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City of Covina Bicycle Master Plan

FINAL DRAFT

September 2011

PREPARED BY:
Alta Planning + Design
PREPARED FOR:
City of Covina

City of Covina Bicycle Master Plan

Acknowledgments

City Council

John King, Mayor

Kevin Stapleton, Mayor Pro Tem

Walter Allen III

Peggy Delach

Robert Low

City Staff

Daryl Parrish, City Manager

Steve Henley, Public Works Director

Alex Gonzalez, Senior Management Analyst

Alta Planning + Design

Sam Corbett, Senior Associate

Andrew Lee, Senior Planner

David Pulsipher, Planner

Caitlin Rasmussen, Project Assistant

City of Covina Bicycle Master Plan

Prepared for:

City of Covina

125 E. College Street
Covina, CA 91723-2199
(626) 384-5400

Prepared by:

Alta Planning + Design

448 S Hill St Suite 501
Los Angeles, CA 90013
(213) 489-7443

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1 Introduction

This chapter presents background information on the City of Covina Bicycle Master Plan (BMP), including the plan setting, purpose, vision, goals and objectives, as well as compliance with Bicycle Transportation Account requirements.

1.1 Setting

The City of Covina lies within the East San Gabriel Valley region of Los Angeles County. Its neighboring cities are Glendora to the northeast, Azusa to the northwest, Irwindale to the west, West Covina to the southwest, Pomona to the southeast, and San Dimas to the east. Covina also borders unincorporated county lands on its northeast, southeast, and northwest borders, and encircles unincorporated county lands in its northwest and southeast quadrants. The City boundaries encompass approximately seven square miles. **Figure 1-1** presents Covina's geographical setting within the East San Gabriel Valley region.

According to the 2010 United States Census, Covina has an estimated population of 47,796. Its largest ethnic groups are Hispanic / Latino (52 percent), non-Hispanic White (30 percent), Asian (11 percent), and African American (4 percent). The City's median household income is $65,700 (2009 adjusted dollars; 2010 US Census data is unavailable).

1.2 Plan Purpose

The City of Covina Bicycle Master Plan provides a broad vision of actions and strategies to improve conditions for bicycling in the City and the surrounding region. The BMP recommends improvements and policies to increase the bicycling population; increase cyclists' trip frequency and distance; improve bicyclist, pedestrian and motorist safety; and increase public awareness and support for bicycling. In terms of infrastructure, the BMP provides direction for expanding the City's existing bikeway network and integrating the system into the surrounding countywide bikeway and public transit network. The system-wide approach for connecting gaps will ensure greater local and regional connectivity. In addition to providing recommendations and design guidelines for bikeways and support facilities, the BMP offers recommendations for education, encouragement, enforcement, and evaluation programs.

Making bicycling a priority will provide benefits in the form of improved air quality, better public health, and enhanced quality of life. Replacing automobile trips with bicycling can help reduce vehicle miles traveled, congestion, and emissions associated with automobiles, while also encouraging active lifestyles. The bicycle is a low-cost and effective means of transportation and recreation that is quiet, non-polluting, energy efficient, healthy, and fun. As bicycling gains in popularity, communities must work to create more balanced transportation systems, including providing bicyclists with improved facilities on the roadway network. Recent national studies find that more people are willing to cycle more frequently when provided with safe and comfortable bicycle facilities[1,2]. Lastly, bicycle facilities are typically less costly than other transportation improvements and contribute to a strong sense of place.

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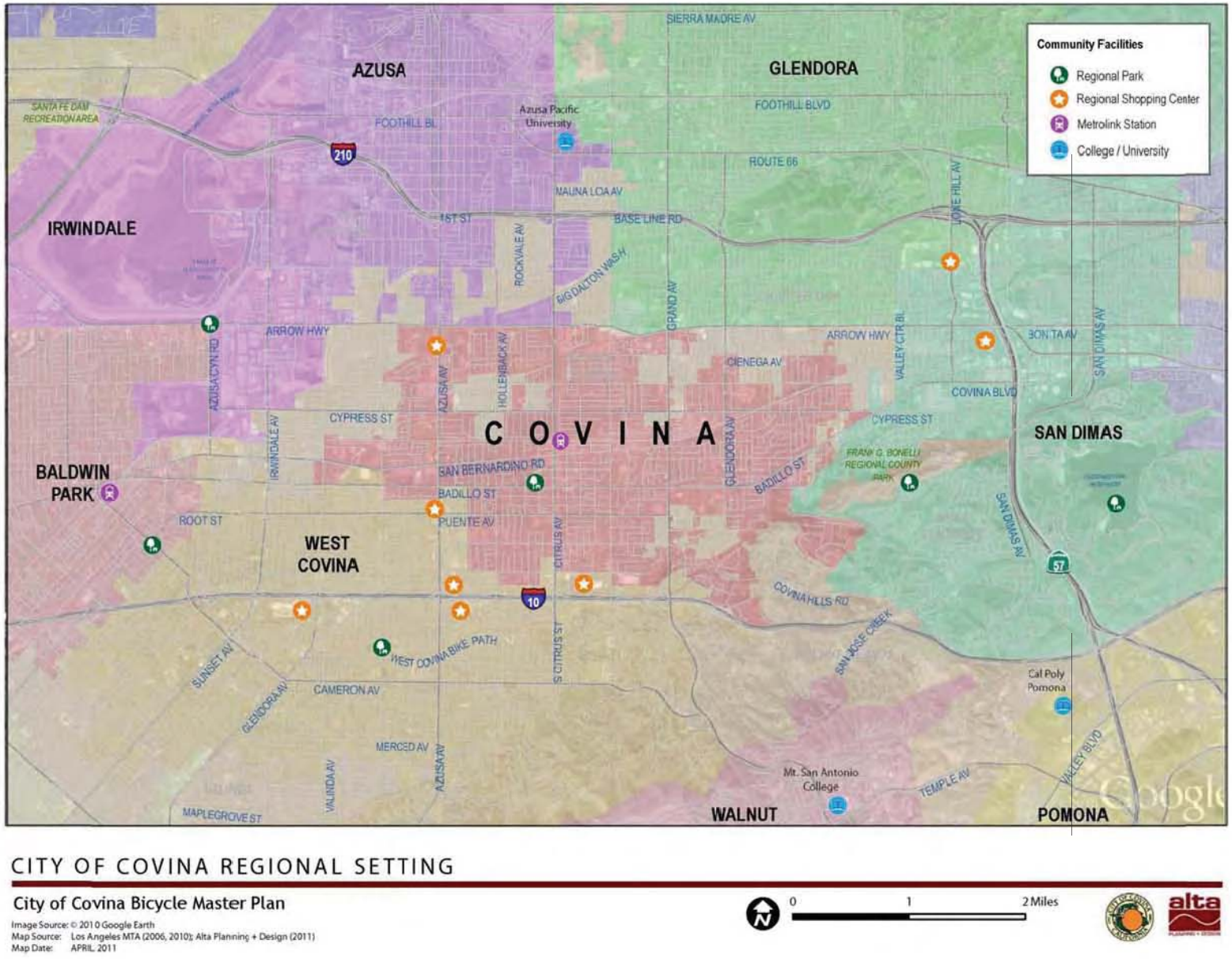
[1] Dill, Jennifer, *Bicycling for Transportation and Health: The Role of Infrastructure*, **Journal of Public Health Policy**, Volume 30, Supplement 1, 2009.

[2] League of American Bicyclists, Darren Flusche, *The Economic Benefits of Bicycle Infrastructure Investments*. June 2009.



CITY OF COVINA REGIONAL SETTING

City of Covina Bicycle Master Plan

Image Source: © 2010 Google Earth
Map Source: Los Angeles MTA (2006, 2010); Alta Planning + Design (2011)
Map Date: APRIL 2011

Figure 1-1 City of Covina Regional Setting

1.3 Plan Vision, Goals and Objectives

The vision, goals, and objectives of the Covina Bicycle Master Plan are principles that will guide the City in the creation and implementation of the BMP for years to come. The goals and objectives will direct the way bicycle-related public improvements are made, where resources are allocated, how programs are operated, and how City priorities are determined. A "best practices" review of goals formulated by other cities was completed to assist the City in creating a Bicycle Master Plan and to facilitate initial discussions.

Plan Vision

Covina will be one of the most bicycle friendly cities in California, and will be rated a 'Gold' Bicycle Friendly Community by the League of American Bicyclists.

Goals and Objectives

The Bicycle Master Plan will be implemented through a comprehensive program of activities based on the following goals:

- Complete Streets
- Implementation
- Evaluation
- Environmental Sustainability
- Transit Integration
- Maintenance
- Education & Encouragement
- Enforcement
- Health & Safety

1. Complete Streets	
Goal: Implement a Complete Streets Policy	
Objectives:	1A: Require all Capital Improvement Projects to conform to the Covina Bicycle Master Plan.
	1B: Implement a continuous network of bike lanes, signed shared bikeways, and bike boulevards that serve all bicycle user groups, including both recreational and utilitarian riders.
	1C: Provide a bicycle network that is safe and attractive to women, children and the elderly.
	1D: Evaluate streets for bike facilities based on the recommended projects in this Plan when performing street resurfacing or restriping projects.
	1E: Eliminate gaps in the bicycle network to improve connectivity between destinations and with adjacent cities.
	1F: Require private development projects to finance and install bicycle facilities, sidewalks, and multi-use trails as appropriate and where recommended in the Covina Bicycle Master Plan, as part of on-site improvements and off-site mitigation measures as appropriate.
	1G: Adopt and adhere to existing and future standards established by the AASHTO Guide for the Development of Bicycle Facilities, and the California Manual of Uniform Traffic Control Devices (CAMUTCD).

