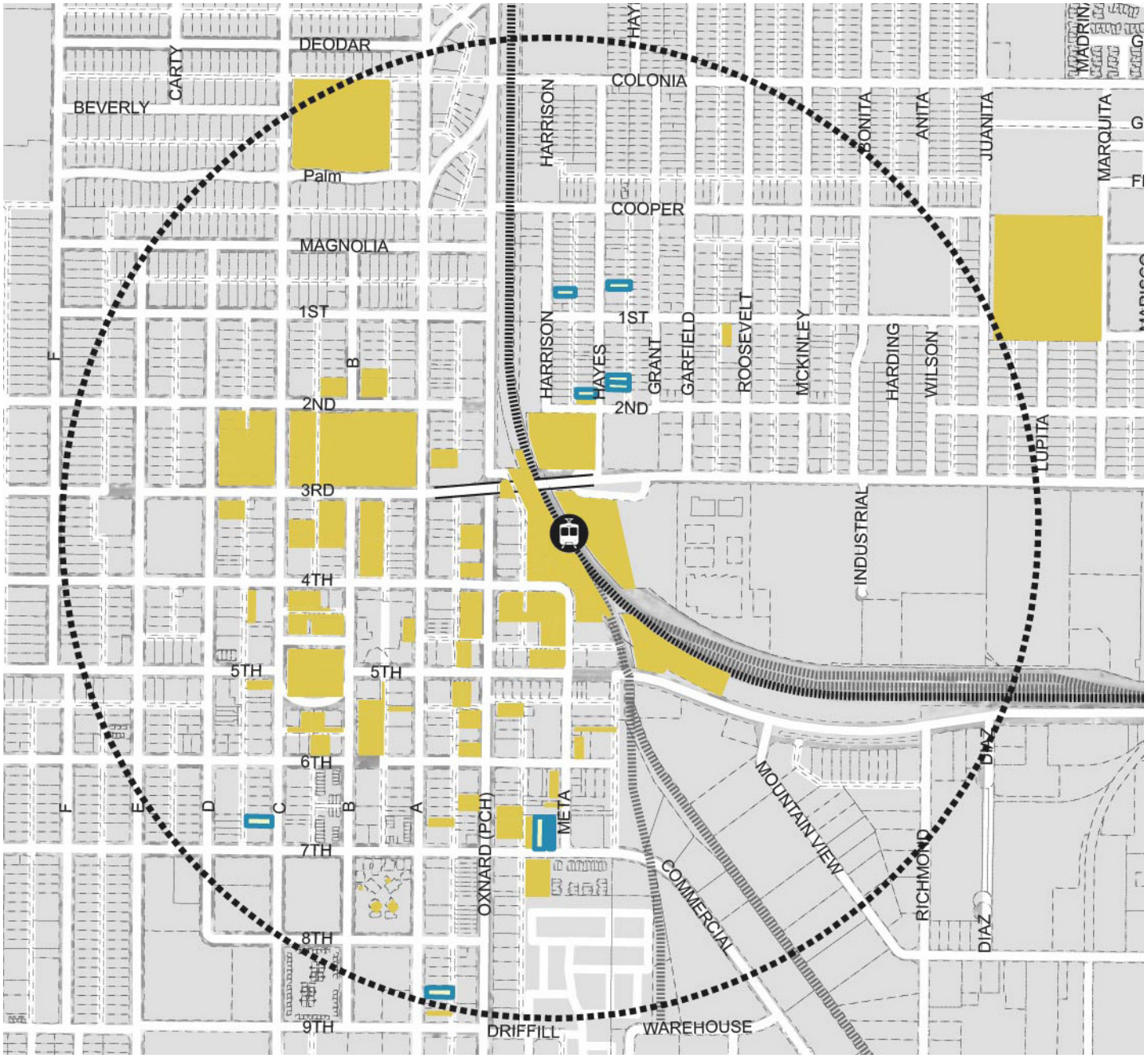
0 500 1,000 2,000'

N

Source: Downtown Oxnard Parking and Mobility Plan

Vacant and Publicly-Owned

- Several publicly-owned sites:
  - Plaza area
  - Highway 1



Publicly-owned

Vacant

0 500 1,000 2,000'

N

Source: City of Oxnard

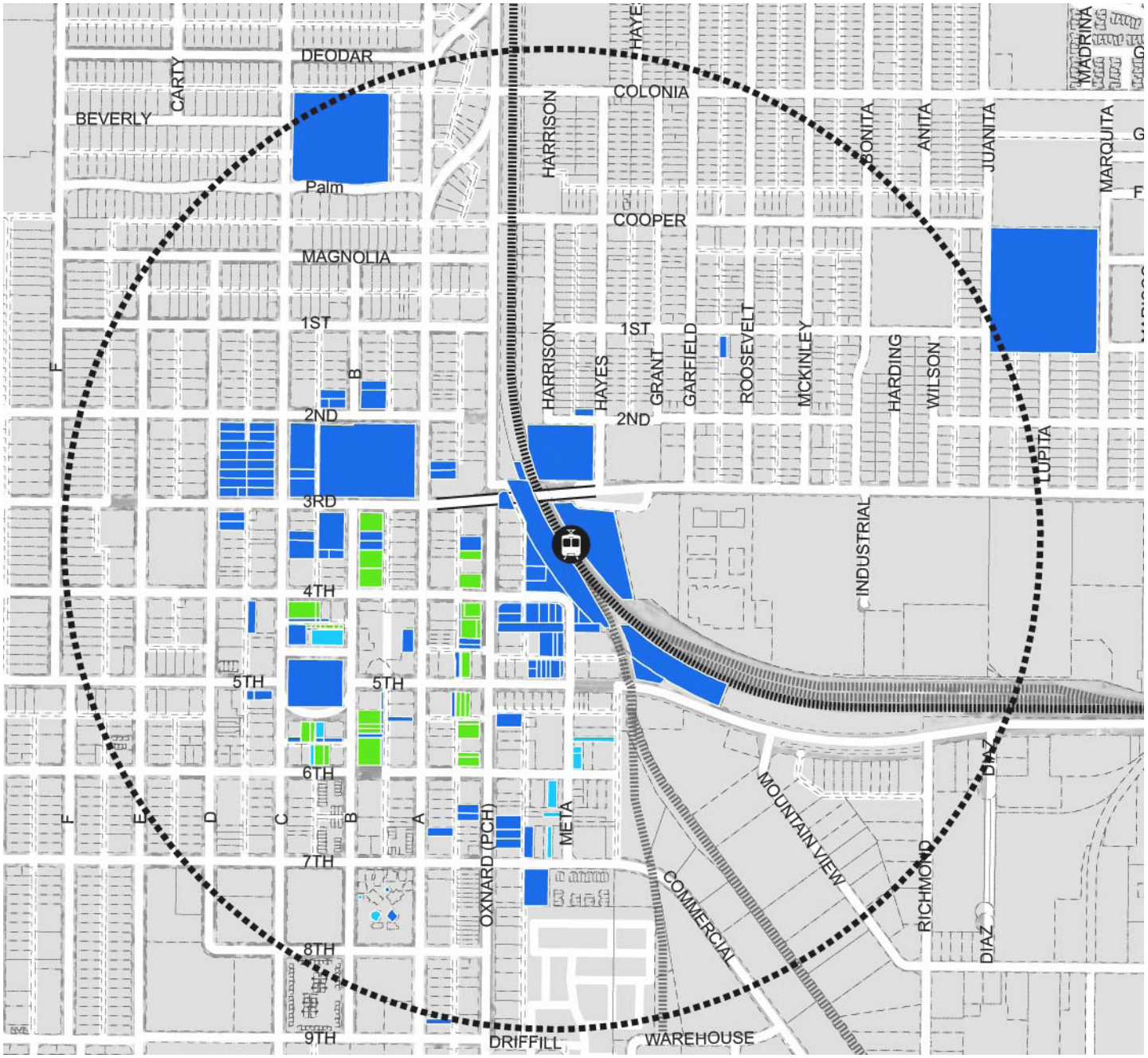
Vacant and Publicly-Owned

- Parking Authority Facilities:

- Highway 1
- B Street
- Plaza District

- City of Oxnard:

- Transportation Center and parcels across the street
- North of 3rd Across the tracks
- Additional parcels near Highway 1/7th



City of Oxnard

Oxnard Community Dev. Authority

Oxnard Parking Authority

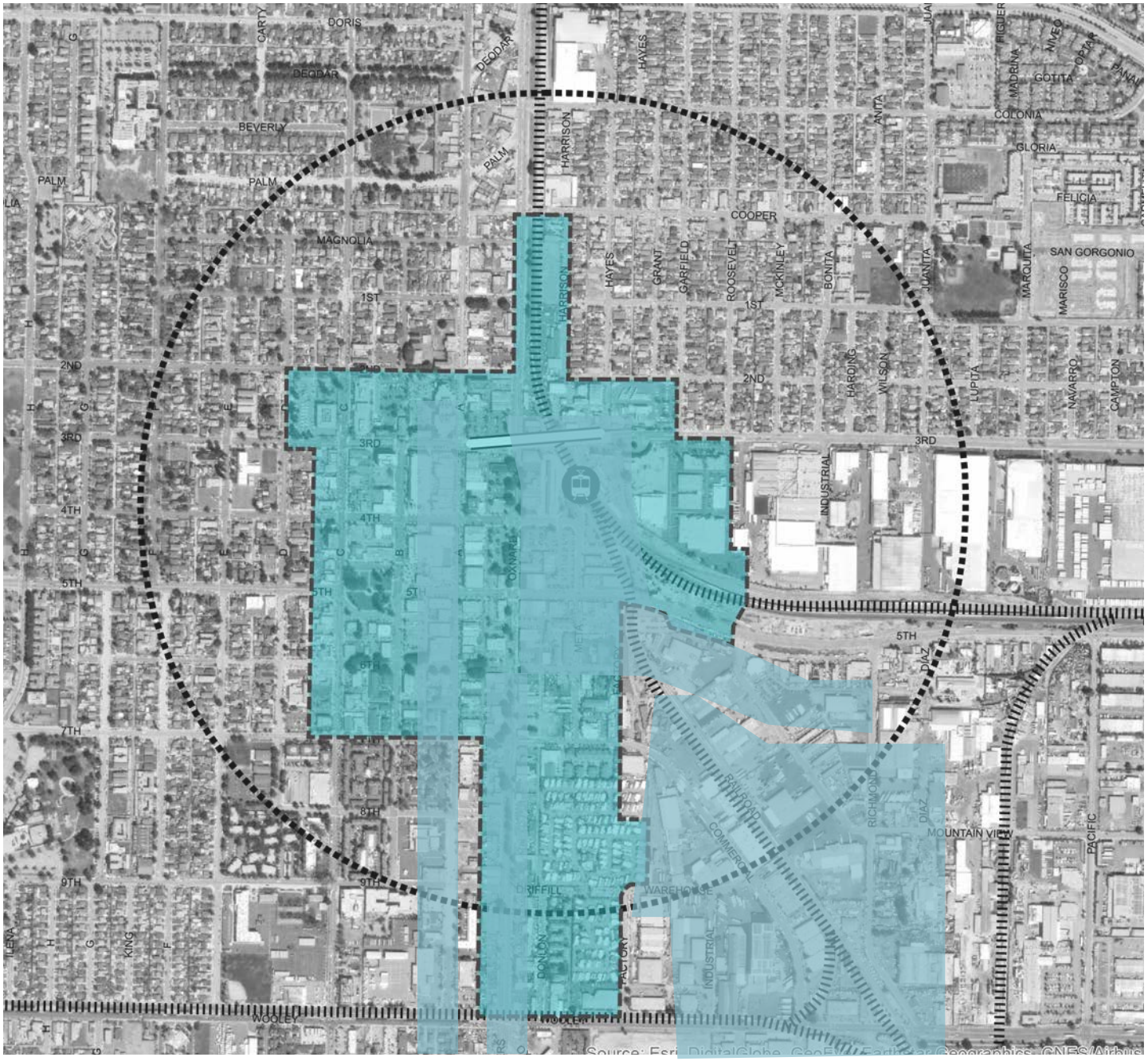
0 500 1,000 2,000'

N

Source: City of Oxnard

Potential Development Opportunities

- Transportation Center - Publicly-owned land
- Mountain View corridor
- A Street Infill
- Highway 1 Infill
- Others?



0 500 1,000 2,000'

N

Source: XX

Other Issues

Environmental Sustainability

Desired Density, Intensity

Mix of Uses - Economic Development Strategies

Planned Bicycle and Pedestrian Improvement Projects

Placemaking Opportunities

Development Opportunities

Others?

HQTA Toolkit

HIGH QUALITY TRANSIT AREA PILOT PROJECT

Southern California Association of Governments

March 2019

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Deepak Kaushik, PE, Senior Transportation Engineer

HQTA Toolkit

HIGH QUALITY TRANSIT AREA PILOT PROJECT

Southern California Association of Governments

March 2019

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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.

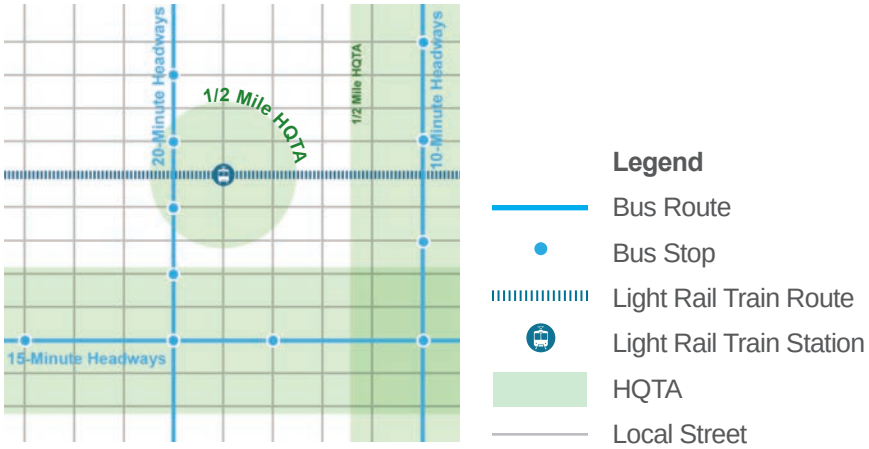
High Quality Transit Corridor (HQTC): A corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.

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

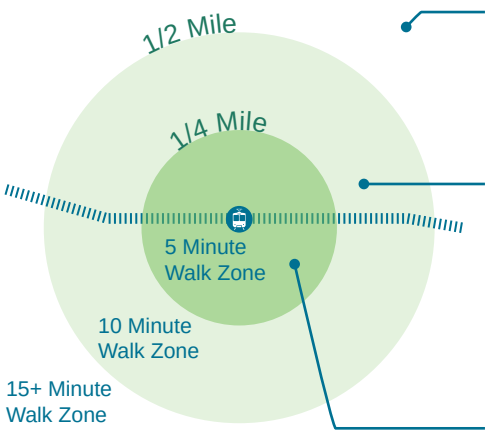
Within the HQTA, there are individual zones that have implications for TOD planning. The HQTA station/stop is surrounded by relatively high-intensity development, with intensity of development gradually reducing outwards to be compatible with lower-density uses as shown in the figure at right top.

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

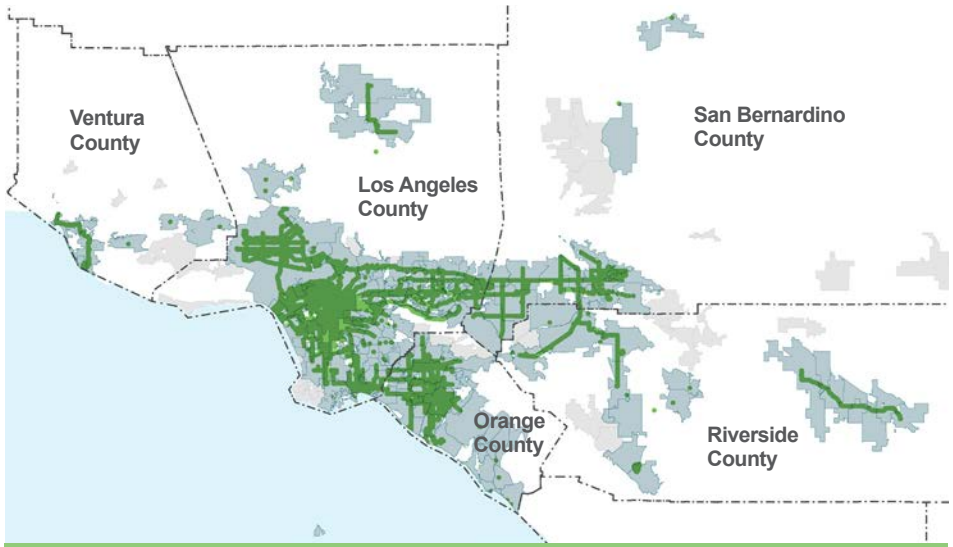


3 Mile Bicycle Zone: Bicyclists generally commute to transit stations within a three-mile bikeshed.

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

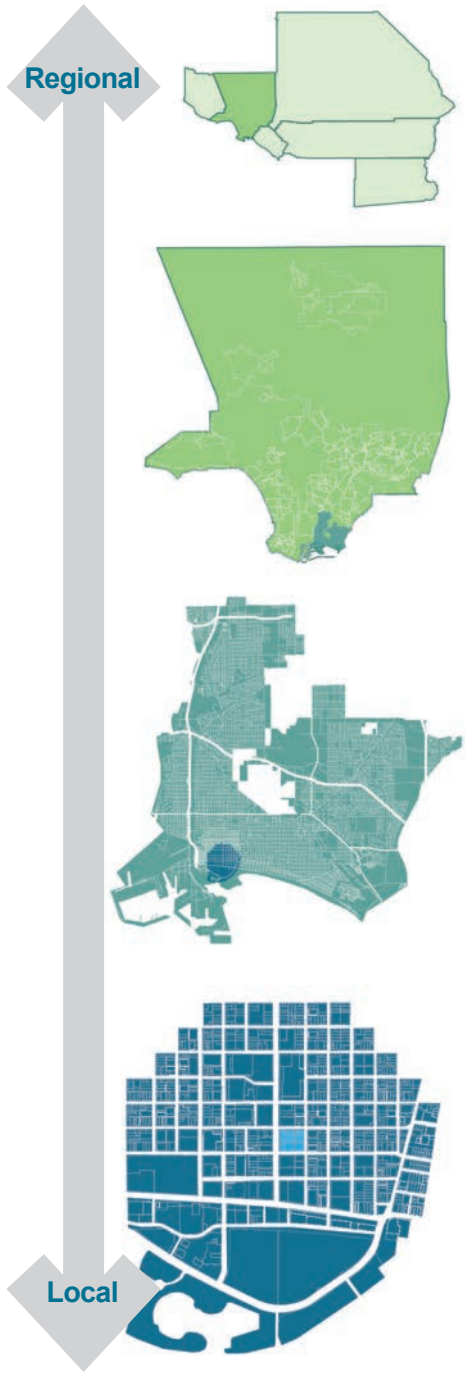
All these issues facing the Region are interconnected. They are the consequence of past investments in sprawling development and auto-centric transportation infrastructure when land use and transportation planning were isolated disciplines. In hindsight, the auto-centric development patterns were made 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

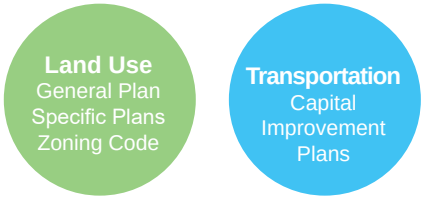
While major issues are perceived regionally, it is the individual parcels, blocks, and neighborhoods that produce the physical conditions that influence regional outcomes; they form the individual tiles of the regional mosaic. The same applies for the goals and objectives of the region. TODs occur at 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.

