



3 MOBILITY

To fulfill the City of San Diego General Plan’s key strategy of becoming a “City of Villages,” this community plan fosters high quality growth along key corridors and near trolley stations. In order for compact, mixed use villages to thrive, legitimate travel choices need to be broadened so that a good proportion of trips can be made without a car. Walking, cycling, and transit should not be modes of last resort; rather, they should be convenient, pleasant, safe and desirable modes of travel. To this end, the Mobility Element includes goals, policies, and recommendations that will lead to a robust multimodal network that encourages walking, bicycling, and taking transit while continuing to provide for needed vehicular access in the community.

January 2015

GOALS

1. A complete and balanced multi-modal transportation system that provides safe and attractive travel choices.
2. A well-integrated system of trolley and bus services, and pedestrian and bicycle facilities including off-street trails that connect neighborhoods, community destinations, and commercial areas.
3. A wayfinding program to support efficiency and use of all transportation modes.
4. Pedestrian-friendly neighborhoods, streets and intersections, including well-lit sidewalks with parkways, and safe street crossings.
5. A bicycle network that connects community destinations, links to surrounding communities and the regional bicycle network, and makes cycling a convenient and enjoyable mode choice for all.
6. High-quality public transit service as a preferred transportation mode for employees and residents within the community villages and along transit corridors.
7. Adequate capacity and improved regional access for vehicular traffic on major streets.
8. Reduced costs associated with providing parking and minimized parking impacts through the use of parking management strategies in the community village and clustered commercial and industrial areas.
9. Interagency coordination to ensure cohesive mobility plans, and provide opportunities, funding resources, and inter-jurisdictional cooperation to further those plans.
10. Improve and stimulate investments in the community.

TABLE 3-1: MOBILITY TOPICS ALSO COVERED IN OTHER PLAN ELEMENTS

MOBILITY TOPIC AREAS	LAND USE	URBAN DESIGN	RECREATION	CONSERVATION AND SUSTAINABILITY
Transit-oriented Development	X			
Streetscape		X		
Multi-use Trails			X	
Walkable Communities				
Greenhouse Gas Emissions Reduction				X

The Encanto Neighborhoods mobility network is comprised of diverse elements, including roadway and free-way systems, public transit services including bus and light rail, and bicycle and pedestrian infrastructure; and each has an important role in serving the future needs of the community. The freeways and light rail (the Orange Line Trolley) provide regional accessibility between Encanto Neighborhoods and other locations across the County. Within the community, the freeways, Orange Line trolley, Chollas Creek, Radio Canyon, and Encanto Creek cause some discontinuity in the roadway network, but these also provide the opportunity for adjacent trails and shared bicycle and pedestrian paths. The Mobility Element builds upon these strengths and envisions a significantly enhanced network of bicycle facilities along with improvements to the pedestrian environment, transit services and transit stop amenities.

3.1 Active Transportation

Active transportation refers to those modes of travel powered by human energy, primarily walking and cycling. In addition to environmental, social, economic, and transportation benefits, active transportation creates important opportunities for routine physical activity resulting in public health benefits.

Walkable Communities

Pedestrian comfort and safety is a cornerstone of the City of Villages transportation/land use strategy. In Encanto Neighborhoods, the Orange Line Trolley stations at 47th Street and Euclid Avenue, Imperial Avenue commercial corridor, the Euclid Avenue & Market Street activity center, and neighborhood scale commercial destinations within the community, will contribute to increasingly vibrant pedestrian realms. There are deficiencies in the pedestrian environment that make mobility more challenging, including barriers imposed by freeways and ramp intersections, the light rail/railroad right-of-way, and Chollas Creek, high speed traffic, difficult pedestrian crossings, lack of buffers from moving vehicles, and insufficient lighting and shade, as well as missing sidewalks and curb ramps. The Mobility Element seeks to address these where possible.

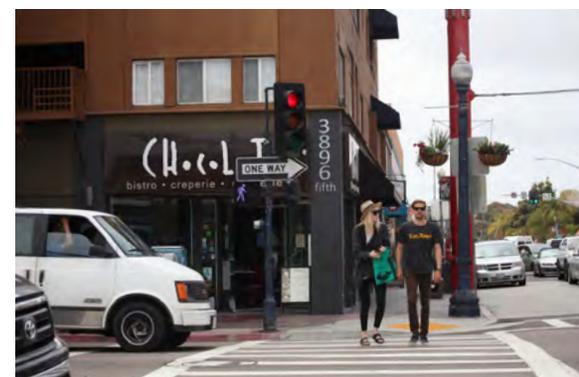
Pedestrian routes in Encanto Neighborhoods have been classified based on definitions developed as part of the City's Pedestrian Master Plan effort and are shown in Figure 3-1, Pedestrian Routes.

General Plan policies ME-A.1 through ME-A.9, as well as Table ME-1 (Pedestrian Improvement Toolbox), and Table ME-2 (Traffic Calming Toolbox), should be consulted for additional policies.