2. Implementation	
Goal: Complete a non-motorized transportation system network	
Objectives:	2A: Adopt the Covina Bicycle Master Plan by the Covina City Council
	2B: Create a sustainable, dedicated source of bikeway funding within the annual city budget.
	2C: Update the Covina Bicycle Master Plan as appropriate to reflect new policies and/or requirements for bicycle funding.
	2D: Secure on-going funding to support regional bicycle outreach programs such as “May is Bike Month”
	2E: Achieve “Bicycle Friendly Community” Bronze status by 2016
	2F: Achieve “Bicycle Friendly Community” Silver status by 2021
	2G: Achieve “Bicycle Friendly Community” Gold status by 2026

3. Evaluation	
Goal: Monitor the implementation of the Covina Bicycle Master Plan.	
Objectives:	3A: Track the success of the Covina Bicycle Master Plan as a percent completed of the total recommended bikeway system.
	3B: Track citywide trends in bicycle usage through the use of Census data, and annual bicycle counts.
	3C: Monitor bicycle master collision data to seek continuous reduction in bicycle collision rates.

4. Environmental Sustainability	
Goal: Reduce the vehicle miles traveled by single occupancy vehicles in the City of Covina.	
Objectives:	4A: Increase the mode split to 5% for non-motorized transportation by 2016.
	4B: Reduce greenhouse gases from transportation sources by 50% by 2050.

5. Transit Integration	
Goal: Integrate bicycling and walking into the transit system.	
Objectives:	5A: Increase the number of multi-modal trips that include bicycling and walking for at least one trip segment by improving and simplifying connections and transfers.
	5B: Consider incorporating bikeways in transit projects that include an exclusive right-of-way.
	5C: Provide access and bicycle support facilities to transit through the development of bikeways that serve transit stations and transit hubs.
	5D: Accommodate bicycles on all transit vehicles.
	5E: Provide safe end-of-trip facilities (bike parking, etc) at all transit facilities served by three or more routes
	5F: Provide projects that improve multi-modal connections and enhance bicycle-transit trip linking. This includes future BRT and regional commuter rail projects within Covina city limits.

6. Maintenance	
Goal: Ensure citywide bicycle facilities are clean, safe, accessible.	
Objectives:	6A: Maintain existing and future bicycle facilities to a high standard in accordance with guidelines established in this plan
	6B: Incorporate bicycle network repair and maintenance needs into the regular roadway maintenance regime as appropriate, paying particular attention to sweeping and pothole repair on priority bicycle facilities.
	6C: Identify safe, convenient and accessible routes for bicyclists through construction zones
	6D: Establish routine maintenance program that encourages citizens to report maintenance issues that impact bicyclist safety.
	6E: Develop an on-going city-wide maintenance strategy for non-motorized transportation facilities

7. Education & Encouragement	
Goal: Implement comprehensive education and encouragement programs targeted at all populations in the city.	
Objectives:	7A: Educate the general public on bicycle safety issues and encourage non-motorized transportation with programs that target pedestrians, bicyclists and motorists.
	7B: Install signage along all local and regional bikeways to assist with way-finding and to increase awareness of bicyclists.
	7C: Support Safe Routes to School and other efforts, including educational and incentive programs to encourage more students to bicycle or walk to school, through a partnership with the school districts and other interested parties.
	7D: Encourage employers to provide incentives and support facilities for employees that commute by bicycle.
	7E: Promote bicycling and walking through City-sponsored events.
	7F: Educate professional drivers (transit drivers, delivery drivers, etc) on bicyclist rights and safe motoring behavior around bicyclists.
	7G: Encourage large employers, colleges and universities, activity centers and major transit stops to provide secure bicycle storage facilities and racks and promote their efforts.

7. Education & Encouragement

7H: Encourage bicycle parking and showers, changing facilities and lockers for employee use at public buildings.

8. Enforcement

Goal: Increase enforcement on City streets and bikeways

Objectives:

8A: Increase attention by law enforcement officers to bicycle-related violations by both motorists and bicyclists, and emphasize positive enforcement for safe bicycling behavior by children.

8B: Increase enforcement efforts to prevent the obstruction of dedicated bikeways.

8C: Reduce aggressive and/or negligent behavior among drivers, bicyclists.

8D: Ensure that all bicycle collisions are accurately recorded into an collision database for future analysis and monitoring.

9. Health & Safety

Goal: Provide safe and accessible routes for bicyclists of all ages and abilities.

Objectives:

9A: Reduce crashes involving bicyclists and motor vehicles by at least 10 percent by 2016.

9B: Reduce the number of bicycle injuries by 50 percent from current levels by 2020.

9C: Strive to increase the proportion of cyclists who feel safe cycling in town to 75 percent by 2020.

1.4 Bicycle Transportation Account (BTA) Compliance

The Bicycle Transportation Account (BTA) is the most common source of bicycle facility funding in the State of California. BTA funds can fund City projects that improve safety and convenience for bicycle commuters. In order for the City to qualify for BTA funds, its Master Plan must contain specific elements. **Table 1-1** displays the requisite BTA components and their location within this plan. The table includes "Approved" and "Notes/Comments" columns for the convenience of the Los Angeles County Metropolitan Transportation Agency ("Metro") official responsible for reviewing compliance.

Table 1-1 BTA Requirement Checklist

Approved	Requirement	Page(s)	Notes/Comments
	a) The estimated number of existing bicycle commuters in the plan area and the estimated increase in the number of bicycle commuters resulting from implementation of the plan.	36-39	
	b) A map and description of existing and proposed land use and settlement patterns which shall include, but not be limited to, locations of residential neighborhoods, schools, shopping centers, public buildings, and major employment centers.	2, 11, 12, 19	
	c) A map and description of existing and proposed bikeways.	18, 19, 44-68	
	d) A map and description of existing and proposed end-of-trip bicycle parking facilities. These shall include, but not be limited to, parking at schools, shopping centers, public buildings, and major employment centers.	20, 68-70	
	e) A map and description of existing and proposed bicycle transport and parking facilities for connections with and use of other transportation modes. These shall include, but not be limited to, parking facilities at transit stops, rail and transit terminals, ferry docks and landings, park and ride lots, and provisions for transporting bicyclists and bicycles on transit or rail vehicles or ferry vessels.	20, 68-70	
	f) A map and description of existing and proposed facilities for changing and storing clothes and equipment. These shall include, but not be limited to, locker, restroom, and shower facilities near bicycle parking facilities.	20, 69	

Table 1-1 BTA Requirement Checklist

Approved	Requirement	Page(s)	Notes/Comments
	g) A description of bicycle safety and education programs conducted in the area included within the plan, efforts by the law enforcement agency having primary traffic law enforcement responsibility in the area to enforce provisions of the Vehicle Code pertaining to bicycle operation, and the resulting effect on accidents involving bicyclists.	79-86	
	h) A description of the extent of citizen and community involvement in development of the plan, including, but not limited to, letters of support.	27-32	
	i) A description of how the bicycle transportation plan has been coordinated and is consistent with other local or regional transportation, air quality, or energy conservation plans, including, but not limited to, programs that provide incentives for bicycle commuting.	20-24	
	j) A description of the projects proposed in the plan and a listing of their priorities for implementation.	44-68, 75-78	
	k) A description of past expenditures for bicycle facilities and future financial needs for projects that improve safety and convenience for bicycle commuters in the plan area.	87	

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2 Existing Conditions

This chapter describes existing conditions for bicycling in Covina. It includes a review of City plans, policies, and programs, and other relevant planning documents.

2.1 Existing Land Use

Covina's Land Use Plan is comprised of nine land use categories. These categories include low residential, medium residential, high residential, general commercial, town center commercial, industrial, school, park, and open space. Residential and commercial uses comprise a majority of existing land use. The Land Use Plan contained in the General Plan originally was conceived and presented as the "Moderate Growth Scenario,"" one of three development alternatives for the City of Covina. The other growth alternatives were the "Existing General Plan" and a "High Growth Scenario," which was a derivative of the ""moderate" land use proposal.

Table 2-1 summarizes the City's existing land use. **Figure 2-1** presents the City of Covina zoning map.