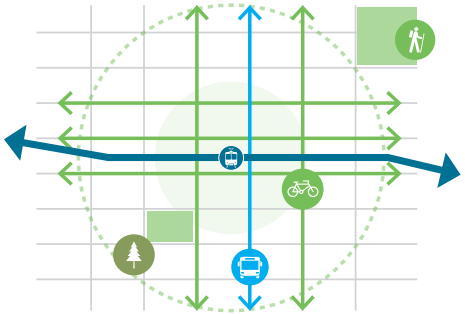
Benefits of TODs

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.

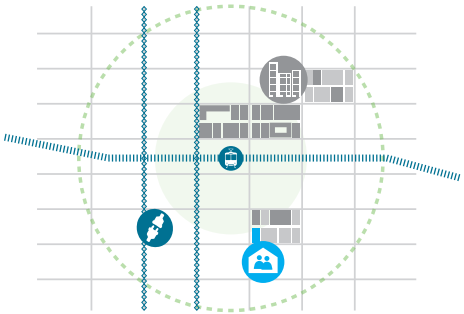
The illustration at right lists the numerous benefits of TODs, which have been grouped into the categories of environment, economic, and social.

ENVIRONMENT



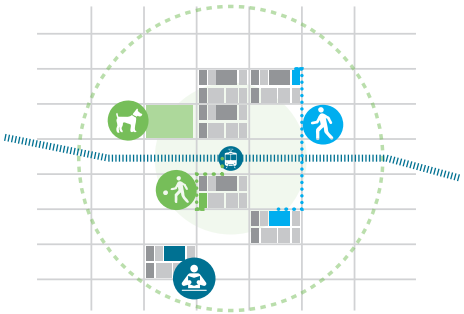
- Increased transit ridership
- Reduced VMT
- Reduced GHG
- Improved Air Quality
- Conservation of land and open space

ECONOMIC



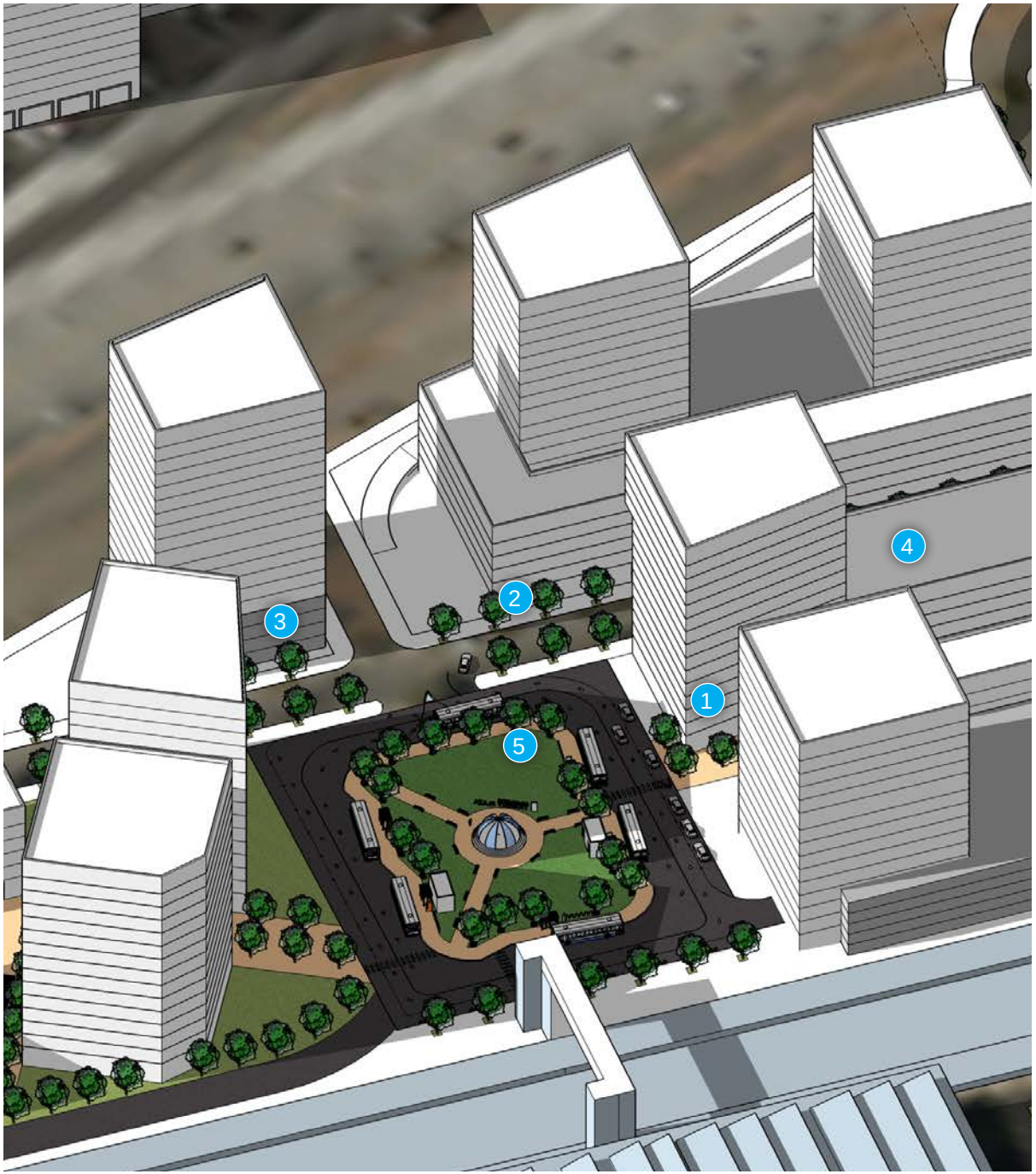
- Catalyst for economic development
- Redevelopment of vacant and underutilized properties
- Increased property value
- Decreased infrastructure costs
- Revenue for transit systems
- Reduced household spending on transportation
- Increase in affordable housing

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.

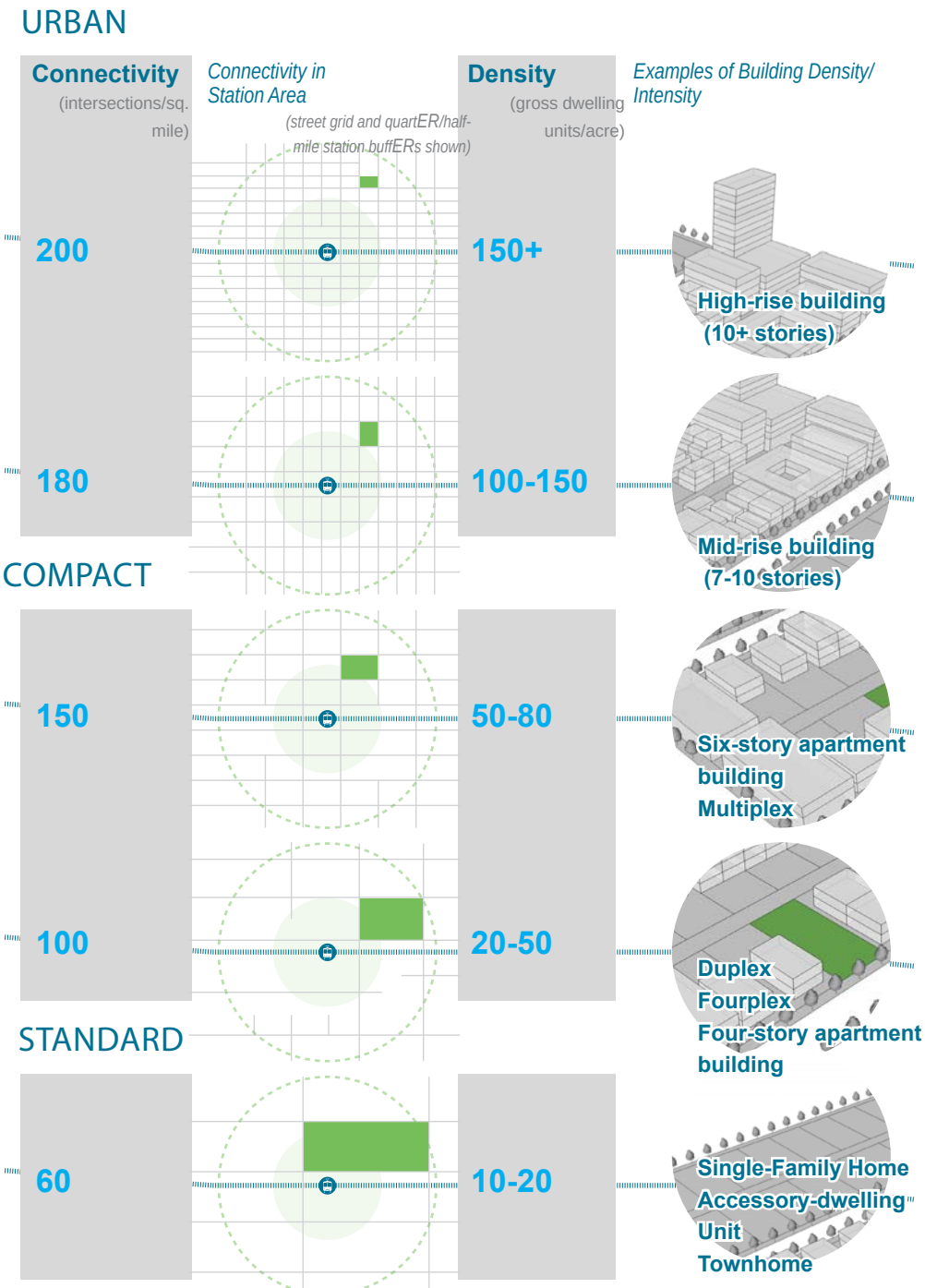
Progress towards meeting these goals will be tracked through a series of targets and metrics identified in each Vision Plan. These targets include density, connectivity, primary mode of travel, and greenhouse gas reductions, among others. Of the 35 place types identified by SCAG, 17 meet or exceed density 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 mi^2	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 mi^2	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.

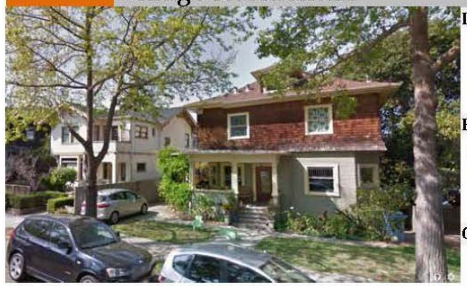
Town Residential

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 mi^2	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 mi^2	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.

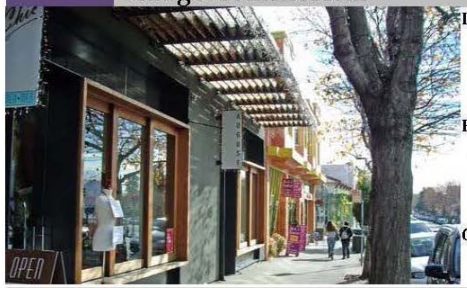
Town Commercial

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 mi^2	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 mi^2	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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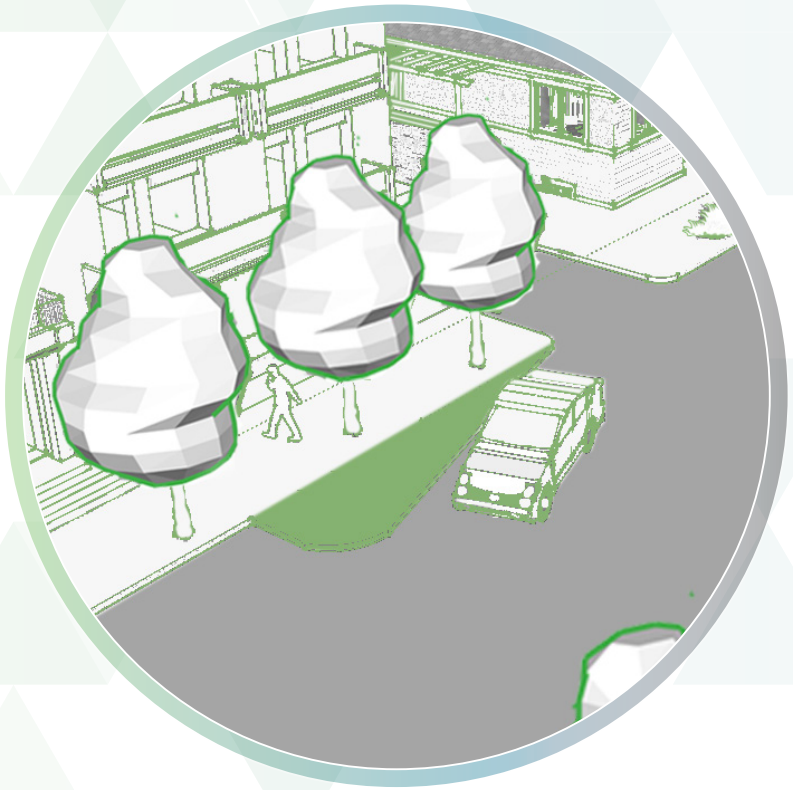
Part II

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

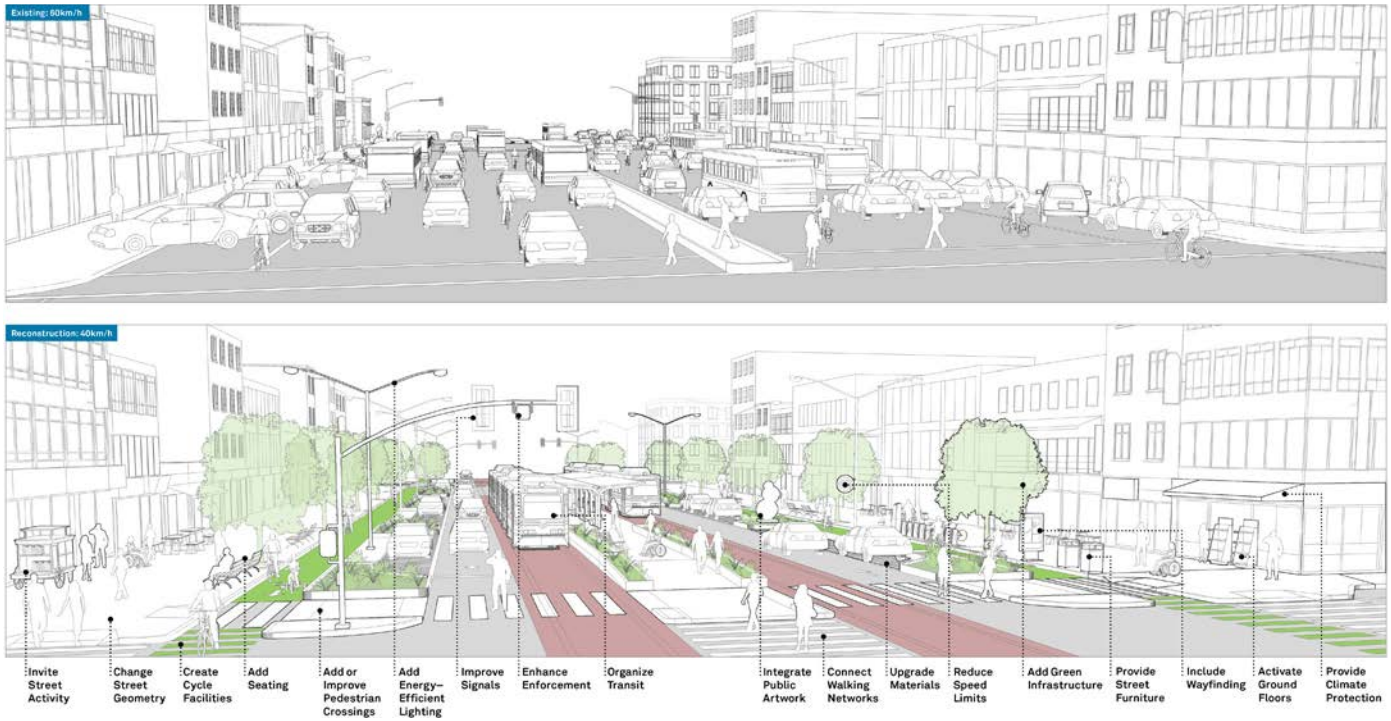
- Chicane
- Street trees
- Treelet
- Greenway Planters / Bioswales
- Permeable Paving
- Lighting

