



# CITY OF VERNON BICYCLE MASTER PLAN

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PREPARED BY:  
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# CHAPTER 1: INTRODUCTION



The City of Vernon’s Bicycle Master Plan aims to serve as the guiding document for the development of a safe and comfortable network of bicycle facilities linking working centers and community destinations within the City, as well as to the larger regional network.

The Bicycle Master Plan will serve as a catalyst for the City of Vernon to engage in the implementation of bicycle infrastructure and programs that will eventually reduce barriers to bicycling within the City of Vernon and through the City limits , as well as increase bicycle safety for residents, students, employees, employers, and bicycle enthusiasts.

This document reviews existing regional and local bicycle facilities and provides guidance on planning, development, and management of future, multi-modal connections within the city. It also identifies potential future bicycle facilities as well as upgrades or improvements to existing roadways such as, lane restriping, bicycle signage, and pavement markings in order to create a network for all ages and abilities.

This Bicycle Master Plan summarizes the planning process and describes the biking conditions in Vernon today. It recommends policy’s and tools for the city to use in implementing programs and infrastructure improvements, and provides implementation strategies to create better connectivity throughout Vernon and to the surrounding region.

These components are organized in the following chapters:

- **Chapter 1:** Introduction
- **Chapter 2:** Vision and Goals
- **Chapter 3:** Existing Conditions
- **Chapter 4:** Program Recommendations
- **Chapter 5:** Infrastructure Recommendations
- **Chapter 6:** Funding
- **Appendix 1:** Community Outreach
- **Appendix 2:** Policy Review



## CHAPTER 2: GOALS, OBJECTIVES AND STRATEGIES

The City of Vernon is home of roughly a hundred residents and approximately 50,000 skilled workers that mostly live and reside in the neighboring cities. In order to encourage safe bikeability for its residents and workforce traveling to the City on a daily basis, it is essential for the City of Vernon to develop a bicycle master plan with the right goals, objectives, and implementation strategies.

The goals, objectives and strategies of this Bicycle Master Plan will guide the development and implementation of the city's bicycle network and programming for years to come. They will also support the city's vision and describe the most important aspects of the city's priorities.

Enhancing mobility options for the city's residential population, which has grown recently as a result of new housing development, designing bicycle facilities for all ages and abilities, improving safety for people on bicycles and creating education and encouragement programs have the potential to increase transportation options, improve air quality and provide opportunities for physical activity for both workers and residents. Moreover, implementing the bicycle master plan will directly benefit the disadvantaged community of Vernon, its residents, students at Vernon Elementary and their families, and its employees. Additionally, the project will produce public health and economic benefits to the contiguous communities and the region.

This chapter presents the Bicycle Master Plan's goals, objectives and strategies (defined below), which will direct the way public improvements are made, where resources are allocated and how programs are operated. The following goals, objectives and strategies are consistent with and support the Vernon General Plan. Strategies contained in this Plan are suggestions for the city to consider for guidance, as feasible; the suggested strategies are not binding upon the city. This guidance is defined as:

**Table 2-1: Definitions Used to Shape Each Type of Guidance.**

Type of Guidance	Definition
Goals	General statements of what the city and residents hope to achieve over time.
Objectives	More specific statements that mark progress towards the goals.
Strategies	Actions that guide the city to achieve the objectives and goals.



## GOALS, OBJECTIVES, AND STRATEGIES

This Plan uses local input as well as best practices from cities across California to establish goals, objectives and strategies for Vernon.

### Goal 1: Mobility

Increase bicycling access to businesses and community destinations for people of all ages and abilities.

- » Objective 1.A: Plan, design, construct and manage a comprehensive transportation network that integrates all modes of transportation.
  - Strategy 1.A.1: Add bicycle facilities where there is available right-of-way as part of upgrades or resurfacing of existing roadways.
  - Strategy 1.A.2: Coordinate with Metro and other regional rail providers to establish appropriate designs for existing and future transit stops and station accessways.
- » Objective 1.B: Eliminate barriers and gaps in the bikeway network.
  - Strategy 1.B.1: Pursue construction of a Class I bicycle path along the Los Angeles river between the current path terminus at Atlantic Boulevard and the northern city boundary
  - Strategy 1.B.2: Identify connections to and from the existing and planned Los Angeles River bicycle path
  - Strategy 1.B.3: Identify opportunities to improve bicycle connectivity across the Los Angeles River and Interstate 710.
  - Strategy 1.B.4: Coordinate with neighboring jurisdictions to construct bikeways that provide continuous connections across jurisdictional boundaries.
  - Strategy 1.B.5: Work with transit agencies to promote first and last mile connections to transit stops.





## Goal 2: Design

Design active transportation projects that are accessible and comfortable for people of all abilities and that take into account freight transportation needs of the city.

- » Objective 2.A: Implement designs that emphasize safety and comfort of the most vulnerable road users and take into account freight transportation in the area.
  - Strategy 2.A.1: Use state of the practice and emerging designs contained in national manuals, such as the National Association of City Transportation Officials' Urban Bikeway Design Guide.
  - Strategy 2.A.2: Implement bikeway designs for the needs and comfort for people of all ages and abilities, considering issues such as street design speed, hierarchy of streets, connectivity and level of stress experienced.
  - Strategy 2.A.3: Strive to provide enhanced bicycling facilities and separation around major employment sites and the Vernon City School.

## Goal 3: Safety

Improve safety for people riding bicycles through the design and maintenance of streets, combined with best practice non-infrastructure programs for both drivers and bicyclists. All safety improvements should take into account the large amount of freight transportation that occurs through the city and region.

- » Objective 3.A: Reduce the number of bicycle-related collisions by 50 percent by 2022 and continue to maintain fatalities at zero.
  - Strategy 3.A.1: Annually review collision data to implement ongoing improvements throughout the transportation network.
  - Strategy 3.A.2: Prioritize improvements at intersections and corridors with high numbers of injuries.
  - Strategy 3.A.3: Coordinate with employers to develop education programs that address the safety of all travelers and further the objective to decrease bicycle-involved collisions.



## Goal 4: Education and Encouragement

Increase awareness of the value of bicycle travel for commuting and non-commuting through encouragement, education, enforcement and evaluation programs that encourage and support bicycling.

- » Objective 4.A: Enable and encourage more workers to ride a bicycle to and from work.
  - Strategy 4.A.1: Coordinate with employers to promote bicycle programmatic and infrastructure efforts by the city.
- » Objective 4.B: Introduce and promote education, encouragement, and outreach for bicycle programs.
  - Strategy 4.B.1: Support programs that encourage and promote travel by bicycle and other active modes.
- » Objective 4.C: Facilitate non-motorized travel to transit stations and stops.
  - Strategy 4.C.1: Coordinate with Metro, Caltrans and the Gateway Cities Council of Governments to encourage bicycle and transit use.

## Goal 5: Implementation

Implement the Bicycle Master Plan over the next 20 years.

- » Objective 5.A: Determine funding needs for expanding and improving bicycle facilities and programs, and seek funding for those needs.
  - Strategy 5.A.1: Develop and update a 20-year Financial Plan on a five-year basis. Cost is to be determined.
  - Strategy 5.A.2: Apply for local, State and Federal grants for major bicycle projects and programs, including the State's Active Transportation Program and Metro's Call for Projects.
  - Strategy 5.A.4: Explore partnerships with private and public organizations to fund incentive programs and events that encourage bicycling.



- » Objective 5.B: Incorporate bicycle projects into the city's Capital Improvement Program (CIP).
  - Strategy 5.B.1: Prioritize the top ten projects in this Master Plan for inclusion in the CIP.
  - Strategy 5.B.2: Identify dedicated bicycle-specific project funding by 2021.
- » Objective 5.C: Review the Bicycle Master Plan recommendations at regular intervals to ensure it reflects the most current priorities, needs and opportunities.
  - Strategy 5.C.1: Update the Bicycle Master Plan every five years to identify new facility improvements and programmatic opportunities, assess project feasibility, gauge public support, identify funding sources and develop implementation strategies.
- » Objective 5.D: Update local plans and strategies to reflect the goals, objectives and strategies recorded in this chapter.
  - Strategy 5.D.1: Recognize bicycling as a viable form of transportation in the Vernon General Plan, Circulation and Infrastructure Element by removing the following sentence: "While bicycles represent an additional mode of travel, biking is not encouraged on Vernon's streets due to the heavy truck traffic and narrow configuration of many streets, which would present dangers to cyclists." The City of Vernon plans to update the Circulation Element of the General Plan in 2021. The update will reflect goals, objectives and strategies included in this Bicycle Master Plan.

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## CHAPTER 3: EXISTING CONDITIONS

The purpose of this Bicycle Master Plan is to identify improvements to the bicycling environment in the City of Vernon by providing recommendations for bikeways and bicycle support facilities, as well as education, encouragement, enforcement, and evaluation programs. The City of Vernon Bicycle Master Plan is part of the overall General Plan that currently serves the city. The Bicycle Master Plan evaluates and builds on the General Plan so that it reflects changes in transportation needs and changes to the city's road network and overall infrastructure.

This Bicycle Master Plan is consistent with the General Plan which is adopted by the City Council to use as a planning tool to identify bicycle facilities. Specific Goals and Policies related to bicycle facilities are contained in Appendix 2 "Policy Review".

The implementation of bicycle facilities and programs proposed in this Bicycle Master Plan will create a bicycle-friendly environment, and thereby encourage people who live, work and play in Vernon to bicycle more frequently, which will subsequently lower greenhouse gases (GHG) and create a healthier environment for residents and visitors.

This chapter evaluates the existing bicycle infrastructure, programs, and community needs related to bicycling in the City of Vernon, including:

- » Land use patterns
- » Community demographics
- » Attractors and generators
- » Current activity levels
- » Transportation facilities and programs
- » Bicyclists-involved collisions analysis

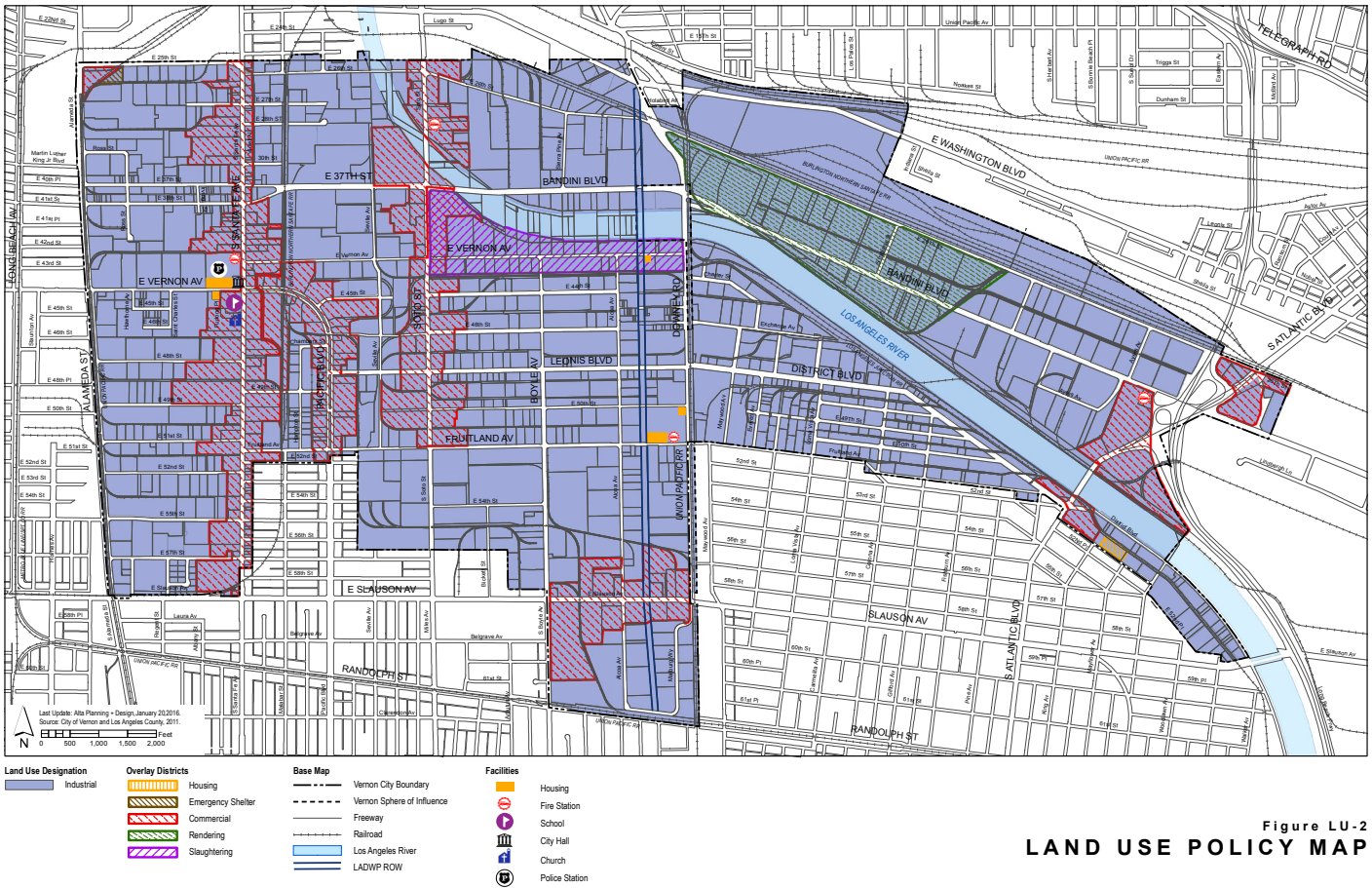


Figure 3-1: Vernon Land Use Map

## LAND USE PATTERNS

Vernon is an industrial city two miles southeast of downtown Los Angeles, California. Vernon is home to industrial uses such as manufacturing, refrigerated and cold storage warehouses, data centers, general warehousing and industrial gas manufacturing. Heavy industrial land uses, such as refineries, energy generating facilities and hazardous waste facilities, may be permitted with special approval. The city has Overlay Districts that allow certain specialized uses not permitted in other areas of the city, such as commercial, rendering, slaughtering and housing. New residential uses, in addition to existing homes, are permitted only at a few limited locations. Vernon currently has no parks or green areas. Land use patterns are illustrated in Figure 3-1.





## DEMOGRAPHICS AND ACCESS TO VEHICLES

As of the 2010 Census, Vernon has a population of 112. Its median age is 36 years, and roughly 65 percent of the population is over 30 years old. In 2010, the average household size in Vernon was four persons, and most households had at least two (46%) or three (43%) vehicles available. There were no households without vehicles available.

## ATTRACTORS AND GENERATORS

Vernon's industrial character and limited supply of parks, recreational areas and commercial centers creates an environment where trip attractors and generators are mostly limited to employment centers. A number of public buildings and emergency services are located within the City of Vernon. These locations are identified in Table 3-1.

**Table 3-1:** Public Buildings in Vernon

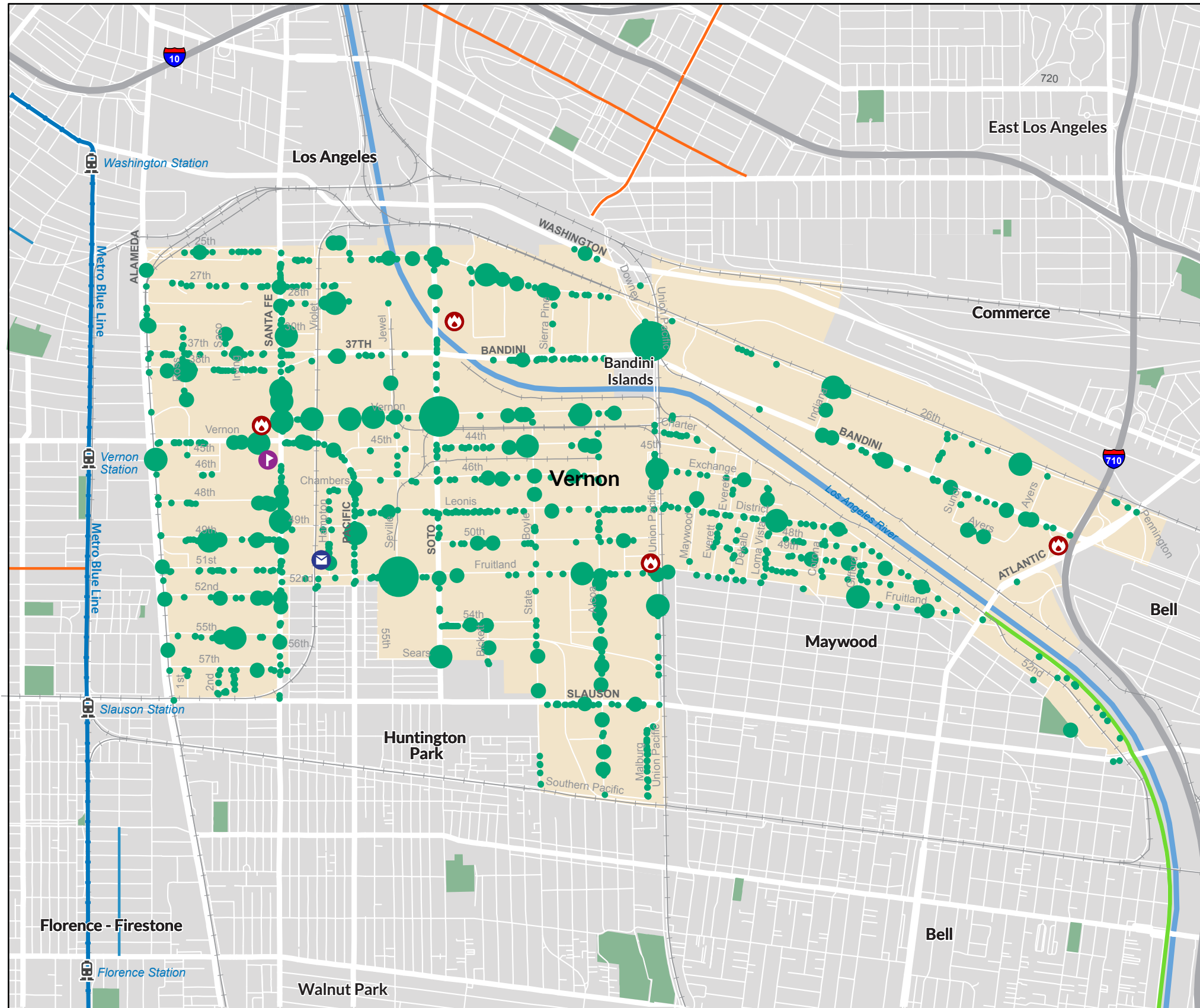
Public Facility	Address
Vernon City School	2360 East Vernon Avenue
Vernon City Hall	4305 Santa Fe Avenue
Vernon Police Department	4305 Santa Fe Avenue
Fire Station 76	3375 Fruitland Avenue
Fire Station 77	4301 Santa Fe Avenue
Fire Station 78	2800 Soto Street
Fire Station 79	4530 Bandini Boulevard

According to the General Plan, the number of employees in Vernon has steadily declined since the early 1990s. Despite the decline in the number of employees, industrial and manufacturing businesses within the city remain the majority of trip attractors and generators. Table 3-2 on page 10 presents a list of major manufacturing businesses in Vernon, organized by number of employees.

**Table 3-2: Major Manufacturing Businesses in Vernon (200+Employees)**

Business	Address	Number of Employees (Approx.)
Clougherty Packing, LLC.	3049 Vernon Ave	1,226
BCBG Max Azria Group, Inc.	2701-2761 Fruitland Ave	1,101
United Parcel Service, Inc.	3333 Downey Rd	1,087
Overhill Farms, Inc.	2727 Vernon Ave	494
J & J Snack Foods Corp Of California	5353 Downey Rd	380
Camino Real Foods, Inc.	2638 Vernon Ave	368
Flowserve Corporation	2300 Vernon Ave	368
Seven For All Mankind	4440 26th St	358
C.R. Laurence Co., Inc.	2503 Vernon Ave	340
C.R. Laurence Co., Inc.	2200 55th St	327
BCBG Max Azria Group, Inc.	5525 Soto St	307
Bon Appetit Danish, Inc.	4525-4529 District Blvd	300
E & C Fashion, Inc.	2425 30th St	295
C.R. Laurence Co., Inc.	2100 38th St	280
AGS USA, LLC.	3850 Santa Fe Ave	274
Clougherty Packing, LLC.	2730 - 2750 37th St	272
Seven Up/Royal Crown Bottling Company	3220 26th St	268
Culver City Meat Co., Inc.	3450 Vernon Ave	260
Soex West USA LLC.	3280 - 3294 26th St	260
King Meat Inc	4201 Exchange Ave	259
NYDJ Apparel, LLC.	5401 & 5411 Soto St	256
Grand Packaging, Inc.	3800-3840 26th St	251
F. Gavina & Sons, Inc.	2700 Fruitland Ave	248
Hannibal Industries, Inc.	3851 Santa Fe Ave	246
Fedex Ground	2600 28th St	235
Fisherman's Pride Processors, Inc.	4510 Alameda St	233
Huxtable's Kitchen, Inc.	2100 49th St	223
SF Apparel, Inc.	4871 Santa Fe Ave	220
Barksdale Inc	3211 Fruitland Ave	219
Overhill Farms, Inc.	3001-3055 44th St	207
Premier Meat Company	5030 Gifford Ave	206
Angelus Sanitary Can Mach Co	4900 Pacific Blvd	205
Trinity Sports, Inc.	2025 & 2067 55th St	205
Owens-Brockway Glass Container Inc	2901 Fruitland Ave	200
Simply Fresh Fruit	4383 Exchange Ave	200
Baker Commodities, Inc.	4037 Bandini Blvd	200
Mola, Inc.	2957 46th St	200

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**Employment Density**  
*City of Vernon Bicycle Master Plan*

**Employee Count**

- 0 - 50
- 51-200
- 201-500
- 501-999
- 1,000 - 1,226

**Bikeway Facilities**

- |   |   |                          |
|---|---|--------------------------|
| Existing  | Proposed  |                          |
| <span style="color: green; border-bottom: 1px solid green; width: 20px; display: inline-block;"></span>   | <span style="color: blue; border-bottom: 1px solid blue; width: 20px; display: inline-block;"></span>     | Class I Shared-Use Paths |
| <span style="color: blue; border-bottom: 1px solid blue; width: 20px; display: inline-block;"></span>     | <span style="color: orange; border-bottom: 1px solid orange; width: 20px; display: inline-block;"></span> | Class II Bicycle Lanes   |
| <span style="color: orange; border-bottom: 1px solid orange; width: 20px; display: inline-block;"></span> |   | Class III Bicycle Routes |

**Public Transit**

- |  |                         |
|--|-------------------------|
|  | Metro Blue Line Station |
|  | Metro Blue Line         |

**Amenities**

- |  |                    |
|--|--------------------|
|  | Park or Open Space |
|  | Vernon City Limits |
|  | Railroad Line      |
|  | Emergency Services |
|  | School             |
|  | Post Office        |



**Figure 3-2: Vernon Employment Density**



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Key employment corridors where jobs are concentrated in the City of Vernon are shown on Figure 3-2 on page 11 and listed in Table 3-3 below (organized by employees per mile from high to low). Many of these corridors are located on the west side of the city, with Santa Fe Avenue registering the highest number of jobs, not only in total numbers but also in terms of employees per mile.

These key employment corridors represent strong desire lines for people traveling to and from work (regardless of mode) and are candidates for inclusion in Vernon's bikeway network.

**Table 3-3: Key Employment Corridors**

Corridor	From	To	Mileage	Employees	Employees/ Mile
Santa Fe Ave	25th St	Slauson Ave	1.8	5,097	2,832
Vernon Ave	Downey Rd	Alameda St	2.0	4,307	2,153
Downey Rd	Washington Blvd	Slauson Ave	1.4	1,977	1,412
Fruitland Ave	Atlantic Blvd	Santa Fe Ave	1.5	2,101	1,401
Pacific Blvd	Santa Fe Ave	Fruitland Ave	0.7	875	1,250
Alcoa Ave	Vernon Ave	Randolph St	1.5	1,808	1,205
26th St	Atlantic Blvd	Santa Fe Ave	3.5	2,549	728
Soto St	26th St	Sears St	1.6	1,074	671
Leonis / District Blvds	Atlantic Blvd	Pacific Blvd	2.5	1,667	667
37th St / Bandini Blvd	Eastern Ave	Alameda St	3.8	2,354	619

## CURRENT ACTIVITY LEVELS

### Residents of Vernon

Since Vernon has a very small working-age population (just 27 workers 16 years and over), the transportation patterns of its inhabitants are very different from other communities. For example, Table 3-4 shows that none of Vernon's inhabitants commute by bicycle or public transit and a large percentage carpool. Just one person walks to work and one more works from home. The small population of Vernon means that individual transportation decisions impact citywide averages; a single person shifting to bicycle travel would give the City of Vernon a bicycle commute mode share of 3.7 (higher than national, state and county averages). For this reason, the American Community Survey results provided in Table 3-4 should be approached with caution.