Table 2-1 City of Covina Land Use Summary

Land Use Category	Acres	Units	Population
Residential	2214	17,905	49,149
Low	1805.8	9889	27,145
Medium	196.0	2744	7532
High	239.6	5272	14,472
Commercial	548.4		
General	461.2		
Town Center	87.2		
Industrial	210.8		
School	359.8		
Park	63.2		
Open Space	39.2		
Public Streets	1017.2		
Total	**4480**		

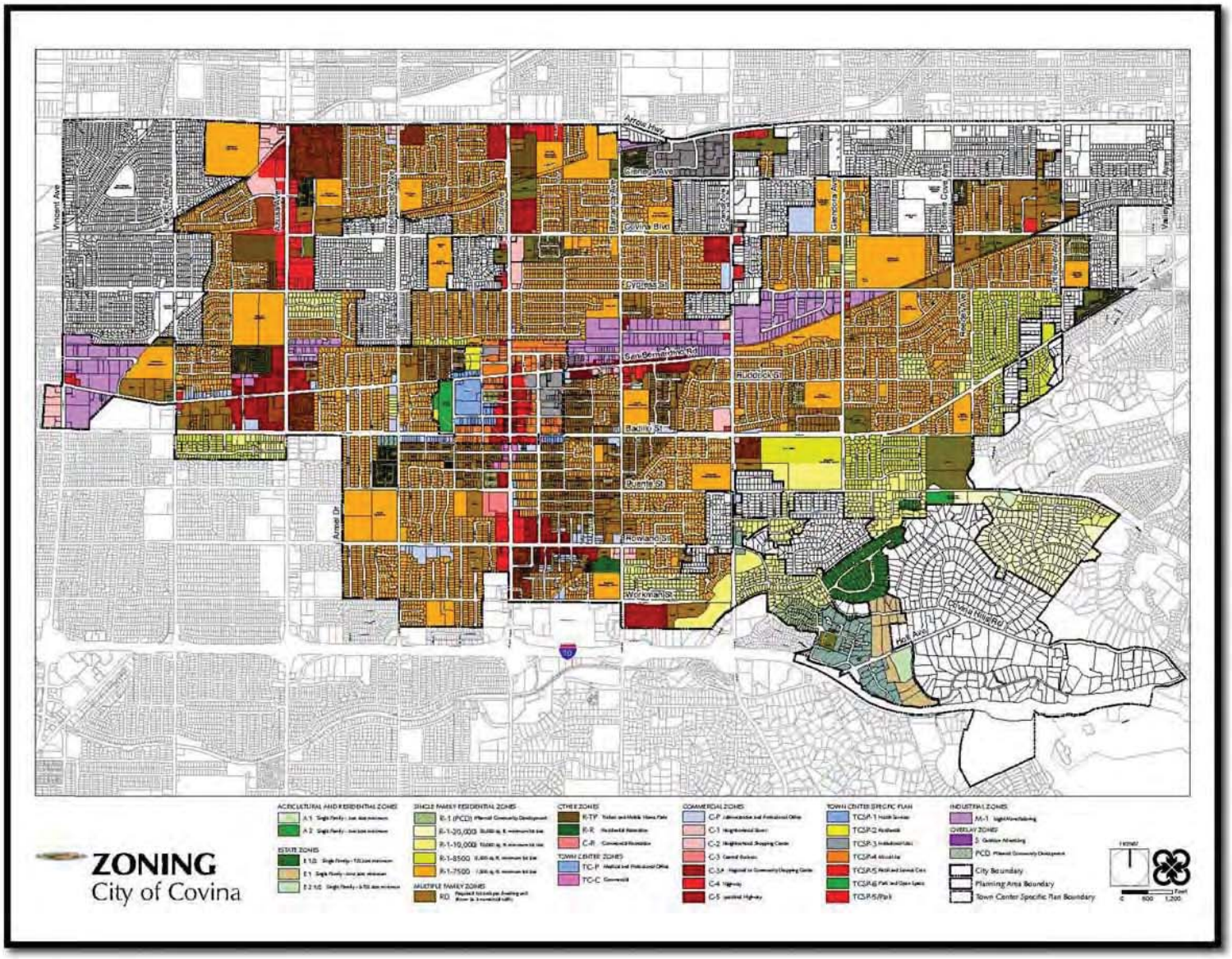


Figure 2-1 City of Covina Zoning

2.2 Roadway Characteristics

The street network in Covina consists generally of a grid pattern of arterial, collector, and local facilities. The background study for the BMP included taking a detailed inventory of the characteristics of arterial roadways, flood control channels, and other off-street locations deemed appropriate for study. The street inventory and bikeway route plan included the following steps:

- Performing field surveys of arterial and collector roadways.
- Measuring street width and lane geometry.
- Assessing the feasibility of establishing Class 2 bike lanes along arterial and collector roadways.
- Evaluating arterial roadway intersections for bike lane accommodation.
- Providing bikeway access to schools, parks, and the downtown area.
- Identifying opportunities for off-street connections and Class 1 bike paths.
- Determining appropriate crossing treatments at intersections of Class 1 paths and arterials.
- Ensuring continuity with regional and adjacent jurisdiction plans.
- Consulting City of Covina General Plan guidelines and policies.

Most north-south arterial roadways are spaced half a mile apart, and most of the east-west arterial roadways are spaced ¼-mile apart. Arterial roadway widths typically span from 58 to 88 feet, except in some neighborhoods where they span 36 to 42 feet in width. **Table 2-2** and **Table 2-3** present the collected arterial roadway information, including curb-to-curb width and the number of vehicle travel lanes.

Table 2-2 North-South Arterial Roadway Characteristics

North-South Roadway	From	To	Curb-to-Curb Width (feet)	Lanes / Dir	Center Type
Vincent Ave	Arrow Hwy	San Bernardino Rd	58 - 64	2	Stripe*
	San Bernardino Rd	West Covina city limit	70	2	Median/ Lane
Lark Ellen Ave	Arrow Hwy	West Covina city limit	58 - 64	2	Stripe*
Azusa Ave	Arrow Hwy	West Covina city limit	84	2	Median
Hollenbeck Ave	Arrow Hwy	San Bernardino Rd	60	2	Stripe*
	San Bernardino Rd	Badillo St	42	1	Stripe
	Badillo St	West Covina city limit	60	2	Stripe*
Citrus Ave	Arrow Hwy	Front St	80 - 86	2	Median/ Lane
	Front St	School St	56-70	2	Lane
	School St	Badillo St	56	1	Stripe
	Badillo St	Puente St	62 - 69	2	Stripe*
	Puente St	West Covina city limit	76	2	Stripe*
Second Ave	Front St	Puente St	78 - 84	2	Stripe*
	Puente St	Rowland St	56 - 62	2	Stripe*
Barranca Ave	Arrow Hwy	West Covina city limit	58 - 64	2	Stripe*
Grand Ave	Arrow Hwy	West Covina city limit	80 - 84	2	Median

Table 2-2 North-South Arterial Roadway Characteristics

North-South Roadway	From	To	Curb-to-Curb Width (feet)	Lanes / Dir	Center Type
Glendora Ave	Arrow Hwy	Puente St	60 - 64	2	Stripe*
Bonnie Cove Ave	Arrow Hwy	Cienega Ave	40	1	Stripe*
	Cienega Ave	200' south of Covina Blvd	64	1	Stripe*
	200' s/o Covina Blvd	100' north of RR	42	1	Stripe
	100' n/o RR	Cypress St	64	2	Stripe*
Sunflower Ave	Arrow Hwy	Badillo St	64	2	Stripe*
Valley Center Ave	Arrow Hwy	Badillo St	64 - 74	2	Stripe*

*Center turn lane provided at most signalized and some unsignalized intersections

Table 2-3 East-West Arterial Roadway Characteristics

East-West Roadway	From	To	Curb-to-Curb Width (feet)	Lanes / Dir	Center Type
Arrow Hwy	Vincent Ave	Valley Center Ave	80 - 84	2	Median
Cienega Ave	Barranca Ave	Valley Center Ave	60 - 64	2	Stripe*
Covina Blvd	Azusa Ave	Valley Center Ave	58 - 64	2	Stripe*
Cypress St	Vincent Ave	San Dimas city limit	58 - 64	2	Stripe*
San Bernardino Rd	Vincent Ave	Hollenbeck Ave	60 - 64	2	Stripe*
	Hollenbeck Ave	4th Ave	40 - 42	1	Lane
	4th Ave	Second Ave	42 - 52	1	Stripe*
	Second Ave	Grand Ave	60 - 64	2	Stripe*
Badillo St	Vincent Ave	San Dimas city limit	84 - 88	2	Median/ Lane
Puente St	West Covina city limit	3rd Ave	42 - 53	1	Stripe*
	3rd Ave	Citrus Ave	80	2	Lane
	Citrus Ave	Barranca Ave	32	1	Stripe
	Barranca Ave	Glendora Ave	60 - 64	2	Stripe*
	Reeder Ave	San Dimas city limit	24-28	1	Stripe
Rowland St	West Covina city limit	Grand Ave	74	2	Median/ Lane
Workman Ave	West Covina city limit	Calvados Ave	42 - 44	1	Stripe
	Calvados Ave	Barranca Ave	52 - 57	1 - 2**	Stripe
Covina Hills Rd	Grand Ave	Oak Canyon Rd	26-30	1	Stripe
	Oak Canyon Rd	Rancho Sinaloa Dr	52	1	Stripe*
	Rancho Sinaloa Dr	San Dimas city limit	24-28	1	Stripe
Holt Ave	Garvey Ave North	200' e/o Park View Dr	64	1	Stripe
	200' e/o Park View Dr	Covina Hills Rd	24-28	1	Stripe

Table 2-3 East-West Arterial Roadway Characteristics

East-West Roadway	From	To	Curb-to-Curb Width (feet)	Lanes / Dir	Center Type
Garvey Ave North	West Covina city limit	Holt Ave	32-40	1	Stripe

*Center turn lane provided at most signalized and some unsignalized intersections

**Two lanes eastbound and one lane westbound

2.3 Public Transit

Foothill Transit provides bus service within the City of Covina along Azusa Avenue (Route 280), Citrus Avenue / Second Avenue (Route 281), Grand Avenue (Route 488/498), Glendora Avenue (Route 284), Badillo Street / Puente Street (Route 851) and Arrow Highway (Route 492). Metro provides additional bus service along San Bernardino Road / Azusa Avenue / Rowland Avenue (Route 190), and Workman Avenue (Route 194).