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

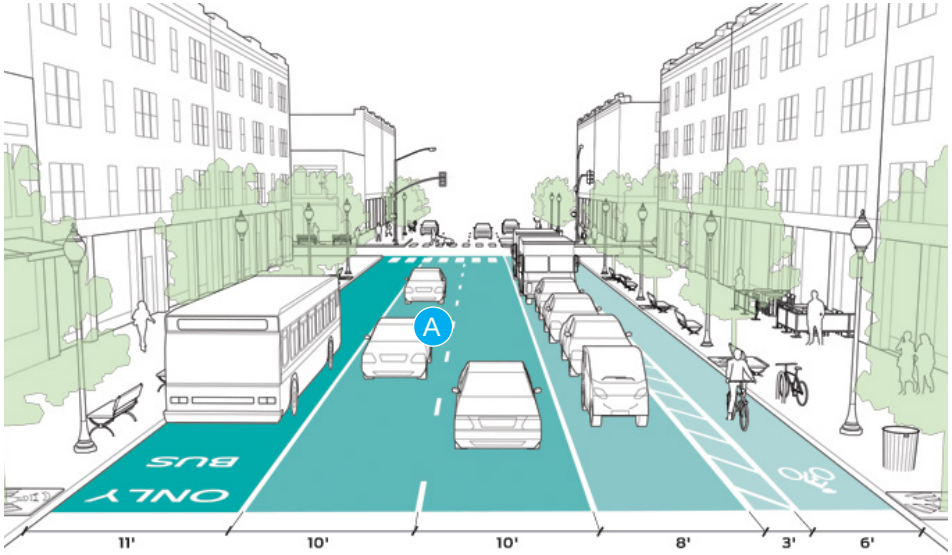
LANE WIDTH AND REPURPOSING

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

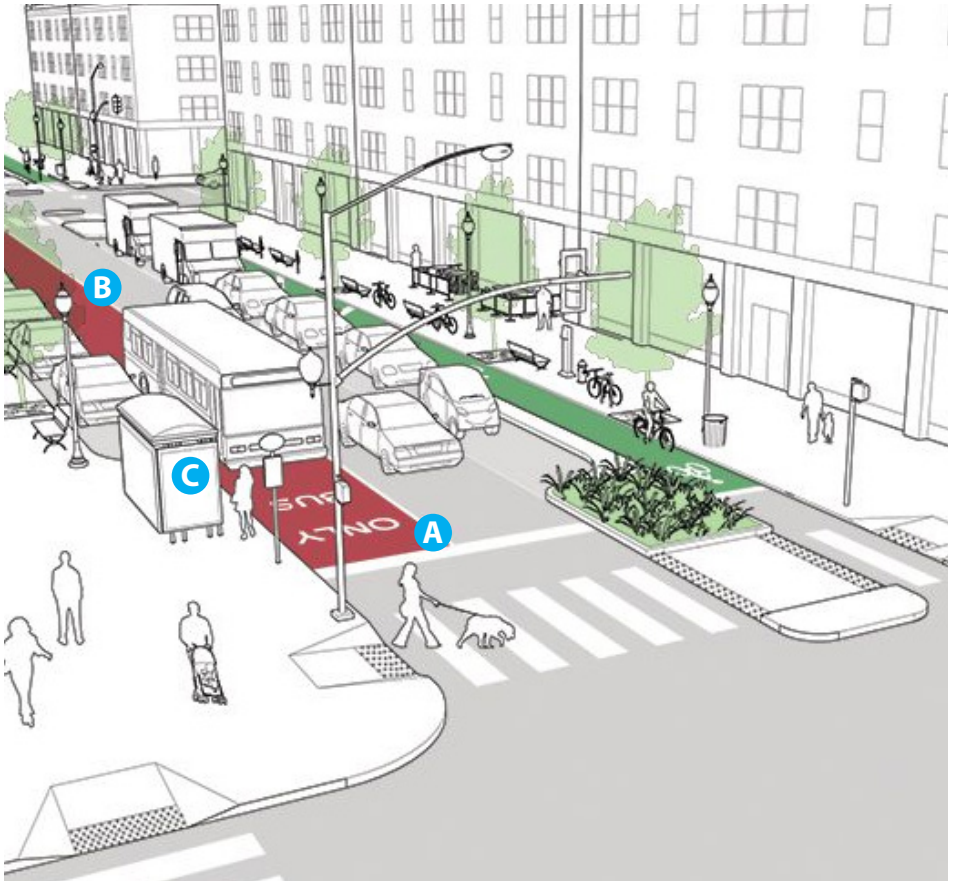
SbX with its bus-only lanes in downtown San Bernardino, CA

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.

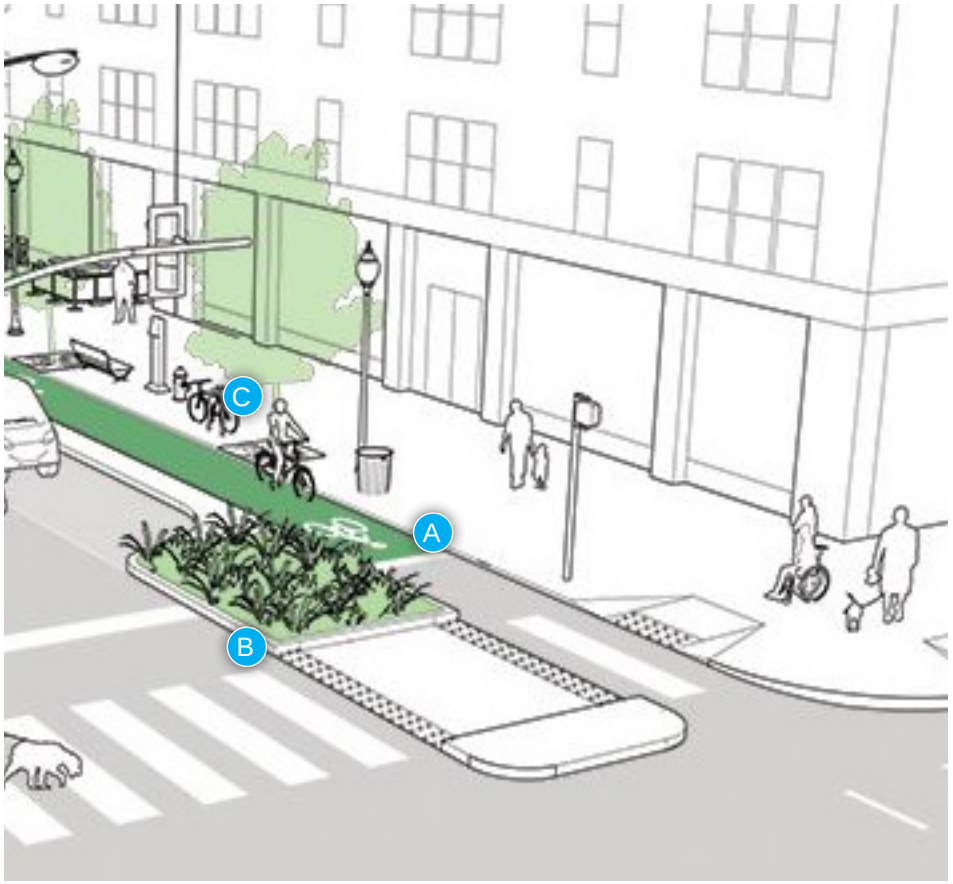
34th Street, New York

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

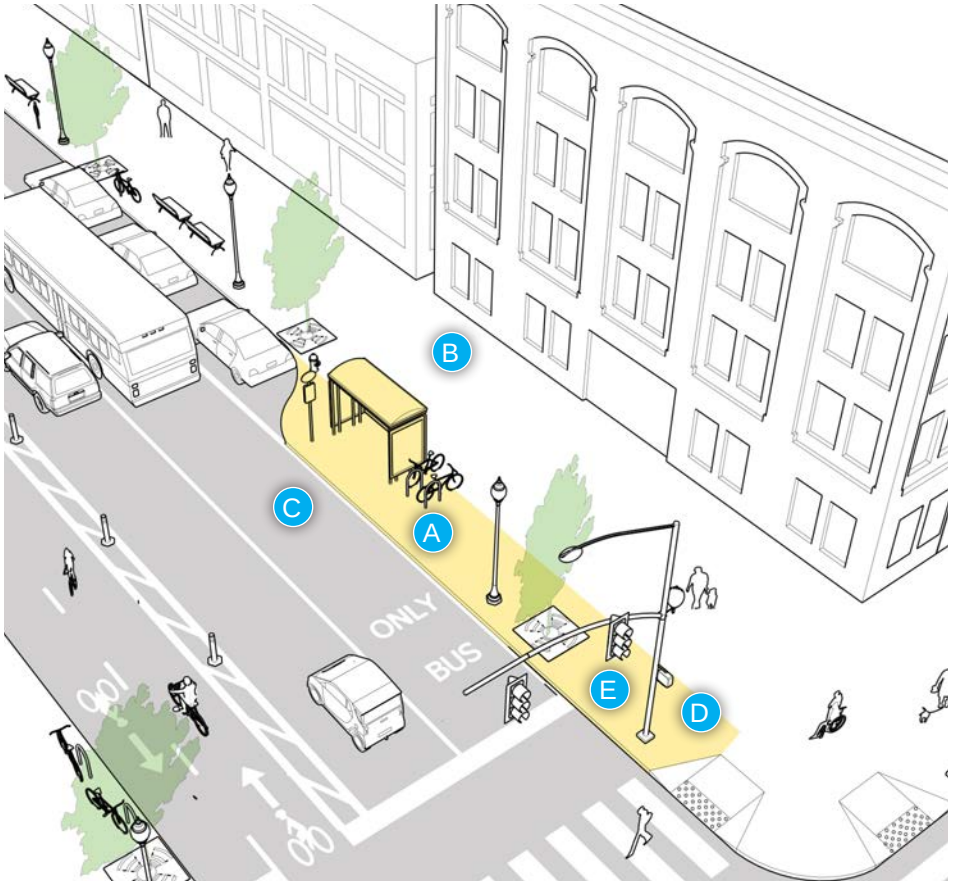
A. Bus bulbs are typically located on multi-lane arterials with curb side parking allowing for an extension of the sidewalk at intersections and for vehicles to pass stopped buses in adjoining lanes.

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

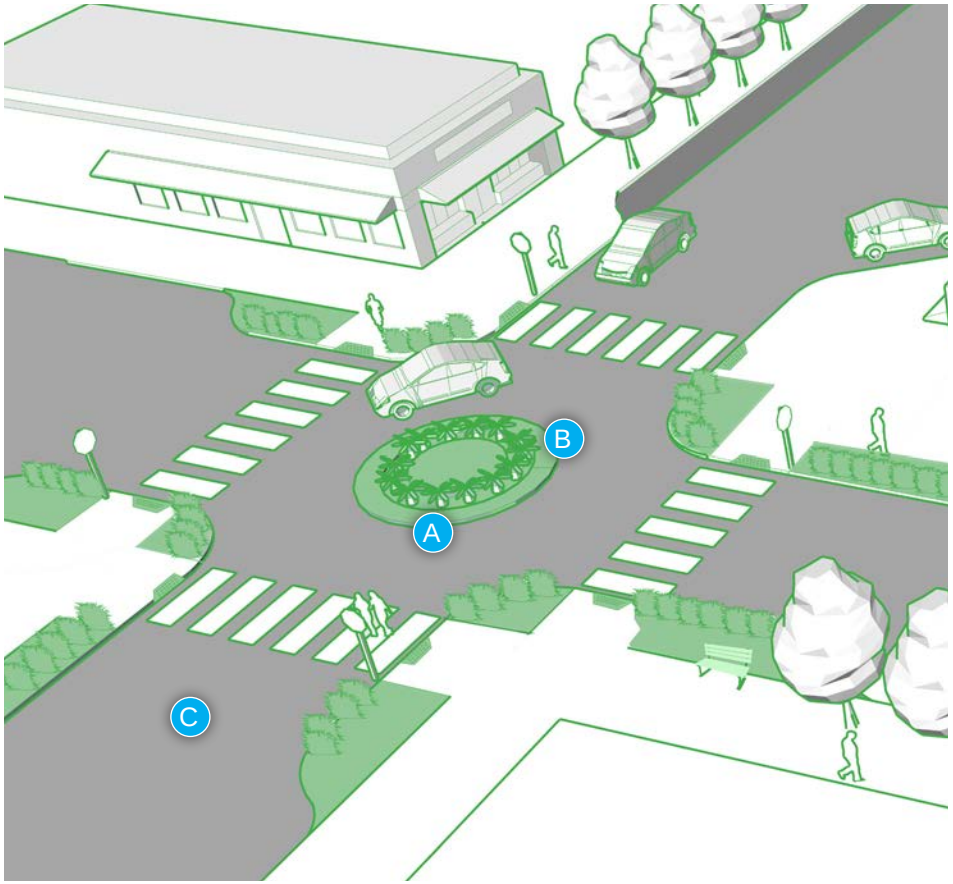
Traffic circles are circular islands in the center of intersections that control the flow of traffic. Drivers that enter the traffic circle must travel in a counter clockwise direction around the island to get to the other side. Intersections with traffic circles can be signalized, stop-controlled, or 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.

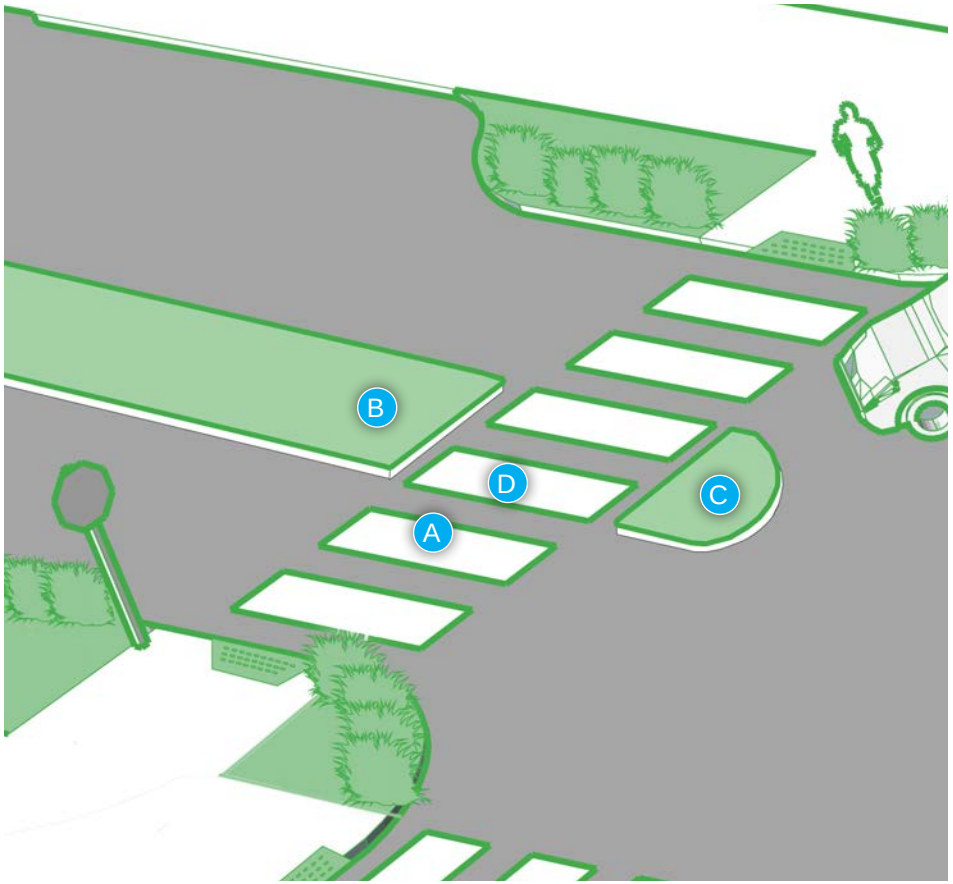
Best Design Practices / Guidelines

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

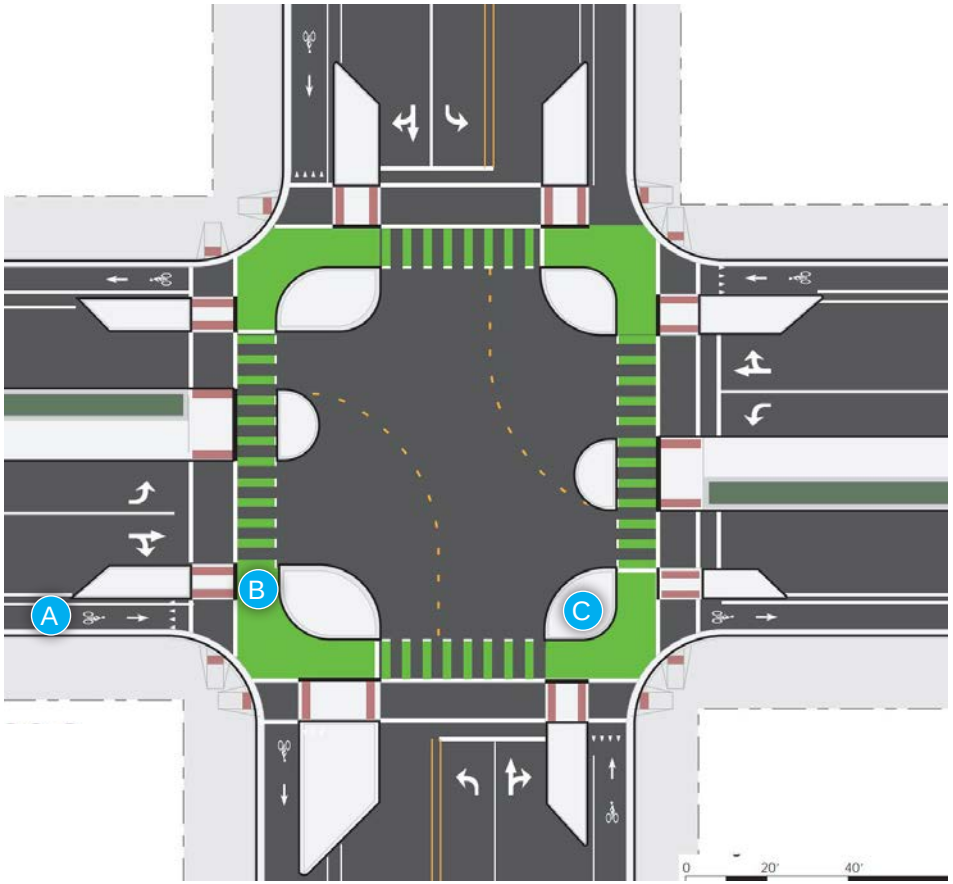
A protected bicycle intersection utilizes curb extensions to add a barrier between a bicycle lane and vehicle travel lanes at an intersection. Like other curb extensions, this makes cyclists and pedestrians more visible to motor vehicles. This arrangement provides greater safety for cyclists at intersections 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