Walkability Policies

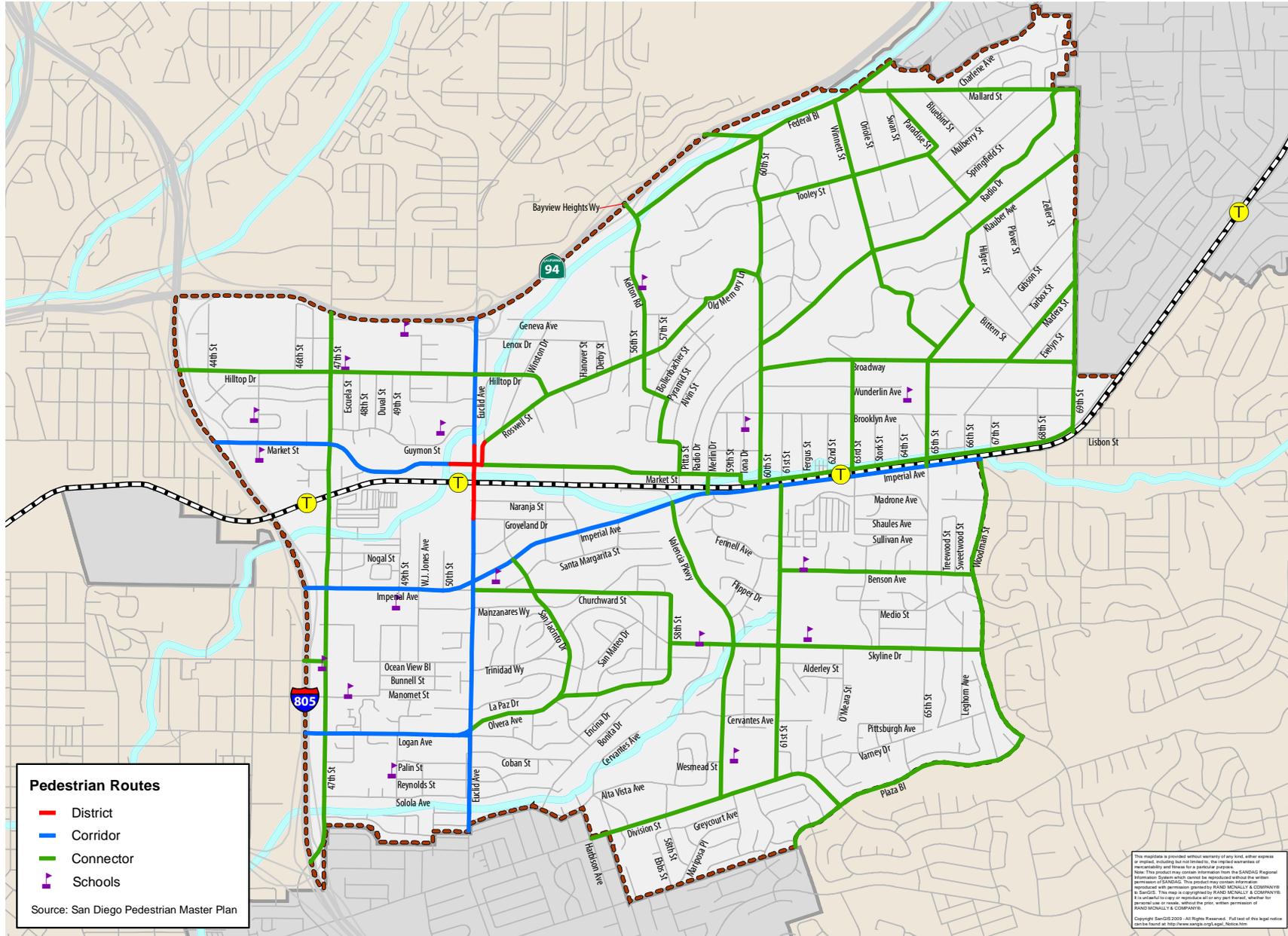
- P-MO-1:** Support and promote complete sidewalk and intersection improvements along 47th Street, Euclid Avenue, Market Street, Imperial Avenue, and National/Logan Avenues.
- P-MO-2:** Install missing sidewalk and curb ramps and remove accessibility barriers.
- P-MO-3:** Provide marked crosswalks and pedestrian countdown timers at all signalized intersections.
- P-MO-4:** Improve the pedestrian environment along routes to transit stops through the installation and maintenance of signs, crosswalks, and other appropriate measures.
- P-MO-5:** Provide shade-producing street trees and street furnishings with an emphasis along routes to schools and transit.
- P-MO-6:** Provide adequate lighting for safety and security.

THE COLUMBIAN



Pedestrian countdown signal (top). Pedestrian amenities, Solana Beach, CA (middle). Pedestrian lead interval (bottom).

FIGURE 3-1: Pedestrian Routes



Conceptual street layouts, cross sections, lane dimensions, and bicycle facility configurations are provided to demonstrate general feasibility of proposals only. Actual improvements will require additional engineering studies and design work and shall be to the satisfaction of the City Engineer.

Bicycling

Development of a well-connected, dense bicycle network, including high-quality, protected facilities where feasible, will facilitate cycling and help meet community travel needs.

Separated bicycle facilities are known to be safer and to promote increased cycling rates among the general population, the majority of whom are uncomfortable riding in unprotected facilities. Table 3-2 illustrates bicycle facility typologies that are recommended and Figure 3-2 shows a map of the proposed bicycle facilities in Encanto Neighborhoods.