The San Bernardino line of the Southern California Regional Rail Authority's Metrolink service traverses the City from east to west. The Covina Metrolink Station sits along the east side of Citrus Avenue south of Edna Place. The station provides bike rack parking for 18 bicycles and an enclosed secure facility located in the center of the parking lot with space for 36 bicycles. Only registered parking users may access the enclosed secure facility. Although overnight storage is available, the enclosed secure facility is primarily intended for daytime use by train commuters.

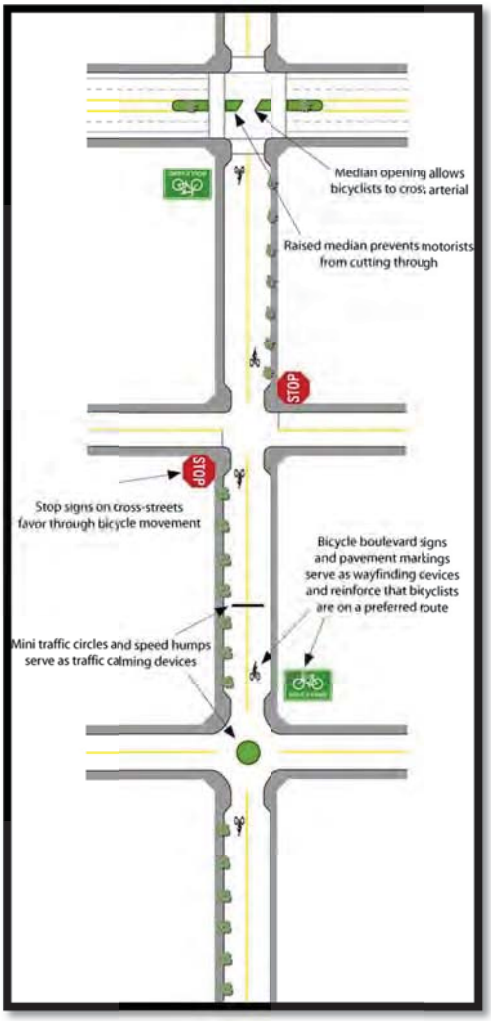
2.4 Bikeways

The BMP refers to bikeways using California Department of Transportation (Caltrans) standard designations. This section defines the three types of bikeways identified by the Streets and Highways Code and by Chapter 1000 of the Highway Design Manual (HDM).

Figure 2-2 illustrates the three types of bikeways.

- **Class I Bikeway**: Typically called a "bike path," a Class I Bikeway provides bicycle travel on a paved right-of-way completely separated from any street or highway.
- **Class II Bikeway**: Often referred to as a "bike lane," a Class II Bikeway provides a striped, signed, and stenciled lane for one-way travel on a street or highway.
- **Class III Bikeway**: Generally referred to as a "bike route," a Class III Bikeway provides for shared use with bicycle or motor vehicle traffic and uses only signage identification.

Bicycle Boulevards – In addition to the three bikeway types defined by Caltrans, some jurisdictions are constructing "Bicycle Boulevards", which are local roads or residential streets enhanced with signage, traffic calming and other treatments to prioritize bicycle travel. Bicycle boulevards are typically found on low-traffic / low-volume streets that can accommodate bicyclists and motorists in the same travel lanes, without specific bicycle lane delineation. Bicycle Boulevards are not defined as a specific bikeway type by Caltrans; however, the basic design features of bicycle boulevards comply with Caltrans standards.