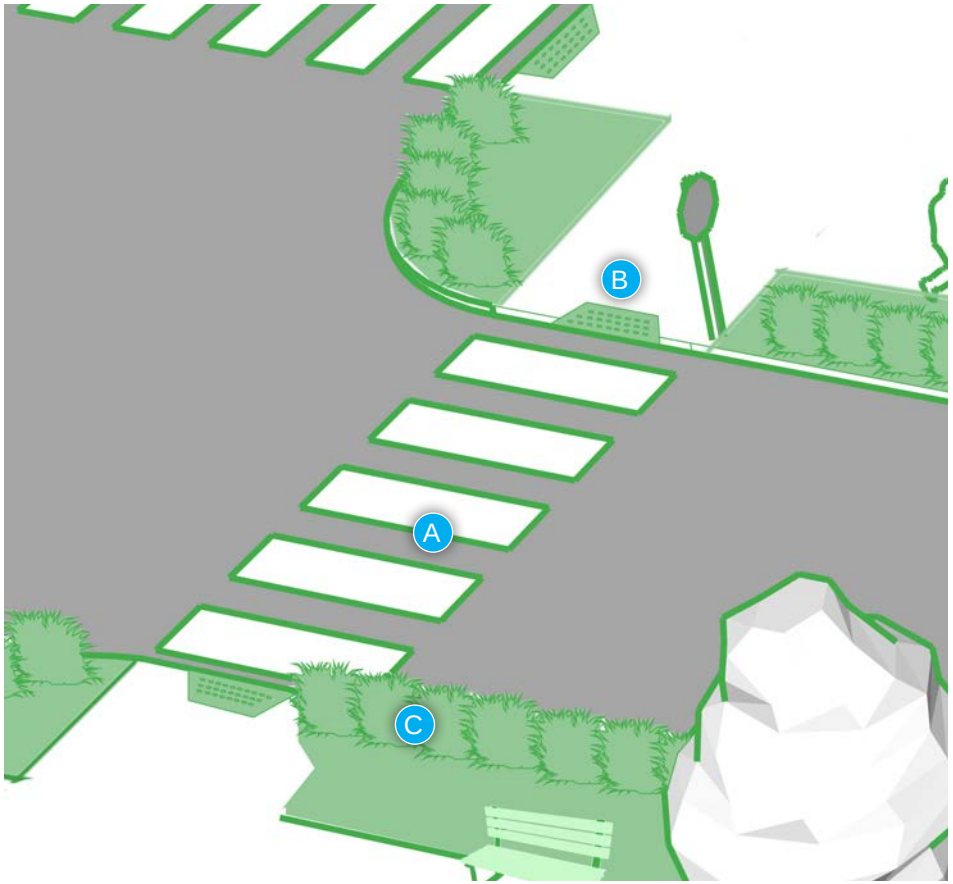
Installing crosswalks at controlled and mid-block help pedestrians to identify ideal locations at which to cross a street. Marked crosswalks also indicate to motorists where pedestrians have right-of-way and where to yield. Crosswalks should be highly visible to both drivers and pedestrians and can be 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

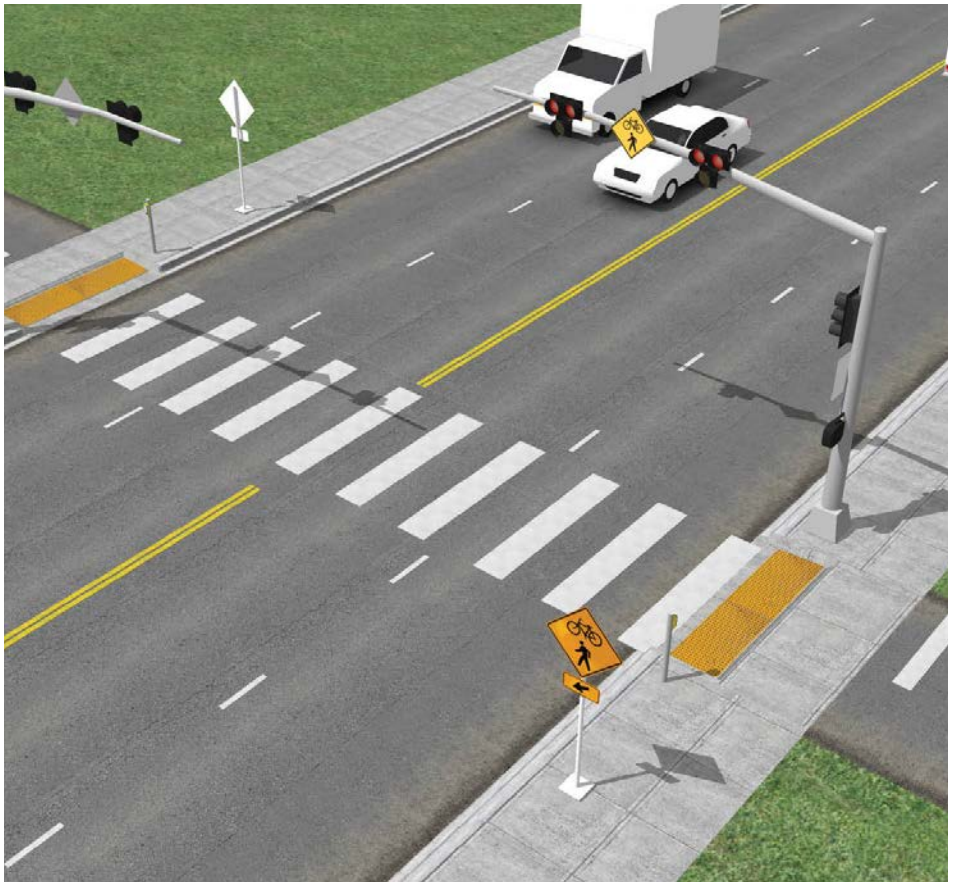
Chicago, IL

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

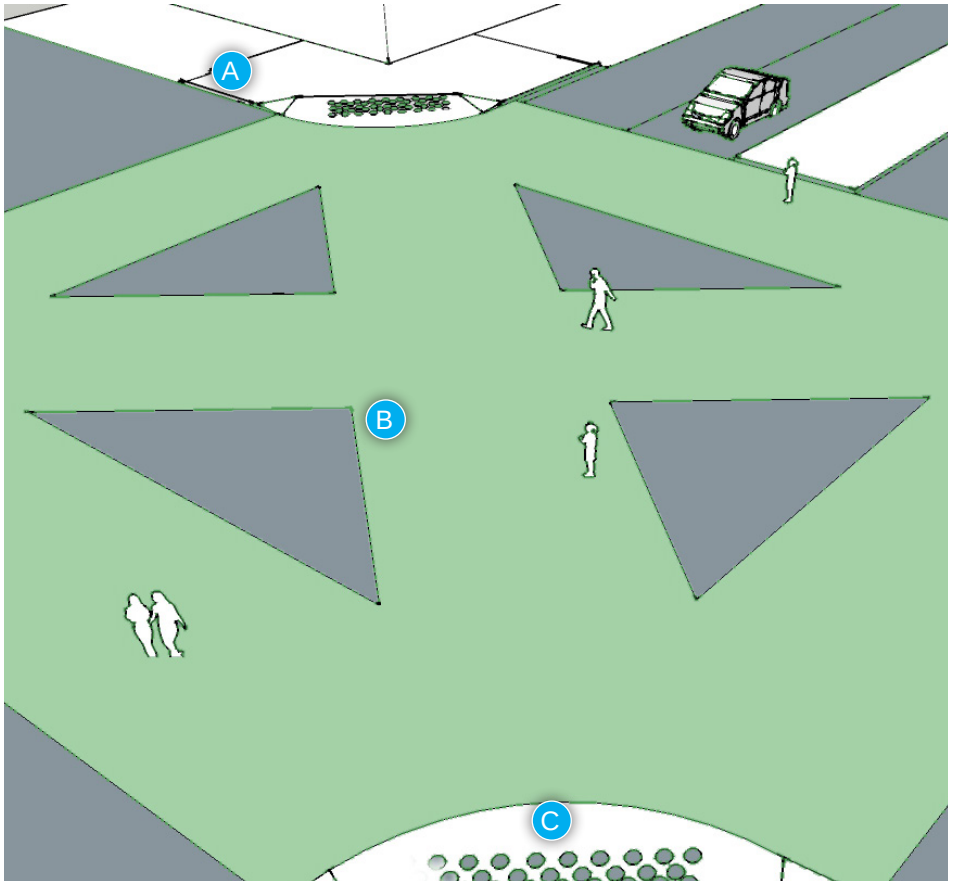
When activated, scramble crosswalks signalization temporarily stops traffic to allow pedestrians to cross at an intersection in any direction. The crossings can be striped with paint or pavers and can be used to direct pedestrian movement. Scramble crosswalks are advantageous in areas with high pedestrian 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

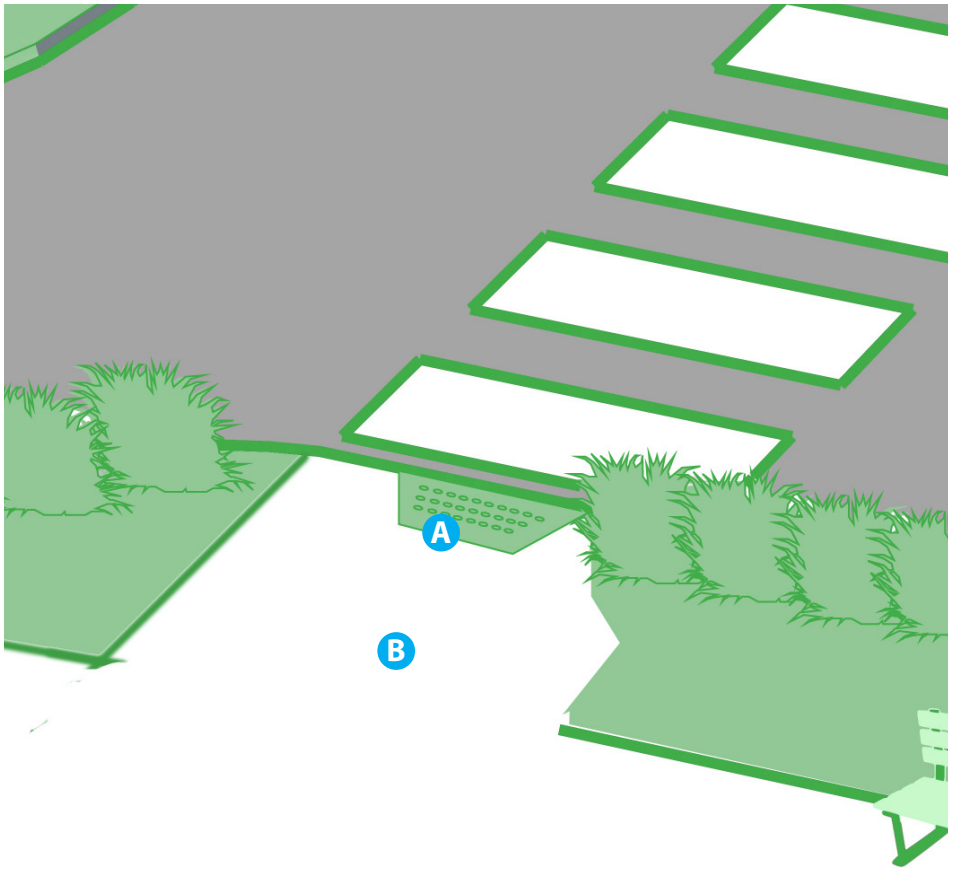
Amenities Infrastructure **Intersections** Street Design

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

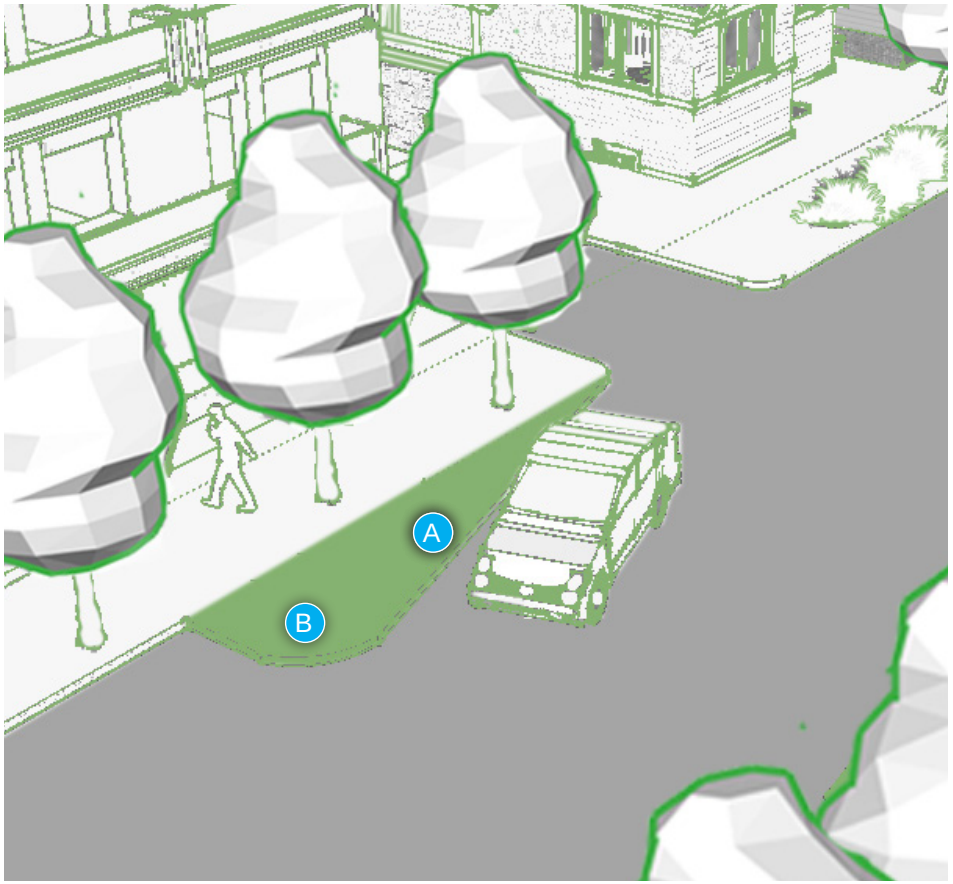
Long Beach, CA

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.



Source: Gruen Associates

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.