General Plan policies ME-F.1 through ME-F.6, as well as the following community-based policies should be consulted for guidance. Key proposed bicycling corridors in Encanto include: Market Street, Imperial Avenue, 47th Street, Euclid Avenue, and the Chollas Creek Branches.

Bicycling Policies

P-MO-7: Where feasible, repurpose right-of-way to provide and support a continuous network of safe, convenient and attractive bicycle facilities shown in Figure 3-2, connecting Encanto Neighborhoods to the citywide bicycle network.

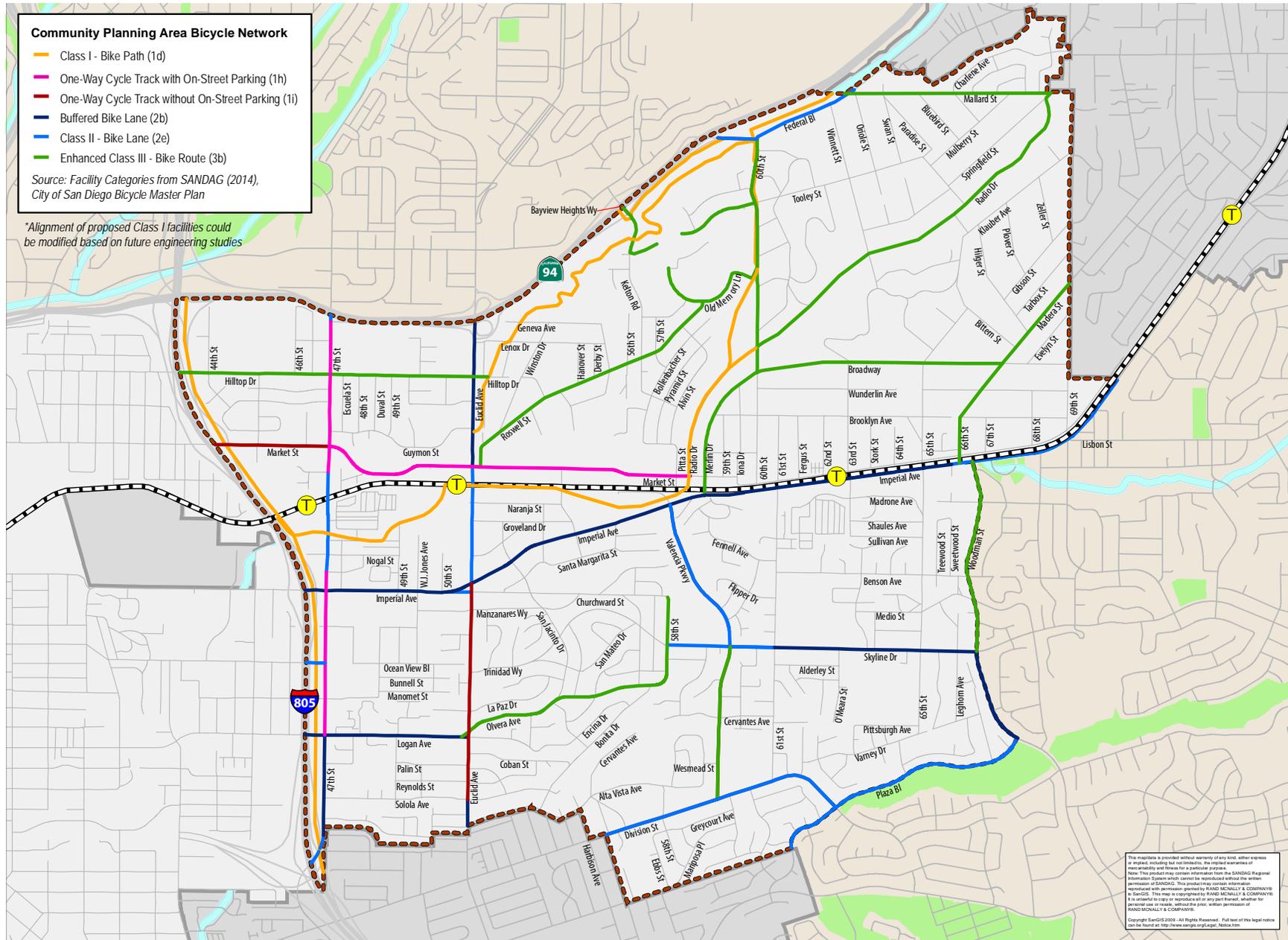
P-MO-8: Implement multi-use trails recommended in the Chollas Creek Master Plan.

P-MO-9: Provide secure, accessible bicycle parking, particularly at the 47th Street, Euclid Avenue and 62nd Street trolley stations, within commercial areas, and at concentrations of employment throughout the community.