Sample Bike Boulevard Treatment

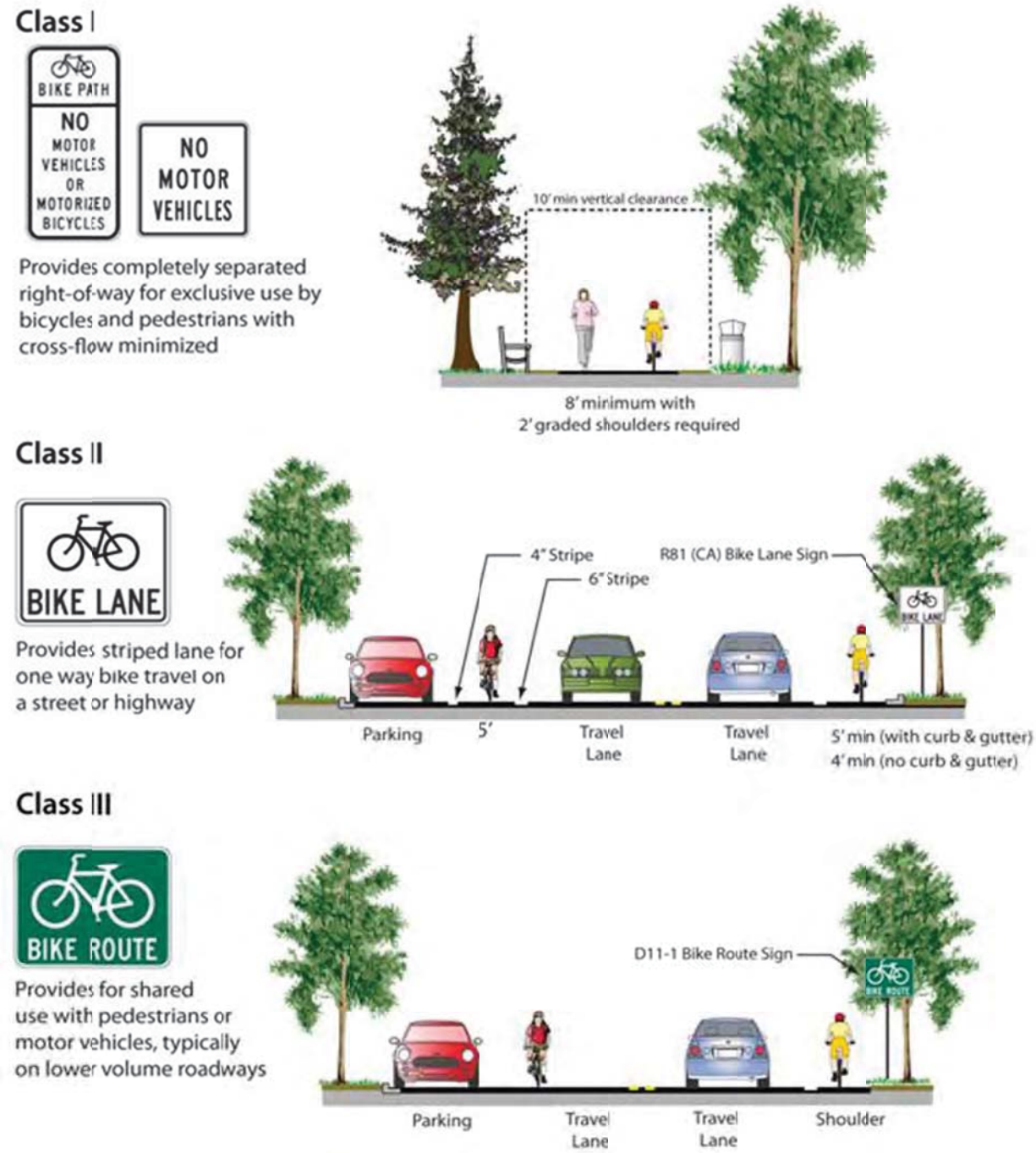


Figure 2-2 Caltrans Bikeway Classifications

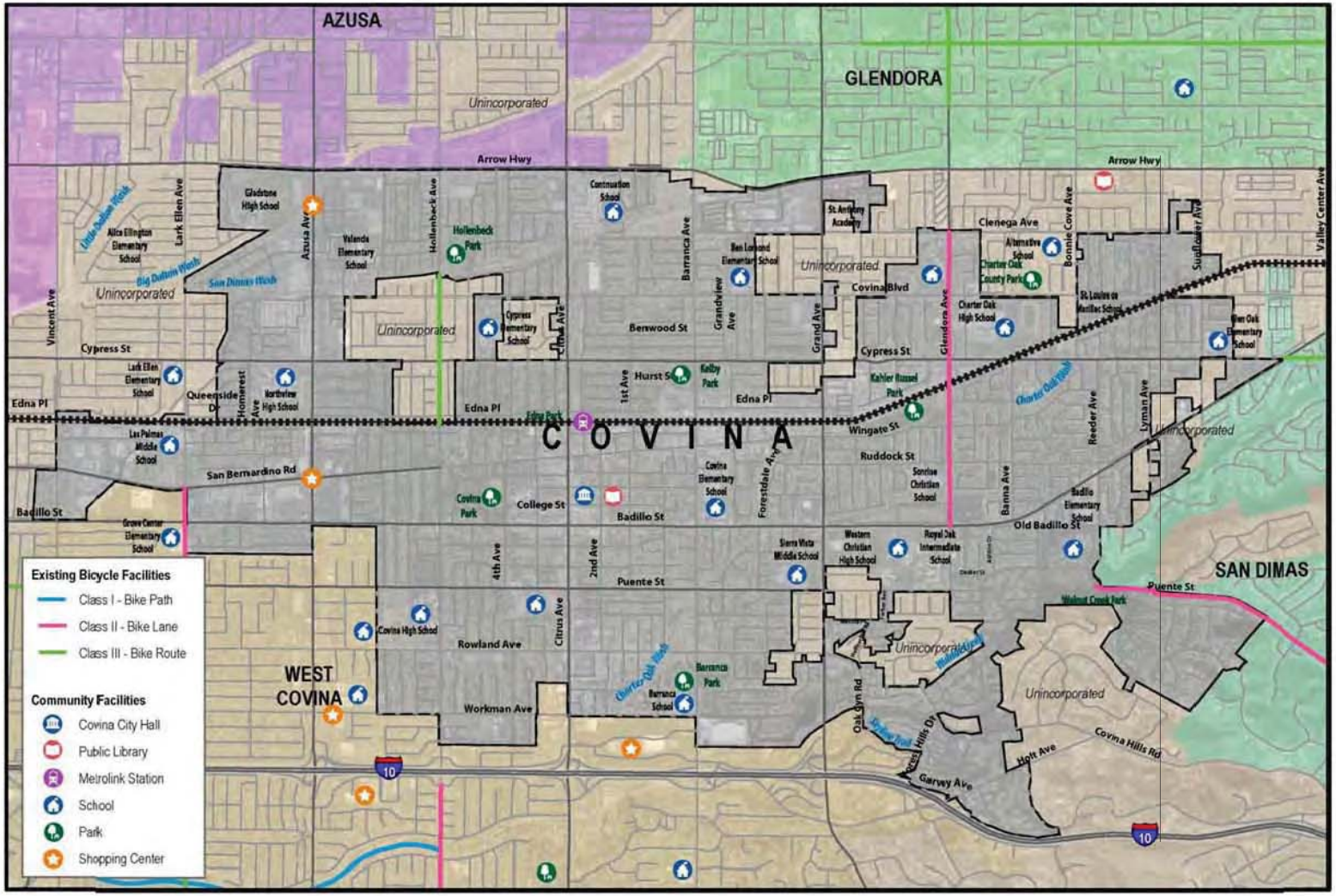
There are bikeways in the communities neighboring Covina, but only one bicycle facility within the City itself. **Table 2-4** below lists the existing bikeway in Covina with its corresponding limits and distance.

Table 2-4 Existing Bikeway

Class	Street	Limit 1	Limit 2	Length
Class II	Glendora Ave	Cienega Ave	Badillo St	1.16

The only existing Class II bike lane in Covina is located along Glendora Avenue between Arrow Highway and Covina Boulevard. Currently, the lane varies from 3 to 5 feet and cars are allowed to park in the bike lane. This facility does not adhere to Caltrans bike lane standards, which mandate that a Class II facility must be a minimum of five feet wide (when including the gutter) and that parking is prohibited in the bike lane at all times. One of the bikeway projects recommended in the BMP's proposed network is to improve the Glendora bike lane to meet Class II standards.

Figure 2-3 presents Covina's existing bicycle facilities.



CITY OF COVINA EXISTING BIKEWAYS

City of Covina Bicycle Master Plan

Image Source: © 2010 Google Earth
Map Source: Los Angeles MTA (2006, 2010); Alta Planning+ Design (2011)
Map Date: APRIL 2011

0 0.25 0.50 Miles

Figure 2-3 City of Covina Existing Bicycle Facilities

2.5 Bicycle End-of-Trip and Intermodal Facilities

In compliance with BTA requirements, this BMP inventories publicly-accessible end-of-trip facilities for use by members of the cycling public to change and store clothes and equipment. These facilities include, but are not limited to, locker, restroom, and shower facilities located near bicycle parking. The City of Covina does not currently provide any publicly-accessible end-of-trip facilities within its jurisdiction. This BMP presents proposed facilities in Chapter 4.

This BMP also meets BTA requirements by taking inventory of existing bicycle transport and parking facilities for connecting to public transit services. These facilities include, but are not limited to, bicycle parking at transit stops, rail and transit terminals, and park and ride lots, as well as provisions for transporting bicycles on public transit vehicles. The City of Covina currently provides a secured, long-term Bikestation® bicycle parking facility at the Covina Metrolink Station. The City also recently installed 29 bicycle racks in the Downtown. This BMP presents proposed end-of-trip facilities in **Chapter** 4.

2.6 Relationship to Existing Plans and Policies

This section reviews existing policies, documents, and ordinances relevant to the BMP. These documents provide an additional framework for bicycle improvements and policies in the City of Covina.

2.6.1 City of Covina

City General Plan

The General Plan Circulation Element discusses 3.5 miles of Class III signed bicycle routes on Lark Ellen, Hollenbeck, and Grand Avenues and on Badillo Street in addition to the mile-long Class II bike lane on Glendora Avenue. According the Circulation Element, the City created these bicycle facilities in the 1970s as part of a regional network. The Circulation Element includes recommendations to

> "continue monitoring its bicycle-serving network to ensure continued safety as well as to consider expansion and/or improvement, where feasible and funding permits. Regarding the latter point, for example, Covina officials could add new routes or lanes on additional primary or secondary arterial and/or collector streets, particularly roads that would better link existing schools, parks, and employment centers. Another potential amenity could be the addition of, again where feasible, public bicycle parking areas along the routes/paths at appropriate locations."

City Municipal Code

Section 10.52 of the Covina Municipal Code (CMC) addresses "bicycles and wheeled toys." The following section discusses CMC components that pertain to bicyclists:

> §10.52.002 – specifically prohibits the use of bicycles, on sidewalks within a business district. This is a common code utilized in cities throughout the United States and generally effective at minimizing conflict with bicyclists in places where there is a high concentration of pedestrian activity. Without enforcement this code cannot be effective, but it does provide law enforcement with the legal backing to regulate this behavior when observed.

§10.52.020 – requires the registration of bicycles. Due to problems with enforcement and management/staffing of bicycle licensing programs, many municipalities have abandoned the enforcement of bicycle licensing and removed it from municipal code.

City of Covina Bikeway Feasibility Study

The Covina Bikeway Feasibility Study (CBFS)[3] evaluates the City's existing roadway network within Covina to develop a citywide bicycle network within existing roadway right-of-way. The study accounts for street width, lane geometry, travel demand, and connectivity to trip generators within the City, including parks, schools and commercial districts. This study includes field survey measurements of the City's arterial and collector roadway network.

In total, the study recommends:

- 8.7 miles of Class I bike paths.
- 52.3 miles of Arterial Class II / Class III bikeways.
- 8.9 miles of Bike Boulevards.

For city orientation, the study divides the proposed bikeway network into east-west corridors and north-south corridors. This BMP is consistent with the bulk of the CBFS recommendations.

Downtown / Metrolink Station Multimodal Planning Study

The Downtown / Metrolink Station Multimodal Planning Study focuses on bicycle and pedestrian connections between the Covina Metrolink Station and Downtown Covina. The study identifies major obstacles to station accessibility, including difficult crossings of Citrus Avenue near the station, the lack of bicycle facilities in the study area, and gaps in the streetscape between the downtown core and the station area. A significant part of the study is observations of pedestrian and bicyclist behavior via two-day counts, and a collision analysis within the project area. Station commuters frequently engage in dangerous behavior, such as crossing the tracks when the crossing arms are in the down position.

The Downtown / Metrolink Station study is consistent with the bikeway recommendations from the Covina Bikeway Feasibility Study, and also consistent with recommendations in this BMP.

2.6.2 County of Los Angeles

Metro Bicycle Transportation Strategic Plan (BTSP)

The Los Angeles County Metropolitan Transportation Authority (Metro) is the primary local funding source for transportation projects, including bicycle and pedestrian projects, as the County's Regional Transportation Planning Agency (RTPA). The Bicycle Transportation Strategic Plan (BTSP) developed by Metro provides an inventory of existing and planned facilities within Los Angeles County. This inventory assists in identifying routes that may eventually provide trans-jurisdictional continuity for cyclists. Secondly, the BTSP outlines a strategy for prioritizing regional bikeway projects. The BTSP outlines a regional strategy to fund projects that improve bicycle access to transit or close gaps in the regional bikeway network. The BTSP notes the Covina Metrolink Station as a bicycle/transit hub.