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

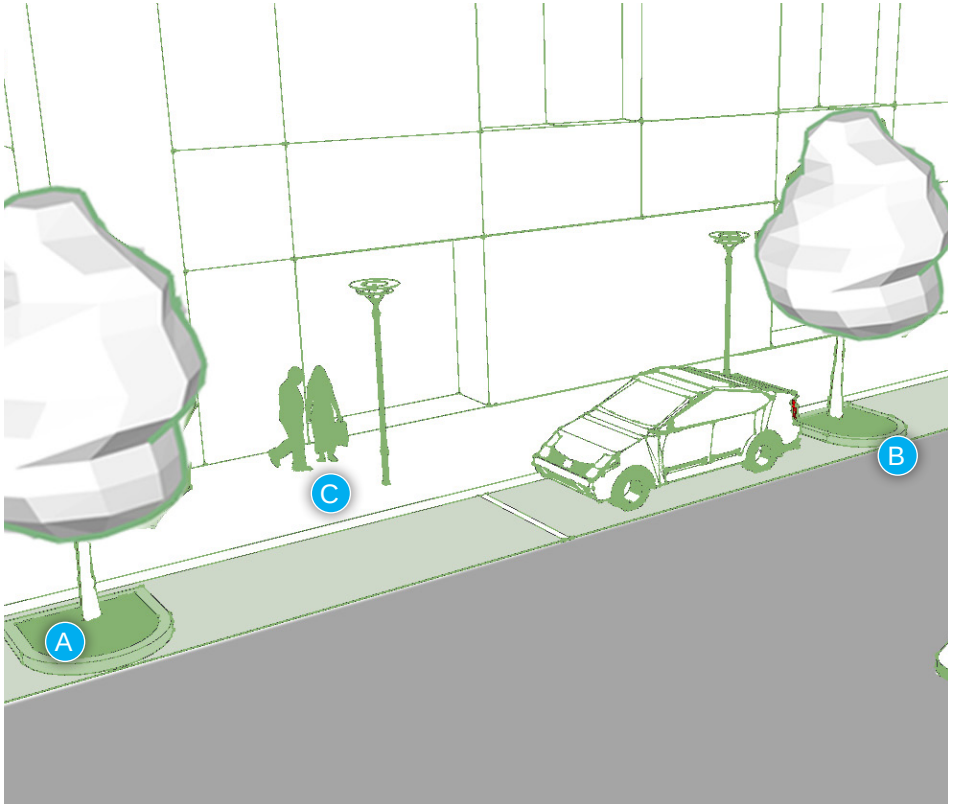
Bethesda, MD

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.



Source: Gruen Associates

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.

Long Beach, CA

Complete Streets

GREENWAY PLANTER / BIOSWALE

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

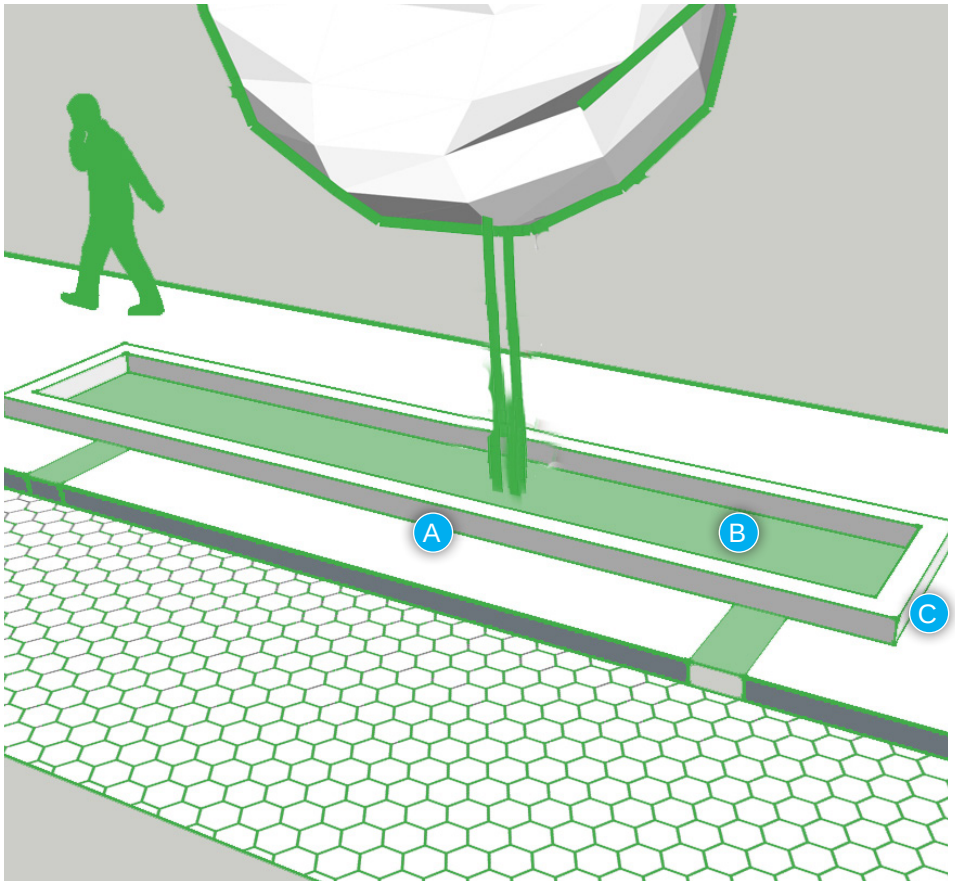
Greenway planters/bioswales meet an increasing demand to mitigate storm water pollution from our streets and impermeable surfaces in our urban areas. Bioswale parkways between the street and sidewalk collect and filter stormwater run off from streets. Curb cut-outs direct street runoff into the permeable 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

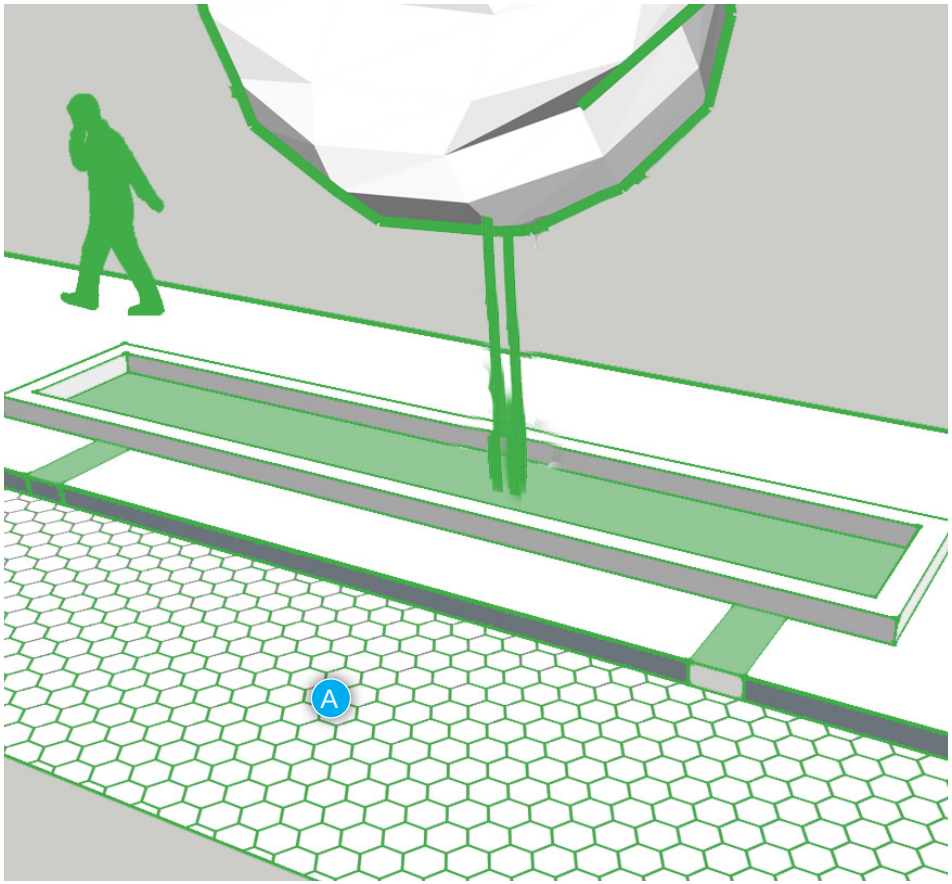
PERMEABLE PAVING

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

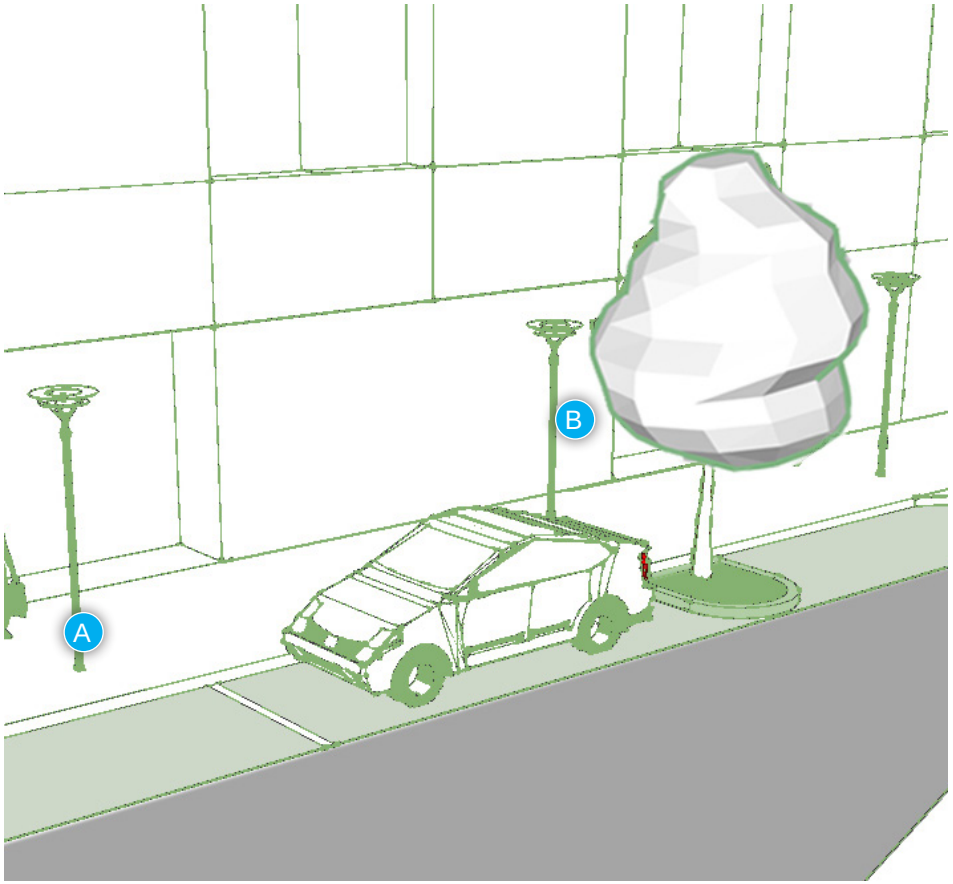
LIGHTING

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

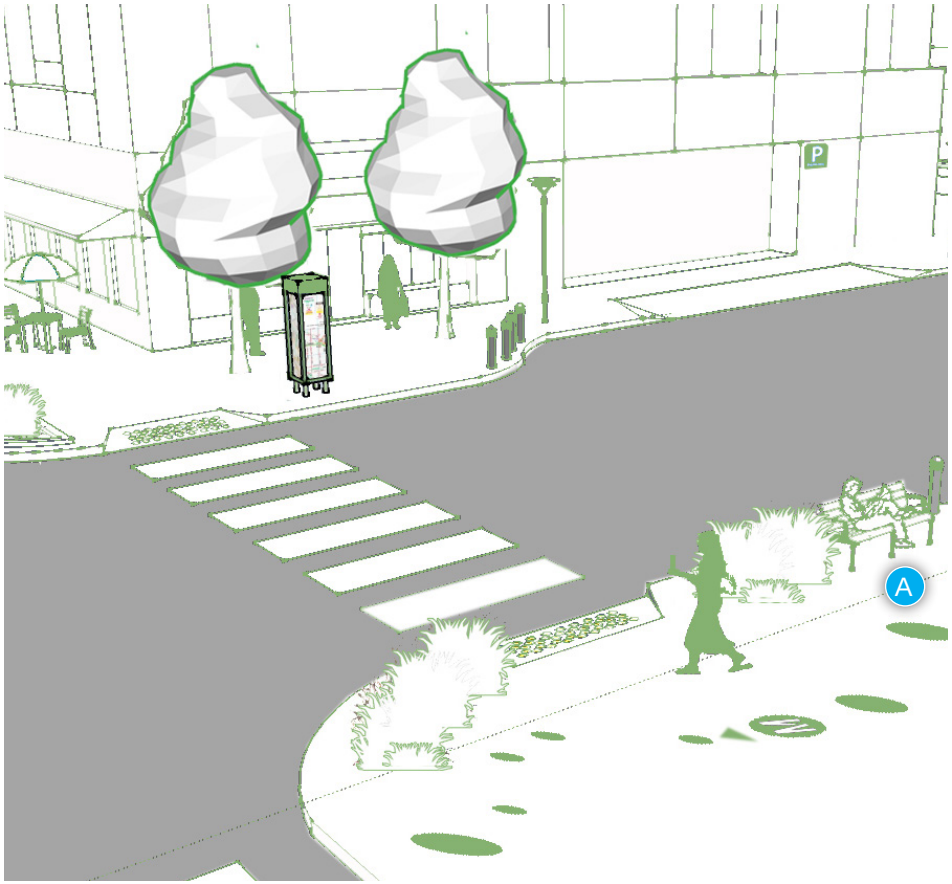
STREET FURNITURE

Amenities | Infrastructure | Intersections | Street Design

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.

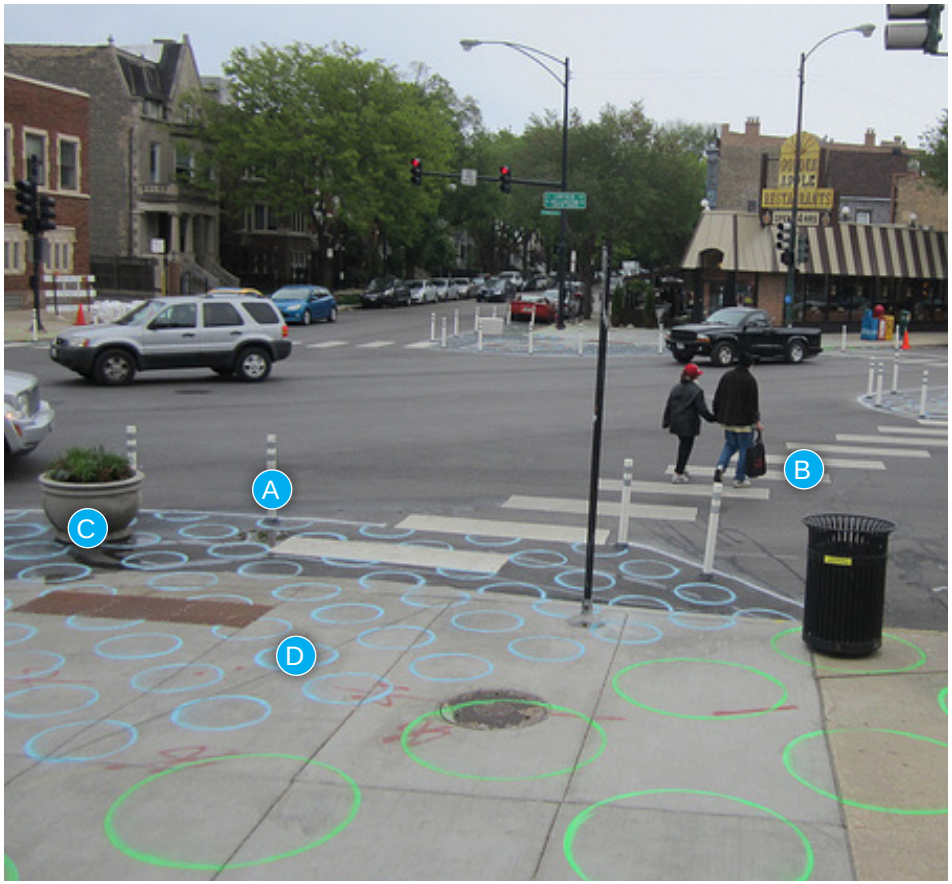
Best Design Practices / Guidelines

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

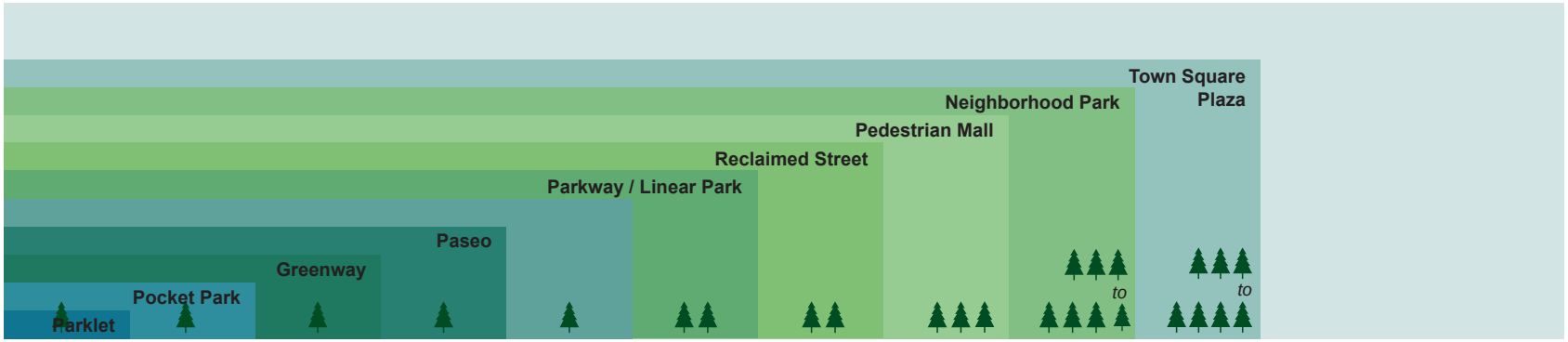
Habitat and Open Space
Habitat Corridor Links, Natural Landscape