**Table 3-4: Journey to Work Mode Share Compared to the County, State, and Nation (Percent)**

Mode	Nationwide	Statewide	LA County	City of Vernon
Walk	2.8	2.7	2.9	3.7
Bicycle	0.6	1.1	0.9	0
Public Transit	5.1	5.2	7.0	0
Drive Alone	76.4	73.2	72.6	70.4
Carpool	9.6	11.1	10.3	22.2
Other	1.2	1.3	1.3	0
Worked from home	4.3	5.4	5.0	3.7

Source: American Community Survey (ACS), 2010-2014 Five-Year Estimates (B08006)





## Employees in Vernon

As part of the Bicycle Master Plan, the City of Vernon conducted a survey of local employers to gain a better understanding of employee travel patterns and operational needs for freight movement. The survey found that most people who work in the City of Vernon live outside of the city and commute to work. Table 3-5 summarizes journey to work mode share for people working in Vernon.

**Table 3-5:** Journey to Work Mode Share for People Working in Vernon

Mode	Employees in City of Vernon (Number)	Employees in City of Vernon (Percent)
Walk	356	0.9
Bicycle	438	1.1
Public Transit	3,286	8.6
Drive Alone	28,324	74.2
Carpool	5,353	14.0
Other	300	0.8
Worked from home	1	0.0

Source: American Community Survey (ACS), 2010-2014 Five-Year Estimates (B08601)

## TRANSPORTATION FACILITIES AND PROGRAMS

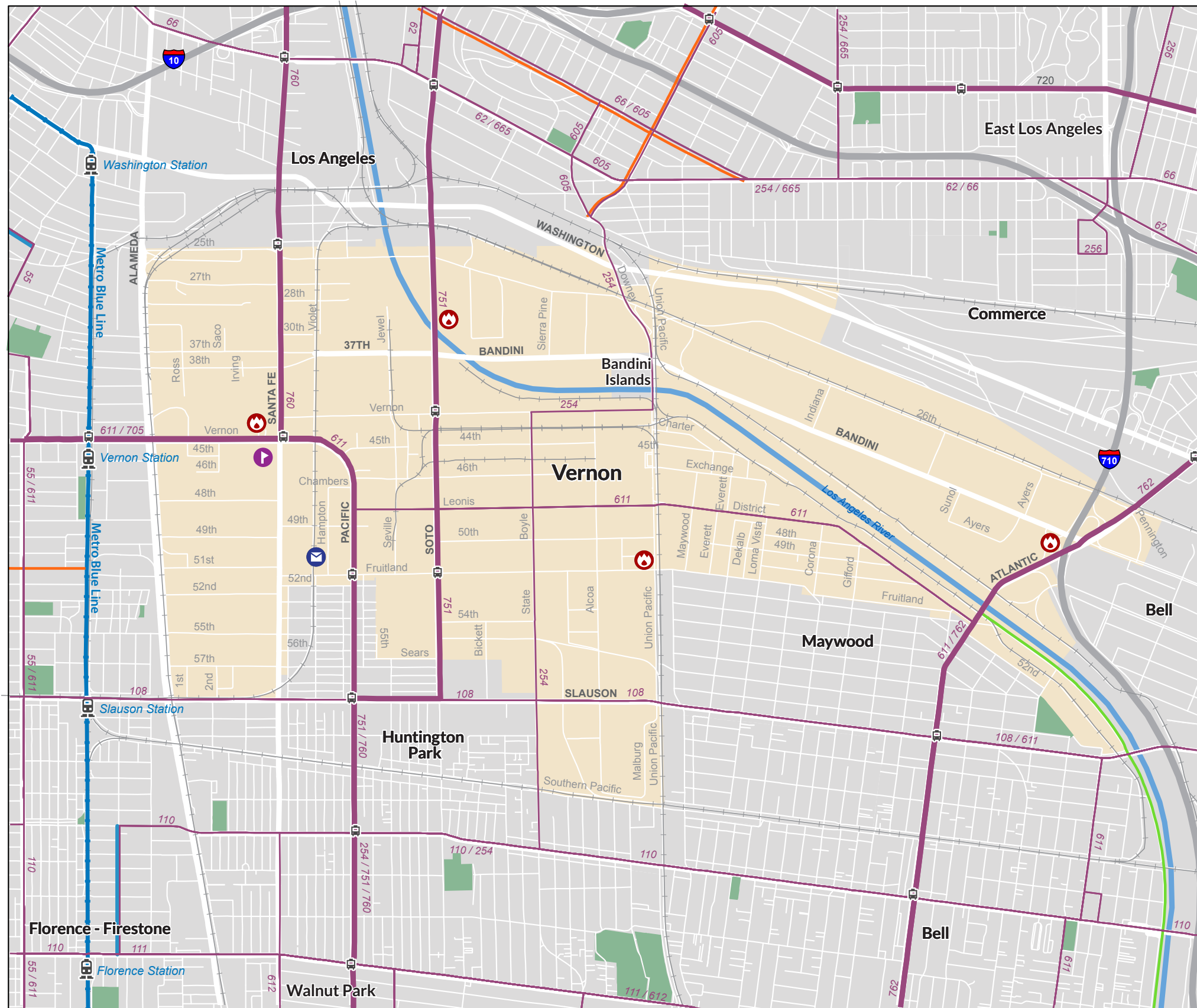
Communities that support bicycling demonstrate achievement across five categories, often referred to as the Five E's:

- » Engineering includes bicycle facilities, bicycle parking, as well as signage and maintenance.
- » Education programs improve safety and awareness. They may be delivered at major employers as bicycle knowledge and skills programs, or provided through non-profit organizations.
- » Encouragement programs such as bicycling maps and work days reward current bicyclists and motivate more people to try bicycling.
- » Enforcement programs that reinforce legal and respectful driving, bicycling, and walking behaviors can make bicycling feel more secure.
- » Evaluation programs provide a method for monitoring improvements and informing future investments

Currently, there are no education, encouragement, enforcement, or evaluation programs in Vernon.



Existing bicycle signage in the City of Vernon



### Existing Transportation Network City of Vernon Bicycle Master Plan

#### Public Transit

- Metro Rapid Stop
- Metro Blue Line Station
- Metro Blue Line
- Metro Rapid
- Metro Local

#### Bikeway Facilities

- | Existing | Proposed |                          |
|----------|----------|--------------------------|
|          |          | Class I Shared-Use Paths |
|          |          | Class II Bicycle Lanes   |
|          |          | Class III Bicycle Routes |

#### Amenities

- Park or Open Space
- Vernon City Limits
- Railroad Line
- Emergency Services
- School
- Post Office



**Figure 3-3:** Vernon Existing Transportation Network



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## Engineering

### *Transportation Network*

Vernon's 76 miles of local roadway and freeway systems directly connect the city with adjacent and distant communities. One of the busiest interchanges of Interstate 710, Atlantic Boulevard and Bandini Boulevard, is located in the city. This interchange provides a direct connection to the ports of Long Beach and Los Angeles from one of the largest railyards in the country, Hobart Railyard. Table 3-6 summarizes key roadway connections between Vernon and surrounding cities and neighborhoods. Figure 3-3 on page 15 shows Vernon's existing transportation network.

**Table 3-6:** Key Roadway Connections in Vernon

City / Region	Connections
Downtown Los Angeles	Alameda Street and Santa Fe Avenue
The Boyle Heights District of the City of Los Angeles	Soto Street, Washington Boulevard, and Downey Road
The City of Commerce	Washington Boulevard, Interstate 710, and Atlantic Boulevard
The City of Bell	Bandini Boulevard and Interstate 710
The City of Maywood	Atlantic Boulevard
The City of Huntington Park	Slauson Avenue, Soto Street, Pacific Boulevard, Santa Fe Avenue, and Alameda Street

#### *Local connections*

Streets in Vernon generally follow an irregular north-south grid. Connectivity between streets is moderate, with several streets extending only a few blocks before terminating in T intersections. Streets are spaced widely, with long blocks (from 600 and 2,000 feet) allowing for large industrial lots.

There are five roadways that cross the Los Angeles River in Vernon: Atlantic Boulevard, Bandini Boulevard, Soto Street, 26th Street and Downey Road (the Downey Road bridge itself is located within the unincorporated Bandini Islands). The E Washington Boulevard and Slauson Avenue crossings are just outside city limits to the north and south, respectively.

#### *Regional connections*

Vernon's location near the population center of Los Angeles County lends itself to convenient access to regional transportation routes, including the 710 and 5 freeways.



*Traffic Counts*

City arterial and rail corridors that could potentially connect with and extend the existing and proposed regional bicycle routes network were identified for evaluation. These are shown in Figure 3-4. Figure 3-4 also shows the 11 intersection locations where peak period traffic counts were collected to consider potential impacts of reallocating existing pavement to improve the level of comfort by bicycling. The 2016 count data was analyzed per Highway Capacity Manual 2010 methodology. Results are compared with the City’s 2007 analyses for comparison and shown in Table 3-7. Of the 10 comparable intersections, service levels worsened at four locations, stayed the same at three and improved at three locations.

**Table 3-7: Intersection Volume/Capacity and LOS for 2007 and 2016 Base Conditions**

Intersection	AM				PM			
	2007	2007	2016	2016	2007	2007	2016	2016
	V/C*	LOS*	V/C	LOS	V/C*	LOS*	V/C	LOS
Alameda St & Slauson Ave	N/A	N/A	1.41	B	N/A	N/A	0.81	B
Santa Fe Ave & 25th/26th St	0.72	C	0.81	C	0.84	D	1.04	D
Santa Fe Ave & Vernon Ave Pacific Blvd	0.8	C	0.72	C	0.98	E	0.95	D
Pacific Blvd & Leonis Blvd	0.45	A	0.57*	B*	0.46	A	0.52*	C*
Soto St & 26th St	0.91	E	1.59	C	0.96	E	1.84	C*
Soto St & 37th St/Bandini Blvd	0.84	D	1.14	E	0.86	D	1.03	E
Soto St & Leonis Blvd	0.7	C	0.85	D	0.82	D	0.73	C*
Boyle Ave & Leonis Blvd	0.63	B	0.63	B	0.74	C	0.7	B
Boyle Ave & Slauson Ave	0.87	D	1.06	E	0.93	E	1.22	E
State St/Boyle Ave & Randolph St	0.77	C	0.98	C	0.67	B	0.82	B
Atlantic Blvd & District Blvd	0.85	D	2.14	F	0.97	E	1.02	F

\*HCM 2000, N/A - Not Available from 2007 Circulation Element

*Truck traffic analysis*

The City of Vernon is heavily industrial, taking advantage of the extensive railroad facilities in the area and its premium location in Los Angeles County. This emphasis on industry and warehousing means that the transportation network experiences heavy truck traffic. Table 3-8 shows the average percentage of truck traffic on selected streets.

Considerations that should be factored in when addressing truck traffic and truck movements in complete streets settings include:

- Current Land Use. Different uses generate different volumes and movements of large truck movements.



- **Truck Size.** Corridors that serve or connect to larger industrial properties may serve larger trucks that cannot easily maneuver on narrower roads.
- **Delivery Areas.** Some urban areas can accommodate deliveries via alleys or side streets, thereby avoiding trucks stopping on main streets.
- **Intersection Design.** Intersections where trucks are often turning should be designed with wider curb radii to accommodate truck movements.

**Table 3-8: Percentage of Truck Traffic**

Street	Percentage of Truck Traffic
Bandini Boulevard	36.4
26th Street	30.7
Pacific Boulevard	20.7
Alameda Street	16.7
Santa Fe Avenue	16.0
Fruitland Avenue	15.4
Vernon Avenue	15.4
Soto Avenue	14.4

Source: City of Vernon

### ***Transit***

Vernon is proximate to the Metrolink Orange County and Riverside Lines (Commerce and Montebello/Commerce Stations) and the Metro Blue Line (Washington, Vernon and Slauson Stations). It is served by the Metro Rapid 705, 751 and 760 lines, which run on Vernon Avenue, Soto Street and Pacific Boulevard, respectively.

Eco-Rapid Transit is a planned 40-mile commuter rail line, funded by Measure R, that will connect Artesia to Bob Hope Airport. The portion of the route south of Downtown Los Angeles will use the West Santa Ana Branch and Pacific Electric ROWs. Within the City of Vernon, two alternative alignments are being evaluated. Stations are tentatively planned for Pacific Boulevard/Vernon Avenue (West Bank alignment) or Leonis Boulevard/District Boulevard (East Bank alignment). The alignments are currently under study by the Southern California Association of Governments and the Los Angeles County Metropolitan Transportation Authority.

### ***Bikeway Network***

#### *Existing Bikeways in Vernon*

The only existing bikeway in Vernon is the 0.78 mile stretch of the Los Angeles River bicycle path that goes from Atlantic Boulevard to Slauson Avenue. In fact, the Los Angeles River bicycle path originates within Vernon and continues as far as Long Beach. This is shown in Figure 3-4 on page 22.





*Existing Bikeways in Adjacent Jurisdictions*

Among Vernon’s neighbors, only the City of Los Angeles and the City of Huntington Park have existing bikeways. None of these bikeways connect directly with the City of Vernon. Table 3-9 lists existing bikeways, facility types and mileage. These bikeways are also mapped in Figure 3-4.

**Table 3-9:** Existing Bikeways in Adjacent Jurisdictions

Street	City	Facility Type	Mileage
Holmes Avenue	Huntington Park	Class II	0.5
8th Street	Los Angeles	Class II	1.4
Adams Boulevard	Los Angeles	Class II	1.4
Lorena Street	Los Angeles	Class III	1.5
51st Street	Los Angeles	Class III	2.5

*Planned Bikeways in Vernon*

The City of Vernon has not previously developed a plan for its bikeway network. However, several regional planning efforts have proposed bikeways within the City of Vernon.

- » Several routes on the countywide Regional Active Transportation Network (a spine network developed as part of the ongoing Metro Active Transportation Strategic Plan) serve Vernon. These include the Los Angeles River bicycle path, Alameda Street and Soto Street.
- » The Regional Active Transportation Network also includes four potential bikeways that are part of Metro’s Rail to River Study. One of the four alternatives will be added to the Regional Active Transportation Network after the preferred alignment is selected. The alternative alignments are: the Southern Pacific Railroad ROW (on Randolph Street), Slauson Avenue, the Burlington Northern Santa Fe Railroad ROW (east of Santa Fe Avenue) and Los Angeles Department of Water and Power ROW (west of Downey Road).
- » The Gateway Cities Strategic Transportation Plan identified five regionally significant bicycle projects within the City of Vernon: the Los Angeles River Path, Slauson Avenue, the West Santa Ana Branch (Union Pacific ROW), Santa Fe Avenue and Pacific Boulevard.

These planned bikeways are listed in Table 3-10 and mapped in Figure 3-5 on page 23. Planned bikeways appearing in more than one regional plan, such as the Los Angeles River Path, are identified with an asterisk.

**Table 3-10: Regionally Planned Bikeways in Vernon**

Street	Facility Type	Source Plan	Mileage
Los Angeles River Path*	Off-Street (Class I)	Metro Active Transportation Strategic Plan	2.8
Alameda Street	Dedicated On-Street (Class II or IV)	Metro Active Transportation Strategic Plan	1.5
Soto Street	Dedicated On-Street (Class II or IV)	Metro Active Transportation Strategic Plan	0.3
Slauson Avenue*	TBD	Metro Rail to River Feasibility Study**	0.5
Randolph Street	TBD	Metro Rail to River Feasibility Study**	0.5
Burlington Northern Santa Fe Railroad	TBD	Metro Rail to River Feasibility Study**	1.2
LADWP Utility Corridor	TBD	Metro Rail to River Feasibility Study**	1.2
West Santa Ana Branch (Union Pacific ROW)	Class I	Gateway Cities Strategic Transportation Plan	1.2
Santa Fe Avenue	Class II	Gateway Cities Strategic Transportation Plan	1.0
Pacific Boulevard	Class II	Gateway Cities Strategic Transportation Plan	0.8
<b>Total</b>			<b>8.1 – 8.8***</b>

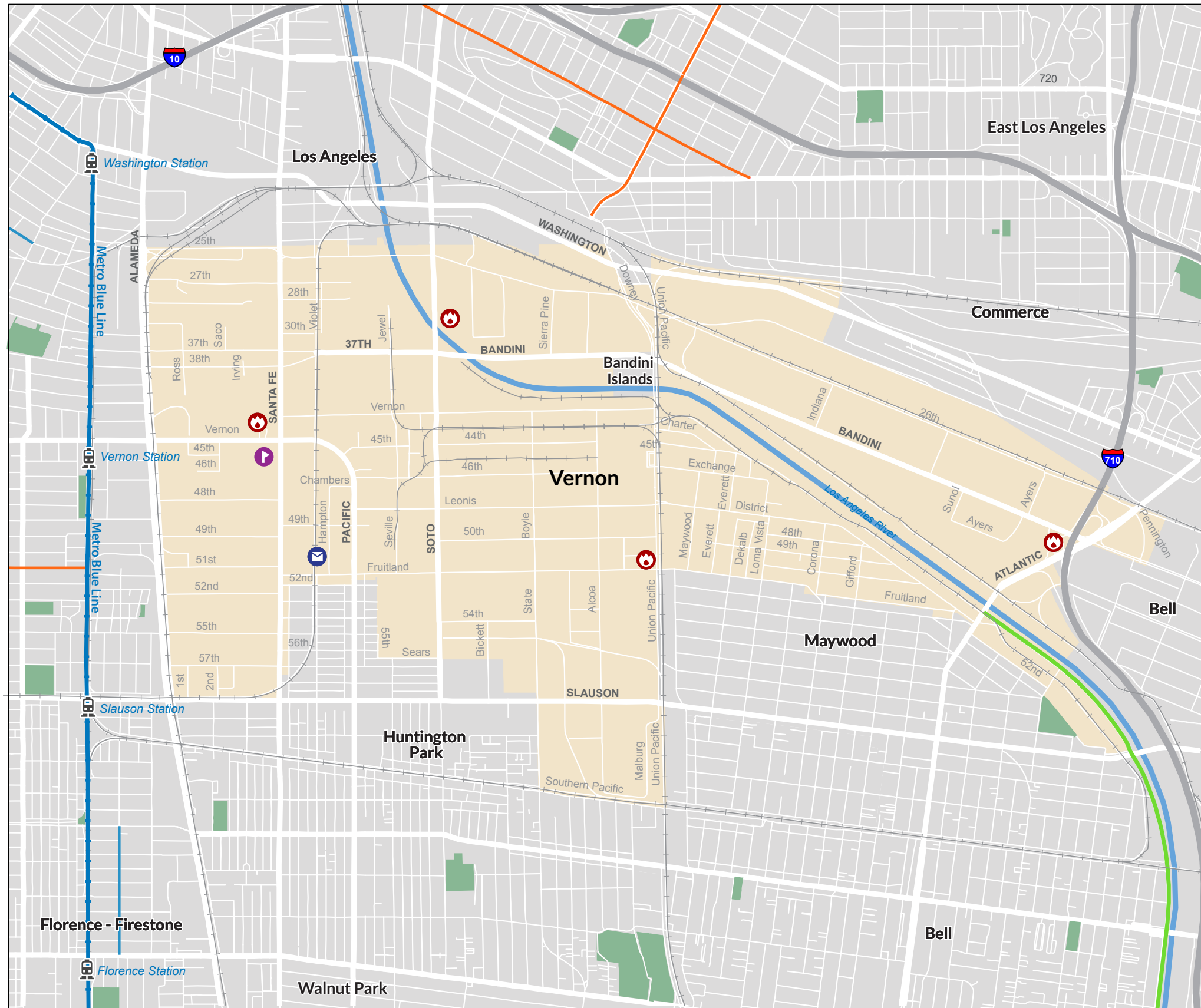
\* Project is included in multiple regional plans

\*\* Only one Rail to River alternative will be selected

\*\*\* Total will vary depending on Rail to River alternative selected

Among Vernon's municipal neighbors, only the City of Los Angeles and the City of Huntington Park have adopted bicycle transportation plans. These individual plans are supplemented by regional plans, including those described in the preceding section. Planned bikeway networks for unincorporated areas adjacent to the City of Vernon, such as Florence-Firestone and East Los Angeles, were developed as part of the Los Angeles County Bicycle Master Plan. Planned bikeways in adjacent jurisdictions are also shown in Figure 3-5.

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**Existing Bikeway Network**  
**City of Vernon Bicycle Master Plan**

**Bikeway Facilities**

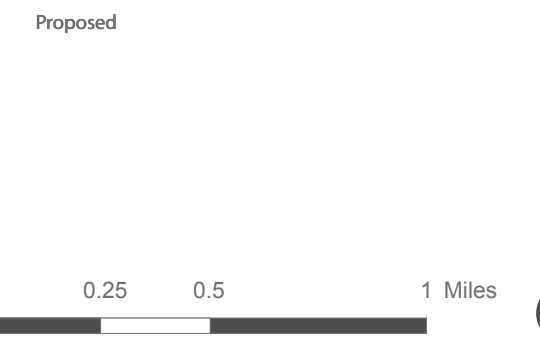
- |          |          |                          |
|----------|----------|--------------------------|
| Existing | Proposed |                          |
|          |          | Class I Shared-Use Paths |
|          |          | Class II Bicycle Lanes   |
|          |          | Class III Bicycle Routes |

**Public Transit**

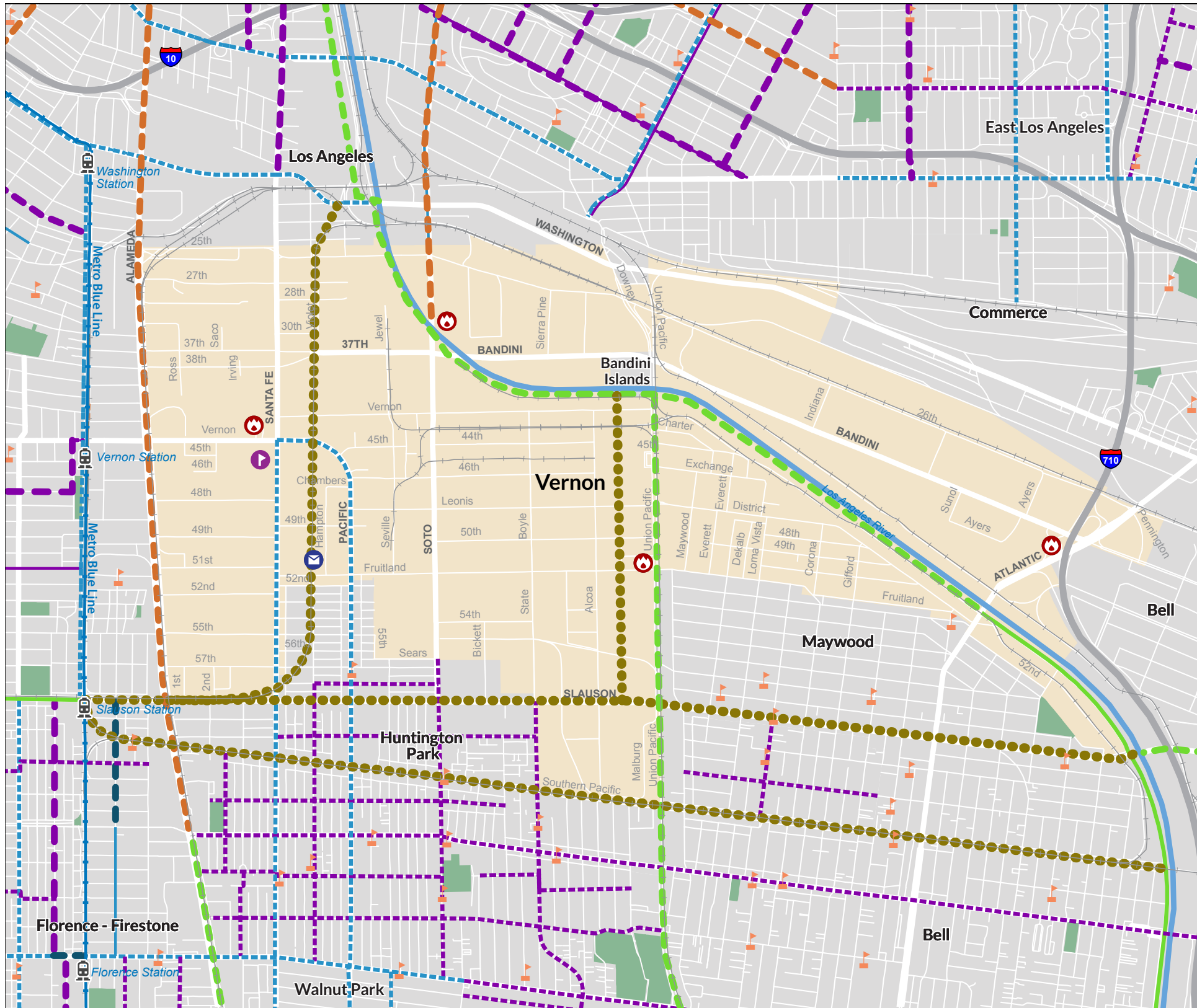
- |  |                         |
|--|-------------------------|
|  | Metro Blue Line Station |
|  | Metro Blue Line         |

**Amenities**

- |  |                    |
|--|--------------------|
|  | Park or Open Space |
|  | Vernon City Limits |
|  | Railroad Line      |
|  | Emergency Services |
|  | School             |
|  | Post Office        |



**Figure 3-4:** Vernon Existing Bicycle Network



**Planned Bikeway Network**  
*City of Vernon Bicycle Master Plan*

**Bikeway Facilities**

Existing	Proposed	Facility Type
		Class I Shared-Use Paths
		Class II Bicycle Lanes
		Class II Colored/Buffered Bicycle Lanes
		Class III Bicycle Routes
		Class III Bicycle Boulevard
		Class IV Separated Bikeways

**Regional Plans**

	Rail to River Study Alternatives
--	----------------------------------

**Public Transit**

	Metro Blue Line Station
	Metro Blue Line

**Amenities**

	Park or Open Space
	Vernon City Limits
	Railroad Line
	Emergency Services
	Vernon City Elementary School
	School
	Post Office



Figure 3-5: Regionally Planned Bikeways in Vernon





## BICYCLE-INVOLVED COLLISION ANALYSIS

This section reviews bicycle-involved collisions from January 1, 2009, to December 31, 2013, as reported by the Statewide Integrated Traffic Records System (SWITRS). The analysis of bicycle-involved collisions data provides an understanding of current conditions for bicycling in the city and provides a basis for infrastructure and program recommendations that can improve safety.