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[3] Alta Planning and Design, July 2010

County of Los Angeles Bicycle Master Plan

The County of Los Angeles Bicycle Master Plan guides the development and maintenance of a comprehensive bicycle network and programs within the unincorporated communities of Los Angeles County. The County Bicycle Master Plan seeks to connect existing bicycle facilities in incorporated areas of the county with proposed facilities in the unincorporated areas of the county. By focusing on this level of connectivity, the County of Los Angeles Bicycle Master Plan hopes to create better opportunities for regional bicycle travel and recreation. In addition to on-street bikeways, this plan also examines feasibility for separated Class I bike paths along county operated or maintained rights of way, such as storm channels, utility corridors, rivers, creeks, and arroyos in the area. The implementation of the Los Angeles County Bicycle Master Plan will start in the year 2012 after California Environmental Quality Act (CEQA) review.

The City of Covina is within Los Angeles County's East San Gabriel Valley Planning Area. The unincorporated parts of this planning area currently contain 24.5 miles of existing bikeways, including 7.5 miles of Class I bicycle paths.

Figure 2-4 displays the existing bicycle network in the East San Gabriel Valley Planning Area.

2.6.3 State of California

California Government Code §65302 (Complete Streets)

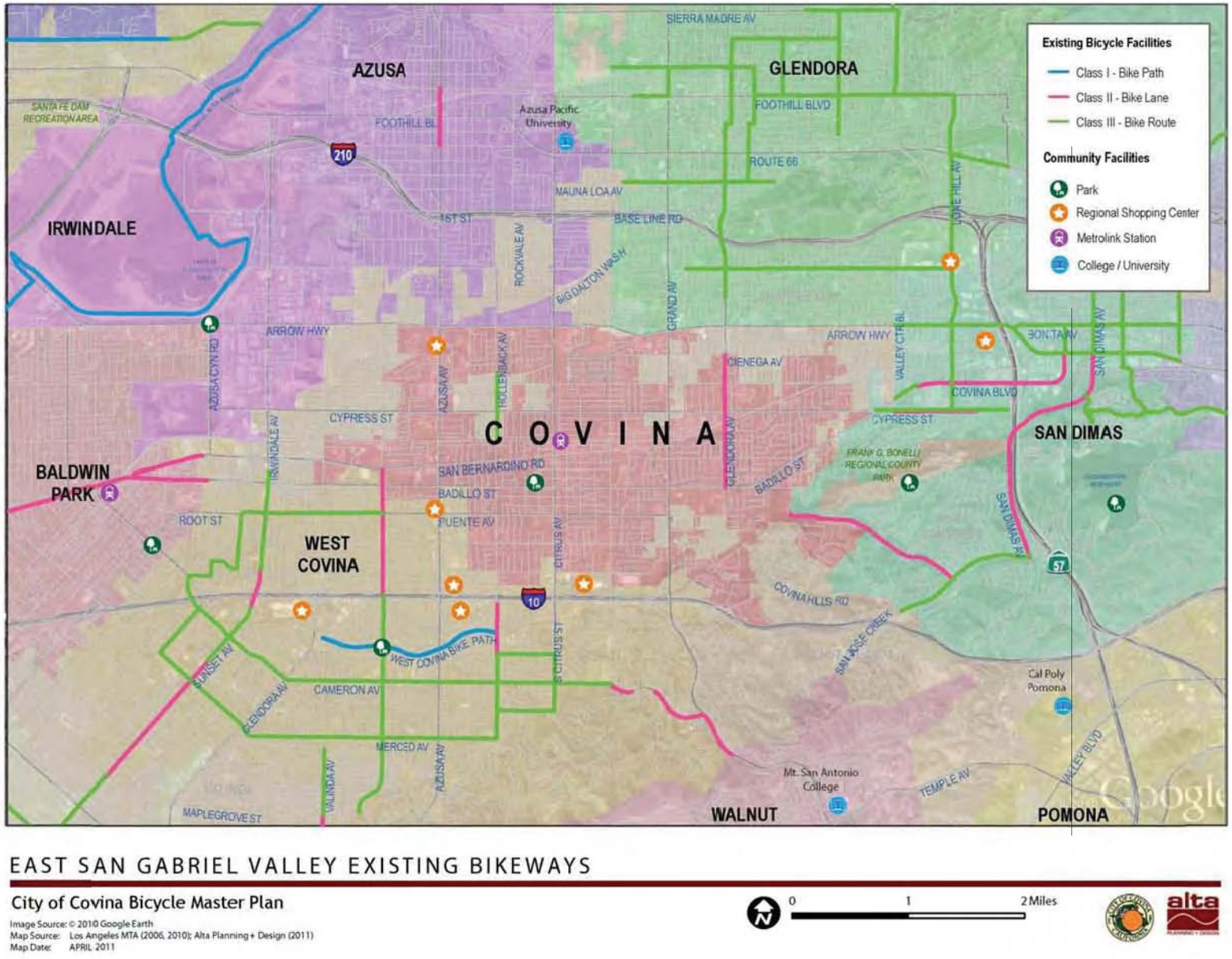
California Assembly Bill (AB) 1358, also known as the Complete Streets Bill, amended the California Government Code §65302 to require that all major revisions to a city or county's Circulation Element include provisions for the accommodation of all roadway users including bicyclists and pedestrians. Accommodations include bikeways, sidewalks, crosswalks, and curb extensions. The Government Code §65302 reads:

> (2)(A)Commencing January 1, 2011, upon any substantive revision of the circulation element, the legislative body shall modify the circulation element to plan for a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel in a manner that is suitable to the rural, suburban, or urban context of the general plan.
>
> (B)For purposes of this paragraph, "users of streets, roads, and highways" means bicyclists, children, persons with disabilities, motorists, movers of commercial goods, pedestrians, users of public transportation, and seniors.

Deputy Directive 64 & Traffic Operations Policy Directive 09-06

Of note and related to AB 1358, the California Department of Transportation (Caltrans) adopted two policies in recent years relevant to bicycle planning initiatives such as this Bicycle Master Plan. Similar to AB 1358, Deputy Directive 64 (DD-64-R1) sets forth that Caltrans addresses the "safety and mobility needs of bicyclists, pedestrians, and transit users in all projects, regardless of funding."

In a more specific application of complete streets goals, Traffic Operations Policy Directive 09-06 presents bicycle detection requirements. For example, 09-06 requires that new and modified signal detectors provide bicyclist detection if they are to remain in operation. Further, the Policy Directive states that new and modified bicycle path approaches to signalized intersections must provide bicycle detection or a bicyclist pushbutton if detection is required.



EAST SAN GABRIEL VALLEY EXISTING BIKEWAYS

City of Covina Bicycle Master Plan

Image Source: © 2010 Google Earth
Map Source: Los Angeles MTA (2006, 2010); Alta Planning + Design (2011)
Map Date: APRIL 2011

0 1 2 Miles

Figure 2-4 East San Gabriel Valley Existing Bicycle Facilities

California SB 375 – Sustainable Communities (2008)

Senate Bill (SB) 375 serves to complement Assembly Bill (AB) 32: The Global Warming Solutions Act of 2006 and encourages local governments to reduce emissions through improved planning. Under SB 375, the California Air Resources Board (CARB) must establish targets for 2020 and 2035 for each region covered by one of the State's 18 metropolitan planning organizations (MPOs). Each of California's MPOs must prepare a "Sustainable Communities Strategy (SCS)" that demonstrates how the region will meet its greenhouse gas (GHG) reduction target through integrated land use, housing and transportation planning. One way to help meet the greenhouse gas emissions targets is to increase the bicycle mode share by substituting bicycle trips for automobile trips. The City's efforts to encourage bicycling and other alternative modes of transportation will contribute to the regional attainment of these targets.

3 Needs Analysis

This chapter describes the needs of bicyclists in the City of Covina using several methods. First, this chapter characterizes the needs and abilities of various bicyclist types based on industry-standard manuals and bicycle-related research. The following section summarizes the results from the City-administered bicyclist survey, and summarizes feedback collected from two public workshops and outreach conducted at the Covina Green Fair. To provide insight on a more generalized scale, this chapter examines work and school commute data from the US Census. Lastly, this chapter analyzes reported bicycle collisions from 2000 to 2008.

3.1 Bicyclist Types

It is important to consider bicyclists of all skill levels in creating a bicycle plan. The most outspoken bicyclists during the planning process are often also the most experienced. The age, physical condition, skill, and comfort level of the bicyclist greatly influences his or her expected speeds, behavior, and preferred facility type.

There are several systems of classification currently in use within the bicycle planning and engineering professions. These classifications can be helpful in understanding the characteristics and infrastructure preferences of different bicyclists. However, these classifications may change in type or proportion over time as infrastructure and culture evolve. Bicycle infrastructure should have plans and designs that accommodate as many user types as possible, with decisions for separate or parallel facilities based on providing a comfortable experience for the greatest number of bicyclists. The system's overarching goal should be to convert non-cyclists into regular cyclists, and to transition novice riders into experienced riders.