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

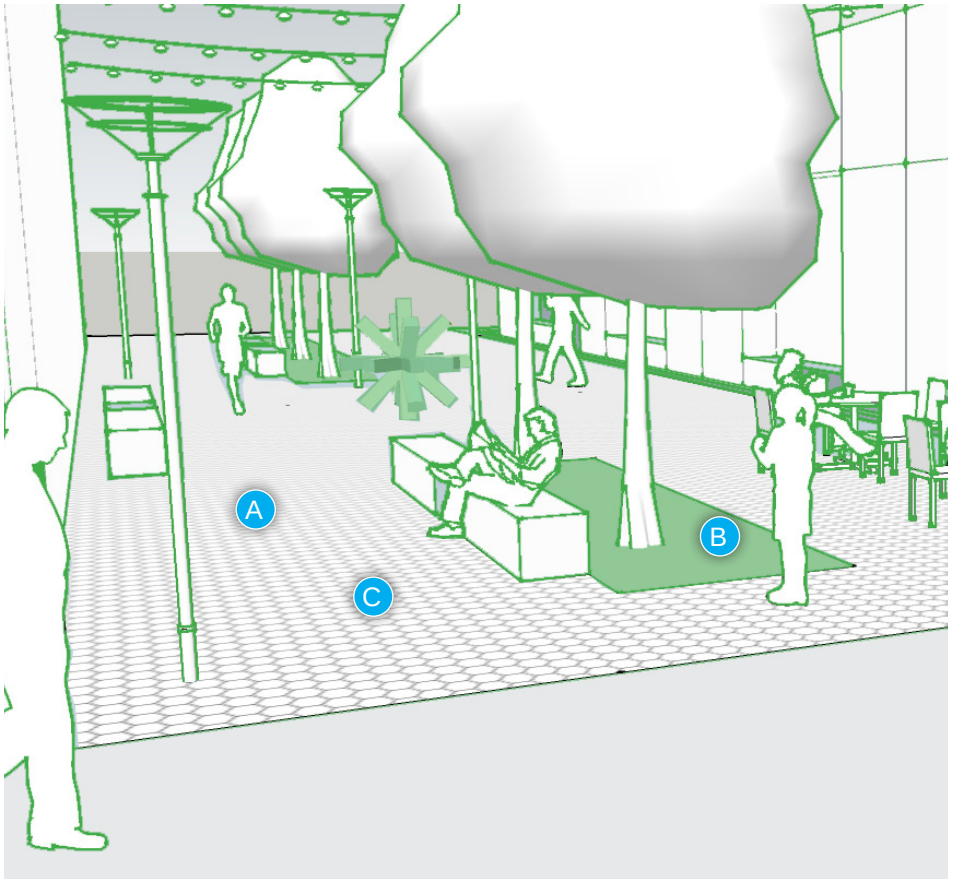
Pocket parks offer small areas for siting, dining and recreation, and could be located on public or private property. They could occupy underutilized or leftover public right-of-way or small lots owned by the City. Private property pocket parks could be a parking lot no longer used or an easement designated 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

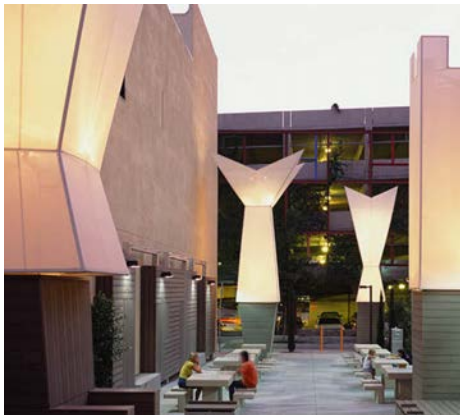
A Design of parks should accommodate a diversity of users although some depending on size could be devoted to specialty users, such as a children's playground or a dog park.

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

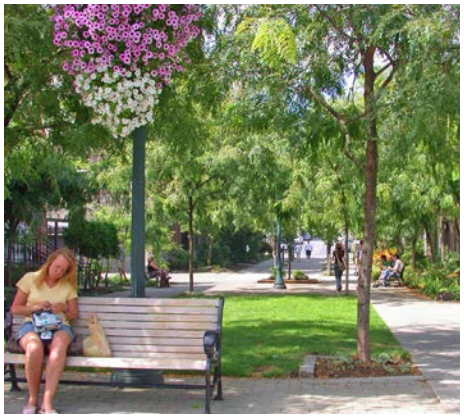
A paseo is a landscaped public place containing a path designed for walking and strolling and could also be for biking. Paseos could be a mid-block pedestrian connection or part of a larger trail system connecting neighborhoods, parks, schools, and city sidewalks.

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.

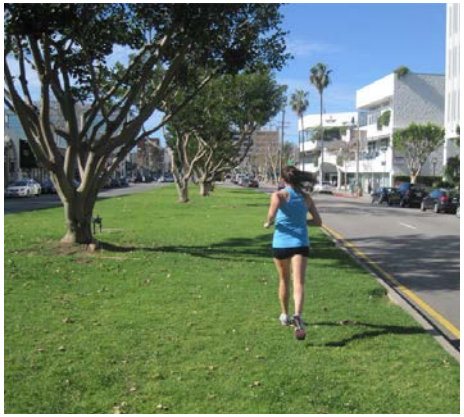
D The character of linear parks could vary from the “zen like” low maintenance drought tolerant landscaping with bioswales of the Metro Orange Line Extension to the more vibrant colorful planting, water features and art in the Marina Linear Park in downtown San Diego to the active market space atmosphere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

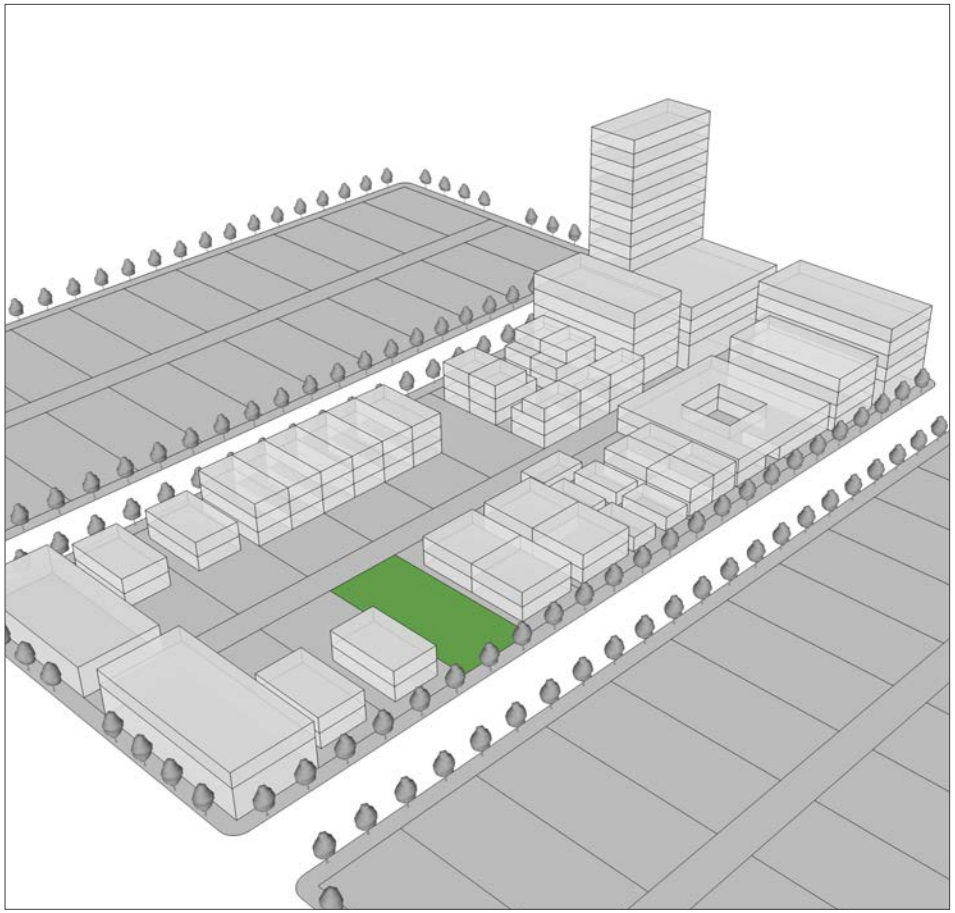
Typologies
A profile of each typology, including the general density/intensity range, mix of land uses, parking and circulation assumptions, and key design considerations

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

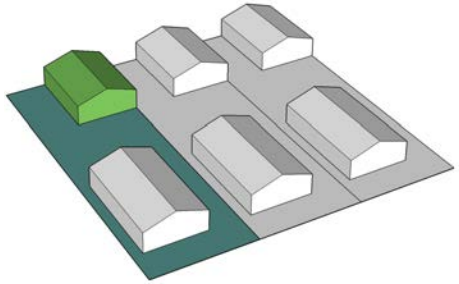
D Mid/Hi-Rise Tower

1. Mid-Rise Tower
2. High Rise Tower

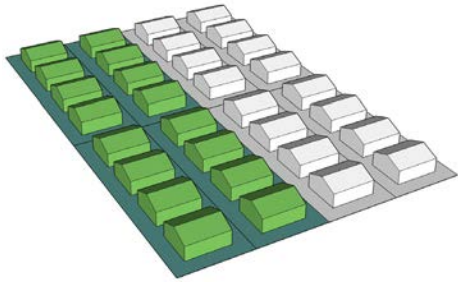
A B C D

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

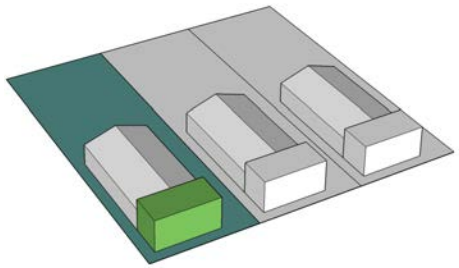
Parking: Assumption: 0-1 space per unit

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

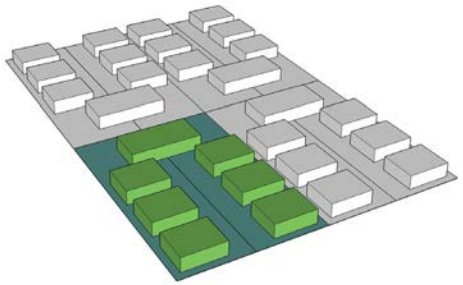
Residential: / Commercial: Mix:

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

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.

Piedmont, California

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.

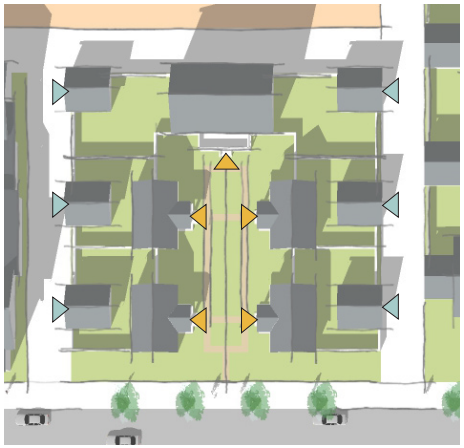
4 ROSEWALK

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

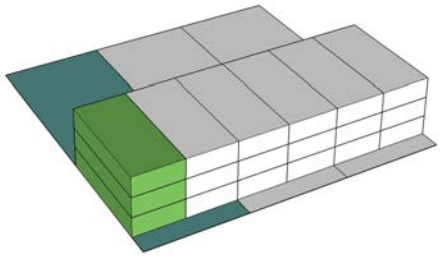
Parking: Assumption: 1-2 spaces per unit

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

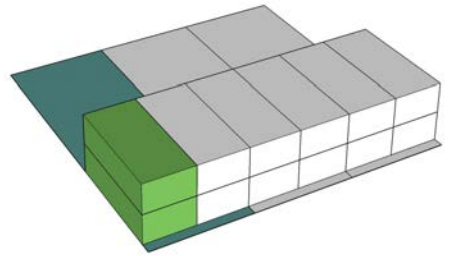
Residential: / Commercial: Mix:

Residential - 100%

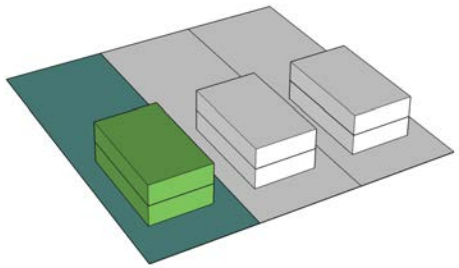
Commercial - 0%



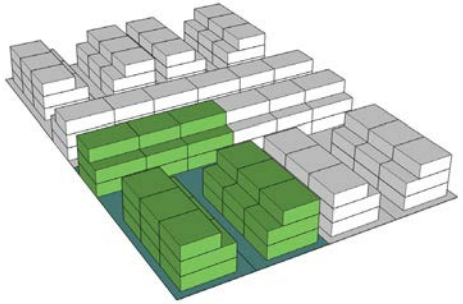
Attached Townhouse



Live/Work



Duplex



Small-Lot Subdivision

Design Considerations

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

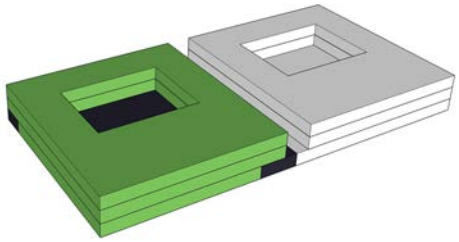
Side Setback: 0% of lot width

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.

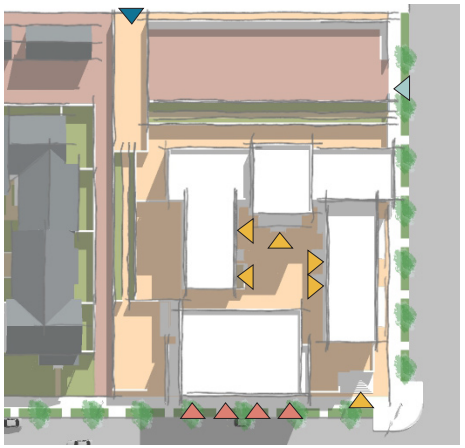
2 HYBRID COURTYARD

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.

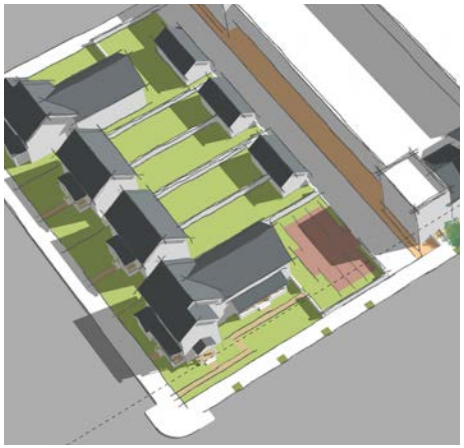
4 LIVE/WORK LOFTS

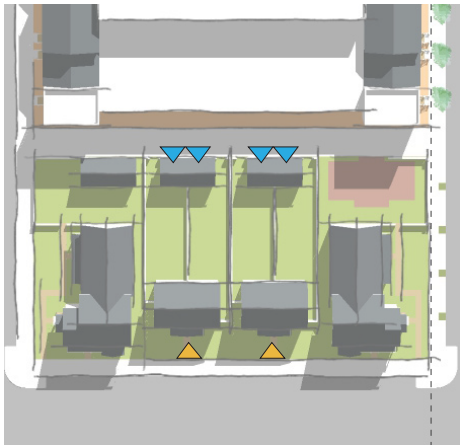
Live-work lofts are a unit type that can be integrated into duplexes, detached/attached townhomes, and small lot projects. These units are typically two-or three stories, face the primary street, and include second and/or third-levels that open to the main living space below. Living spaces may be converted 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

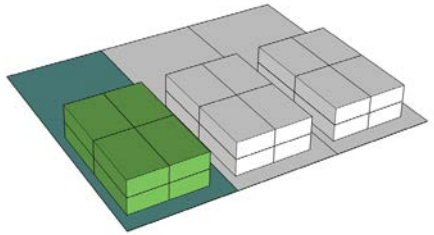
City Place, Santa Ana

A B C D

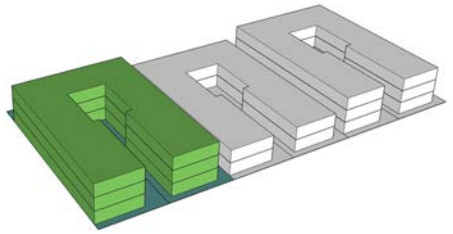
Typology: Multiplex

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

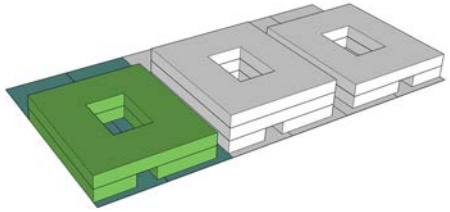
Parking: Assumption: 1 space per unit

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

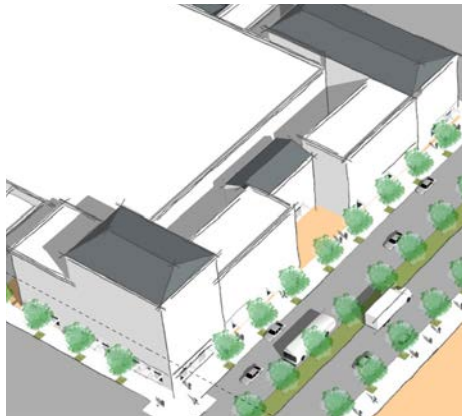
Residential: / Commercial: Mix:

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.