### Historical Trends

Between January 2009 and December 2013, there were 503 total collisions reported in the City of Vernon. Of these, there were 38 bicycle-involved collisions, representing 7.6 percent of all reported collisions. All of the bicycle-involved collisions resulted in an injury to the bicycle rider involved. One of the collisions resulted in a severe injury<sup>1</sup>, but none of the collisions resulted in a fatality.

Over the five-year period, the number of bicycle-involved collisions ranged from 5 to 10 per year, with a running average of 8. According to the most recent [California Office of Traffic Safety Rankings](#) (for the 2013 data year), Vernon has more bicycle collisions than any other “Group G” city (population 1-2 to 500), with nine injuries that year.

Table 3-11 summarizes the number of bicycle-involved collisions in the city by year, both in absolute numbers and as a percentage of all collisions and injuries.

### Geographic Trends

**Table 3-11:** Bicycle-involved Collisions by Year (2009-2013)

Time Period	Bicycle-Involved Collisions	Bicycle-Involved Collisions/ Total (Percentage)
2009	5	5.1
2010	8	7.6
2011	10	10.3
2012	6	6.2
2013	9	8.6
<b>Total</b>	<b>38</b>	<b>--</b>
<b>Average</b>	<b>8</b>	<b>7.6</b>

<sup>1</sup> The California Highway Patrol defines a severe injury as one “which prevents the injured party from walking, driving, or performing activities he/she was normally capable of before the collision.” Source: <https://www.chp.ca.gov/InformationManagementDivisionSite/Documents/2013-glossary.pdf>





Bicycle-involved collisions occurred at higher frequencies on the west side of the city, where most of the activity generators and attractors are, such as schools, churches, City Hall and commercial areas. These collisions are mapped in Figure 3-6 on page 26.

Table 3-12 displays the top five roadways with the most bicycle-involved collisions based on data from 2009-2013. Atlantic Boulevard and Santa Fe Avenue, both arterial streets, experienced the most bicycle collisions among roadways in the City of Vernon during the study period with 10 reported collisions. Vernon Avenue, a collector street, closely followed with 4 bicycle-involved collisions during the study period. Despite Vernon’s industrial character, in only one bicycle-involved collision a truck was also involved.

## Temporal Trends

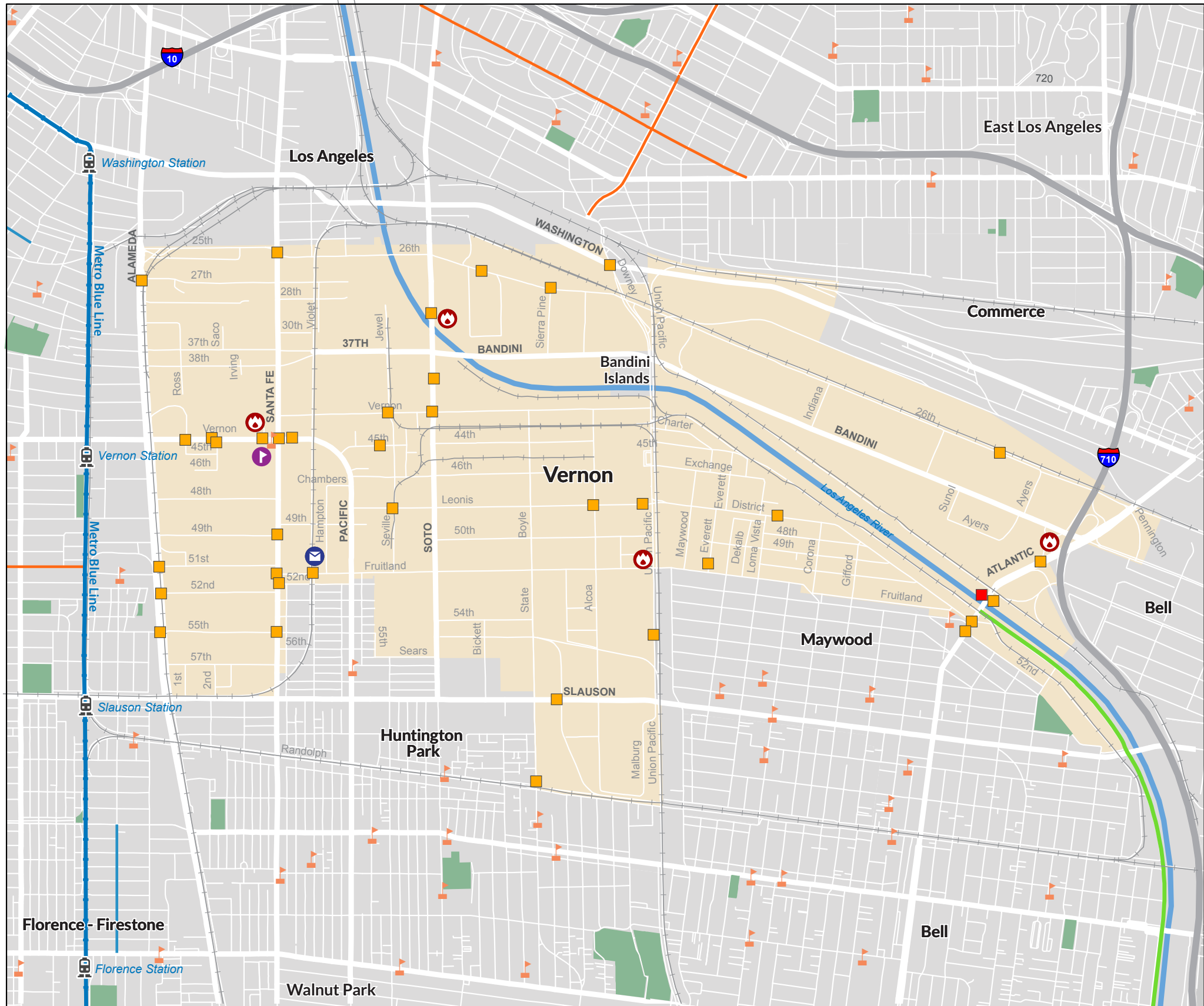
**Table 3-12: Highest Bicycle-involved Collision Roadways**

Roadway	Bicycle-Involved Collisions
Atlantic Avenue	5
Santa Fe Avenue	5
Vernon Avenue	4
Alameda Street	3
26th Street	3

As shown in Table 3-13, all bicycle-involved collisions except one occurred between Monday and Friday. The number of collisions ranged from 13 to 1 collisions per day of the week, with no bicycle-involved collisions occurring on Sundays. The fact that almost all bicycle-involved collisions occurred between Monday and Friday likely reflects the fact that most of the trips had a utilitarian purpose and not a recreational one.

**Table 3-13: Highest Bicycle-involved Collision Days**

Day	Bicycle-Involved Collisions
Monday	6
Tuesday	9
Wednesday	13
Thursday	4
Friday	5
Saturday	1
Sunday	0
<b>Total</b>	<b>38</b>



**Bicycle Collisions, 2009 - 2013**  
**City of Vernon Bicycle Master Plan**

**Collision Severity**

- Severe Injury
- Other

**Bikeway Facilities**

- Existing — Proposed — Class I Shared-Use Paths
- Class II Bicycle Lanes
- Class III Bicycle Routes

**Public Transit**

-  Metro Blue Line Station
-  Metro Blue Line

**Amenities**

- Park or Open Space
- Vernon City Limits
-  Railroad Line
-  Emergency Services
-  Vernon City Elementary School
-  School
-  Post Office



**Figure 3-6: Bicycle-Involved Collisions in Vernon (2009-2013)**



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As shown in Table 3-14 the highest percentage of bicycle-involved collisions occurred during daylight hours (68.4%), and half of the total bicycle-involved collisions occurred during commuting hours (7am to 9am and 4pm to 6pm). The number of collisions indicates a need for various countermeasures, such as bicycle safety education, motorist education regarding watching for people on bicycles, and other means to improve the visibility of people on bicycles to motorists (i.e., bicycle lanes, “Share the Road” signs, etc.).

**Table 3-14:** Bicycle-involved Collisions by Time of Day

Time of Day	Percentage of Day (24 Hours)	Percentage of Collisions
Daylight (9AM-5PM)	33	68.4
Dawn and Dusk (6AM-9AM & 5PM-8PM)	25	5.3
Nighttime (8PM-6AM)	42	26.3
Commuting Hours Only (7AM-9AM & 4PM-6PM)	17	50.0

## Collision Factors

Table 3-15 shows types of collisions. Broadside collisions make up for almost half (47.7%) of known bicycle-involved collisions in Vernon during 2009-2013. Broadside collisions generally occur by a failure to yield right of way. In the case of collisions in an intersection, the cause is often a result of one vehicle failing to obey traffic signals. The second highest bicycle-involved collision type is ‘Other,’ which includes a person on bicycle colliding with a pedestrian or another person bicycling, among other possibilities.

**Table 3-15:** Bicycle-involved Collisions by Type

Type of Collision	Number of Collisions	Percentage of Total
Broadside	18	47.4
Head On	2	5.3
Other <sup>2</sup>	12	31.6
Rear End	1	2.6
Pedestrian	5	13.2
<b>Total</b>	<b>38</b>	<b>100</b>

<sup>2</sup> According to the SWITRS Collision Investigation Manual, ‘Other’ is defined as “a collision not covered in the preceding elements. This entry shall be explained in the narrative, such as a vehicle involved with: (1) A bicycle, train, or animal; (2) An automobile fire; (3) Passengers falling or jumping from a vehicle; (4) A vehicle backing or; (5) A bicycle involved with a pedestrian or another bicycle.”



Table 3-16 shows violation categories. From 2009 to 2013, driving or bicycling on the wrong side of the road was the most common type of violation recorded (31.6%) among reported bicycle-involved collisions in Vernon. The second and third highest type of violation were ‘Improper Turning’ (7) and violation of ‘Automobile Right of Way,’ (5) which happens when, in the estimation of an officer, a cyclist fails to yield to motorists when required.

**Table 3-16: Bicycle-involved Collisions by Violation Category**

Violation Category	Number of Collisions	Percentage of Total
Driving or Bicycling Under the Influence of Alcohol or Drug	1	2.6
Wrong Side of Road	12	31.6
Improper Passing	1	2.6
Improper Turning	7	18.4
Automobile Right of Way	5	13.2
Traffic Signals and Signs	3	7.9
Unsafe Lane Change	3	7.9
Other Hazardous Violation	4	10.5
Pedestrian Violation	1	2.6
Unknown	1	2.6
<b>Total</b>	<b>38</b>	<b>100</b>

Table 3-17 shows that 10 of the bicycle-involved collisions were classified as ‘Hit and Run’. Nine of these bicycle-involved collisions were filed as felony and one as misdemeanor. The main difference between a misdemeanor charge and a felony charge for hit and run offenses is whether there were injuries involved in the collision.

**Table 3-17: Bicycle-involved Collisions by Hit and Run Classification**

Hit and Run	Number of Collisions	Percentage of Total
Misdemeanor	1	2.6
Felony	9	23.7
Not Hit and Run	28	73.7
<b>Total</b>	<b>38</b>	<b>100</b>

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## CHAPTER 4: RECOMMENDED PROGRAMS

This chapter presents recommended bicycle-related programs for Vernon. These recommendations are organized into four “E’s”:

- » Education programs are designed to improve safety and awareness. They can include programs that teach commuters how to safely ride on busy streets or teach drivers to expect people on bicycle. They may also include brochures, posters or other information that targets people bicycling and/or driving.
- » Encouragement programs provide incentives and support to help people leave their car at home and try bicycling instead.
- » Enforcement programs enforce legal and respectful bicycling and driving. They include a variety of tactics, ranging from police enforcement to bicycle helmet and light giveaway programs.
- » Evaluation programs are an important component of any investment. They help measure success at meeting the goals of this Plan and to identify adjustments that may be necessary.

All programs should be offered in both English and Spanish to increase participation. Cost estimates for each program is not provided in this chapter as the costs can vary depending on the size and scale for each program.





## EXISTING PROGRAMS

The City of Vernon does not currently offer any bicycle education or encouragement programs, so this section focuses on those provided at the regional and state level. These education and encouragement programs are designed to promote active transportation, safety, and overall healthy living for communities.

### Los Angeles Unified School District: Beyond the Bell Program

The Vernon City Elementary School, as part of the Los Angeles Unified School District, participates in the district's Beyond the Bell Program, including the Youth Services and Ready-Set-Go initiatives. These before and after school programs at the school help students learn about health, nutrition, and fitness, among other goals.

### Los Angeles County Bicycle Coalition: Operation Firefly

The Los Angeles County Bicycle Coalition manages Operation Firefly, an education and bicycle light distribution program which organizes groups of volunteers to meet for "street distributions" at undisclosed locations throughout Los Angeles where night-time bicycle ridership is expected to be high. LACBC hosted an Operation Firefly in Vernon in January 2016.

### Employee Commute Reduction Program (ECRP)

An ECRP is a program developed by an employer to reduce the number of vehicle trips to their worksite, which incorporates various strategies to encourage alternative commute modes, such as bicycling. The goal of an ECRP is to improve or maintain Average Vehicle Ridership (AVR) in a workplace.

The On-Road Motor Vehicle Mitigation Options, or Rule 2202, is a program designed by the South Coast Air Quality Management District (AQMD) to reduce emissions caused by employee commuting and applies to employers with 250 or more employees at a worksite for a consecutive six-month period. Rule 2202 offers employers a set of three options to meet emissions targets for their worksites:

- » Develop an Employee Commute Reduction Program (ECRP)
- » Pay fees to the AQMD in accordance with the Air Quality Investment Program (AQIP)
- » Purchase mobile source emissions credits through California's open marketplace



## Parking Cash Out - Assembly Bill 2109

State law requires certain employers who provide subsidized parking for their employees to offer a cash allowance in lieu of a parking space. The law was enacted in 1992 after studies showed cash allowances in lieu of parking encourage employees to find alternate means of commuting to work, such as bicycling, walking or carpooling. In 2009, AB 1186 was enacted to increase the use of the existing parking cash-out program by showing the parking costs as a separate line item in all lease agreements.

The law applies to private or public employers that meet all these requirements:

- » Employ at least 50 persons (regardless of how many worksites)
- » Are located in an air basin that does not meet state air quality standards
- » Subsidize employee parking that they do not own
- » Can calculate the cost of the parking subsidies they provide
- » Can reduce the number of parking spaces without penalty

## EDUCATION

Education programs are important for teaching safety rules and laws as well as increasing awareness regarding bicycling opportunities and existing facilities. In Vernon, education efforts should especially target commuters, employers and students.

### Rail Safety Education

The public identified the numerous railroads that run through Vernon as barriers to bicycling in Vernon in the surveys. The addition of a commuter rail station in Vernon as part of the Eco-Rapid Transit project may further complicate travel over the tracks. Rail safety education and messaging can help to address the challenges of riding near rail lines and crossing the tracks on a bicycle.

Metro has a Transit Safety Program that offers safety presentations at schools (annually) and community centers within a 1.5 mile radius of the Blue, Gold and Expo Line. The Program also offers safety tips and recently developed a public service campaign to promote safe behavior around transit tracks. The Federal Rail Administration also has a national program, Operation Lifesaver, designed to end collisions, deaths, and injuries related to rail crossings.

### *Recommendation*

The city should work with Metro's Transit Safety Program to conduct safety presentations at Vernon City Elementary School and/or other community centers, and hold a Rail Safety Orientation Tour for the students.



## Bicycle Skills Classes

The high number of bicycle-involved collisions in Vernon, their potential causes as recorded in police reports, and public survey responses indicate that bicyclists in Vernon do not always follow the rules of the road or practice safe bicycling habits. In addition, bicyclists in Vernon should be aware of the safest way to travel with large trucks, which have lower visibility and a larger turning radius than normal vehicles. Members of the public noted that they do not feel safe biking with trucks in the surveys.

Bicycling skills classes can address this education gap. The League of American Bicyclists' Ride Smart Program offers classes taught by certified instructors. Material is available in both English and Spanish. LA Metro, in partnership with the Los Angeles County Bicycle Coalition (LACBC) and Bike San Gabriel Valley (BikeSGV), offers free bicycle education classes throughout LA County. The National Highway Traffic Safety Administration has also developed the Cycling Skills Clinic: Guide to help organizations plan bike safety skills events.

### ***Recommendation***

The city should work with the League of American Bicyclists or LA Metro to offer bicycle rider safety classes in Vernon that target commuters. The city should partner with employers to reach these commuters most effectively.

## Dedicated City Webpage on Bicycle Education

Offering quick access to bicycle education and etiquette resources can easily be done by dedicating a webpage on the city's website. Having a webpage on bicycle education and etiquette will allow employers and residents to easily find bicycle education material and suggested bicycling route maps. A dedicated webpage also signifies that the city is taking a proactive approach toward education of all road users.

### ***Recommendation***

The city should add a bicycle education page to its website.

## Driver Education

Interacting with bicyclists on the road is often not included in training for new drivers. Teaching motorists how to share the road can help reduce potential conflicts between drivers and bicyclists. Driver education can highlight common conflicts that occur in Vernon and inform drivers of the proper and safe way to behave on the road; for example, how to pass bicyclists at a safe distance. Vernon could also partner with employers to train truck drivers on how to safely share the road with bicyclists.

### ***Recommendation***

The city should work with employers to incorporate sharing the road with bicyclists into truck driver training.



## Bicycle Systems Maps

One of the most effective ways of making people aware of bicycling as a transportation option is to distribute maps and guides to show that bicycling infrastructure exists in the city. A map can also show suggested routes for bicycle commuters and for connecting to transit. The map could be available in hard copy and digital formats. The City of Los Angeles and Santa Monica maps are good examples of system maps.

### *Recommendation*

The city should develop a map showing existing bicycle facilities, transit stops and suggested bicycle routes. Update once per year with infrastructure improvements and distribute to employers, city offices and the Vernon City Elementary School.

#### Bicycle-Related Ticket Diversion Class

Cities in California can now offer diversion classes to bicycle riders who have been cited for certain traffic violations, such as running a stoplight, instead of requiring riders to pay a fine. This was made possible by California Assembly Bill 209, signed by Governor Brown on September 21, 2015. This type of program is a good way to educate bicycle riders about bicycle safety. The Los Angeles County Bicycle Coalition (LACBC) is currently working with the City of Los Angeles to develop a ticket diversion program.

More information on existing programs: [www.marinbike.org/Campaigns/ShareTheRoad/Index.shtml#StreetSkills](http://www.marinbike.org/Campaigns/ShareTheRoad/Index.shtml#StreetSkills)

<http://www.cityoflivermore.net/citygov/police/ops/traffic/bikesafety/diversion.asp>

#### Recommendation

The city should consider offering bicycle rider ticket diversion classes. The city could partner with LACBC to do so.

## Student Bicycle Traffic Safety Education

Student education programs are an essential component of bicycle education. Students are taught traffic safety skills that help them understand basic traffic laws and safety rules. Bicycle education curriculum typically includes two parts: knowledge and skills. Knowledge lessons are typically in-class, while skills are practiced on a bicycle. Lessons can include helmet and bicycle fit, hand signals, and riding safely with traffic. California's Active Transportation Resource Center provides lesson plans from a variety of best practice programs across the country. Cities can apply for state or federal Safe Routes to School grants for educational/encouragement programs, as well as to fund bicycling and walking infrastructure improvements. LA Metro is also currently working to develop a Countywide Safe Routes to School Initiative in order to help communities either start or sustain Safe Routes to School programs, which can help educate and encourage students to walk or bike to school.



### **Benefits**

Student bicycle traffic safety education can benefit the Vernon community by:

- » Improving safety by teaching children about lifelong safety skills
- » Create awareness with students and parents
- » Encourage families to consider bicycling to school on a more frequent basis

### **Recommendation**

Vernon City Elementary should incorporate bicycle safety and skills into recess time or Healthy Living programming. The City of Vernon could either partner with LA Metro or apply for grant funding at the state (SR2S) or federal (SRTS) levels to help develop a Safe Routes to School program in the city.

## **Truck Side Guard and Blind Spot Mirrors Program**

According to the community surveys, people do not feel safe biking in Vernon in part because of the large amount of truck traffic. There are a number of truck retrofits that can decrease the risk and/or severity of bicycle collisions. Installing blind spot mirrors can help increase driver awareness of cyclists. Truck side guards cover the exposed space on the sides of the truck between the front and rear wheel, preventing cyclists from falling under the wheels in a collision. Certain side guards can even save fuel for trucks by reducing drag, serving a dual purpose.

The City of Cambridge, MA requires side guards and blind spot mirrors on city trucks. See the U.S. Department of Transportation's Truck Side Guards Resource Page for more information on side guard research and technology,

### **Recommendation**

The city should partner with local businesses to research and develop installation programs for truck side guards and blind spot mirrors to reduce the incidence and severity of bicycle collisions.

## **ENCOURAGEMENT**

Encouragement programs are vital to the success of the Vernon BMP. Encouragement programs work to get more people out of their cars, which has the potential to reduce traffic congestion, improve air quality, and help keep people healthy. In addition to government efforts, involvement by employers will be very important in raising awareness of the benefits of bicycling to work and providing incentives for workers to do so.