TABLE 3-2: PROPOSED BICYCLE FACILITY TYPOLOGIES		
BICYCLE FACILITY TYPE	ILLUSTRATION	RECOMMENDED MINIMUM WIDTH
Cycle Track	 <p>1-way</p>	<ul style="list-style-type: none"> • Minimum 8' (5' bikeway + 3' buffer) • Desired 10' (7' bikeway + 3' buffer)
Bike Lane	 <p>Buffered</p>	<ul style="list-style-type: none"> • Minimum 7' including buffer
	 <p>Conventional</p>	<ul style="list-style-type: none"> • Minimum 5'
Mixed Flow	 <p>Boulevard</p>	<ul style="list-style-type: none"> • No additional pavement width required • Prioritize non-motorized modes through traffic calming and bicycle treatments, such as vertical and horizontal signage, wayfinding, etc.
	 <p>Marked Route</p>	<ul style="list-style-type: none"> • No additional pavement width required
Multi-Use Path		<ul style="list-style-type: none"> • 8' minimum width • 10' – 12' recommended • 2' buffer recommended

Source: NACTO Urban Bikeway Design Guide, 2011 and AASHTO, 2010.

FIGURE 3-2: Planned Bicycle Network



Conceptual street layouts, cross sections, lane dimensions, and bicycle facility configurations are provided to demonstrate general feasibility of proposals only. Actual improvements will require additional engineering studies and design work and shall be to the satisfaction of the City Engineer.

3.2 Public Transit

Encanto Neighborhoods are well served by both local and regional transit with the Metropolitan Transit System (MTS) providing ten bus routes and the Orange Line Trolley within the community, as shown in Figure 3-3. Nearly all of Encanto is within one-quarter mile of a transit station or stop, except for the single-family residential area in the northeast corner. There are very high transit demand nodes at the Orange Line Trolley stations at 47th Street, Euclid Avenue, and 62nd Street.

The San Diego Association of Governments (SANDAG) 2050 Regional Transportation Plan (RTP) includes the following planned transit improvements for Encanto:

- Local bus services in key corridors would increase to 15-minute headways in 2020 and 10-minute headways in 2030.
- A new Bus Rapid Transit (BRT) route would serve the I-805 corridor from Otay Mesa to Sorrento Valley.
- A new rapid bus route would run between Spring Valley and San Diego State University traveling through Encanto.
- The Orange Line Trolley would have increased frequencies and an Orange Line Express would serve between El Cajon and Downtown San Diego.
- A new Light Rail Transit line would provide service between University Town Center and San Ysidro with a stop at the 47th Street Trolley Station.

General Plan Policies ME-B.1 through ME-B.10, as well as the following community-based policies should be consulted for guidance.

Public Transit Policies

- P-MO-10:** Provide multi-modal access through the integration of transit within employment areas and the creation of safe and direct bicycle and pedestrian connections.
- P-MO-11:** Improve the environment surrounding bus and trolley stops through installation of curb extensions, shelters, additional seating, lighting, trash receptacles, and landscaping where appropriate.
- P-MO-12:** Highlight the presence of the three trolley stations through wayfinding signage and treatments on pedestrian routes to and from each of the stations.



Conceptual alternative for 47th Street BRT Station. Source: SANDAG.

“Treatments” refers to pedestrian improvements such as those listed on Page 4-11 of the Pedestrian Master Plan Phase 1 Report.

- P-MO-13:** Work with MTS to incorporate measures to improve personal safety such as lighting, emergency call boxes, and similar upgrades at each of the trolley stations.
- P-MO-14:** Work with MTS and SANDAG to implement transit priority measures to improve transit travel times.
- P-MO-15:** Work with SANDAG to implement transit infrastructure and service enhancements in the Regional Transportation Plan, and to incorporate additional transit services and facilities such as a new BRT station along the I-805 corridor connected to the 47th Street Trolley Station, including new rail, pedestrian, and bicycle connections between Southeastern San Diego and Encanto Neighborhoods.

3.3 Streets and Freeway System

The street network in Encanto Neighborhoods is somewhat disconnected due to the three canyons that traverse the community, Chollas Creek, Radio Canyon, and Encanto Creek, as well as the freeways and the trolley/rail-line. East-west connectivity is limited mainly to Imperial Avenue, while north-south connectivity is provided mainly by 47th Street and Euclid Avenue. In addition, numerous regional points of access are provided for the community by the two major freeways along its boundaries, I-805 and SR-94. Figures 3-4, 3-5, and 3-6 show recommended mobility concepts along Market Street, 47th Street, and Euclid Avenue. Figure 3-7 displays the existing (2012) functional street classifications and average daily trip (ADT) volumes. Figure 3-8 shows the planned build-out street classifications.

Due to the urbanized nature of the community, most public right-of-way is fully constructed with streets and sidewalks as well as adjacent development. A guiding strategy for street system planning was to provide a Complete Streets network (accommodating all modes and users) while largely limiting recommendations to modifications within the existing rights-of-way, and to avoid extensive road widening in the largely built out urban community. A number of road diets and lane diets (reducing the number of travel lanes and lane widths) are planned to accommodate high quality bicycle facilities desired in Encanto Neighborhoods, such as along Imperial Avenue, Logan Avenue, Skyline Drive, 47th Street, and Euclid Avenue (south of Imperial Avenue). A portion of Market Street would also be widened to accommodate future traffic demand and one-way cycle tracks. Euclid Avenue, north of Market Street will also be widened to accommodate future traffic demand and buffered bike lanes. Finally, Division Street is planned to be improved from the current 2-lane cross-section to a 2-lane with center two-way left-turn lane roadway.