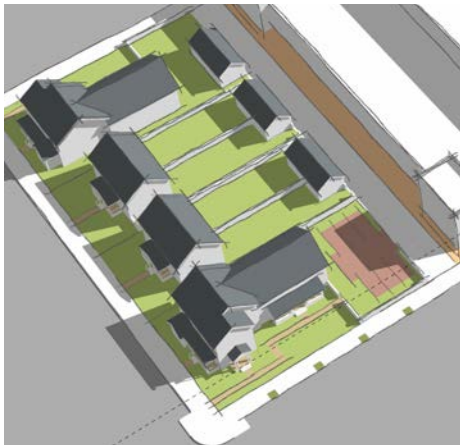
2 COURTYARD

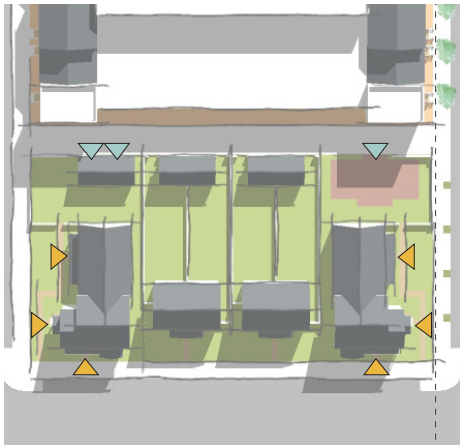
Courtyards are similar to bungalow courtyards (see earlier description) but units are fully attached and arranged in higher densities (2-3 stories). This arrangement yields more units per acre, but does not include private backyards. Instead, social interaction among residents is encouraged through a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

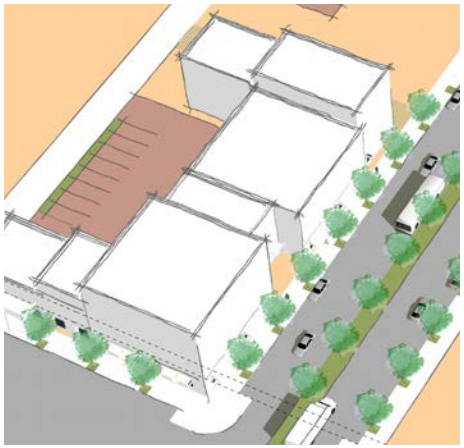
Pedestrian / Bicycle Access: Retail suites include street-facing entrances, while residents access units from a separate, private entrance that leads to stairwells/elevators and common corridors.

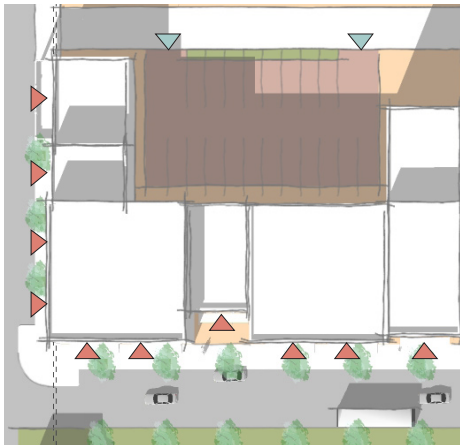
4 LINER STRUCTURE

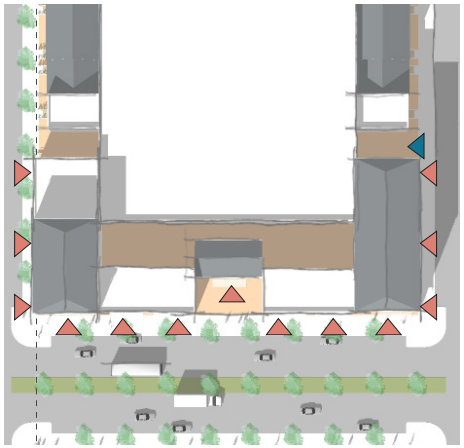
Liner structures are single-loaded (units located along only one side of a corridor) and are used to screen the blank facades of free-standing or podium parking structures. Units at-grade can be configured as live-work units or loft-style residential units with entrances facing the primary street.

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

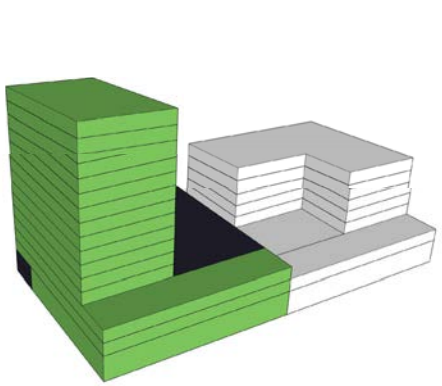
Dallas, Texas

A B C D

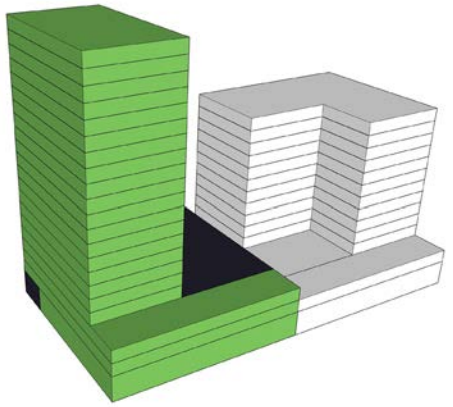
Typology: Mid/Hi-Rise Tower

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.

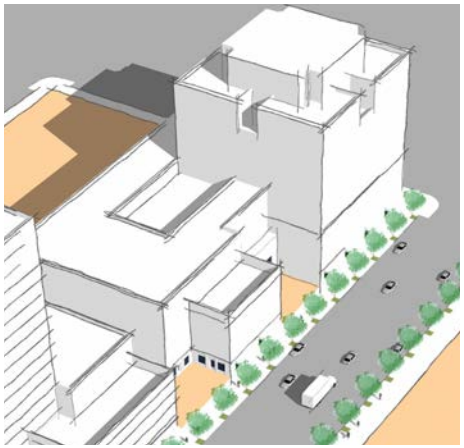
2 HIGH-RISE TOWER

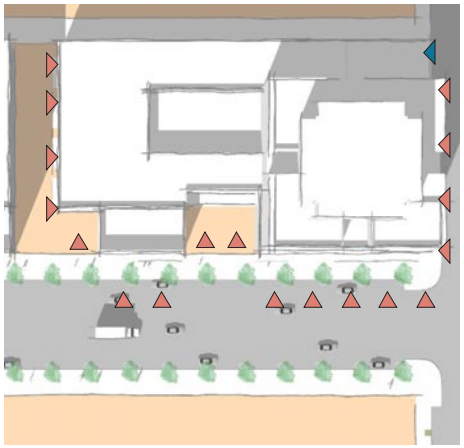
While mid-rise towers achieve significant densities (100-150 units/acre), high-rise towers can be in excess of 10, 20, 30 or more stories. In most other respects, high-rise towers are similar. A diverse mix of residential, office, retail, or hotel can be included in a high rise tower, with separate entrances 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