## Wayfinding

Wayfinding refers to information systems that assist travelers in successful navigation, allowing them to reach destinations safely and easily. Bicycle wayfinding consists of several interrelated components, from signage and pavement markings to map kiosks and mobile apps. Signage plans consistent with the California Manual of Uniform Traffic Control Devices (MUTCD-CA) help bicycle riders to reach destinations safely and easily. More detailed and/or branded wayfinding features where the LA River bicycle path begins may be appropriate in order to accommodate vicinity maps, interpretive content, safety information, and other resources.

### ***Recommendation***

The city should develop and implement a wayfinding signage plan, and consider adding more detailed wayfinding features along the LA River bicycle path.

## Bike Week

Bike Week is a regional event that promotes bicycling to work and is typically held in May. Los Angeles County Metro hosts Bike Week and organizes several events.

Popular events include:

- » Bike to Work Day (typically the 3rd Thursday of the month)
- » Workshops
- » Community-hosted events
- » City rides

### ***Recommendation***

The city should work with employers to promote Bike Week events happening in the LA region and motivate employees to participate in Bike to Work Day. The city can also promote Bike Week events to its own employees and at Vernon City Elementary, and advertise in the Vernon Sun.

## Employer-Based Encouragement Programs

Though the city cannot host these programs, it can work with or provide information to employers about commuting by bicycle. Popular employer-based encouragement programs include hosting a bicycle user group to share information about how to bicycle to work and to connect experienced bicycle riders with novice bicycle riders. Employers can also host bicycle classes, lunchtime rides, install conveniently



located bicycle parking, provide bicycle maintenance tools, offer parking cash-out programs, and provide other bicycle facilities, such as showers and changing rooms, for employees. Some employers who provide subsidized parking for their employees are actually required by California State law to offer employees cash instead of a parking space if the employee prefers. Under the Federal Bicycle Commuter Act, employers can also deduct from their own taxable income if they provide financial incentives or facilities that enable their employees to bike to work.

Employers responding to the survey indicated they would be willing to provide facilities if bicycle infrastructure were improved in the city.

### ***Recommendation***

The city should collaborate with employers to implement bicycle-related programs.

## **Monthly Walk and Roll Days**

Walk and Roll to School Days are events to encourage students to try walking or bicycling to school. The most popular events of this type are International Walk to School Day (held in early October) and Bike to School Day (held in early May). Many communities have expanded on this once a year event and hold monthly or weekly events such as Walk and Roll the First Friday (of every month) or Walk and Roll Wednesdays (held every Wednesday). The Los Angeles Unified School District's holds an annual Walk to School Day.

### ***Benefits***

Participation in Monthly Walk and Roll Days can benefit the Vernon community by:

- » Building community
- » Saving parents' money by not using a car
- » Reducing traffic congestion around the school

### ***Recommendation***

The city should work with Vernon Elementary City School to participate in the Los Angeles Unified School District's Walk to School Day.

## **ENFORCEMENT PROGRAMS**

Enforcement programs enforce legal and respectful use of the transportation network. These programs will help educate motorists, bicycle riders and pedestrians about the rules and responsibilities of the road.





## Voluntarily Register Bicycles

Vernon should encourage residents to voluntarily register their bicycles on the free National Bike Registry. Law enforcement use this national database to identify stolen bicycles and return to their owners.

### *Recommendation*

The city should encourage bicycle registration by partnering with employers and including a link on their Bicycle Education webpage.

## LA River-Specific Enforcement

According to the public surveys, those working and living in Vernon are concerned about personal safety along the LA River. The risk of theft or violent confrontation makes potential bicycle riders uneasy and less willing to ride a bicycle. The existing Class I shared use path and undercrossings along the Los Angeles River have been identified as problem spots.

It is recommended that the city invest in security cameras and improve lighting along the corridor to increase both perceived and actual user safety. These cameras should be monitored by the Los Angeles County Sheriff's Department and should be accompanied by enhanced enforcement efforts around camera locations.

### *Recommendation*

The city should consider developing a program to improve safety along the LA River, which could include installing security cameras, improving lighting, and increasing patrols in the area.

## Targeted Enforcement

Targeted enforcement is a focused effort by law enforcement agencies to enforce laws that create safe conditions for all road users, minimize conflicts between modes and educate road users on sharing the road. Targeted enforcement can include intersection patrols, handing out informational materials and enforcing speed limits and safe behaviors of both bicyclists and drivers. Information should be distributed in both English and Spanish.

### *Recommendation*

The city should develop a targeted enforcement program for both bicyclists and drivers to encourage safe conditions for all road users.

## Bicycle Helmet and Light Giveaways

Members of the public noted that insufficient lighting discourages them from biking to and from work, and bicycle lights are required for nighttime riding in California (CVC21201). These types of programs are typically conducted in partnership with the police department.



The Los Angeles County Bicycle Coalition manages “Operation Firefly,” an education and bicycle light distribution program which organizes groups of volunteers to meet for “street distributions” at undisclosed locations throughout Los Angeles where night-time bicycle ridership is expected to be high.

### ***Recommendation***

The city should continue to partner with LACBC to conduct Operation Firefly in or near Vernon, specifically targeting likely commuter travel routes near large Vernon employers and along the LA River.

## **EVALUATION PROGRAMS**

Evaluation programs help the city measure how well it is meeting the goals of this Plan and the General Plan, and evaluation is a key component of any engineering or programmatic investment. It is also a useful way to communicate success with elected officials as well as local residents and the business community.

### **Annual Collision Data Review**

Reviewing bicycle rider-involved collisions and near-misses on an annual basis can help the city identify challenging intersections or corridors. This review should include an assessment of the existing infrastructure to determine whether improvements can be made to reduce the number of collisions in the community.

### ***Recommendation***

The city and police department should review bicycle-involved collision data on an annual basis to identify needed improvements. The city and the police department should also collaborate to develop a way for community members to report near misses.

### **Annual Surveys**

In order to track bicycling trends over time and to evaluate the impact of bicycle projects, policies and programs, the City of Vernon should partner with employers, city departments and the school to distribute surveys to measure ‘attitudes’ about bicycling. These surveys should evaluate if workers and residents are reacting positively or negatively to new bicycle facilities and programs.

### ***Recommendation***

The city should distribute annual surveys to evaluate responses to bicycle infrastructure improvements and programming and consider how these responses should change the city’s tactics.



Operation Firefly finds annual or seasonal sponsors to cover the cost of bicycle lights



# CHAPTER 5: INFRASTRUCTURE IMPROVEMENTS

This chapter presents the infrastructure improvements recommended to create a safe, accessible, and connected bicycle network in Vernon. A diverse mix of facilities are recommended to create comprehensive network including on-road bicycle facilities and shared-use paths.

The recommendations directly reflect the information collected and presented in the existing conditions chapter related to existing planning efforts, safety, public input, and demand.

## RECOMMENDED BIKEWAY PROJECTS

A variety of on and off-street bicycle facilities are recommended to accommodate 1) the range of abilities and comfort levels of bicyclists; 2) the range of conditions for bicycling on different roadway environments; and 3) local preferences identified through the public input process. The recommended bicycle network intends to separate bicyclists from motor vehicle traffic as much as possible by recommending the following types of facilities and studies:

- » Shared-use Paths
- » Bicycle Lanes
- » Separated Bicycle Lanes

## Bikeway Facility Types

### ***Class I Shared-Use Path***

A shared-use path allows for two-way, off-street bicycle use and also may be used by pedestrians, skaters, wheelchair users, joggers and other non-motorized users (Figure 5-1). Path facilities can include amenities such as lighting, signage, and fencing (where appropriate). In situations where high user volumes are anticipated, separate treads should be provided to separate faster users (bicyclists) from slower users (pedestrians). Key features of shared-use paths include:

- » Frequent access points from the local road network
- » Directional signs to direct users to and from the path.
- » A limited number of at-grade crossings with streets or driveways.
- » Terminating the path where it is easily accessible to and from the street system.
- » Separate treads for pedestrians and bicyclists when heavy use is expected

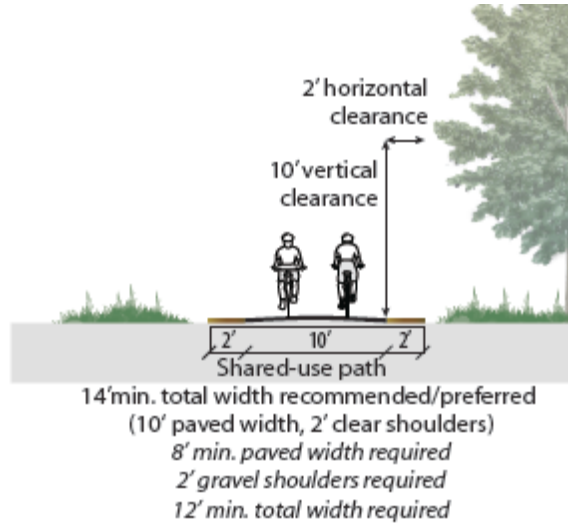


Figure 5-1: Standard Class I Share-Use Path (Caltrans)

### Class II Bicycle Lane

A bicycle lane is a portion of the roadway that has been designated by striping, signing, and pavement markings for the preferential and exclusive use of bicyclists. Bicycle lanes are typically located on both sides of the road (except one-way streets), and commonly carry bicyclists in the same direction as adjacent motor vehicle traffic (Figure 5-2)

Bicycle lanes can be enhanced by adding buffer striping. Buffered bicycle lanes are bicycle lanes paired with a designated buffer space, separating the bicycle lane from the adjacent motor vehicle travel lane and/or parking lane.

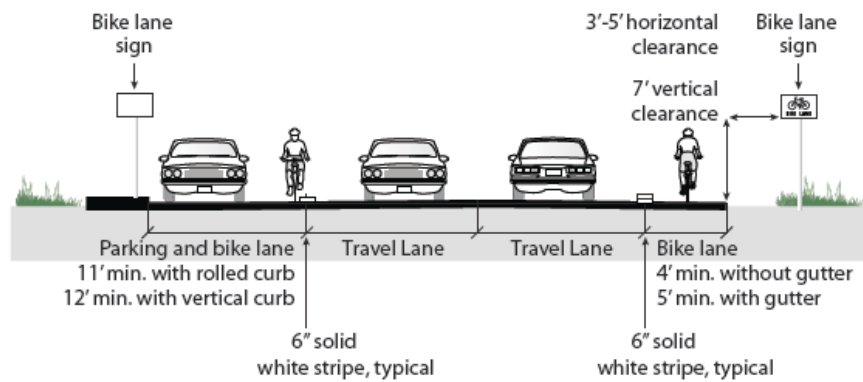


Figure 5-2: Standard Class II Bicycle Lane (Caltrans)



### Class IV Separated Bikeway

Class IV Separated Bikeways are a new class of bicycle facility, and Caltrans is currently developing design guidance for California communities. Class IV bikeways are on-street bicycle facilities that are separated from vehicle traffic by some kind of physical protection— including a curb, flexible bollards or concrete planters (Figure 5-3). In many cases, separated bikeways can be made compatible with adjacent on-street parking.

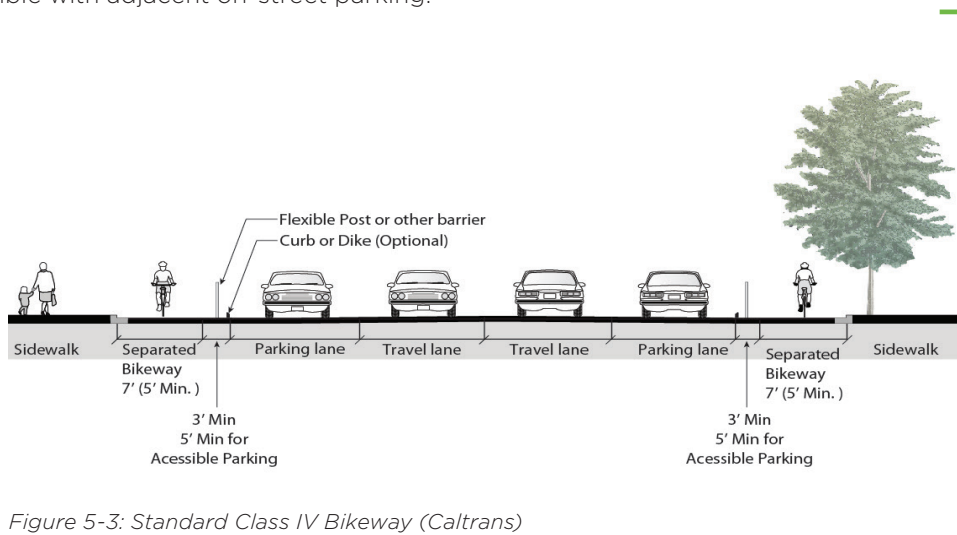


Figure 5-3: Standard Class IV Bikeway (Caltrans)

## FEASIBILITY ANALYSIS

Project feasibility was assessed in terms of impacts of possible existing pavement width reallocation to provide safer bikeways. This process was guided by the FHWA Safety Program’s Road Diet Informational Guide. It confirms that Road Diets on four lane undivided arterials that carry less than 20,000 average daily traffic (ADT) can provide safer operations for all modes of travel. Road diets can appropriately accommodate freight movements while also serving other transportation users.

For all preliminary proposed bicycle corridors an early concept was identified to remove existing two-way left turn lanes and reallocate that pavement width for bicycle infrastructure. This was determined to be infeasible due to the impacts of left turn vehicles attempting to access adjacent properties. The left turn vehicles, while waiting for a safe gap in oncoming traffic, would effectively block the number one through lane from use. Further congestion would be expected from vehicles changing lanes to not be blocked by the left turning vehicle.

Other options were developed where the two-way left turn lane would be retained and one through lane would be removed for pavement reallocation to bicycle facilities. In order to facilitate this analysis, the least congested through traffic movements were identified at the 11 intersections where 2016 peak period count data was collected, and the Highway Capacity Manual analysis was rerun to forecast impacts of the



These are shown in Table 5-1, where reference under the Alternative columns indicates the reduction of one through lane to accommodate potential bicycle facilities.

As shown in Table 5-1, many of the preliminary proposed bicycle network corridors are forecast to result in peak period LOS F. This makes unlikely the feasibility of bikeway infrastructure along some corridors.

**Table 5-1: Intersection Volume/Capacity and LOS for 2016 Base Conditions and Lane Reduction Alternatives for Bikeways**

Intersection	2016 - No Build	Alternative 1	Alternative 2	Alternative 3
Alameda St & Slauson Ave LOS (AM/PM)	B/B	B/B		
Santa Fe Ave & 25th/26th St LOS (AM/PM)	C/D	-1 SBT F/F		
Santa Fe Ave & Vernon Ave/Pacific Blvd LOS (AM/PM)	C/D	-1 NBT F/F		
Pacific Blvd & Leonis Blvd * HCM 2000 LOS (AM/PM)	B*/C*	B*/C*		
Soto St & 26th St LOS (AM/PM)	C/C	-1 SBT F/F		
Soto St & 37th St/Bandini Blvd LOS (AM/PM)	E/E	-1 SBT F/F		
Soto St & Leonis Blvd LOS (AM/PM)	D/C	-1 SBT & -1 EBT E/F	-1 EBT D/D	-1 SBT E/F
Boyle Ave & Leonis Blvd LOS (AM/PM)	B/B	-1 EBT B/C		
Boyle Ave & Slauson Ave LOS (AM/PM)	E/E	-1 SBT & -1 EBT F/F	-1 SBT E/F	-1 EBT F/F
State St/Boyle Ave & Randolph St LOS (AM/PM)	C/B	C/B		

SBT: Southbound Travel Lane, EBT: Eastbound Travel Lane, NBT: Northbound Travel Lane

The Feasibility analysis determined the following as bikeway corridors:

- Los Angeles River Class I facility parallel and south of the river for a 3 mile segment between Slauson Avenue and 26th Street.
- Burlington Northern/Santa Fe rail track Class I for the section traversing north-south for a 1.3 mile segment between Fruitland Avenue and E. 23rd Street would enable bicycle access to several businesses.
- Union Pacific rail tracks Class I for the nearly two mile north-south segment through the City, providing cycle commute options for several businesses.
- Pacific Boulevard for the 0.5 mile section between Leonis Boulevard and Santa Fe Avenue is a six-lane arterial that is forecast to carry 18,000 vehicles per day. This is another candidate for road diet treatment.



- Leonis Avenue for the 1.2 mile section between Pacific Boulevard and Downey Road is a four-lane undivided arterial that is forecast to carry between 13,000 and 19,000 vehicles per day by year 2030. This appears to be an ideal candidate for road diet treatment and striping of Class IV bike lanes.
- Vernon Avenue for the 0.5 mile segment between Santa Fe Avenue and Alameda Street is a four-lane undivided arterial forecast to serve 17,000 to 18,000 vehicles per day by 2030. This is another candidate for road diet treatment to reallocate existing pavement to implement a Class IV cycletrack.
- Vernon Avenue for the 1.5 mile segment between Santa Fe Avenue and to Downey/UPSP is a four-lane arterial that is forecast to serve 9,000 to 12,000 vehicle per day by 2030. This is another candidate for road diet treatment.
- 37th Street for the 0.5 mile segment between the Burlington Northern/Santa Fe Class I trail and Soto Street is a four-lane divided arterial that is forecast to carry 15,000 to 20,000 vehicles per day by 2030. A Class IV two-way cycle track should provide a connection to the Los Angeles River trail.
- District Boulevard for the 1.4 mile segment between Downey Road and Atlantic Boulevard is a four-lane median divided facility that is forecast to serve 23,000 to 35,000 vehicle per day. It appears to be feasible for Class IV bike lanes between Downey Road and Fruitland Avenue.

Table 5-2 and Table 5-3 show a summary of the recommended bikeways by class and the recommended projects by type and length.

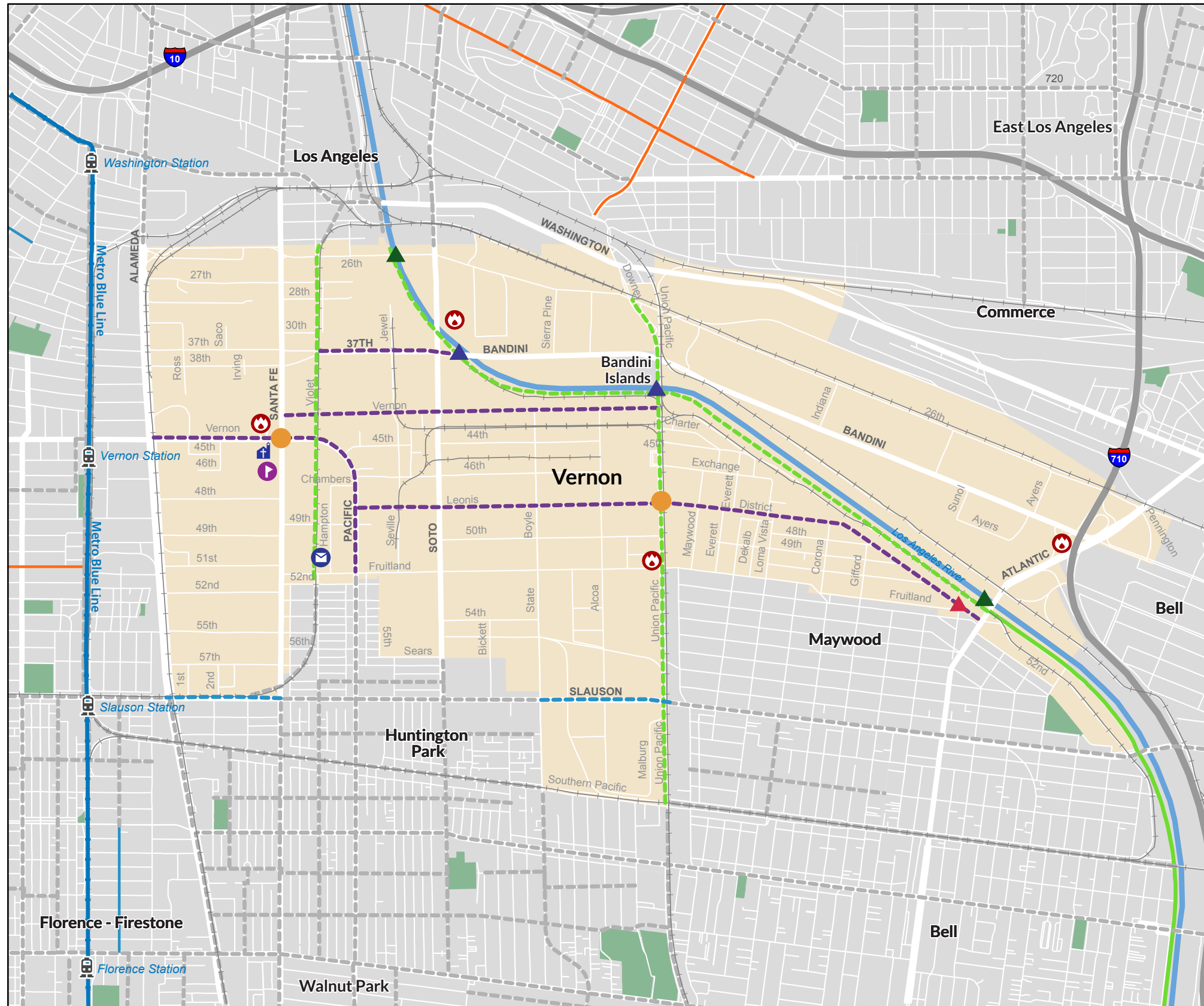
**Table 5-2: Summary of Recommended Bikeways by Class**

Class	Facility Type	Miles
I	Shared-Use Paths	6.3
II	Bicycle Lanes	0.9
IV	Separated Bike Lanes	5.9
<b>Total mileage</b>		<b>13.1</b>

**Table 5-3: Recommended Bikeway Projects**

Segment	Start	End	Facility Type	MI
Union Pacific ROW	26th Street	Randolph Street	Class I Shared-Use Path	2.0
BNSF ROW	North City Limits	South City Limits	Class I Shared-Use Path	1.3
LA River Bikeway	North City Limits	Atlantic Boulevard	Class I Shared-Use Path	3.0
Slauson Avenue	Alameda Street	Santa Fe Avenue	Class II Bicycle Lane	0.4
Slauson Avenue	Boyle Avenue	Downey Road	Class II Bicycle Lane	0.5
Vernon Avenue	Alameda Street	Santa Fe Avenue	Class IV Cycletrack	0.5
Vernon Avenue	Santa Fe Avenue	Downey Road	Class IV Cycletrack	1.5
Leonis Avenue	Pacific Boulevard	Downey Road	Class IV Cycletrack	1.2
District Boulevard	Downey Road	Atlantic Boulevard	Class IV Cycletrack	1.4
Pacific Boulevard	Santa Fe Avenue	Fruitland Avenue	Class IV Cycletrack	0.7
37th Street	BNSF ROW	LA River Path	Class IV Cycletrack	0.6
<b>Total mileage</b>				<b>13.1</b>





### Recommended Bikeway Network City of Vernon Bicycle Master Plan

#### Bikeway Facilities

- |          |          |  |
|----------|----------|--|
| Existing | Proposed | Class I Shared-Use Path                              |
|          |          | Class II Bicycle Lanes                               |
|          |          | Class III Bicycle Routes                             |
|          |          | Class IV Separated Bike Lane                         |
|          |          | Proposed LA River Access                             |
|          |          | Proposed LA River Access/Crossing                    |
|          |          | Proposed Traffic Calming                             |
|          |          | Currently Planned Bikeways in Adjacent Jurisdictions |

#### Public Transit

- |  |                                     |
|--|-------------------------------------|
|  | Metro Blue Line Station             |
|  | Metro Blue Line                     |
|  | Potential Eco-Rapid Transit Station |

#### Amenities

- |  |                    |
|--|--------------------|
|  | Park or Open Space |
|  | Vernon City Limits |
|  | Railroad Line      |
|  | Emergency Services |
|  | School             |
|  | Post Office        |
|  | Church             |



Figure 5-4:  
Recommended  
Bikeway Network



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The city acknowledges that bicycle infrastructure with physical separation from motor vehicles is especially important on high-speed, high-volume roadways with large vehicles such as trucks and buses. For that reason, the recommended bikeway network is mostly comprised by Class I shared use paths and Class IV separated bicycle lanes, infrastructure with high degree of separation from motor vehicles. Class II bicycle lanes are recommended on Slauson Avenue to provide regional connectivity in accordance to the Metro Active Transportation Strategic Plan.