General Plan Policies ME-C.1 through ME-C.7, as well as Table ME-2 (Traffic Calming Toolbox), provide additional guidance on future street and intersection improvements.

Streets and Freeway Policies

- P-MO-16:** Provide a complete streets network throughout the community, safely accommodating all modes and users of the right of way.
- P-MO-17:** Repurpose right-of-way and implement limited roadway widening to provide high quality bicycle, pedestrian, and transit facilities while maintaining vehicular access.



RYAN SNYDER



Signage, wayfinding, and placemaking (top). Advanced stop lines protect cyclists and pedestrians (middle). Improve the entrances surrounding bus and trolley stops (bottom).

January 2015



CITY OF SAN DIEGO



KOA CORPORATION



NYC DOT

Buffered bike lane (top). Cycle tracks, Long Beach, CA (middle) and New York, NY (bottom).

P-MO-18: Implement road and lane diets and traffic calming measures where appropriate to improve safety and quality of service, and increase walking and bicycling in the community.

P-MO-19: Implement focused intersection improvements to improve safety and operations for all modes.

P-MO-20: Provide street trees, street lighting, and implement a wayfinding program.

P-MO-21: Ensure efficient movement and delivery of goods to industrial and retail uses while minimizing impacts on residential and mixed use neighborhoods.

P-MO-22: Coordinate with Caltrans and SANDAG to identify and implement needed freeway and interchange improvements.

P-MO-23: Ensure that truck and auto ingress and egress are taken from alleyways rather than the front of buildings to minimize impacts. Make curb cuts as minimal as possible if no alley exists.

3.4 Intelligent Transportation Systems

Intelligent Transportation Systems or ITS is the application of technology to transportation systems including vehicles, roadways, intersections, transit, traveler information and payment systems with the goal to maximize efficiency of those services while increasing vehicle and person throughout, reducing congestion, and providing quality information to the commuting public. The application of ITS technologies can influence transportation choices across all modes of travel.

General Plan Policies ME-D.1 through ME-D.6, as well as the following community-based policies should be consulted for guidance.

Intelligent Transportation Systems Policies

P-MO-24: Support implementation of ITS to improve safety, efficiency and service, and congestion, including but not limited to traffic signal coordination, traffic and transit information, smart parking technology, and transit priority measures.

P-MO-25: Encourage use of or accommodation for emerging technologies such as car charging stations as part of future infrastructure and development projects.

3.5 Transportation Demand Management (TDM)

Transportation Demand Management (TDM) combines marketing and incentive programs to reduce dependence on automobiles and encourage use of a range of transportation options, including public transit, bicycling, walking and ridesharing.

General Plan Policies ME-E.1 through ME-E.8, should be consulted for additional guidance.

Traffic Demand Management Policies

P-MO-26: Encourage new residential, office and commercial developments, as well as any new parking garages to provide spaces for carsharing.

P-MO-27: Encourage new commercial, office and industrial development; employers; and new residential development to provide transit passes to employees and residents.

P-MO-28: Encourage employers to coordinate with SANDAG to provide commuter transportation programs.

3.6 Parking

Many of the goals and policies of the Community Plan depend on how parking is planned and managed in Encanto Neighborhoods. These goals include increasing residential intensity and the density and variety of commercial and employment uses, as well as reduced number of and shorter distance vehicle trips (per resident/employee), increased sustainability, improved transit, and enhanced urban design. The community of Encanto Neighborhoods has a variety of parking options including on-street parking, private off-street parking for local businesses and residences, and three public parking lots serving the 47th Street / Euclid Avenue and 62nd Street Trolley Stations.

General Plan Policies ME-G.1 through ME-G.5, Table ME-3 (Parking Strategy Toolbox), as well as the following community-specific recommendations should be consulted for guidance.

Parking Policies

P-MO-29: Implement parking regulations that provide sufficient parking to accommodate residents and support businesses while reducing the overall cost of providing parking.

P-MO-30: Permit construction of public parking garages that include shared parking arrangements that efficiently use space, are appropriately designed, and reduce the overall number of off-street parking spaces required for development.

P-MO-31: Encourage parking spaces to be rented, leased, or sold separately from new residential and commercial space.