The following user types come from an excerpt from the 1999 AASHTO Guide for the Development of Bicycle Facilities:

> *"Although their physical dimensions may be relatively consistent, the skills, confidence and preferences of bicyclists vary dramatically. Some riders are confident riding anywhere they are legally allowed to operate and can negotiate busy and high speed roads that have few, if any, special accommodations for bicyclists. Most adult riders are less confident and prefer to use roadways with a more comfortable amount of operating space, perhaps with designated space for bicyclists, or shared-use paths that are away from motor vehicle traffic. Children may be confident riders and have excellent bicycle handling skills, but have yet to develop the traffic sense and experience of an everyday adult rider. All categories of rider require smooth riding surfaces with bicycle-compatible highway appurtenances, such as bicycle-safe drainage inlet grates.*
>
> *A 1994 report by the Federal Highway Administration used the following general categories of bicycle user types (A, B and C) to assist highway designers in determining the impact of different facility types and roadway conditions on bicyclists:*
>
> *Advanced or experienced riders are generally using their bicycles as they would a motor vehicle. They are riding for convenience and speed and want direct access to destinations with a minimum of detour or delay. They are typically comfortable riding with motor vehicle traffic; however, they need sufficient operating space on the traveled way or shoulder to eliminate the need for either themselves or a passing motor vehicle to shift position.*

Basic or less confident adult riders may also be using their bicycles for transportation purposes, e.g., to get to the store or to visit friends, but prefer to avoid roads with fast and busy motor vehicle traffic unless there is ample roadway width to allow easy overtaking by faster motor vehicles. Thus, basic riders are comfortable riding on neighborhood streets and shared-use paths and prefer designated facilities such as bicycle lanes or wide shoulder lanes on busier streets.

Children, riding on their own or with their parents, may not travel as fast as their adult counterparts but still require access to key destinations in their community, such as schools, convenience stores and recreational facilities. Residential streets with low motor vehicle speeds, linked with shared-use paths and busier streets with well defined pavement markings between bicycles and motor vehicles can accommodate children without encouraging them to ride in the travel lane of major arterials."

The AASHTO classifications above were the standard for at least 15 years, and can be helpful when assessing existing bicyclists. However, these classifications do not accurately describe all existing types of bicyclists, nor can they account for the population as a whole. For instance, they do not include potential bicyclists who are interested in riding, but feel that existing facilities are unsafe.

Supported by data collected nationally since 2006, planners developed alternative categories to address Americans' 'varying attitudes' towards bicycling. According to this recent data, illustrated in **Figure 3-1**, less than one percent of Americans comprise a group of bicyclists who are '**Strong and Fearless.**' These bicyclists typically ride anywhere on any roadway regardless of roadway conditions or weather. These bicyclists can ride faster than other user types, prefer direct routes and will typically choose roadway connections – even if shared with vehicles – over separate bicycle facilities such as bicycle paths.

Approximately seven percent fall under the category of '**Enthused & Confident**' bicyclists who are confident and mostly comfortable riding on all types of bicycle facilities but will usually prefer low traffic streets or multi-use pathways when available. These bicyclists may deviate from a more direct route in favor of a preferred facility type. This group includes all kinds of bicyclists including commuters, recreationalists, racers, and utilitarian bicyclists.

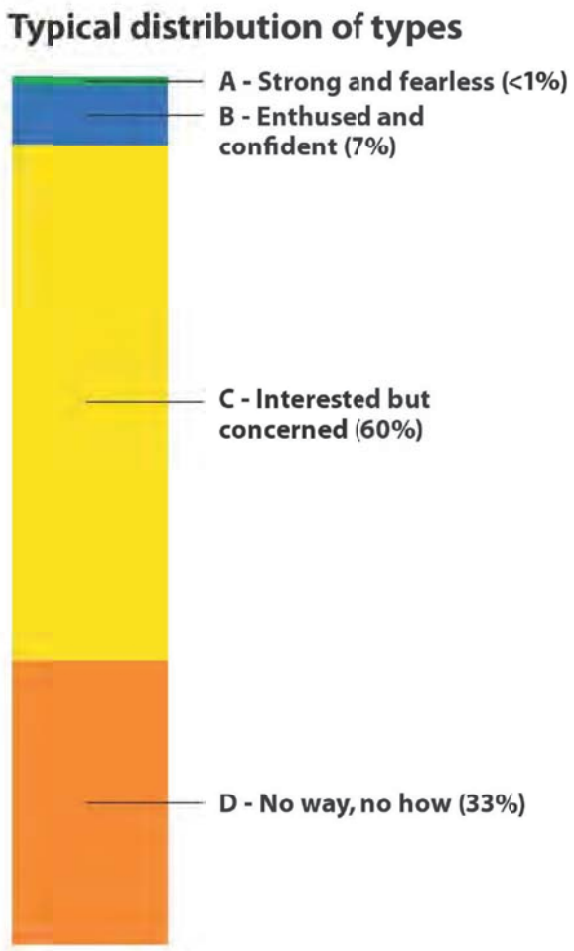


Figure 3-1 Bicyclist Classifications

The remainder of the American population does not currently ride a bicycle regularly. Approximately 60 percent of the population can be categorized as '**Interested but Concerned'** and represents bicyclists who typically only ride a bicycle on low traffic streets or bicycle paths under favorable conditions and weather. These infrequent or potential bicyclists perceive traffic and safety as significant barriers towards increased use of bicycling. These bicyclists may ride more regularly with encouragement, education and experience.

Approximately 33 percent of Americans are not bicyclists, and perceive severe safety issues with riding in traffic. Some people in this group may eventually consider bicycling and may progress to one of the user types above. A significant portion of these people will never ride a bicycle under any circumstances, and this attitude toward cycling is classified as **'No Way, No How.'**

3.2 Public Outreach

This section presents Covina residents' vision for the Bicycle Master Plan, which the City collected via an online survey that closed on April 30, 2011 and two public workshops on March 29 and 30, 2011. The City publicized the online survey and public workshops during the City of Covina Green Fair held on March 19, 2011. Project staff hosted a booth with informational posters, talked with passers-by, and distributed approximately 400 bicycle water bottles with a flyer advertising the online survey link and workshop days and times. Other BMP publicity included an article in the San Gabriel Valley Tribune, various blog postings, and email outreach to local stakeholders, such as cycling clubs and local bicycle shops.[4]

Online Survey

City staff solicited public participation for the survey and community meeting through City news releases; outreach to local businesses, cycling groups, schools, and other community groups; as well as a booth at the first annual Green Fair (March 19, 2011). Responses were collected from March 19 through April 30, 2011. Paper copies of the survey were distributed at BMP public workshops. The survey received a total of 52 responses. The survey asked respondents detailed questions about their travel behavior for short trips and school trips, bicycling and walking activity levels, obstacles to bicycling and walking, and factors that would encourage walking and bicycling. Demographic information was also collected. Appendix A contains a copy of the online survey.

As shown in **Figure 3-2**, most respondents were equally divided amongst four age-range categories, from 26 to 56 and over. There was only one respondent younger than 18 and two respondents between 18 and 25 years old.

[4] Figueroa, J. (2011) *Covina wants to get handle on bike lanes.* San Gabriel Valley Tribune. Mar. 28, 2011. http://www.sgvtribune.com/news/ci_17720193

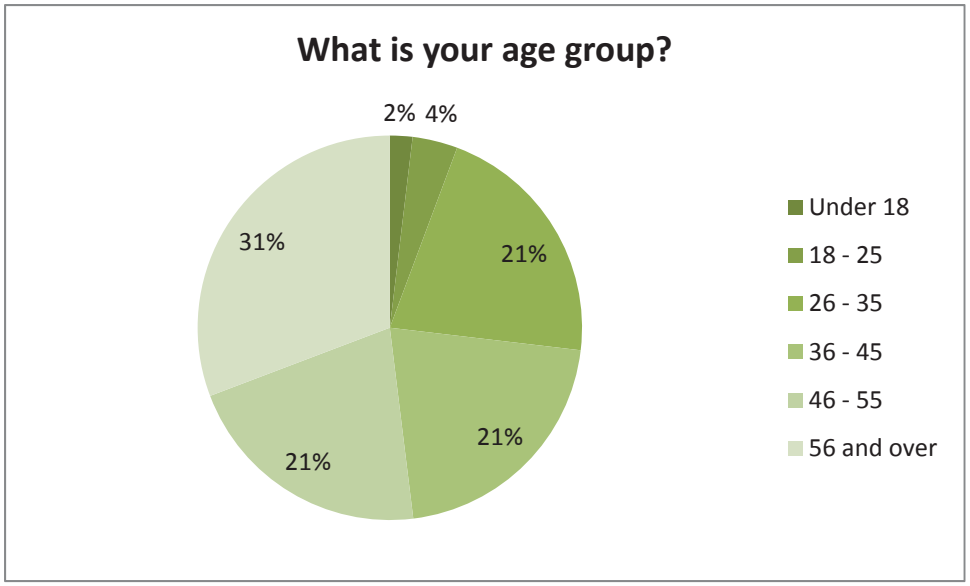


Figure 3-2 Survey Respondent Age

The survey asked respondents to indicate how often they rode a bicycle in the past month. Data presented in **Figure 3-3** shows that about 75 percent of respondents rode their bicycle at least once in the past month. Seventeen percent ride nearly every day of the week (5-7 days per week). This result is higher than the US Census-reported commute mode share, which indicates that these respondents likely bike for non-work purposes, such as recreation and shopping. Approximately 60 percent of respondents reported riding more than once a week, while another twelve percent reported riding regularly on a monthly basis.