The recommended network will provide north-south bicycle connectivity within the city through shared-use paths and east-west connectivity through on-street facilities. In addition, the proposed protected bicycle lanes will provide connectivity to the Metro Blue Line Station and the majority of services and public buildings in Vernon, such as City Hall, Vernon City Elementary School, and the church.

## CROSS SECTIONS

Street cross-sections were created specifically for Vernon Avenue in order to provide a graphic representation of the improvements at different conditions. For Instance, Figure 5-5 shows the proposed street configuration of Vernon Avenue between Alameda Street and Santa Fe Avenue. Figure 5-6 shows a more constrained segment of Vernon Avenue, between Santa Fe Avenue and Downey Road. Finally, Figure 5-7 shows the intersection of Vernon Avenue at Soto Street. In order to maintain the left turn lanes on Vernon Avenue, it will be necessary to end the separated bikeway approximately 100” before each intersection and add sharrow markings to make clear that for a short segment vehicles, trucks, and bikes will share the road. The separated bikeway will start again once the left turn lane disappears.

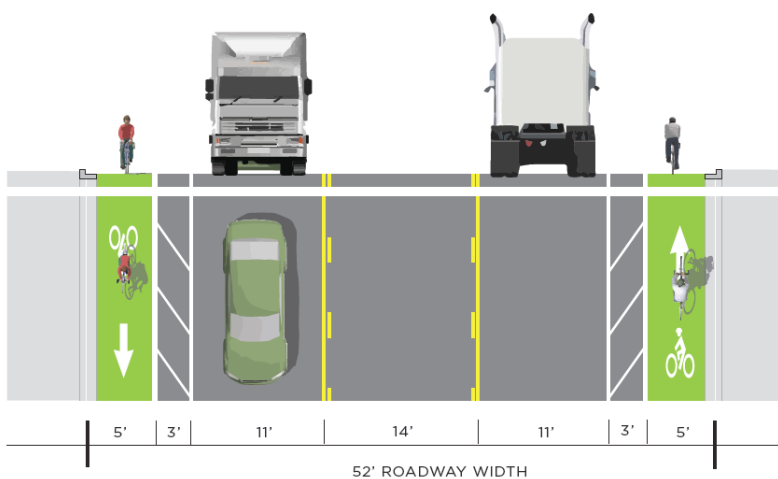


Figure 5-5: Vernon Avenue between Alameda Street and Santa Fe Avenue

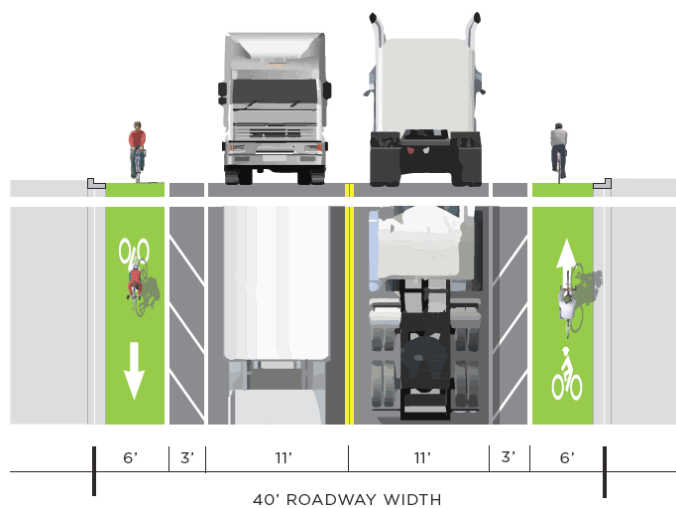


Figure 5-6: Vernon Avenue between Santa Fe Avenue and Downey Road

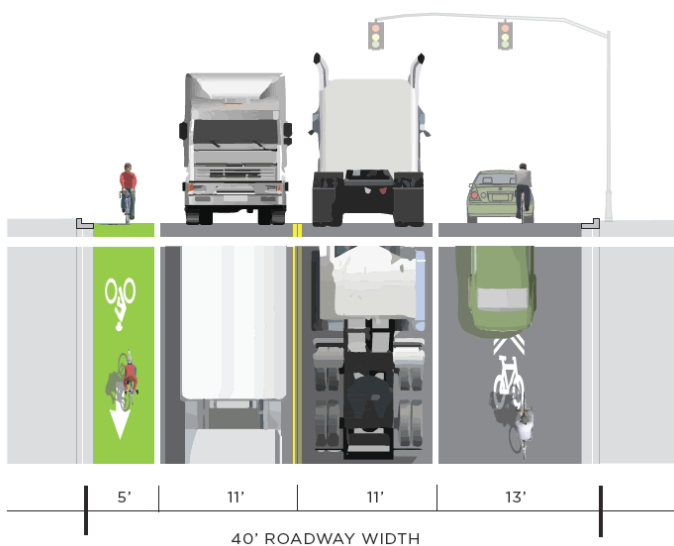


Figure 5-7: Vernon Avenue at Soto Street (Eastbound)

## RECOMMENDED CITYWIDE PROJECTS

### Bicycle Detection at Traffic Signals

Detection of bicyclists at actuated traffic signals is important for safety of bicyclists and motorists. The California Manual on Uniform Traffic Control Devices (CA MUTCD) requires all new and modified traffic signals be able to detect bicyclists with passive detection (rather than having to push a button).

#### **Recommendation**

This Plan recommends that the City of Vernon adhere to this requirement by providing passive detection of bicyclists at signalized intersections.

### Bicycle Wayfinding

Bicycle wayfinding assists residents, tourists and visitors in finding key community destinations. An easily navigable network includes signs and pavement markings placed at decision points along designated bikeways. A successful wayfinding program can enhance efforts to promote bicycling in the city. Signs may also include information about distances and destinations.



### **Recommendation**

This Plan recommends the development of a bicycle wayfinding program that offers guidance to destinations including schools, parking, parks, and civic buildings.

## **End-of-Trip Facilities**

Bicycle parking is critical in promoting bicycling. Convenient, easily-used, and safe bicycle parking enables people to complete more trips by bicycle. Bicycle parking ranges from simple bicycle racks or bicycle corrals to bicycle lockers or cages that protects against weather, vandalism, and theft. As previously mentioned, the city does not have a bicycle parking inventory and there has been no known public investment in bicycle parking.

Across the city, people who visit parks, schools, retail stores, employment centers, and more on bicycles experience a shortage of bicycle parking. As a result, they may lock their bicycles to street fixtures such as trees, telephone poles, and sign poles.

There are other ends of trip facilities important to have a comprehensive bicycle network such as repair stations and hydration stations. Repair stations help to provide the tools where the people need them for public bike maintenance and repair. Hydration stations are essential for preventing dehydration of the bicycle network users and can be a good feature to enhance bicycle riding throughout the city.

### **Types of Bicycle Parking**

Bicycle parking can be categorized into short-term and long-term parking. Bicycle racks are the preferred device for short-term bike parking. These racks serve people who leave their bicycles for relatively short periods of time - typically for shopping, errands, eating or recreation. Bicycle racks provide a high level of convenience and moderate level of security. Other types of short-term parking devices are bicycle corrals- a cluster of bike racks installed within a single vehicle parking space. Types of bicycle racks can be seen below in Figure 5-8.

Long-term bike parking includes bike lockers and bike rooms that serve people who intend to leave their bicycles for longer periods of time. Long-term parking is typically found in public transit stations and commercial buildings. These facilities provide a high level of security but are less convenient than bicycle racks.

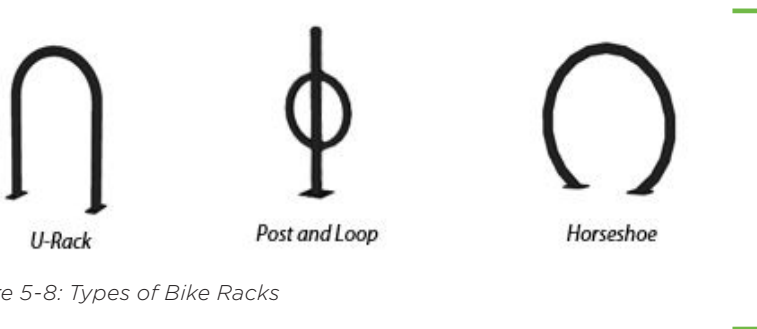


Figure 5-8: Types of Bike Racks



## Implementation Plan

### BIKEWAY IMPLEMENTATION AND MAINTENANCE COSTS

Tables 5-4, 5-5, and 5-6 present planning level cost assumptions used to determine project cost estimates. Unit costs are typical or average costs informed by previous experience working with California communities. These tables also show typical maintenance costs for bikeway facilities, which commonly involve repaving, debris removal, vegetation trimming, and sign replacement.

Appendix A describes several potential funding sources that could aid the city in implementing this Plan.

**Table 5-4: Shared-Use Paths Implementation and Maintenance Cost Estimates**

Segment	Start	End	MI	Implementation	Operation and Maintenance
Union Pacific ROW	26th Street	Randolph Street	2.0	\$773,334	\$13,481
BNSF ROW	North City Limits	South City Limits	1.3	\$499,077	\$8,775
<b>Total</b>				<b>\$1,272,411</b>	<b>\$22,256</b>

**Table 5-5: Bicycle Lanes Implementation and Maintenance Cost Estimates**

Segment	Start	End	MI	Implementation	Operation and Maintenance
Slauson Avenue	Alameda Street	Santa Fe Avenue	0.4	\$36,000	\$2,000
Slauson Avenue	Boyle Avenue	Downey Road	0.5	\$45,000	\$2,500
<b>Total</b>				<b>\$81,000</b>	<b>\$4,500</b>

**Table 5-6: Separated Bikeways Implementation and Maintenance Cost Estimates**

Segment	Start	End	MI	Implementation	Operation and Maintenance
Vernon Avenue	Alameda Street	Santa Fe Avenue	0.5	\$158,053	\$3,270
Vernon Avenue	Santa Fe Avenue	Downey Road	1.5	\$245,714	\$9,490
Leonis Avenue	Pacific Boulevard	Downey Road	1.2	\$155,660	\$7,800
District Boulevard	Downey Road	Atlantic Boulevard	1.4	\$129,549	\$8,970
Pacific Boulevard	Santa Fe Avenue	Fruitland Avenue	0.7	\$97,178	\$4,778
37th Street	BNSF ROW	LA River Path	0.6	\$155,870	\$3,575
<b>Total</b>				<b>\$942,024</b>	<b>\$37,883</b>



# CHAPTER 6: FUNDING

## FUNDING OPPORTUNITIES

A variety of options exist to further plan, design, and construct bicycle transportation projects, including funding from federal, state, regional, local, and private sources. This section provides information on potential funding sources to support agency efforts to find outside funding sources to implement bicycle improvements.

### Federal Sources

#### Fixing America's Surface Transportation Act (FAST Act)

The FAST Act, which replaced Moving Ahead for Progress in the 21st Century Act (MAP-21) in 2015, provides long-term funding certainty for surface transportation projects, meaning States and local governments can move forward with critical transportation projects with the confidence that they will have a Federal partner over the long term (at least five years).

The law makes changes and reforms to many Federal transportation programs, including streamlining the approval processes for new transportation projects and providing new safety tools. It also allows local entities that are direct recipients of Federal dollars to use a design publication that is different than one used by their State DOT.

#### MAP-21 – Surface Transportation Program

A wide variety of bicycle and pedestrian improvements are eligible, including on-street bicycle transportation facilities, off-street trails, sidewalks, crosswalks, bicycle and pedestrian signals, parking, and other ancillary facilities.

#### **MAP-21 – Congestion Mitigation and Air Quality Improvement Program (CMAQ)**

The amount of CMAQ funds depends on the state's population share and on the degree of air pollution. Recent revisions were made to bring CMAQ in line with the new MAP-21 legislation. There is a broader emphasis on projects that are proven to reduce PM-2.5. Eligible projects include: "Constructing bicycle and pedestrian facilities (paths, bicycle racks, support facilities, etc.) that are not exclusively recreational and reduce vehicle trips; (and) non-construction outreach related to safe bicycle use." Studies that are part of the project development pipeline (e.g., preliminary engineering) are eligible for funding. "An assessment of the project's expected emission reduction benefits should be completed prior to project selection."





### **Bus and Bus Facilities Program: State of Good Repair**

Can be used for projects to provide access for bicycles to public transportation facilities, to provide shelters and parking facilities for bicycles in or around public transportation facilities, or to install equipment for transporting bicycles on public transportation vehicles.

### **Surface Transportation Block Grant (STBGP)**

The FAST Act expanded the existing Surface Transportation Program (STP) into the Surface Transportation Block Grant Program (STBGP) which places more decision-making power in the hands of state and local governments. The FAST Act simplifies the list of uses eligible for program funds and increases the ways that funds can be used for local roads and rural minor collectors. The Transportation Alternatives Program (TAP) is a set-aside program of this block grant. The new program requires 55 percent of program funds be distributed within each state on the basis of population, compared to 50 percent under STP.

In California, STBGP is allocated through the Regional Surface Transportation Program (RSTP). The TAP program is allocated through the Active Transportation Program (ATP).

### **New Opportunities for Bicycle and Pedestrian Infrastructure Financing Act**

A proposed bill in Congress to set aside one percent of TIFIA's \$1 billion for bicycle and pedestrian infrastructure projects, such as the conversion of abandoned rail corridors for trails, bicycle signals, and path lighting. For these projects, TIFIA's minimum project cost would be \$2 million. Eligible costs include: planning & feasibility studies, construction, and land acquisition. The bill reserves 25 percent of project funding for low-income communities.

### **Highway Safety Improvement Program**

The FAST Act eliminates the ability of states to shift funds designated for infrastructure safety programs to behavioral or educational activities, ensuring resources remain in construction-related programs. It also designates several new safety improvements eligible for funding including vehicle-to-infrastructure communication and roadway improvements that provide separation between pedestrians and motor vehicles.

With regards to unpaved roads, the FAST Act allows states to "opt out" of collecting safety inventory data for unpaved/gravel roads if certain conditions are met, as long as the states continue to collect data related to serious crashes and fatalities. It also requires that U.S. DOT to review data and report to Congress on best practices for roadway infrastructure improvements that enhance commercial motor vehicle safety.



HSIP is a data-driven funding program, and eligible projects must be identified through analysis of crash experience, crash potential, crash rate, or other similar metrics. Infrastructure and non-infrastructure projects are eligible for HSIP funds. Bicycle and pedestrian safety improvements, enforcement activities, traffic calming projects, and crossing treatments for active transportation users in school zones are examples of eligible projects. All HSIP projects must be consistent with the state's Strategic Highway Safety Plan. In California, HSIP is administered by Caltrans.

### **Partnership for Sustainable Communities**

Founded in 2009, the Partnership for Sustainable Communities is a joint project of the Environmental Protection Agency (EPA), the U.S. Department of Housing and Urban Development (HUD), and the U.S. Department of Transportation (USDOT). The partnership aims to “improve access to affordable housing, provide more transportation options, and lower transportation costs while protecting the environment in communities nationwide.” The Partnership is based on five Livability Principles, one of which explicitly addresses the need for bicycle and pedestrian infrastructure - “Provide more transportation choices: Develop safe, reliable, and economical transportation choices to decrease household transportation costs, reduce our nation’s dependence on foreign oil, improve air quality, reduce greenhouse gas emissions, and promote public health.” The Partnership is not a formal agency with a regular annual grant program. Nevertheless, it is an important effort that has already led to some new grant opportunities (including the TIGER grants). The San Gabriel Valley Council of Governments and Caltrans should track Partnership communications and be prepared to respond proactively to announcements of new grant programs.

### **Rivers, Trails, and Conservation Assistance Program**

The Rivers, Trails and Conservation Assistance Program (RTCA) is the community assistance arm of the National Park Service. RTCA provides technical assistance to communities in order to preserve open space and develop trails. The assistance that RTCA provides is not for infrastructure, but rather building plans, engaging public participation, and identifying other sources of funding for conversation and outdoor recreation projects.

### **Community Development Block Grants**

The Community Development Block Grants (CDBG) program provides money for streetscape revitalization, which may be largely comprised of pedestrian improvements. Federal CDBG grantees may “use Community Development Block Grant funds for activities that include (but are not limited to): acquiring real property; building public facilities and improvements, such as streets, sidewalks, community and senior citizen centers and recreational facilities; paying for planning and administrative expenses, such as costs related to developing a consolidated plan and



managing Community Development Block Grant funds; provide public services for youths, seniors, or the disabled; and initiatives such as neighborhood watch programs.” Trails and greenway projects that enhance accessibility are the best fit for this funding source.

### **Community Transformation Grants**

Community Transformation Grants administered through the Centers for Disease Control (CDC) support community-level efforts to reduce chronic diseases such as heart disease, cancer, stroke, and diabetes. Active transportation infrastructure and programs that promote healthy lifestyles are a good fit for this program, particularly if such improvements benefit groups experiencing the greatest burden of chronic disease.

### **National Scenic Byways Program**

The Federal Highway Administration (FHWA), part of the USDOT manages the National Scenic Byways Grant Program, which recognizes roads having outstanding scenic, historic, cultural, natural, recreational, and archaeological qualities by providing grants that support projects that manage and protect these roads and improve visitor facilities.

### **Transportation Investments Generating Economic Recovery (TIGER) Program**

Can be used for innovative, multimodal and multi-jurisdictional transportation projects that promise significant economic and environmental benefits to an entire metropolitan area, a region, or the nation. These include bicycle and pedestrian projects. Project minimum is \$10 million.

### **U.S. Environmental Protection Agency – Brownfields Program**

Assessment grants provide funding for a grant recipient to inventory, characterize, assess, and conduct planning and community involvement related to brownfields sites. Revolving Loan Fund (RLF) grants provide funding for a grant recipient to capitalize a revolving loan fund and to provide sub-grants to carry out cleanup activities at brownfield sites.

## **State Sources**

### **Active Transportation Program**

With the consolidation of federal funding sources in MAP-21 and again under the FAST Act, the California State Legislature has consolidated a number of state-funded programs centered on active transportation into a single program. The resulting Active Transportation Program (ATP) consolidated the federal programs, Bicycle Transportation Account, the Safe Routes to Schools Program, and the Recreational Trails Program.



The ATP's authorizing legislation (signed into law by the Governor on September 26, 2013) also includes placeholder language to allow the ATP to receive funding from the newly established Cap-and-Trade Program in the future. The Statewide Competitive ATP has \$180 million available statewide for the 2014/2015 and 2015/2016 fiscal cycles. The Regional Competitive ATP will have additional funding available for the SCAG region in the 2014/2015 and 2015/2016 fiscal cycles. The California Transportation Commission writes guidelines and allocates funds for the ATP, while the ATP will be administered by the Caltrans Division of Local Assistance. Goals of the ATP are currently defined as the following:

- Increasing the proportion of trips accomplished by biking and walking;
- Increasing safety and mobility for active transportation users;
- Advancing active transportation efforts of regional agencies to achieve the greenhouse gas reduction goals;
- Enhancing public health;
- Ensuring that disadvantaged communities fully share in the benefit of the program; and,
- Providing a broad spectrum of projects to benefit many types of active transportation users.

### **State Transportation Improvement Program (STIP)**

Funds new construction projects that add capacity to the transportation network. STIP consists of two components, Caltrans' Interregional Transportation Improvement Program (ITIP) and regional transportation planning agencies' Regional Transportation Improvement Program (RTIP). STIP funding is a mix of state, federal, and local taxes and fees. Bicycle and pedestrian projects may be programmed under ITIP and RTIP.

### **Caltrans Planning Grants**

Caltrans also administers the Transportation Planning Grant Program that funds projects to improve mobility and lead to the planning, programming, and implementation of transportation improvement projects. Most recently, Caltrans awarded \$10.0 million in grant funding to 70 applicants, in two sub-categories: Environmental Justice grants and Community Based Transportation Plan grants.

### **Environmental Justice Grant Program**

The Environmental Justice (EJ) Grant Program promotes the involvement of low-income, minority communities, and Native American tribal governments in the planning for transportation projects. EJ grants have a clear focus on transportation and community development issues to prevent or



mitigate disproportionate, negative impacts while improving mobility, access, safety, and opportunities for affordable housing and economic development. Grants are available to cities, counties, transit districts, and tribal governments.

### **Community Based Transportation Planning Grant Program**

The Community Based Transportation Planning (CBTP) grant program promotes transportation and land use planning projects that encourage community involvement and partnership. These grants include community and key stakeholder input, collaboration, and consensus building through an active public engagement process. CBTP grants support livable and sustainable community concepts with a transportation or mobility objective to promote community identity and quality of life.

### **Petroleum Violation Escrow Account**

In the late 1970s, a series of federal court decisions against selected United States oil companies ordered refunds to the states for price overcharges on crude oil and refined petroleum products during a period of price control regulations. To qualify for Petroleum Violation Escrow Account (PVEA) funding, a project must save or reduce energy and provide a direct public benefit within a reasonable time frame. In California, Caltrans Division of Local Assistance administers funds for transportation-related PVEA projects. PVEA funds do not require a match and can be used as match for additional federal funds.

### **Office of Traffic Safety (OTS) Grants**

The Office of Traffic Safety (OTS) distributes grants statewide to establish new traffic safety programs or fund ongoing safety programs. OTS grants are supported by federal funding under the National Highway Safety Act and MAP-21. Grants are used to establish new traffic safety programs, expand ongoing programs or address deficiencies in current programs. Bicycle safety is included in the list of traffic safety priority areas. Eligible grantees are governmental agencies, state colleges, state universities, local town and county government agencies, school districts, fire departments, and public emergency services providers. Grant funding cannot replace existing program expenditures, nor can traffic safety funds be used for program maintenance, research, rehabilitation, or construction. Grants are awarded on a competitive basis, and priority is given to agencies with the greatest need. Evaluation criteria to assess need include potential traffic safety impact, collision statistics and rankings, seriousness of problems, and performance on previous OTS grants. The California application deadline is January of each year. There is no maximum cap to the amount requested; however, all items in the proposal must be justified to meet the objectives of the proposal.



## **Environmental Enhancement and Mitigation Funds**

The Environmental Enhancement Mitigation Program (EEMP) provides grant opportunities for projects that indirectly mitigate environmental impacts of new transportation facilities. Projects should fall into one of the following three categories: highway landscaping and urban forestry, resource lands projects, or roadside recreation facilities. Funds are available for land acquisition and construction. The local Caltrans district must support the project. The average award amount is \$250,000.

## **Land and Water Conservation Fund**

The Land and Water Conservation Fund is a federal program that provides grants for planning and acquiring outdoor recreation areas and facilities, including trails. The fund is administered by the California State Parks Department. Cities, counties, and districts authorized to acquire and develop park and recreation space are eligible for grant funding. While non-profits are ineligible, they are allowed to apply in partnerships with eligible agencies. Applicants must fund the project entirely and will be reimbursed for half of the cost. Up to \$2.0 million was available in California in the 2012 round of grant funding.

## **California Strategic Growth Council**

The Strategic Growth Council is a state agency that manages the Sustainable Communities Planning Grant and Incentives Program, as well as the Affordable Housing and Sustainable Communities (AHSC) program. The first program provides grants for development and implementation of plans that lead to significant reductions in greenhouse gas emissions, improve air and water quality, promote public health, promote equity, increase housing affordability, increase infill and compact development, revitalize urban and community centers, protect natural resources and agricultural lands, reduce automobile usage and fuel consumption, improve infrastructure systems, promote water conservation, promote energy efficiency and conservation, and strengthen the economy. The second program provides funding for land use, housing, transportation, and land preservation projects to support infill and compact development that reduces greenhouse gas emissions.

## **Regional & Local Sources**

### **Clean Air Fund (AB 434/2766 - Vehicle Registration Fee Surcharge)**

Administered by SCAQMD. Local jurisdictions and transit agencies can apply. Funds can be used for projects that encourage biking, walking, and/or use of public transit. For bicycle-related projects, eligible uses include: designing, developing and/or installing bikeways or establishing new bicycle corridors; making bicycle facility enhancements/improvements by installing bicycle lockers, bus bicycle racks; providing assistance with bicycle loan programs (motorized and standard) for police officers, community members and the general public. Matching requirement: 10-15 percent.