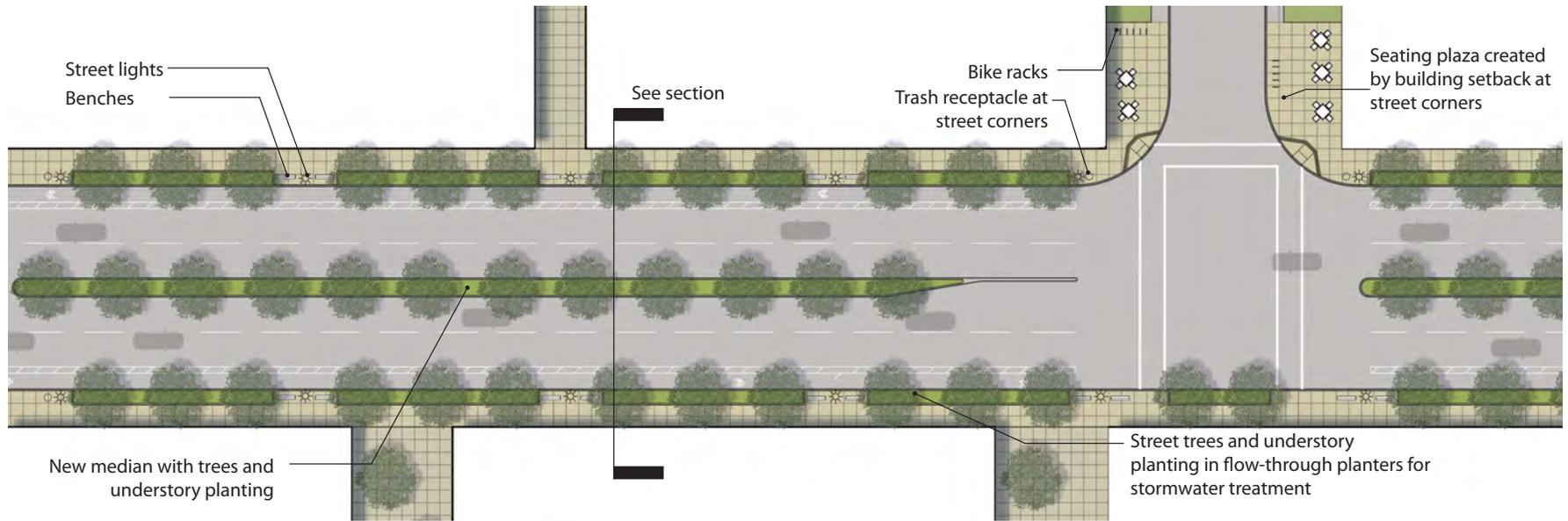
P-MO-32: Implement on-street parking management strategies in the Community Villages and commercial areas to more efficiently use street parking space and increase turnover and parking availability.

P-MO-33: Implement a parking in-lieu fee for new development that would contribute to implementation of parking demand reduction strategies as well as potentially fund parking structures within the community.

P-MO-34: Where feasible, restripe side streets to convert parallel parking to angled parking in order to increase the overall parking supply.

January 2015

FIGURE 3-4: Market Street west of 47th Street



Plan view.



Existing view.



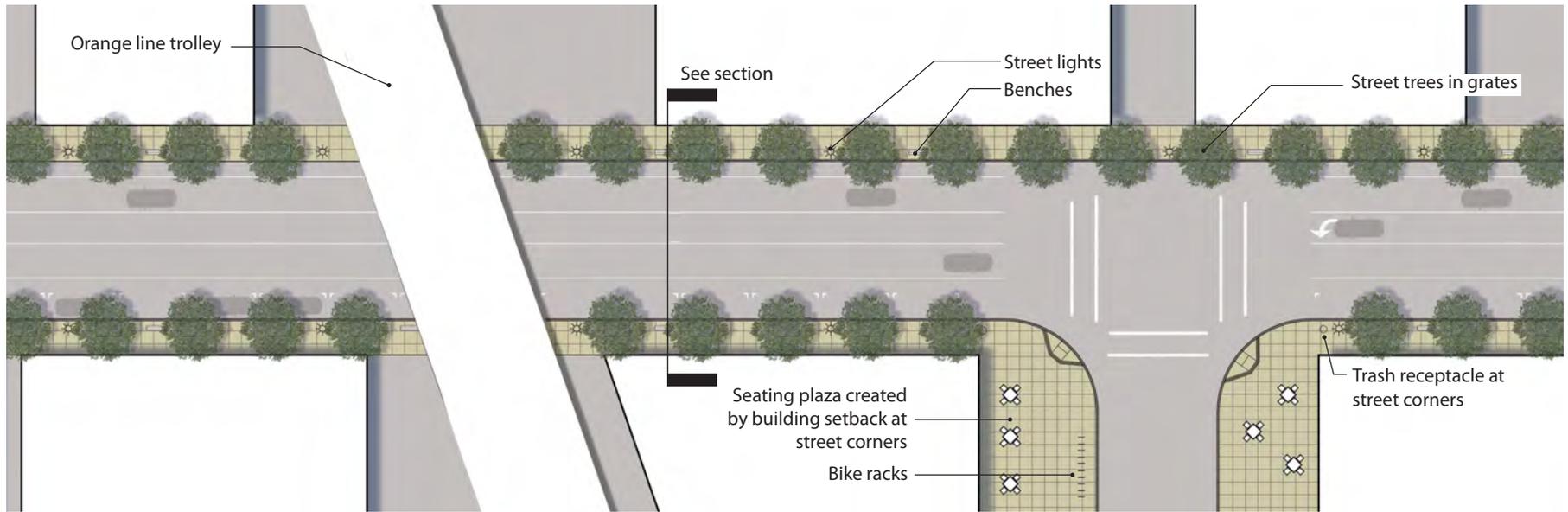
Illustrative view.



Section view.

January 2015

FIGURE 3-5: 47th Street at Castana Street



Plan view.



Existing view.



Illustrative view.



Section view.