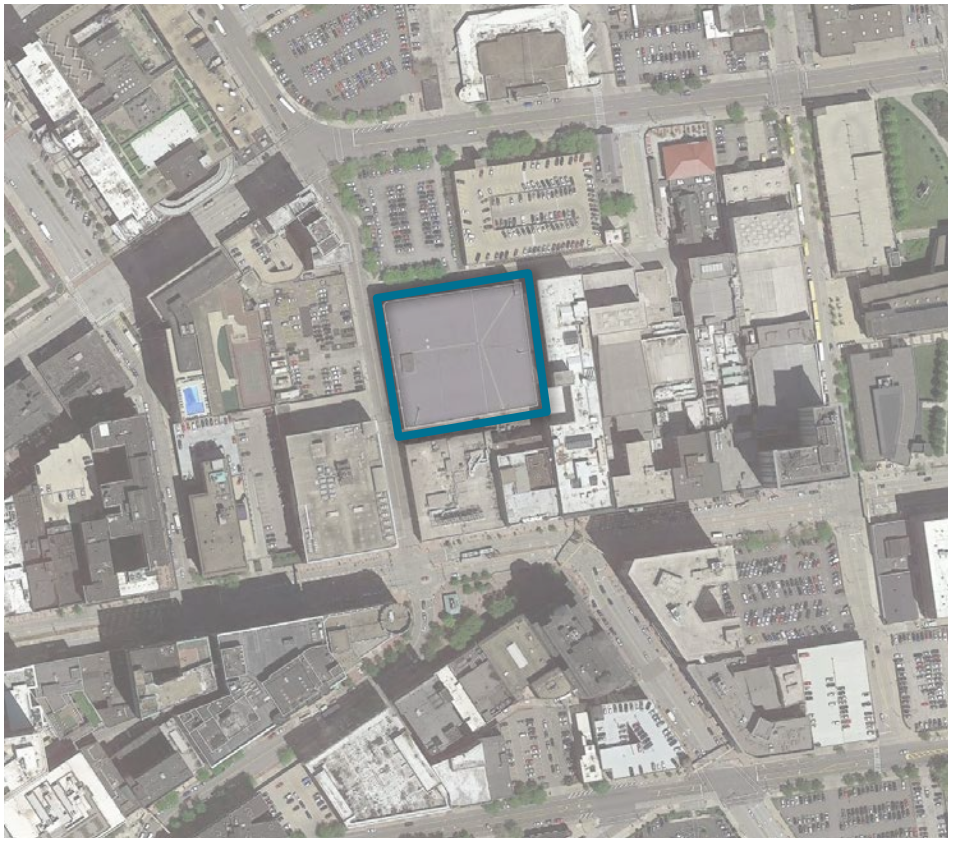
Residential: 0%

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

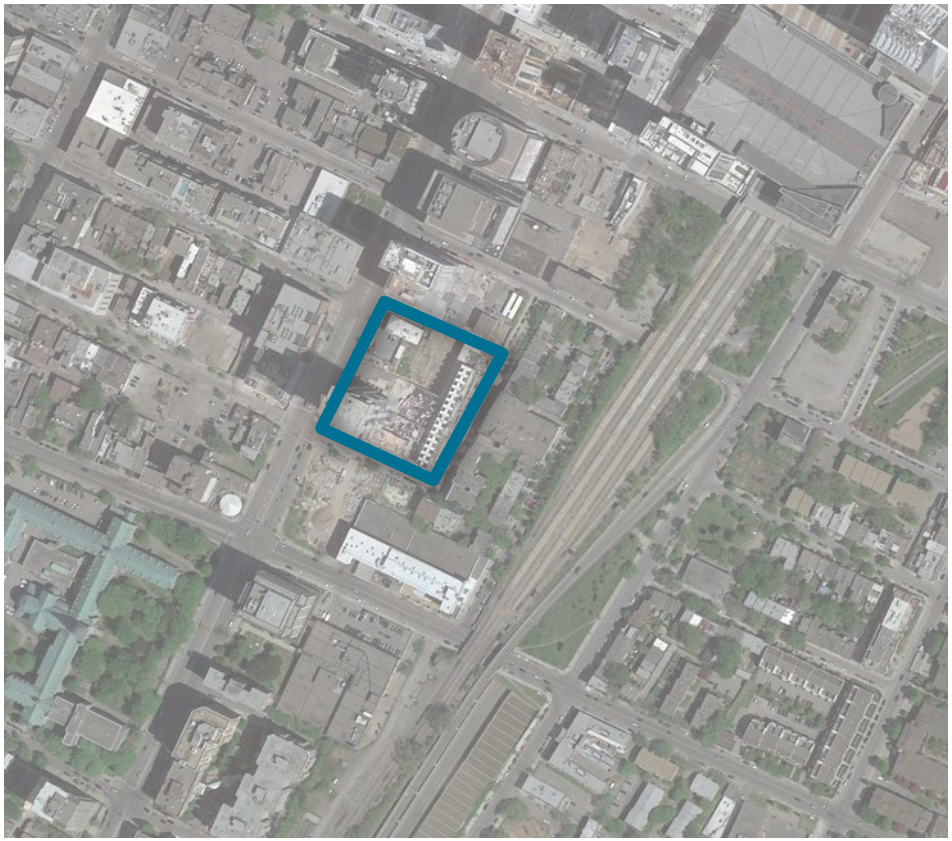
Number of Units: 890

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

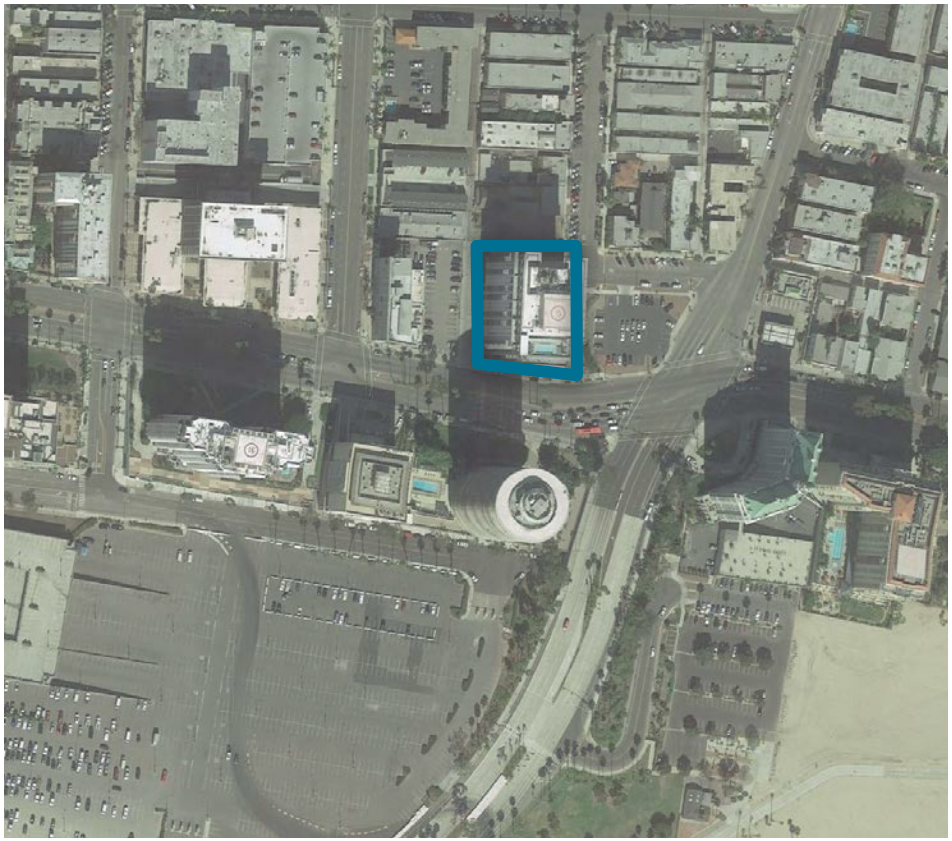
Retail / Commercial: 6,750 sf

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

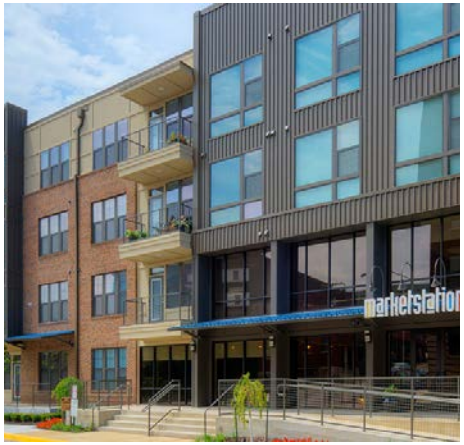
Residential: 99%

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

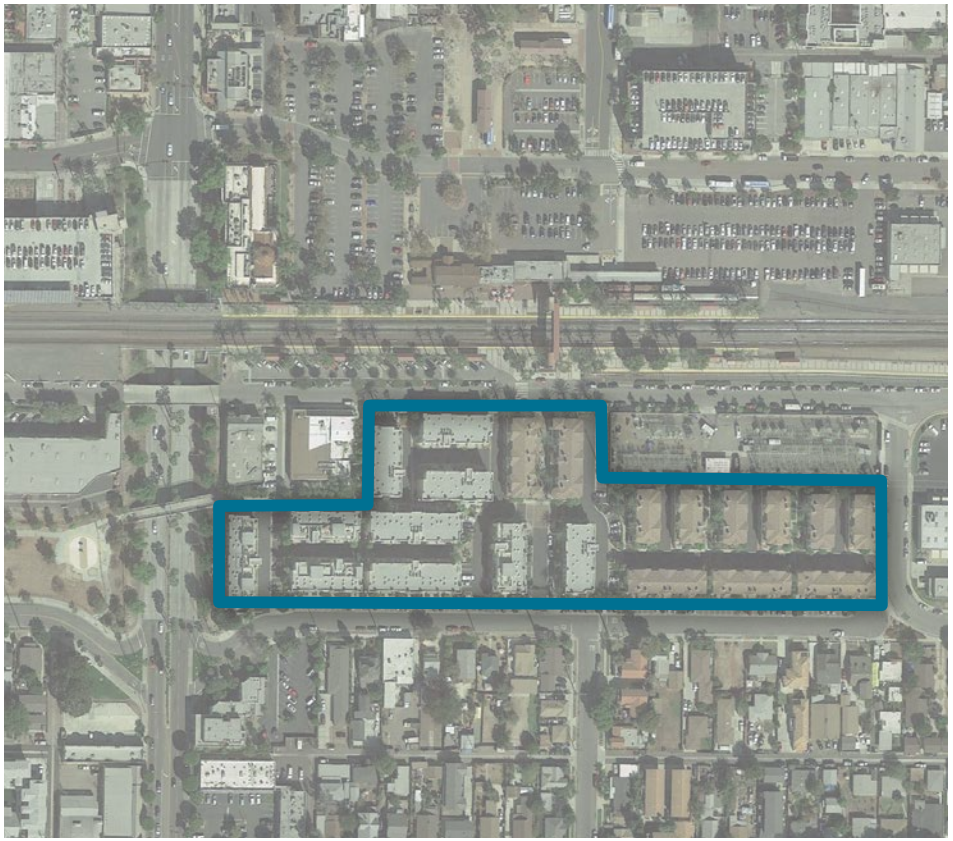
Retail / Commercial: xx sf

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

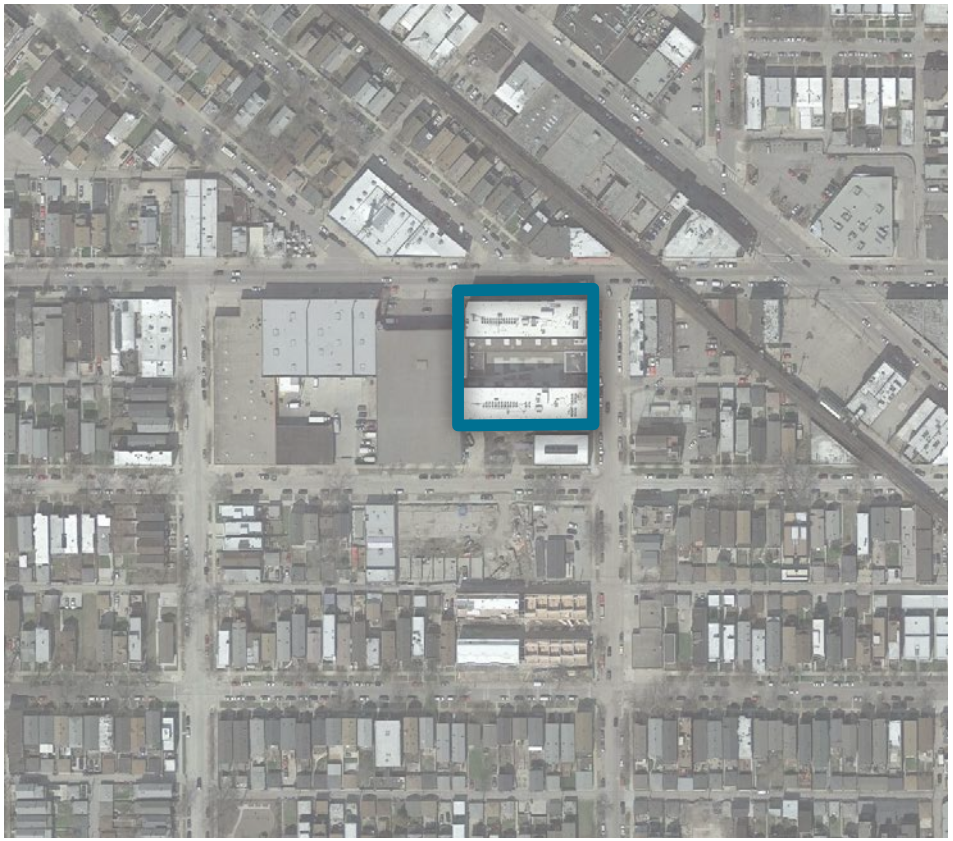
Office: 0 sf

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

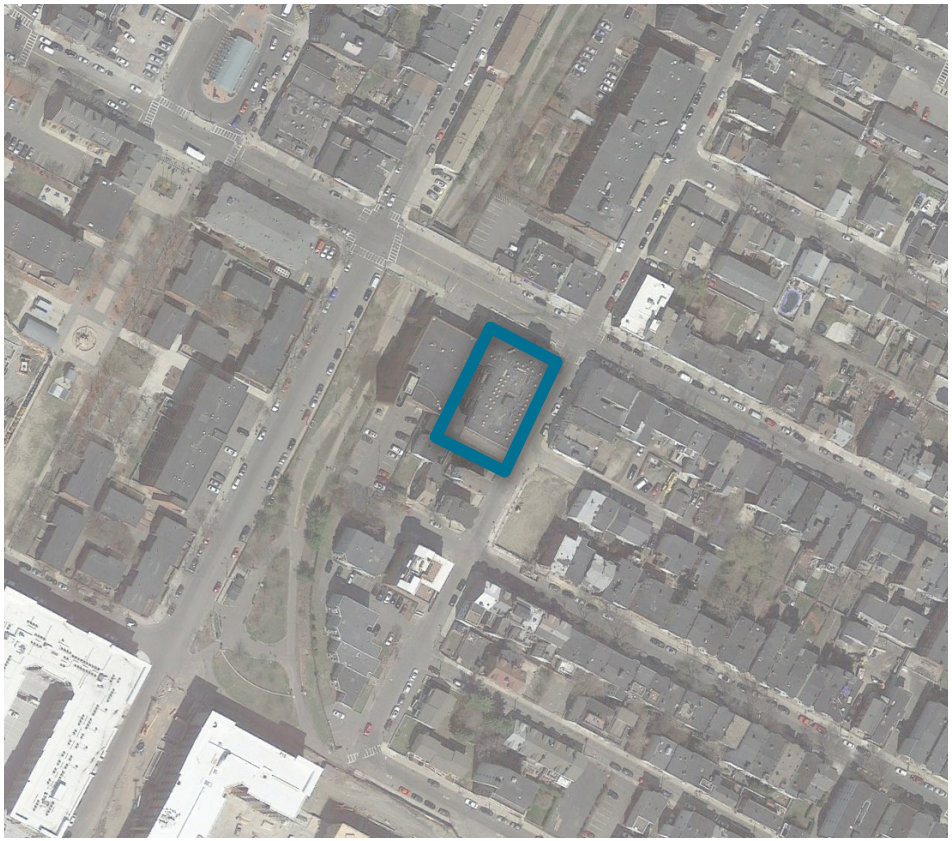
100 +	51 - 99	13 - 50	< 12

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

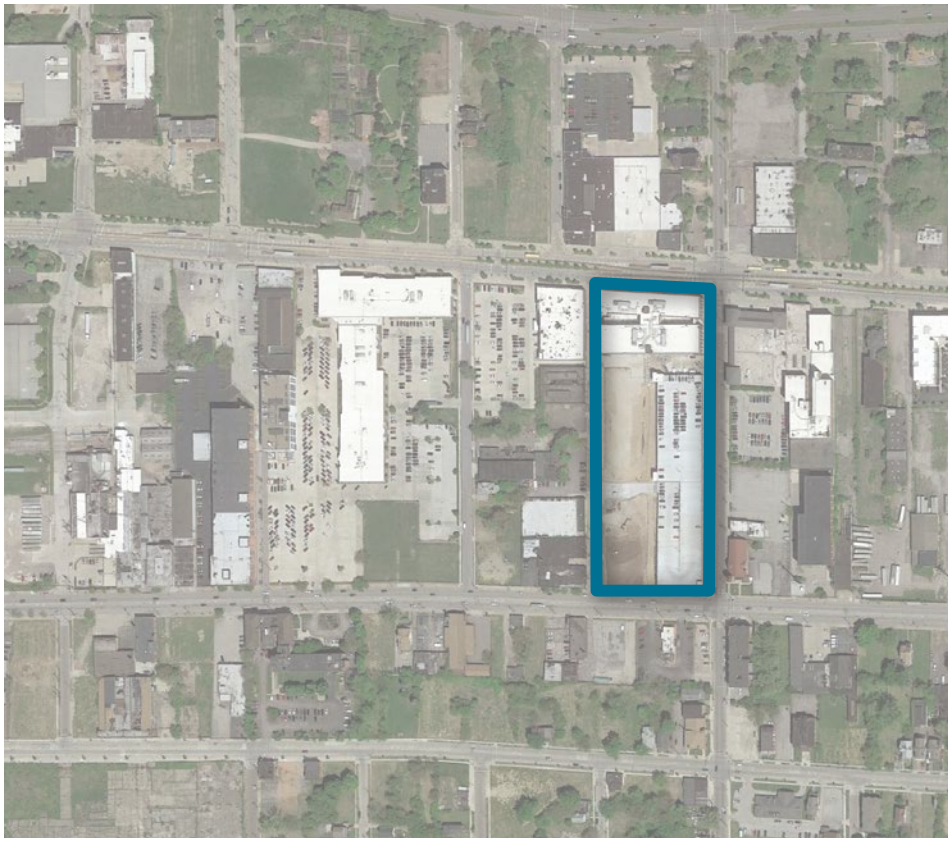
100 +	51 - 99	13 - 50	< 12

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

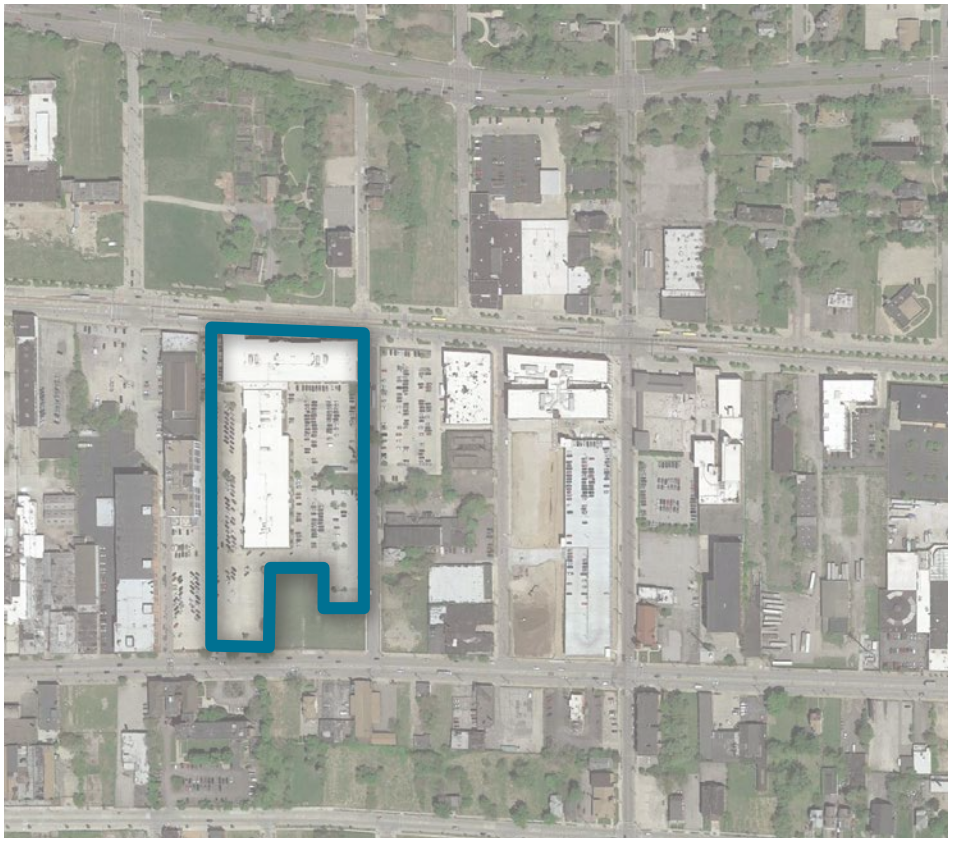
100 +	51 - 99	13 - 50	< 12

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

Year Completed: **2013**

Montclair, California

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

La Mesa, California

Year Completed: **2010**

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

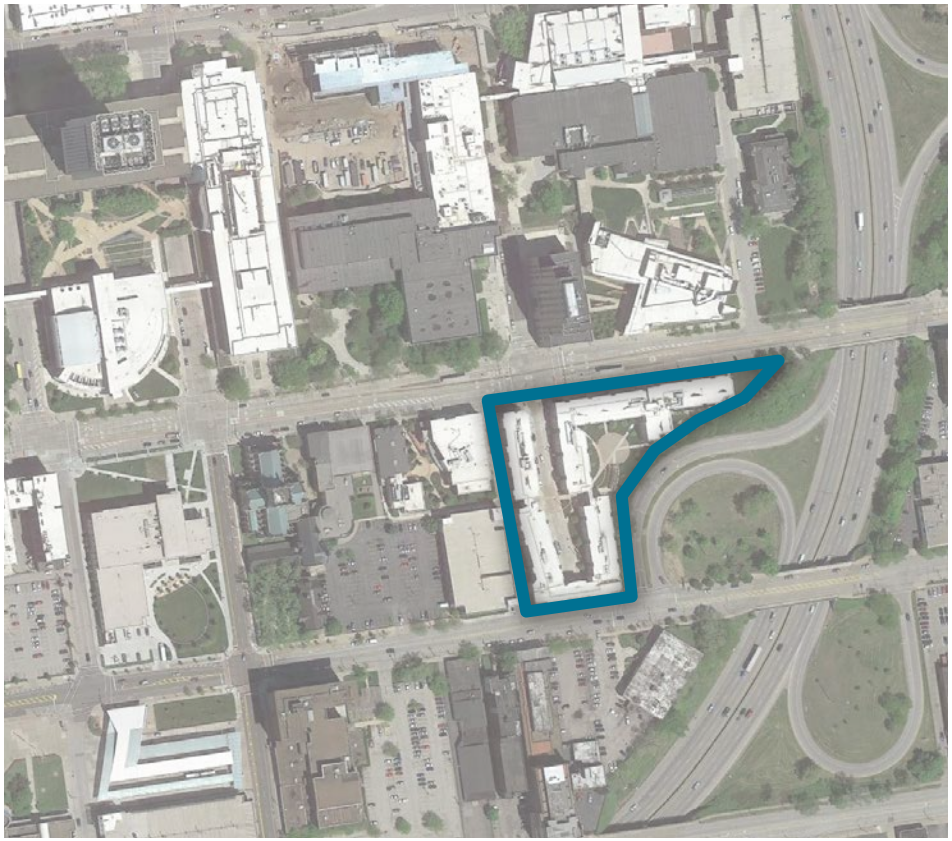
100 +	51 - 99	13 - 50	< 12

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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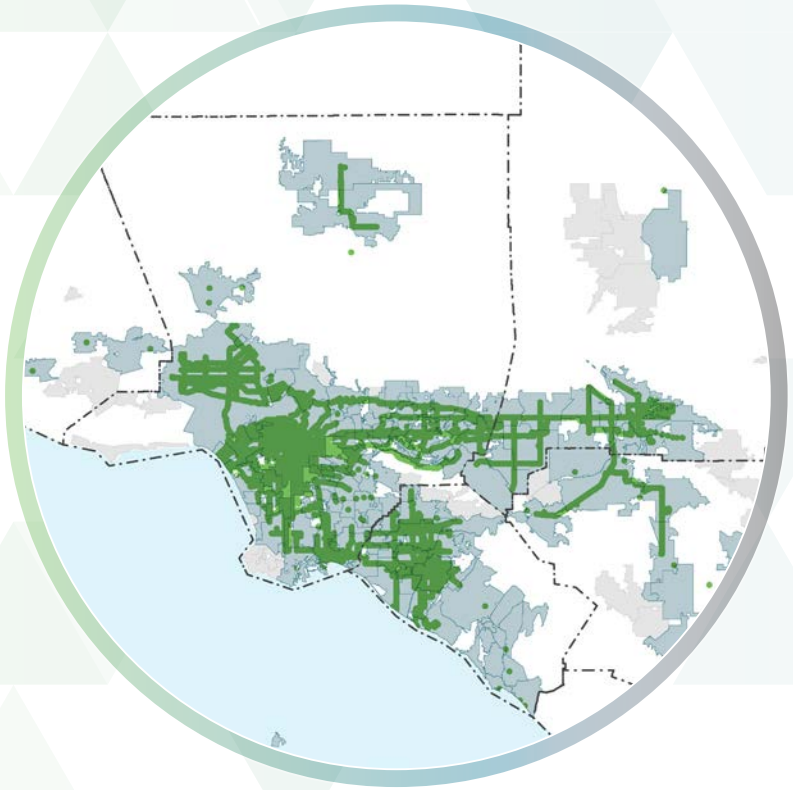
Part III

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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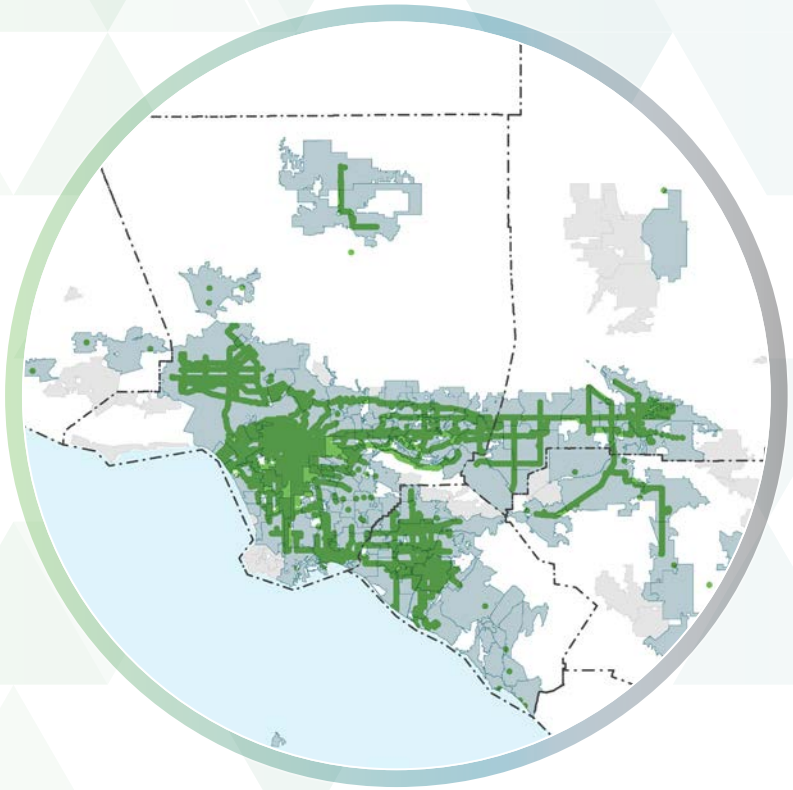
Part III

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