### **Measure R Sales Tax Revenue Local Return**

Fifteen percent (15%) of the Measure R county sales tax is designated for use by local cities and the County of Los Angeles for transportation purposes, including bicycle-related uses such as infrastructure, signage, bicycle sharing, and education efforts.

### **Metro Call for Projects**

Every other year, Metro accepts Call for Projects applications in eight modal categories. The Call is a competitive process that distributes discretionary capital transportation funds to regionally significant projects. Capital funds are programmed 5 years out and typically provided, and design and right-of-way acquisition are eligible expenses as long as they are directly related and part of construction. So, a project awarded Call for Projects funds in 2016 would not be implemented until 2021.

### **Metro Open Streets Program**

Metro will allocate up to \$2 million annually, through a competitive application process, to fund local Open Streets events in Los Angeles County cities. The first cycle announced in 2014 funded 12 open streets events to occur in 2015 and 2016.

### **Metro Transit-Oriented Development Planning Grants**

\$5 million fund to spur the adoption of transit-supportive land use and other regulatory plans around station areas in order to increase access to and utilization of public transit. Eligibility is for Los Angeles County jurisdictions with land use authority within one-half mile of existing, planned, or proposed transit stations. The most recent cycle of application funding was approved in January 2015.

### **SCAG Sustainability Program**

SCAG provides financial and technical assistance to member agencies for integrated land use and transportation planning. The 2013-2014 Sustainability Program emphasized:

- » Projects that make measurable progress toward implementation
- » Assistance to communities for updating General Plans
- » Inter-jurisdictional and multi-stakeholder partnerships
- » Outreach and education to the community and stakeholders on sustainable development
- » Past Compass Blueprint partner jurisdictions may propose work that will move their plans closer to implementation.





## **Transportation Development Act (TDA)**

The TDA provides local agencies with two major sources of funding: the Local Transportation Fund (LTF) and the State Transit Assistance fund (STA). These funds contribute to the development and support of public transportation and are allocated to areas of each county based on population, taxable sales, and transit performance.

Administered by Metro in Los Angeles County, TDA Article 3 funds are allocated annually on a per capita basis to both cities and the County of Los Angeles for the planning and construction of bicycle and pedestrian facilities. Local agencies may either draw down these funds or place them on reserve. Agencies must submit a claim form to 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.

## **Developer Impact Fees**

As a condition for development approval, municipalities can require developers to provide specific infrastructure improvements, which can include bikeway projects. These projects have commonly provided Class II bicycle facilities for portions of on-street, previously-planned routes, and sidewalks. They can also be used to provide bicycle parking, shower and locker facilities, signal modifications, transit stop modifications, and stormwater modifications. The type of facility that should be required to be built by developers should reflect the greatest need for the particular project and its local area. Legal challenges to these types of fees have resulted in the requirement to illustrate a clear nexus between the particular project and the mandated improvement and cost.

## **Roadway, Construction, Repair and Upgrade**

Planned resurfacing and road diets are one means of combining motor vehicle, transit, bicycle, and pedestrian projects into one, multimodal construction project. To ensure that planned roadway construction projects considers ways to combine multiple multimodal projects, it is important adopt a complete streets policy that includes a review all facility types during the each phase of the project. This policy and review process should follow California's 2008 Complete Streets Act and Caltrans' 2014 Deputy Directive 64-R2 which require that the needs of all roadway users be considered during "all phases of state highway projects, from planning to construction to maintenance and repair."

## **Utility Projects**

By monitoring the capital improvement plans of local utility companies, it may be possible to coordinate upcoming utility projects with the installation of motor vehicle, transit, bicycle, and pedestrian infrastructure within the same area or corridor. Often times, utility companies will mobilize the same type of forces required to construct transportation projects, resulting in the potential for a significant cost savings. These types of joint projects require a



great deal of coordination, a careful delineation of scope items and some type of agreement or memorandum of understanding, which may need to be approved by multiple governing bodies.

### **Cable Installation Projects**

Cable television and telephone companies sometimes need new cable routes within public right-of-way. Recently, this has most commonly occurred during expansion of fiber optic networks. Since these projects require a significant amount of advance planning and disruption of travel lanes, it may be possible to request reimbursement for affected bicycle and pedestrian facilities to mitigate construction impacts. In cases where cable routes cross undeveloped areas, it may be possible to provide for new transportation facilities following completion of the cable trenching.

### **City of Vernon CommUNITY Fund**

The City of Vernon provides local non-profit organizations and local governments in the area with grants from the CommUNITY Fund to improve the quality of life in Vernon and neighboring communities. Grants range from \$5,000 to \$250,000 and can contribute to a variety of efforts, including those that “promote the health, safety and welfare” of residents and workers. In the past, the CommUNITY Fund has sponsored the Los Angeles County Bicycle Coalition’s “Operation Firefly” in the City of Vernon.

## **Private Sources**

### **PeopleForBikes Community Grant Program**

PeopleForBikes is a coalition of bicycle suppliers and retailers that has awarded \$2.9 million in community grants and leveraged an additional \$670 million since its inception in 1999. The community grant program funds bicycle paths and rail trails, as well as mountain bicycle trails, bicycle parks, BMX facilities, and large-scale bicycle advocacy initiatives. Spring 2015 grant awards ranged between \$800 and \$10,000 and contributed to greenway and other infrastructure projects, as well as bicycle parking and bicycle-related programming.



### **The Robert Wood Johnson Foundation**

The Robert Wood Johnson Foundation was established as a national philanthropy in 1972, and today, it is the largest U.S. foundation devoted to improving the health and health care of all Americans. Grant making is concentrated in four areas:

- » To assure that all Americans have access to basic health care at a reasonable cost
- » To improve care and support for people with chronic health conditions
- » To promote healthy communities and lifestyles
- » To reduce the personal, social and economic harm caused by substance abuse: tobacco, alcohol, and illicit drugs

### **The Wal-Mart Foundation**

The Wal-Mart Foundation offers a Local, State, and National Giving Program. The Local Giving Program awards grants of \$250 to \$5,000 through local Wal-Mart and Sam's Club Stores. Application opportunities are announced annually in February with a final deadline for applications in December. The State Giving Program provides grants of \$25,000 to \$250,000 to 501c3 nonprofits working within one of five focus areas: Hunger Relief & Nutrition, Education, Environmental Sustainability, Women's Economic Empowerment, or Workforce Development. The program has two application cycles per year: January through March and June through August. The Wal-Mart Foundation's National Giving Program awards grants of \$250,000 and more, but does not accept unsolicited applications.

### **The Kodak American Greenways Program**

The Conservation Fund's American Greenways Program has teamed with the Eastman Kodak Corporation and the National Geographic Society to award small grants (\$250 to \$2,000) to stimulate the planning, design, and development of greenways. These grants can be used for activities such as mapping, conducting ecological assessments, surveying land, holding conferences, developing brochures, producing interpretive displays, incorporating land trusts, and building trails. Grants cannot be used for academic research, institutional support, lobbying, or political activities.

### **Community Action for a Renewed Environment (CARE)**

CARE is a competitive grant program that offers an innovative way for a community to organize and take action to reduce toxic pollution in its local environment. Through CARE, a community creates a partnership that implements solutions to reduce releases of toxic pollutants and minimize people's exposure to them. By providing financial and technical assistance, EPA helps CARE communities get on the path to a renewed environment. Transportation and "smart-growth" types of projects are eligible. Grants range between \$90,000 and \$275,000.



### **Corporate Donations**

Corporate donations are often received in the form of liquid investments (i.e. cash, stock, bonds) and in the form of land. Employers recognize that creating places to bicycle and walk is one way to build community and attract a quality work force. Bicycling and outdoor recreation businesses often support local projects and programs. Municipalities typically create funds to facilitate and simplify a transaction from a corporation's donation to the given municipality. Donations are mainly received when a widely supported capital improvement program is implemented. Such donations can improve capital budgets and/or projects.

### **The Knight Cities Challenge**

From a pool of \$5 million, The Knight Cities Challenge looks to award grant at the city, neighborhood, and block level that attract and keep talented employees in a city, ideas that attempt to improve economic prospects for individuals, and ideas that encourage civic involvement. The grant program is funded by the Knight Foundation and the funds are distributed over an 18 month period.

### **Plan4Health Coalitions**

The American Planning Association (APA) and the American Public Health Association (APHA) received funding from the Centers for Disease Control and Prevention (CDC) to build local capacity in addressing population health goals and promoting the inclusion of health in non-traditional sectors such as transportation. Each proposal must address inactivity, unhealthy diets, and/or health equity. Awards will average \$150,000, and no more than two awards will be granted in a single state.

### **Other Sources**

Volunteer programs may be developed to substantially reduce the cost of implementing some routes, particularly shared-use paths. For example, a local college design class may use such a shared-use route as a student project, working with a local landscape architectural or engineering firm. Work parties could be formed to help clear the right of way for the route. A local construction company may donate or discount services beyond what the volunteers can do. And a challenge grant program with local businesses may be a good source of local funding through which the businesses (or residents) can "adopt" a route to help construct and maintain it.

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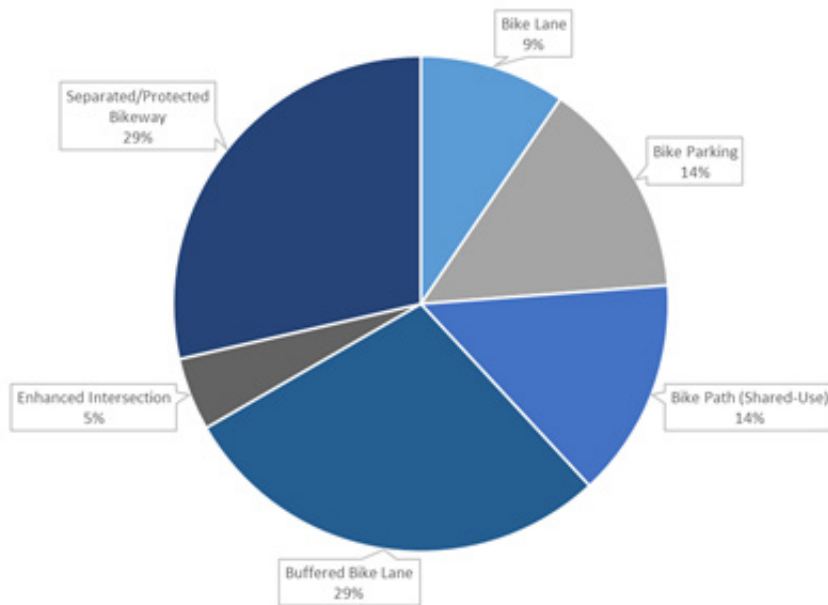
# APPENDIX 1: COMMUNITY OUTREACH

## STAKEHOLDER MEETING

On June 2, 2016, a meeting held at the Vernon Chamber of Commerce welcomed the business and residential community to provide input on the Vernon Bicycle Master Plan. The meeting consisted of a presentation reviewing the goals of the plan and need for community input as well as bicycle collision and bicycle infrastructure feedback boards. Members of the Vernon business community shared their thoughts regarding their preferred bicycle infrastructure and priority streets in the community. Community members had an opportunity to fill out a hard copies of the community survey.

As shown in Figure A1-1, separated/protected bikeways and buffered bike lanes were overwhelmingly chosen as top choices for preferred bicycle infrastructure. Stakeholders also identified bike paths and bike parking as bicycle infrastructure needed in Vernon.

**Figure A1-1: Preferred Bicycle Infrastructure**



Based on the number of surveys distributed to members of the community during this outreach effort, the roadways listed below received the majority of the community support to be recommended for the city’s bikeway network:

- » Santa Fe Avenue
- » Vernon Avenue
- » Pacific Boulevard
- » Soto Street
- » Downey Road
- » Atlantic Boulevard



## SABOR DE MÉXICO LINDO FESTIVAL

On October 1st and 2nd, 2016, Vernon hosted Sabor de México Lindo Downtown Festival, a community-wide event celebrating Latino culture through performances, food and games. There were over 50,000 people that attended this annual festival. Outreach for the Vernon Bicycle Master Plan was conducted through interactive display boards with maps, encouraging attendees to identify key intersections and streets that could be improved to accommodate safer bicycling conditions for all. Community members identified the following five primary streets that if improved, could help enhance bicycling safety:

- » Alameda St.
- » Santa Fe Ave.
- » Pacific Ave.
- » Soto St.
- » Downey Rd.

The community survey also offered an opportunity for community stakeholders to share their experiences about bicycling and their opinions on what infrastructure and amenities would encourage them to bike more. Members of the Los Angeles Conservation Corps collected over 300 survey responses from attendees throughout the festival.



Community outreach event in the City of Vernon





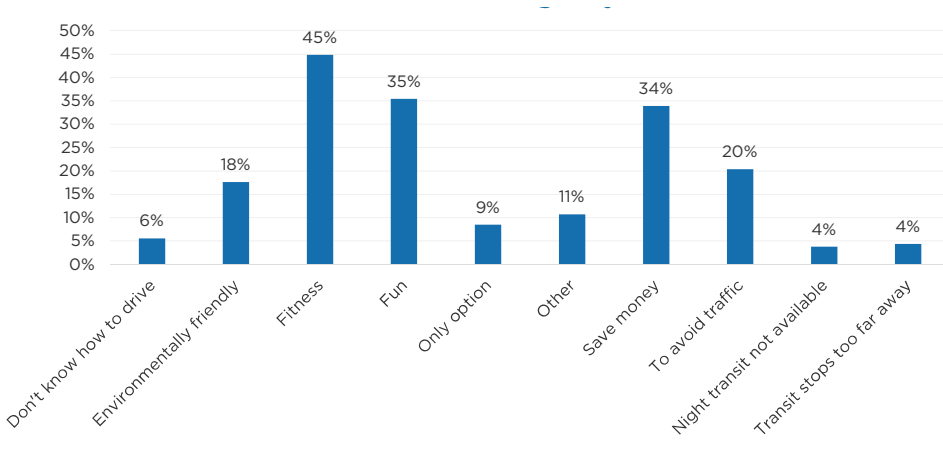
## PUBLIC SURVEY ANALYSIS

The public survey was created to understand community experiences and concerns around bicycling in Vernon. Available through hard copy and electronic format, the survey successfully captured over 330 responses from stakeholders.

Over half of survey respondents identified the City of Vernon as the location of their workplace or a city neighboring their home. A quarter of respondents identified bicycling as their primary mode of commuting to school or work. When asked their reasons for bicycling, participants chose fitness, fun and to save money as their most popular answers, as shown in Figure A1-2.

Key survey themes are highlighted in this section. For complete survey results please see pages 68-79.

**Figure A1-2: Reasons for Riding Bicycle**

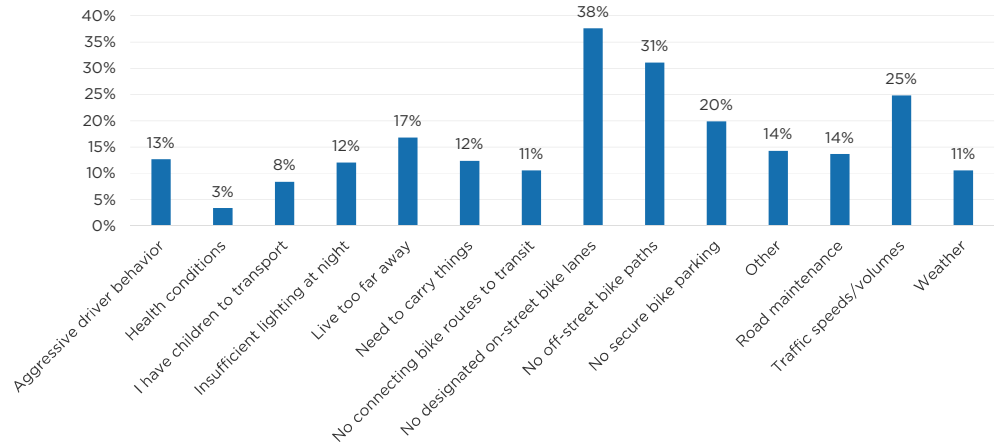


Participants shared their overwhelming concerns regarding bicycling safety. When asked about the reasons for why they don't bicycle, the lack of designated on-street bicycle lanes, lack of off-street bicycle lanes and the high traffic speeds were recurring common answers. When asked about motivations for bicycling, respondents similarly responded with 41% advocating for more designated bike lanes.

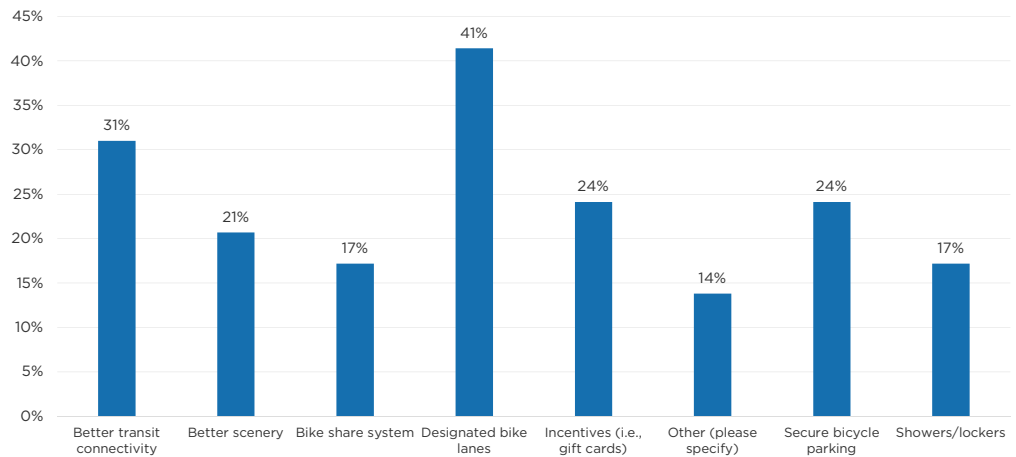
As seen in Figure A1-3, one of the main reasons for respondents for not riding a bike is the lack of designated bicycle facilities. High traffic volumes and speeds and the lack of secure bicycle parking were also two of the most cited reasons.



**Figure A1-3: Discouraging Factors Limiting Bicycling**



**Figure A1-4: Motivations to Ride a Bicycle**

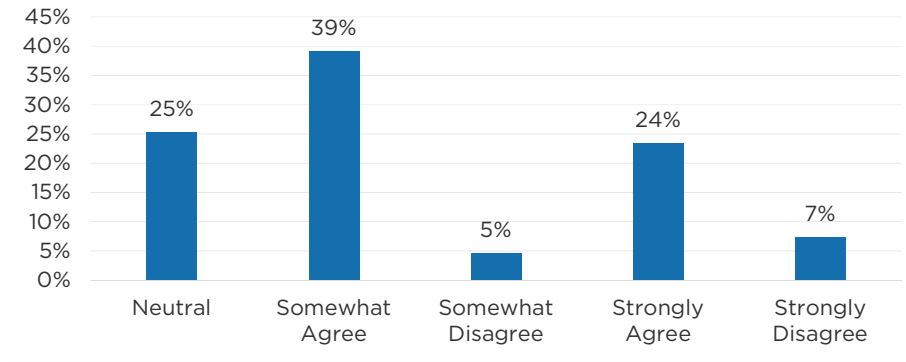


The Community Survey also captured respondents' potential motivations to ride a bicycle. As shown in Figure A1-4, almost half of them mentioned that designated bicycle lanes would be a good incentive to ride a bicycle. Moreover, better connectivity with transit, incentives, and bicycle parking were also popular responses among respondents.

Participants vocalized their desire to bicycle more if their bicycling safety needs were met. As shown in Figure A1-5, over 60% of respondents agreed with the statement, "I would like to travel by bicycle more often for my daily commute, errands, or other activities." In relation to a neighboring and relevant project, participants were asked about the Los Angeles Riverway Bikeway Project, in which 54% eagerly noted they would use for recreation purposes.



**Figure A1-5: Likelihood to Travel More by Bicycle**



As shown in the Complete Survey Results section, the majority of respondents work or live near the City of Vernon. Respondents also identified driving alone as their primary mode of transportation followed closely by public transit. These two results, in addition to respondents’ motivations and discouraging factors, increase the likelihood of having more bicycle riders in Vernon once bicycle infrastructure gets constructed.



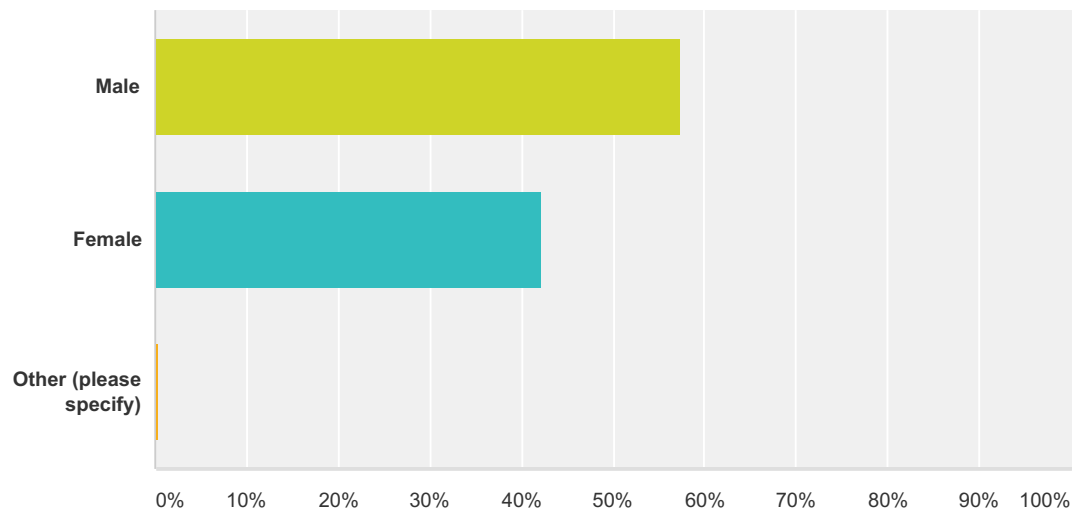


## COMPLETE SURVEY RESULTS

The following charts elaborate on participants responses to the online survey.