January 2015

FIGURE 3-6: Euclid Avenue between Guymon Street and Lise Street



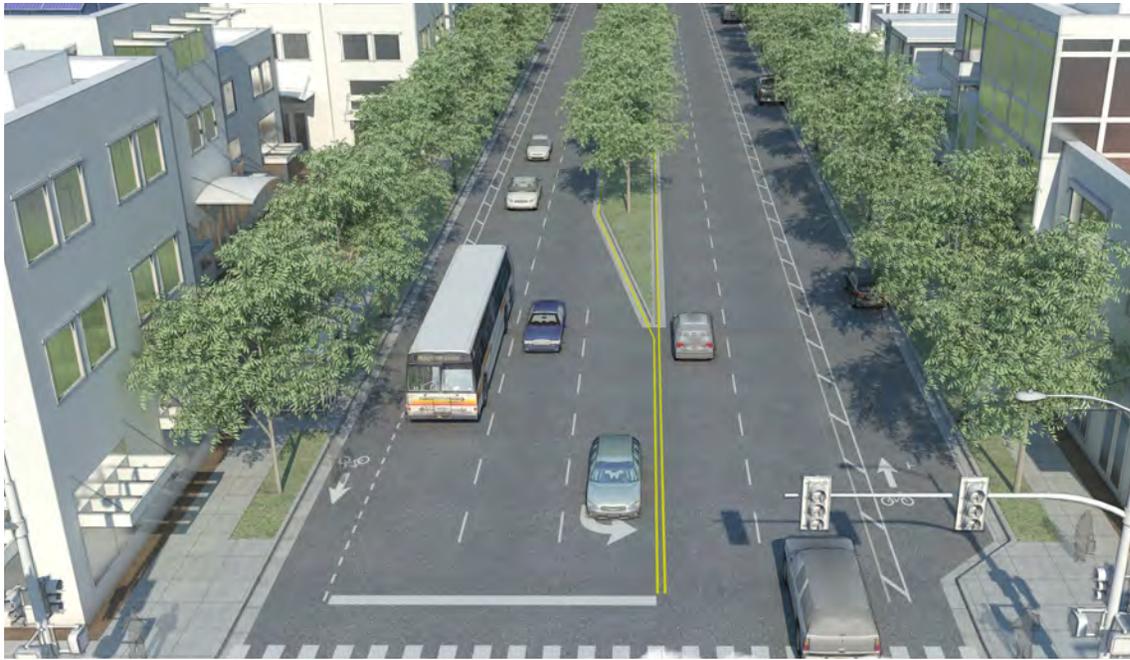
Plan view.



Existing view.



Illustrative view.



Section, south of Lise Street.



View to northwest.