### Q4 What gender do you identify with?

Answered: 308 Skipped: 26

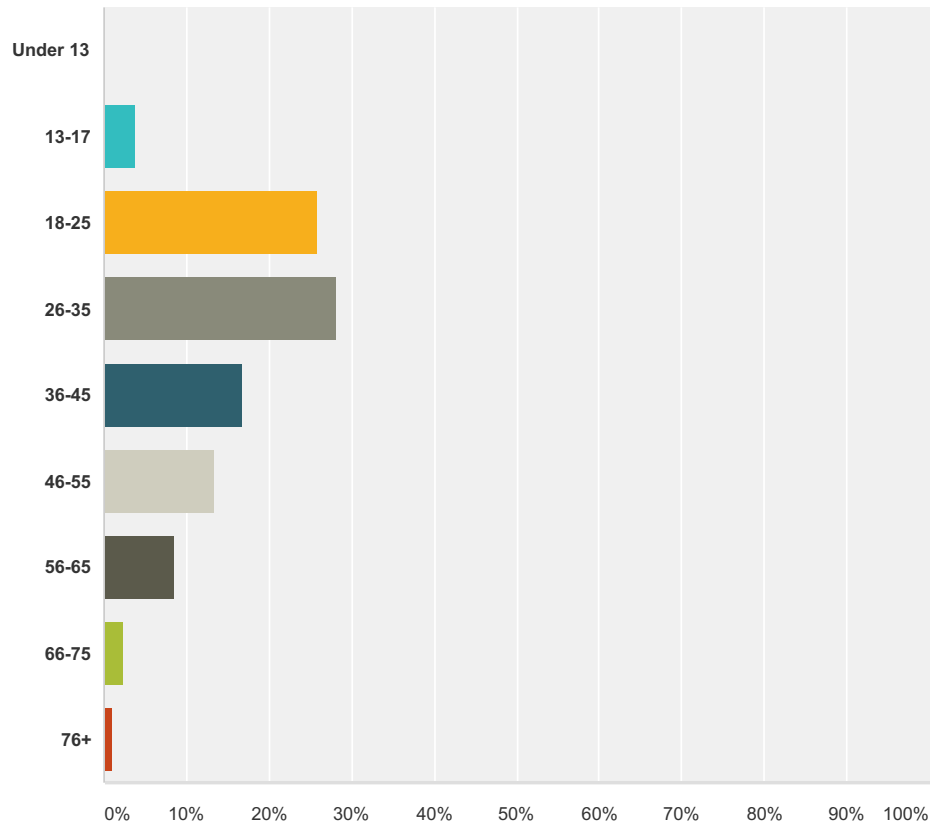


Answer Choices	Responses
Male	57.47%
Female	42.21%
Other (please specify)	0.32%
<b>Total</b>	



### Q5 What is your age group?

Answered: 312 Skipped: 21

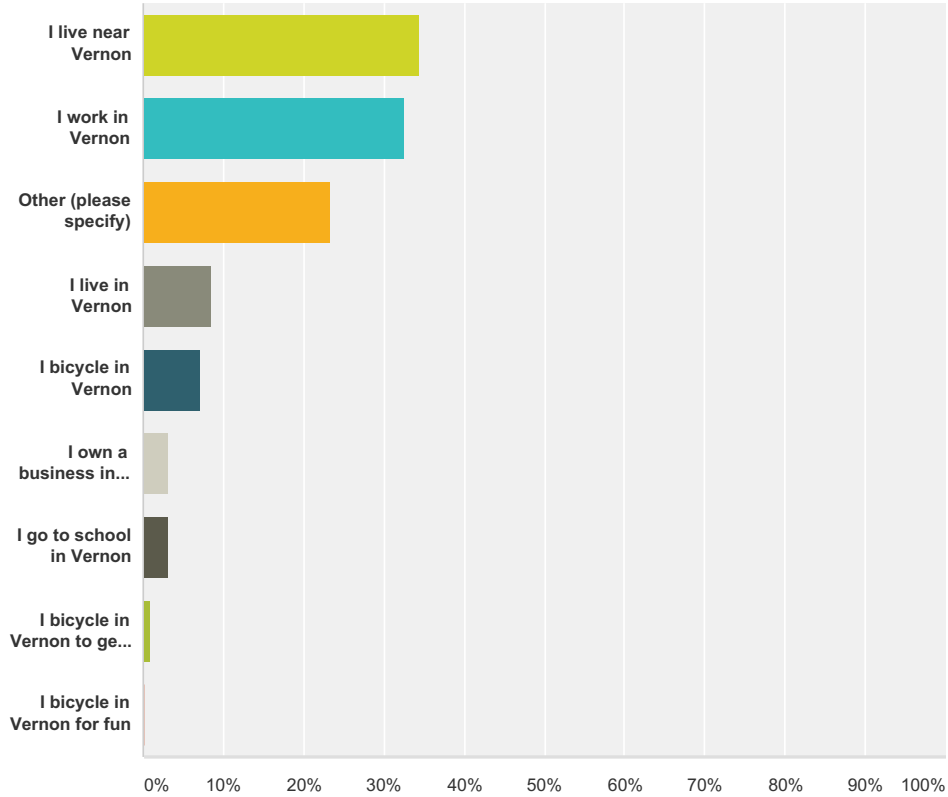


Answer Choices	Responses
Under 13	0.00% 0
13-17	3.85% 12
18-25	25.96% 81
26-35	28.21% 88
36-45	16.67% 52
46-55	13.46% 42
56-65	8.65% 27
66-75	2.24% 7
76+	0.96% 3
<b>Total</b>	<b>312</b>



### Q6 Please describe your connection to the City of Vernon (Check all that apply).

Answered: 328 Skipped: 6

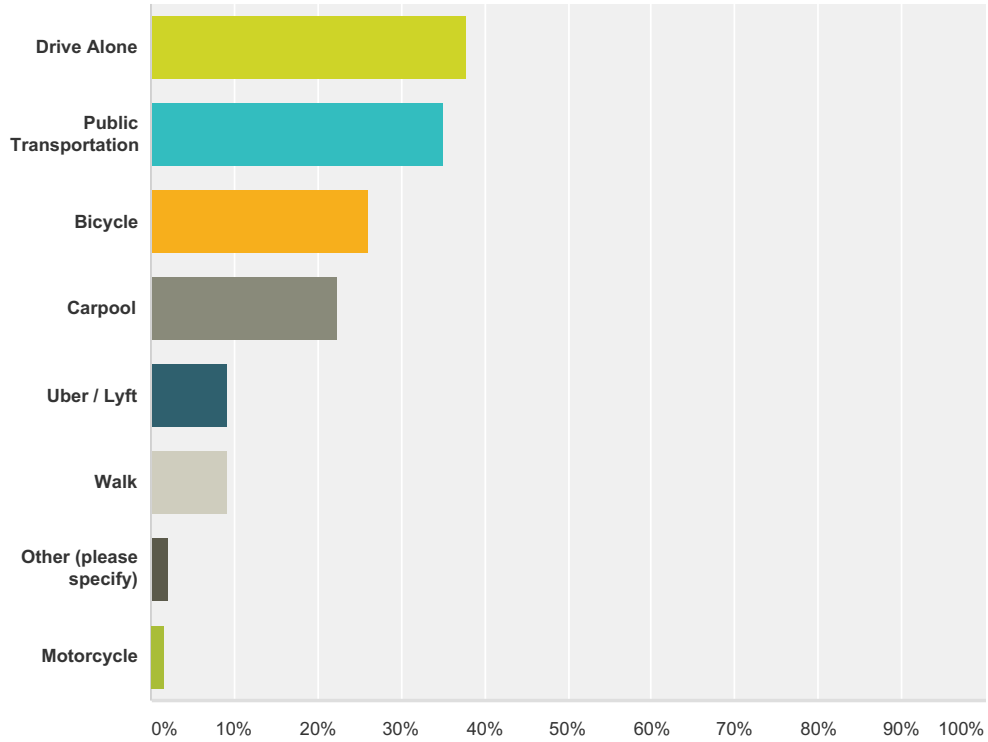


Answer Choices	Responses	Count
I live near Vernon	34.45%	113
I work in Vernon	32.62%	107
Other (please specify)	23.48%	77
I live in Vernon	8.54%	28
I bicycle in Vernon	7.01%	23
I own a business in Vernon	3.05%	10
I go to school in Vernon	3.05%	10
I bicycle in Vernon to get around	0.91%	3
I bicycle in Vernon for fun	0.30%	1
<b>Total Respondents: 328</b>		



### Q7 How do you commute to work/school (if you commute at least 3 days per week)?

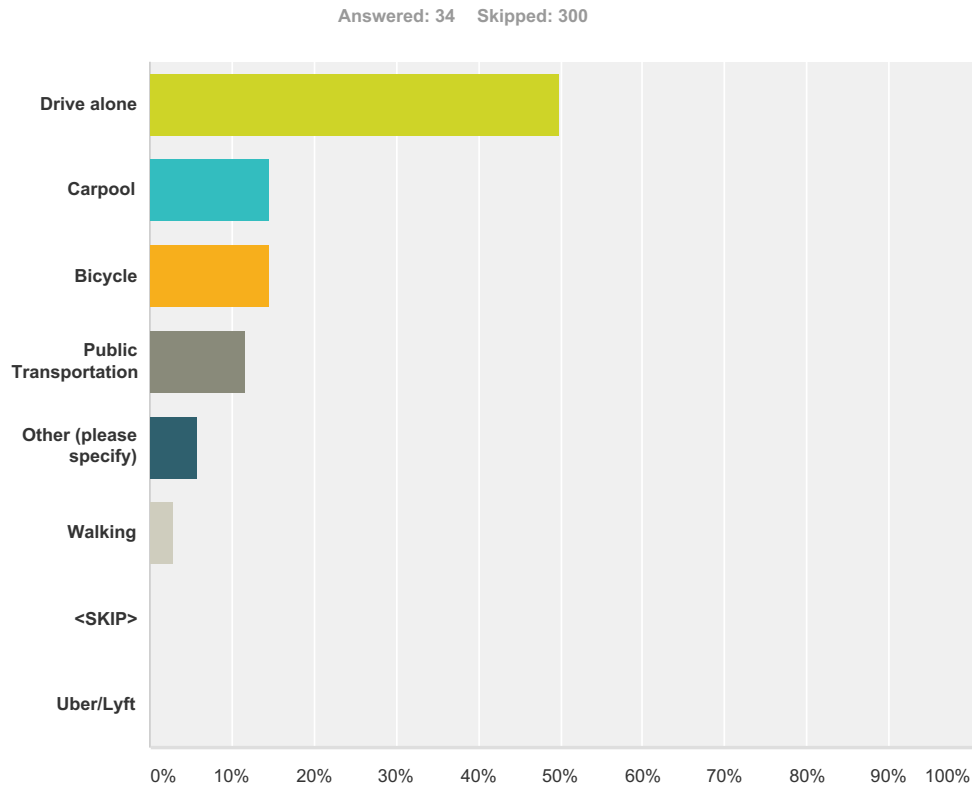
Answered: 296 Skipped: 38



Answer Choices	Responses
Drive Alone	37.84% 112
Public Transportation	35.14% 104
Bicycle	26.01% 77
Carpool	22.30% 66
Uber / Lyft	9.12% 27
Walk	9.12% 27
Other (please specify)	2.03% 6
Motorcycle	1.69% 5
<b>Total Respondents: 296</b>	





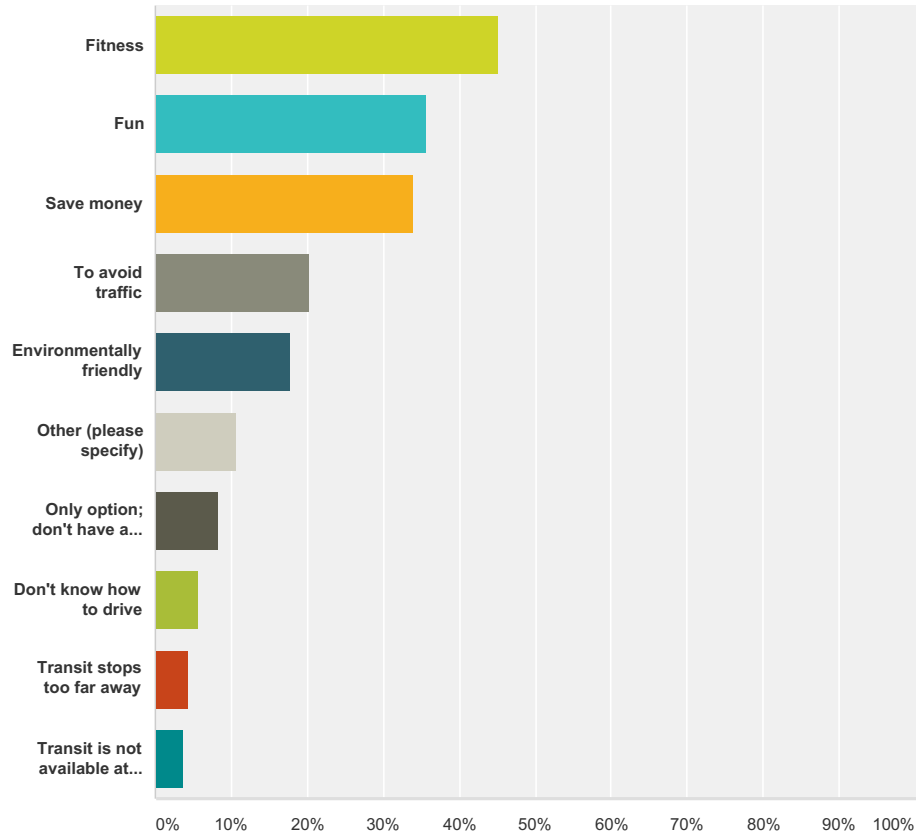


Answer Choices	Responses
Drive alone	50.00% 17
Carpool	14.71% 5
Bicycle	14.71% 5
Public Transportation	11.76% 4
Other (please specify)	5.88% 2
Walking	2.94% 1
<SKIP>	0.00% 0
Uber/Lyft	0.00% 0
<b>Total</b>	<b>34</b>



**Q9 If you ride a bicycle (for any purpose), what are your reasons? Check all that apply.**

Answered: 320 Skipped: 14

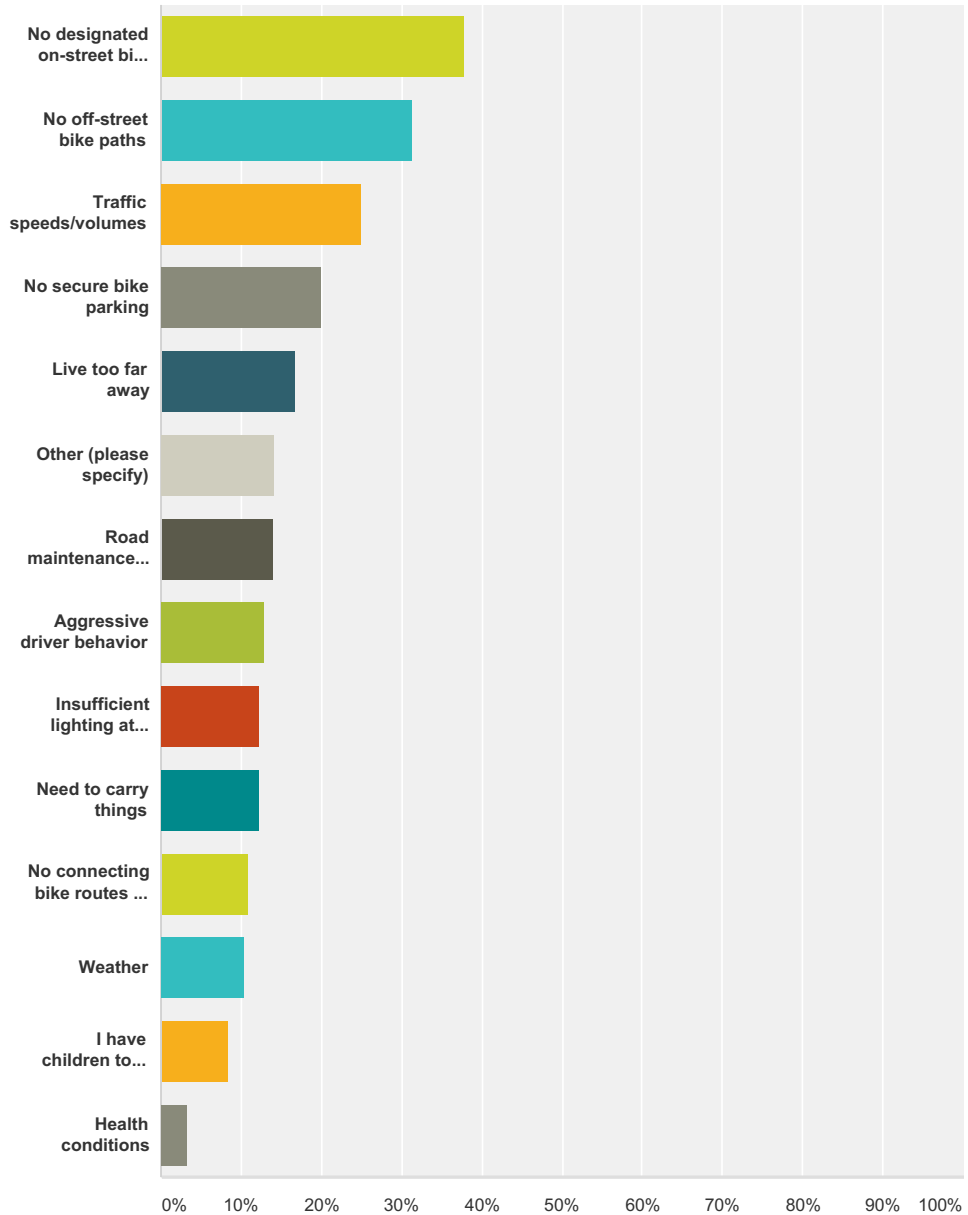


Answer Choices	Responses	
Fitness	45.00%	144
Fun	35.63%	114
Save money	34.06%	109
To avoid traffic	20.31%	65
Environmentally friendly	17.81%	57
Other (please specify)	10.63%	34
Only option; don't have a vehicle	8.44%	27
Don't know how to drive	5.63%	18
Transit stops too far away	4.38%	14
Transit is not available at night	3.75%	12



### Q10 What discourages you from bicycling to work/school? Check all that apply.

Answered: 323 Skipped: 11



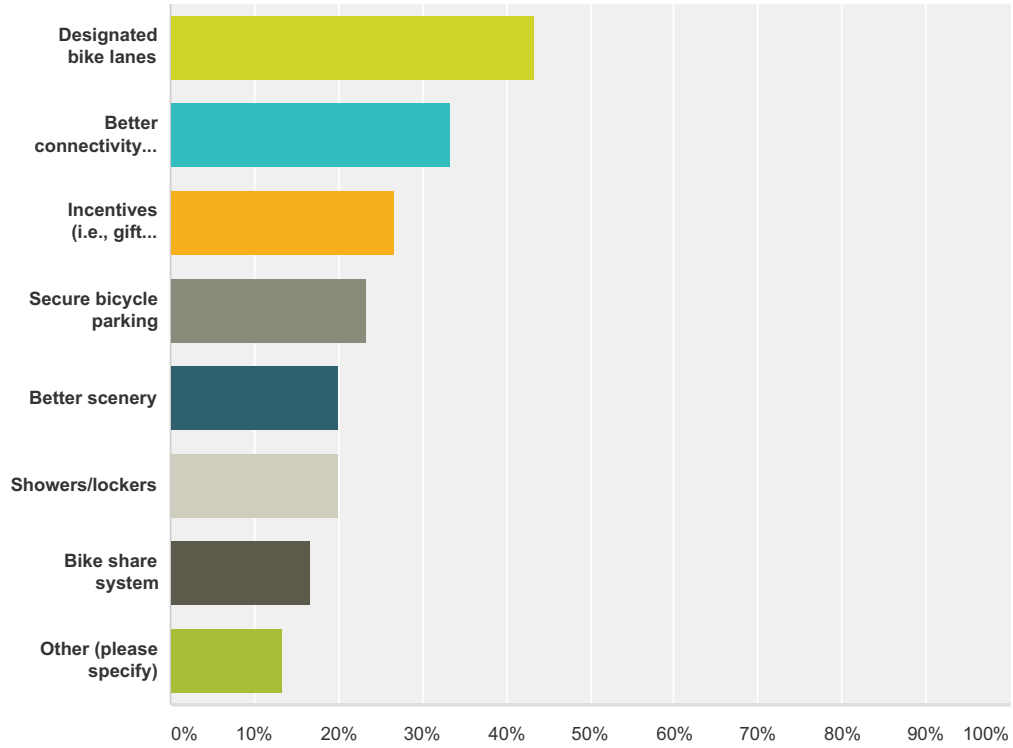


Answer Choices	Responses	
No designated on-street bike lanes	37.58%	121
No off-street bike paths	31.06%	100
Traffic speeds/volumes	24.84%	80
No secure bike parking	19.88%	64
Live too far away	16.77%	54
Other (please specify)	14.29%	46
Road maintenance (e.g., cracks, potholes, debris, etc.)	13.66%	44
Aggressive driver behavior	12.73%	41
Need to carry things	12.42%	40
Insufficient lighting at night	12.11%	39
No connecting bike routes to transit	10.56%	34
Weather	10.56%	34
I have children to transport	8.39%	27
Health conditions	3.42%	11
<b>Total Respondents: 322</b>		



### Q11 What would motivate you to bike to work/school? Check all that apply.

Answered: 30 Skipped: 304

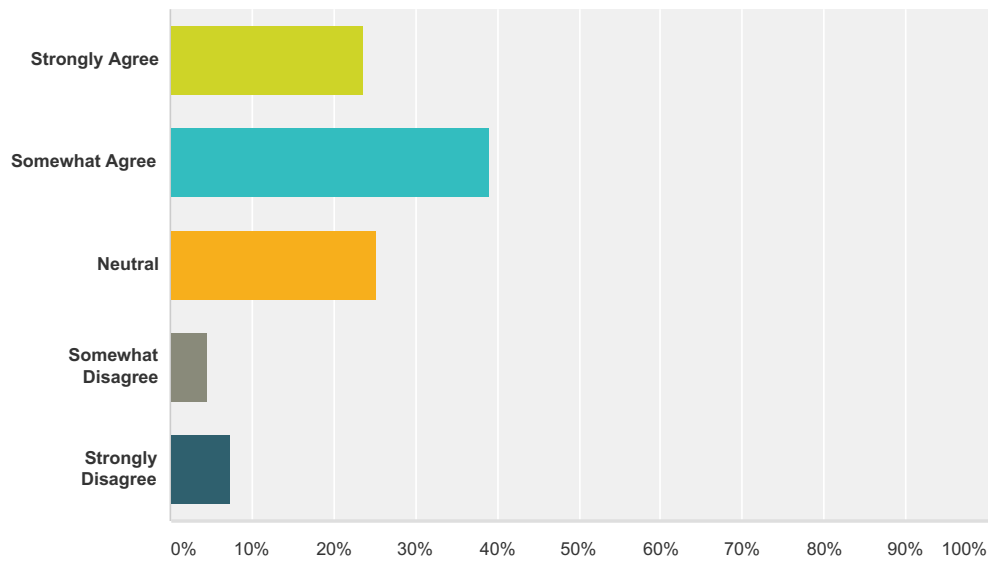


Answer Choices	Responses
Designated bike lanes	43.33% 13
Better connectivity with transit	33.33% 10
Incentives (i.e., gift cards)	26.67% 8
Secure bicycle parking	23.33% 7
Better scenery	20.00% 6
Showers/lockers	20.00% 6
Bike share system	16.67% 5
Other (please specify)	13.33% 4
<b>Total Respondents: 30</b>	



**Q12 Rate whether you agree or disagree with the statement: “I would like to travel by bicycle more often for my daily commute, errands or other activities.”**

Answered: 325 Skipped: 9

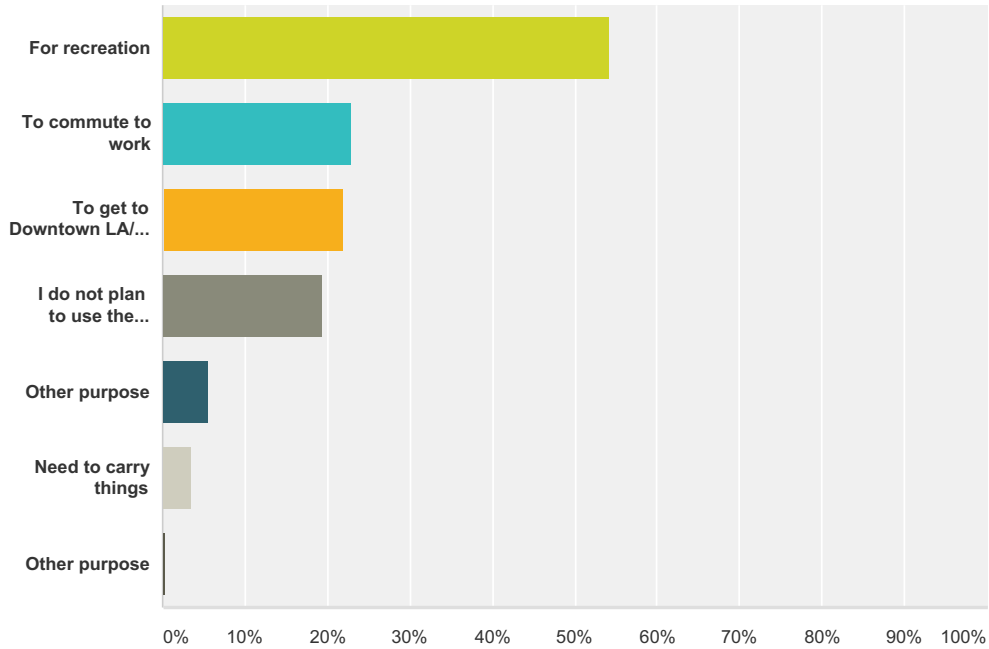


Answer Choices	Responses
Strongly Agree	23.69% 77
Somewhat Agree	39.08% 127
Neutral	25.23% 82
Somewhat Disagree	4.62% 15
Strongly Disagree	7.38% 24
<b>Total</b>	<b>325</b>



### Q13 When the Los Angeles River bikeway is extended through Vernon, how will you use it? Check all that apply

Answered: 282 Skipped: 52



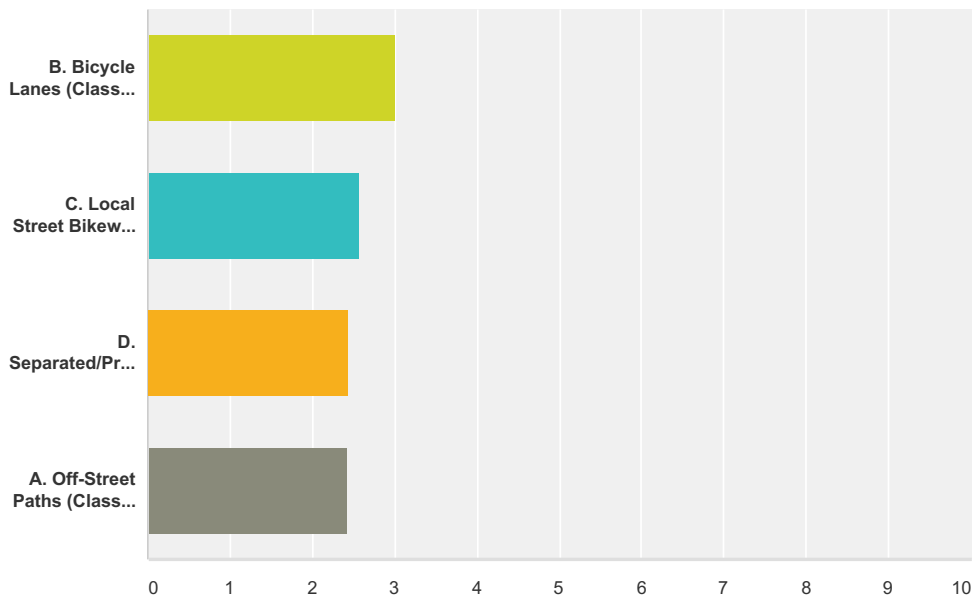
Answer Choices	Responses	Count
For recreation	54.26%	153
To commute to work	23.05%	65
To get to Downtown LA/ Long Beach	21.99%	62
I do not plan to use the bikeway	19.50%	55
Other purpose	5.67%	16
Need to carry things	3.55%	10
Other purpose	0.35%	1
<b>Total Respondents: 282</b>		





**Q15 Below is a series of different bikeway facility types. Please rank from 1-4 (1 being the least preferred and 4 the most preferred) which bikeway types would make you most comfortable riding your bicycle in the City of Vernon.**

Answered: 30 Skipped: 304



	1	2	3	4	Total	Score
B. Bicycle Lanes (Class II) Bicycle lanes are painted lanes that may be supplemented with a buffer space between the bicycle lane and motor vehicle traffic.	45.45% 10	27.27% 6	9.09% 2	18.18% 4	22	3.00
C. Local Street Bikeways (Class III) On quiet local streets, bicycles can safely share space with motor vehicle traffic. Designating these streets with signage and stencils alerts all road users to the presence of people on bikes, while traffic calming (such as speed bumps and diverters) can discourage cut-through traffic and speeding.	28.57% 6	23.81% 5	23.81% 5	23.81% 5	21	2.57
D. Separated/Protected Bicycle Lanes (Class IV) A separated bicycle lane is an enhanced Class II bicycle lane with physical barriers between the bicycle lane and motor vehicle traffic.	24.00% 6	24.00% 6	24.00% 6	28.00% 7	25	2.44
A. Off-Street Paths (Class I) Off street-paths are facilities on a separate right-of-way from roadways, and are usually shared by bicyclist and pedestrians.	31.58% 6	10.53% 2	26.32% 5	31.58% 6	19	2.42

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# APPENDIX 2: POLICY REVIEW

This section provides a summary of adopted or in-progress planning efforts and policies that apply to bicycling in the City of Vernon, as well as regional and state plans. The purpose of this section is to understand how existing policies encourage or discourage bicycle transportation in the City of Vernon, recognizing that biking has not been promoted on streets due to the industrial city's character, heavy truck traffic and street configuration. The plans and policies reviewed are listed in Table A2-1 and Table A2-6.

## CITY OF VERNON LOCAL PLANS & POLICIES

**Table A2-1:** Local Plans and Policies

Policy Document	Jurisdiction	Year
The Code of the City of Vernon, California	The City of Vernon	1959
City of Vernon General Plan	The City of Vernon	2007

## THE CODE OF THE CITY OF VERNON

**Table A2-2:** Bicycle-Related Local Ordinances

Section	Regulation
Chapter 24. Building and Construction	Article XIV. Green Building Standards Code.
Sec. 24.107. Green Building Standards Code amendments, additions, and deletions.	Section A5.106.4.1 Short-term bicycle parking. If the project is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 15 percent of visitor motorized vehicle parking capacity, with a minimum of one two-bike capacity rack.
Chapter 27. Community Development	Article I. Trip Reduction and Travel Demand Program.
Sec. 27.4. Requirements applicable only to nonresidential development of 25,000 square feet or more.	Approval of all nonresidential development of 25,000 feet or more shall require installation of an information area. The information area may include a bulletin board, display case, or kiosk displaying transportation information located where the greatest number of employees are likely to see it. Information shall include, but not be limited to, the following:



Section	Regulation
	<p>(a) Current maps, routes and schedules for public transit routes serving the site;</p> <p>(b) Telephone numbers for referrals on transportation information including numbers for the regional ridesharing agency and local transit operators;</p> <p>(c) Ridesharing promotional material supplied by commuter oriented organizations;</p> <p>(d) Bicycle route and facility information, including regional/local bicycle maps and bicycle safety information;</p> <p>(e) A listing of facilities available for carpoolers, vanpoolers, bicyclists, transit riders and pedestrians at the site.</p>
<p>Sec. 27.5. Requirements applicable only to nonresidential development of 50,000 square feet or more.</p>	<p>Approval of all nonresidential development of 50,000 square feet or more shall incorporate section 27.4 and all of the following measures:</p> <p>(a) Not less than 10% of employee parking area, located as close as practical to the employee entrance(s), shall be reserved for use by potential carpool/vanpool vehicles, without displacing handicapped and customer parking needs. This preferential carpool/vanpool parking area shall be identified on the site plan upon application for a building permit. Spaces will be signed/striped as demand warrants; provided that at all times at least one space for projects of 50,000 square feet to 100,000 square feet and two spaces for projects over 100,000 square feet will be signed/striped for carpool/vanpool vehicles.</p> <p>(b) Preferential parking spaces reserved for vanpools must be accessible to vanpool vehicles. When located within a parking structure, a minimum vertical interior clearance of 7' 2" shall be provided for those spaces and accessways to be used by such vehicles.</p>



Section	Regulation
	<p>Adequate turning radii and parking space dimensions shall also be included in vanpool parking areas.</p> <p>A statement that preferential carpool/ vanpool spaces for employees are available and a description of the method for obtaining such spaces must be included on the required transportation information board. Spaces will be signed/ striped as demand warrants.</p> <p>(c) Bicycle racks or other secure bicycle parking facilities shall be provided to accommodate four (4) bicycles. Facilities and location (e.g., provisions of racks, lockers, or locked room) shall be subject to review and approval by the city.</p>
<p>Sec. 27.6. Requirements applicable only to nonresidential development of 100,000 square feet or more.</p>	<p>Approval of all nonresidential development of 100,000 square feet or more shall incorporate sections 27.4 and 27.5 and all of the following measures:</p> <p>(a) One (1) bicycle parking space for each 50,000 square feet above 50,000 square feet shall be provided. Calculations which result in a fraction of 0.5 or higher shall be rounded up to the nearest whole number.</p> <p>(b) A safe and convenient zone in which vanpool and carpool vehicles may deliver or board their passengers shall be provided. This zone may be combined with the parking required by section 27.5.</p> <p>(c) Sidewalks or other paved pathways which follow direct and safe routes from the public streets to each bicycle parking area and to each building in the development shall be provided.</p> <p>(d) If determined necessary by the city, bus stop improvements shall be provided. Such improvements may include bus shelters, turnouts, stopping areas, and rights-of-way.</p>



## CITY OF VERNON GENERAL PLAN (2007)

The City of Vernon General Plan was adopted in 2007 as the city's main policy document to guide future development of the community. Within the General Plan there are six chapters or "elements": Land Use, Circulation and Infrastructure, Housing, Safety, Resources, and Noise. There is only one Element in the General Plan that provide guidance on bicycle planning in the city: Circulation Element.

### Circulation Element

The Circulation and Infrastructure Element is intended to guide the development of Vernon's circulation system in a manner compatible with the policies contained in the Land Use Element. Streets, Highways and any other transportation system planned must help the city to attract and support industrial businesses, and accommodate the vehicular traffic associated with the movement of people and goods. Relevant goals and policies are listed in Table A2-3 on page 84.

The Circulation and Infrastructure Element recognizes that, although road widening may help in reducing traffic congestion, the city must pursue alternative cost-effective methods to improve traffic flow. These alternative methods include infrastructure improvements, such as widening streets, as well as advanced technological strategies, such as traffic flow management monitoring through video surveillance and computer analysis.

Public transportation alternatives - particularly buses - are recognized in the Circulation and Infrastructure Element as an important alternative to private automobile, as buses reduce the number of cars on the road, improve traffic and alleviate the need for parking. In addition, even though the Metro Blue Line Vernon Station is not located within the city, the Element acknowledges its importance as a regional transit link.

The first goal of the Circulation and Infrastructure Element references the need to provide a balanced transportation system. It also recognizes bicycles as additional mode of travel, even though bicycling is not encouraged on Vernon's streets due to the heavy truck traffic and narrow configuration of many streets, which would present dangers to cyclists.

**Table A2-3: Circulation Element Goals and Policies**

Circulation Element	Description
GOAL CI-1	Provide a balanced transportation system for the safe and efficient movement of people, goods, and emergency services throughout the city.
POLICY CI-1.12	Cooperate with the Metropolitan Transportation Authority and other local agencies in their efforts to complete a bicycle path along the levee of the Los Angeles River connecting to adjacent jurisdictions.

## Land Use Element

The Land Use and Circulation and Infrastructure Elements are closely related, since the roadway network is intended to support the land use patterns and intensities outlined in the Land Use Element (Table A2-4).

Vernon is virtually built-out and its street system is constrained by long-established development patterns. Land use policies have been crafted to attract and support industrial businesses, discouraging new housing development due to potential conflicts with industry. However, the city has revised this policy to permit limited residential development in specifically-designated areas.

**Table A2-4: Land Use Element Goals and Policies**

Land Use Element	Description
GOAL LU-1	Promote and maintain manufacturing and other industrial uses as the primary land use within the city.
POLICY LU-1.4	Permit only housing and emergency shelters as may be required by State law and as necessary to foster the city's good governance practices. Ensure adequate review of housing development proposals to minimize potential industrial/housing conflicts.
GOAL LU-2	Phase out aging industrial building and sites through modernization and replacement.
POLICY LU-2.7	Consider and facilitate proposals for more intensive employment-generating, nonresidential development near transit stops.
GOAL LU-3	Maintain Vernon as a highly desirable location for industry, and continue to attract the types of industry the city is well positioned to serve.
POLICY LU-3.1	Use Review city codes and development requirements on a regular basis to ensure that development costs and standards are competitive with other industrial cities.
POLICY LU-3.5	Use development proposals as opportunities to encourage modernization and broaden property improvements goals.



## Resources Element

The Resources Element establishes city policies intended to best manage the limited available natural resources in Vernon, such as water, clean air, and open spaces. Even though emissions from mobile sources are regulated by State and Federal agencies, the city recognizes its responsibility to participate in efforts to improve air quality in the region. Programs in this regard include purchasing alternative-fuel and fuel-efficient vehicles and reducing the volume of cars on local streets.

**Table A2-5: Resources Element Goals and Policies**

Land Use Element	Description
GOAL R-2	Contribute to the continued gradual improvement of air quality in the South Coast Air Basin.
POLICY R-2.1	Coordinate and cooperate with the South Coast Air Quality Management District and Southern California Association of Governments in efforts to implement the regional Air Quality Management Plan.
POLICY R-2.2	Encourage and facilitate the use of public transportation to reduce emissions associated with automobile use.
POLICY R-2.3	Continue to expand the number of city-owned alternative fuels vehicles, hybrid vehicles, and other energy-efficient vehicles as they may be available.
POLICY R-2.5	Consult with the Gateway Cities Council of Governments, regional planning agencies, and surrounding municipalities to coordinate land use, circulation, and infrastructure improvement efforts.
GOAL R-3	Preserve established open spaces, and look for opportunities to create new open space areas that can benefit the health and welfare of workers and residents in Vernon.
POLICY R-3.1	Continue to maintain landscaped areas at city facilities as appropriate.
POLICY R-3.2	Cooperate with regional efforts to upgrade the appearance and open space value of the Los Angeles River Channel.
POLICY R-3.3	Encourage private property owners and industries to establish and maintain private landscaped areas for the benefit of employees.





## RELEVANT REGIONAL AND STATE POLICIES AND PLANS

Table A2-6 shows the regional and state policies and plans reviewed.

**Table A2-6:** Regional and State Policies Reviewed

Policy Document	Jurisdiction	Year
Gateway Cities Strategic Transportation Plan	Gateway Cities Council of Governments	2016
Los Angeles River Revitalization Master Plan	City of Los Angeles	2007
County of Los Angeles Bicycle Master Plan	County of Los Angeles	2012
Metro Active Transportation Strategic Plan	Metro	2016
Metro Complete Streets Policy	Metro	2014
Metro First-Last Mile Strategic Plan & Planning Guidelines	Metro	2014
Metro Long Range Transportation Plan	Metro	2009
Metro Bicycle Transportation Strategic Plan	Metro	2006
Metro Rail to River Intermediate Active Transportation Corridor Feasibility Study	Metro	2014
Regional Transportation Plan / Sustainable Communities Strategy	SCAG	2012
California Green Building Code	California	2012
AB 1358 - California Complete Streets Act	California	2008
SB 375 - Sustainable Communities and Climate Protection Act	California	2008
AB 32 - Global Warming Solutions Act	California	2006



## **Gateway Cities Strategic Transportation Plan (2016)**

The [Gateway Cities Strategic Transportation Plan](#) aims to coordinate transportation projects among its member agencies, neighboring jurisdictions and regional agencies. Additionally, this plan is intended to help the Gateway Cities to understand a complex travel market, understand project interrelationships, think strategically about multimodal transportation investments, and obtain funding and financing for strategic transportation investments.

The STP encompasses all modes of surface transportation in the Gateway Cities, including: Local and regional arterial highways; Freeways; Local and regional transit; Park-and-ride lots; Active transportation; and Goods movement and logistics. Bicycle transportation, is analyzed in terms of bike facilities, not only for their mobility improvements, but also for the health benefits that provides.

## **Los Angeles River Revitalization Master Plan (2007)**

With the Goals of creating a continuous river greenway, and connecting neighborhoods to the river, among others, the Los Angeles River Revitalization Master Plan provides a framework for restoring the river's ecological function and for transforming it into an amenity for residents and visitors to the city.

The Master Plan includes recommendations for physical improvements to the river corridor, and to the green space network in adjacent neighborhoods; recommendations at a policy level for managing public access and ensuring public health and safety; recommendations for a river governance and management structure; and recommendations for short- and long-term priority projects and potential funding strategies.

## **The County of Los Angeles Bicycle Master Plan (2012)**

The County of Los Angeles Bicycle Master Plan provides direction for improving mobility of bicyclists and encouraging more bicycle ridership within the County. Proposed bikeways in the Gateway Planning Area that includes Vernon are shown in Figure 2 1. Table 2-6 shows the relevant goals and policies included in this document.



**Table A2-7: County of Los Angeles Bicycle Master Plan Goals**

Goal	Description
Goal 1 - Bikeway System	Expanded, improved, and interconnected system of county bikeways and bikeway support facilities to provide a viable transportation alternative for all levels of bicycling abilities, particularly for trips of less than five miles.
Goal 2 - Safety	Increased safety of roadways for all users
Goal 3 - Education	Develop education programs that promote safe bicycling
Goal 4 - Encouragement Programs	Encourage County residents to walk or ride a bike for transportation and recreation
Goal 5 - Community Support	Community supported bicycle network
Goal 6 - Funding	Funded Bikeway Plan

## Metro Active Transportation Strategic Plan (2016)

Metro has developed an Active Transportation Strategic Plan that identifies strategies to:

- » Improve and expand the active transportation network;
- » Provide guidance to Metro and partner organizations in creating regional active transportation policies and guidelines in support of the Regional Transportation Plan/Sustainable Community Strategy and future planning efforts; and
- » Engage local government and other stakeholders to identify key regionally-significant active transportation projects and programs within Los Angeles County and each subregion.





## **Metro’s Complete Streets Policy (2014)**

The Complete Streets Policy establishes active transportation improvements as integral elements of the countywide transportation system. The Policy requires that all future transportation improvements undertaken or funded by Metro include the provision/consideration of active transportation elements. The Policy identifies opportunities and actions where Metro can support local Complete Streets implementation. For example, as part of the Policy’s Implementation Strategy, Metro will work with partner agencies and local jurisdictions to incorporate Complete Streets infrastructure into all transportation projects in a manner that expands the active transportation network and closes gaps.

## **Metro First-Last Mile Strategic Plan & Planning Guidelines (2014)**

Metro’s First Last Mile Strategic Plan, adopted by the Metro Board in April 2014, seeks to better coordinate infrastructure investments in rail station and bus stop areas to extend the reach of transit services. The Plan utilizes the concept of “the Pathway” – a series of active transportation spine routes that link travelers to and from transit station areas by foot and bicycle.

## **Metro Countywide Sustainability Planning Policy & Implementation Plan (2012)**

The Sustainability Plan lays out several Principles and Priorities that will help the agency “bring greater clarity, meaning, and consistency to its approach for implementing the ‘sustainability’ commitments currently reflected in its principal values, business goals, and sustainability mission and vision.” Some of the principles and priorities that are relevant to the City of Vernon are:

- » Prosperity. Reduce transportation costs for residents and provide the mobility necessary to increase economic competitiveness.
- » Green Modes. Promote clean mobility options to reduce criteria pollutants, greenhouse gas emissions, and dependence on foreign oil.
- » Healthy Neighborhoods. Improve public health through traffic safety, reduced exposure to pollutants, and design and infrastructure for active transportation.
- » Community Development. Design and build transportation facilities that promote infill development, build community identity, and support social and economic activity.
- » Context Sensitivity. Build upon the unique strengths of Los Angeles County’s communities through strategies that match local and regional context and support investment in existing communities.



By adopting the above principles, Metro has committed to supporting initiatives aimed at intermodal connectivity, active travel modes, and healthy neighborhoods. However, these principles and priorities require implementation at the local level.

## Metro Long Range Transportation Plan (2009)

Metro’s Long Range Transportation Plan (LRTP) lays out the agency’s commitment to increasing the share of trips in the County made by bicycle and on foot. The LRTP states that “bicycle and pedestrian programs are critical components of a successful transit system, as transit riders should be able to access buses and trains without having to drive a vehicle to and from transit stations. The sustainability of our transportation system depends upon the interface between modes.” The City of Vernon’s Bicycle Master Plan will advance Metro’s goal of connecting people to transit without them having to drive to stations or stops.

## Metro Bicycle Transportation Strategic Plan (2006)

The goal of Metro’s Bicycle Transportation Strategic Plan (BTSP) is to integrate bicycle use in transportation projects. By promoting the bicycle as a viable transportation mode, the BTSP offers a vision of a Los Angeles County region with improved overall mobility, air quality, and opportunities for active living.

## Metro Rail to River Intermediate Active Transportation Corridor Feasibility Study (2014)



Figure 2-7: Rail to River Proposed Alignments

The Rail to River Intermediate Active Transportation Corridor (Rail to River Intermediate ATC) feasibility study was created to determine the viability, benefits and cost consideration of developing an intermediate active transportation corridor along the 8.3 miles of the Metro-owned northern



segment of the Harbor Subdivision in South Los Angeles. For the City of Vernon, the Los Angeles Department of Water and Power Utility Corridor and the Malabar Yards Right of Way are considered for an alternative alignment for Phase 2 of the project with a Class I shared-use path (Figure 2-7).

## **SCAG Regional Transportation Plan/ Sustainable Communities Strategy (2012)**

The Regional Transportation Plan (RTP) has the primary goal of increasing mobility for the region's residents and visitors. The Sustainable Communities Strategy (SCS), part of the RTP, demonstrates the region's ability to achieve and exceed the GHG emission-reduction targets set forth by the California Air Resources Board. The 2012-2035 RTP/SCS includes a strong commitment to reduce emissions from transportation sources to comply with SB 375, improve public health, and meet the National Ambient Air Quality Standards as set forth by the federal Clean Air Act. Its emphasis on transit and active transportation will allow residents to lead a healthier, safer, and more active lifestyle.

The RTP/SCS contains a host of improvements to the region's multimodal transportation system, including increasing bikeways from 4,315 miles to 10,122 miles. The RTP/SCS commits \$6.7 billion to active transportation, which will expand bikeways, improve local streets, and address ADA requirements. Additional strategies include traffic calming and Complete Streets strategies, particularly near transit stations and education centers, to further reduce vehicle trips by improving safety and desirability of active transportation.



## STATE OF CALIFORNIA

### California Green Building Code (2016)

The California Green Building Code includes bicycle parking requirements and standards for new development. The California Green Building Code bicycle-related requirements are presented in Table 2-7.

**Table A2-8:** California Green Building Code Bicycle-Related Requirements

Requirements
<p><b>Bicycle Parking and Changing Rooms</b></p> <p>Comply with sections 5.106.4.1 and 5.106.4.2; or meet local ordinance or the University of California Policy on Sustainable Practices, whichever is stricter.</p> <hr/> <p><b>Short-term Bicycle Parking</b></p> <p>If the project is expected to generate visitor traffic, provide permanently anchored bicycle racks within 100 feet of the visitors' entrance, readily visible to passers-by, for 5 percent of visitor motorized vehicle parking capacity, with a minimum of one two-bike capacity rack.</p> <hr/> <p><b>Long-term Bicycle Parking</b></p> <p>For buildings with over 10 tenant-occupants, provide secure bicycle parking for 5 percent of motorized vehicle parking capacity, with a minimum of one space. Acceptable parking facilities shall be convenient from the street and may include:</p> <ul style="list-style-type: none"> <li>» Covered, lockable enclosures with permanently anchored racks for bicycles</li> <li>» Lockable bicycle rooms with permanently anchored racks</li> <li>» Lockable, permanently anchored bicycle lockers</li> </ul>

### AB 1358 – California Complete Streets Act of 2008

The 2008 California Complete Streets Act requires that municipalities, “upon any substantive revision of the circulation element of the general plan, modify the circulation element to plan for a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways, defined to include motorists, pedestrians, people bicycling, children, persons with disabilities, seniors, movers of commercial goods, and users of public transportation, in a manner that is suitable to the rural, suburban, or urban context of the general plan.”



## **SB 375 – Sustainable Communities and Climate Protection Act of 2008**

The [Sustainable Communities and Climate Protection Act \(SB 375\)](#) supports the State of California’s climate action goals to reduce GHG emissions through coordinated transportation and land use planning with the goal of fostering more sustainable communities.

Under SB 375, the California Air Resources Board (ARB) sets regional targets for GHG emissions reductions from passenger vehicle use. In 2010, ARB established these targets for 2020 and 2035 for each region covered by one of the State’s MPOs; the Southern California Association of Governments (SCAG) is the MPO covering the City of Vernon. SCAG has prepared a sustainable communities strategy (SCS) to guide regional efforts to meet GHG emission reduction targets. Encouragement of non-motorized transportation modes is one tactic to lower transportation-related emissions.

## **AB 32 – Global Warming Solutions Act of 2006**

In 2006, the California Legislature passed and the Governor signed the [Global Warming Solutions Act](#), which sets the 2020 greenhouse gas emissions reduction goal into state law. It also directed the California Air Resources Board (CARB) to develop action plans for meeting those GHG reduction targets. SB 375, adopted in 2008 to require coordination of transportation and land use planning, is one of the tools supporting CARB’s goals.