FIGURE 3-7: Existing (2012) Functional Street Classifications and Daily Traffic

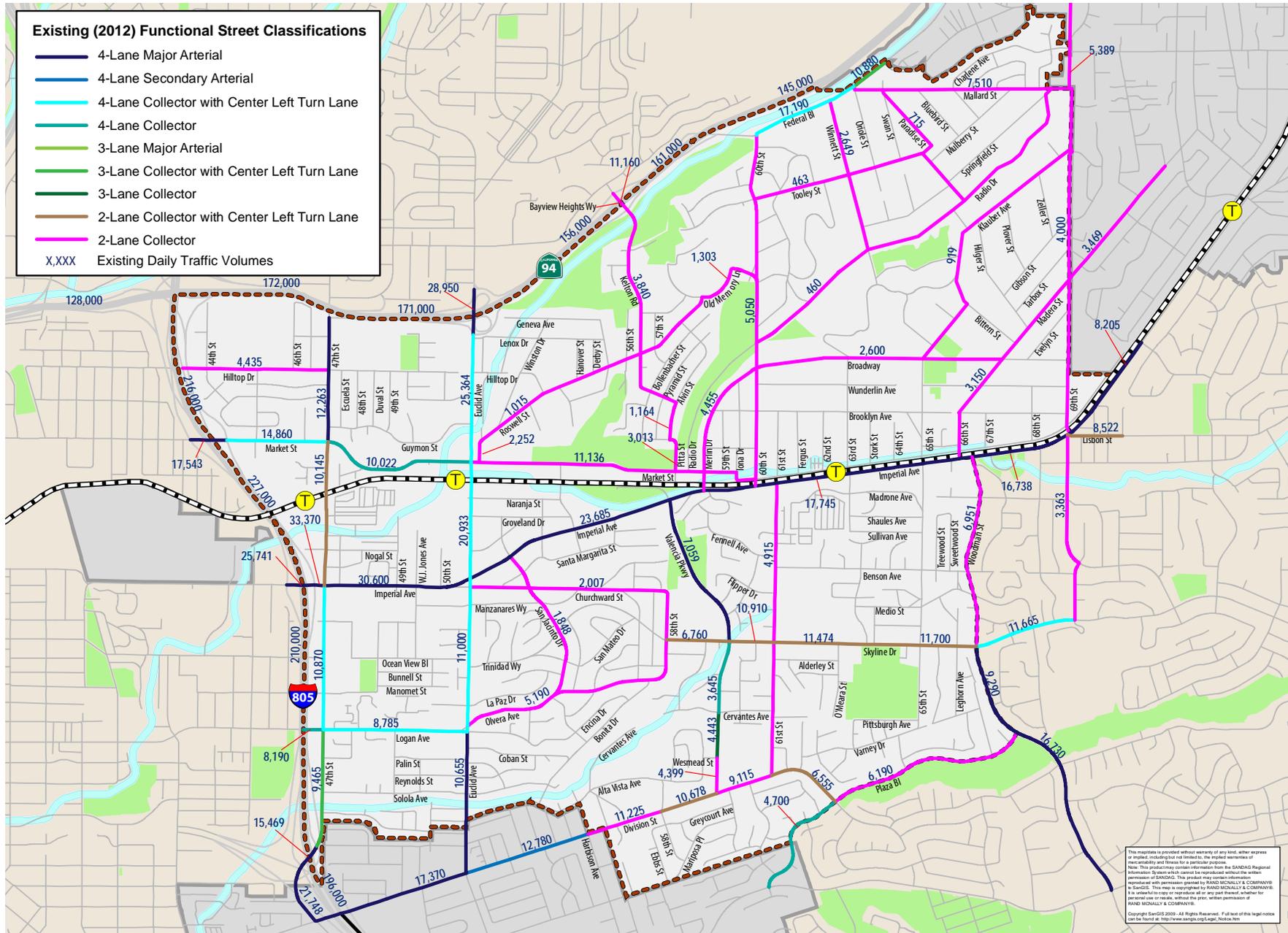
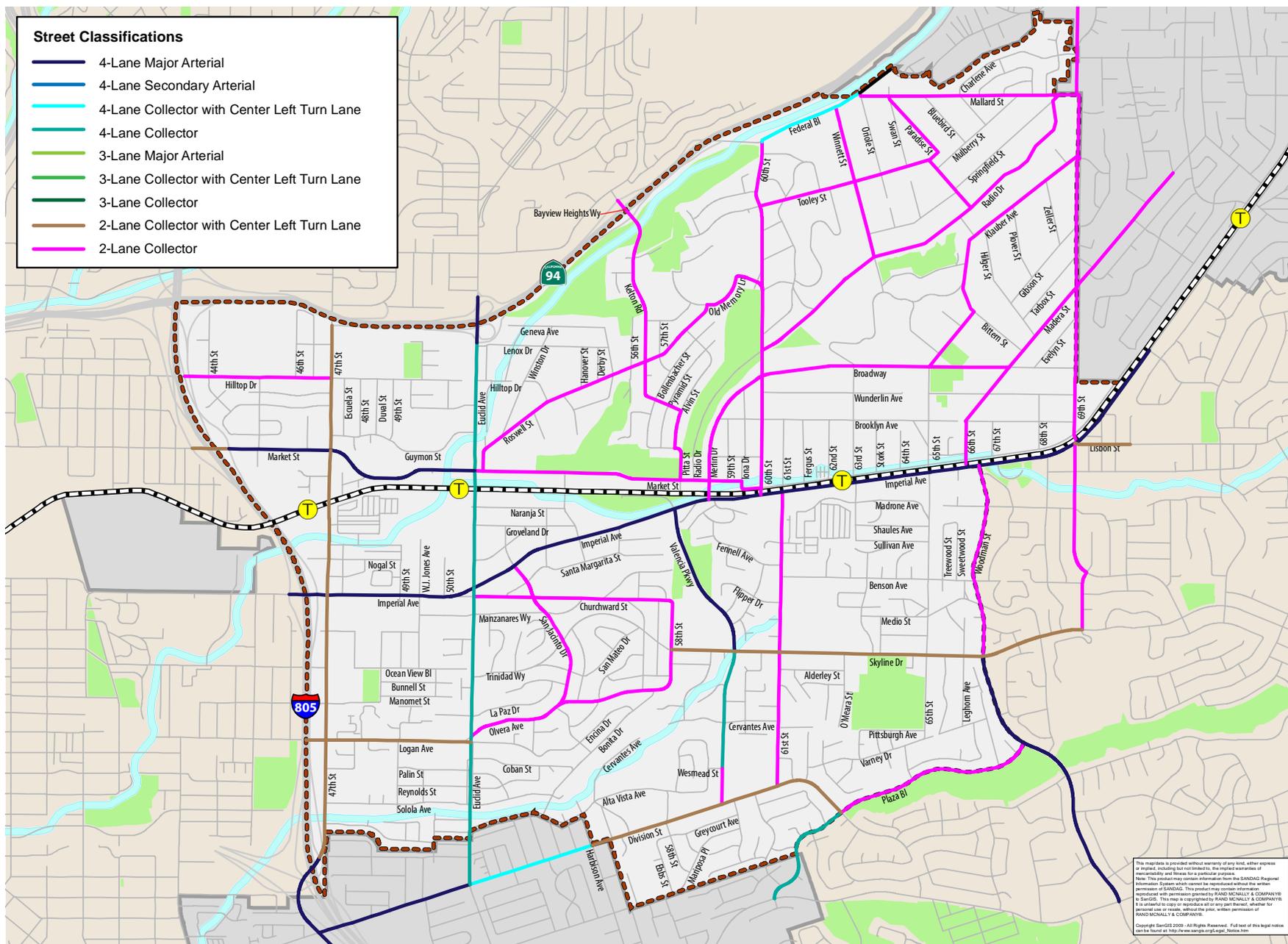


FIGURE 3-8: Buildout Street Classifications and Daily Traffic



January 2015

This page intentionally left blank.