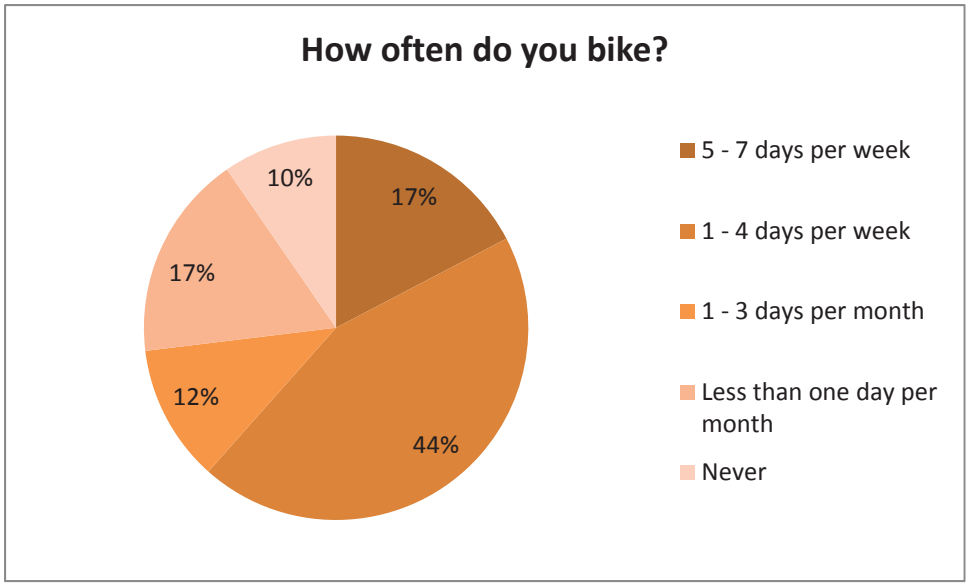


Figure 3-3 Bicycling Frequency

Figure 3-4 presents survey respondents' reported average bike trip distance. Approximately half of all respondents generally travel less than five miles by bike. The remaining cyclists reported regularly riding more than five miles, with around a quarter riding more than ten miles on an average trip.

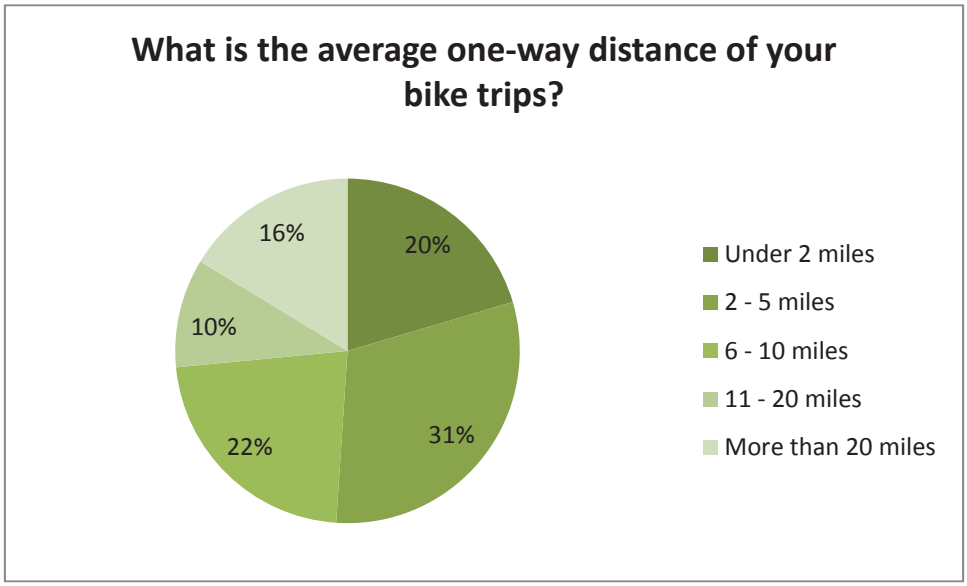


Figure 3-4 Bike Trip Distance

Figure 3-5 presents survey respondents' reasons for bicycling. The most commonly cited reasons were for discretionary purposes (exercise/health, shopping/errands/dining, and visiting friends). Less frequently cited was bicycling for commute purposes, although roughly 15 percent of respondents reported linking a bicycling trip with public transit. This reinforces the importance of providing support for multimodal bicycle infrastructure and policies, such as secure bicycle parking and bike racks on buses.

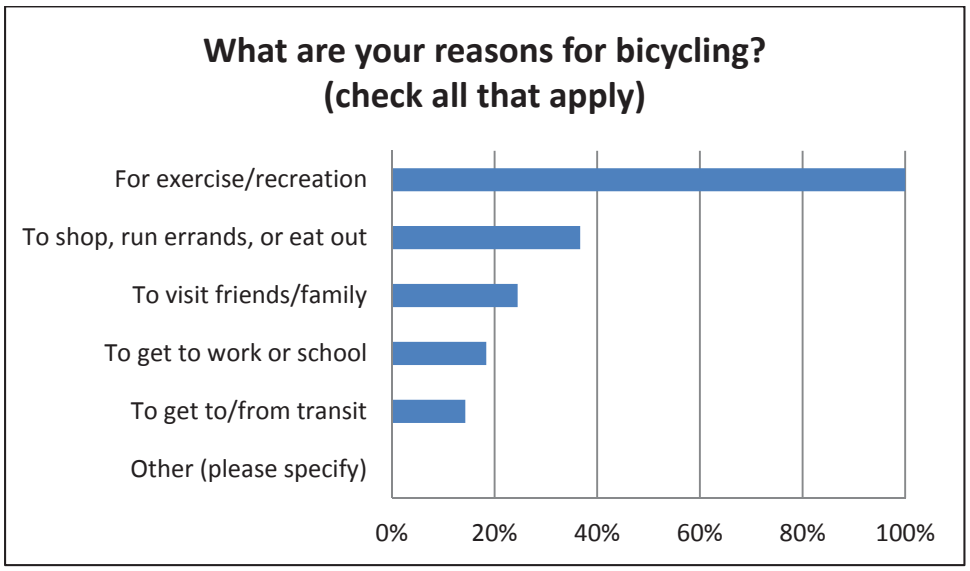


Figure 3-5 User Survey: Reasons for Bicycling

The survey asked respondents to rank the factors affecting their decision to bike or not bike. Out of ten factors, the top five most important factors affecting bicycling were:

1. Traffic volumes/speeds
2. Motorists' behaviors
3. Condition of bikeway/roadway (i.e. pavement quality, etc.)
4. Presence of bike paths, lanes, or routes
5. Weather

The top four responses, traffic volumes / speeds, motorist behavior, bikeway condition, and the presence of bikeways, reflect concerns about safety. These concerns are natural considering the City only has one roadway with a bike lane, which requires cyclists to share the road with auto traffic. These responses may also reflect cyclists' tendency to use major roadways.

Survey respondents ranked their preference for new bicycle infrastructure from "Very Interested" to "Not Interested" in the following manner:

1. Bike Lanes
2. Bicycle Boulevards
3. Paved Paths
4. Bike Routes
5. Unpaved Trails or Dirt Paths
6. Roadways with no bicycle facilities

The preference for new on-street facilities (e.g. bike lanes and bicycle boulevards) is consistent with respondents' most important factors affecting bicycling, such as traffic volumes / speeds and motorist behavior. These results confirm that survey respondents tend to ride on busy roadways and prefer to receive additional reinforcement to their right to the road.

The survey also asked respondents to rank possible bicycle programs to implement as a part of the BMP. Out of ten options, respondents picked the following five programs as the most interesting:

1. Public awareness campaigns
2. Maps and guides
3. Bicycle information websites
4. Safe Routes to School programs for children
5. Riding skills and safety courses for children

The top three responses indicate a need for more public information and support for bicycling in Covina. The fourth and fifth most popular responses reflect concerns about children's safety when bicycling.

The survey included an open-ended question asking respondents to identify roadways, schools, parks, and employment areas that should receive new bicycle facilities. **Figure 3-6** graphically represents the most commonly requested facilities, with larger font size indicating higher request frequency. Badillo Street, Citrus Avenue, Cypress Street, Grand Avenue, Barranca Avenue, and San Bernardino Road were frequently mentioned roadways. Covina Park and Bonelli Park were frequently mentioned destinations.

Figure 3-6 Frequently Requested Facilities for Bicycle Improvements

Public Workshop

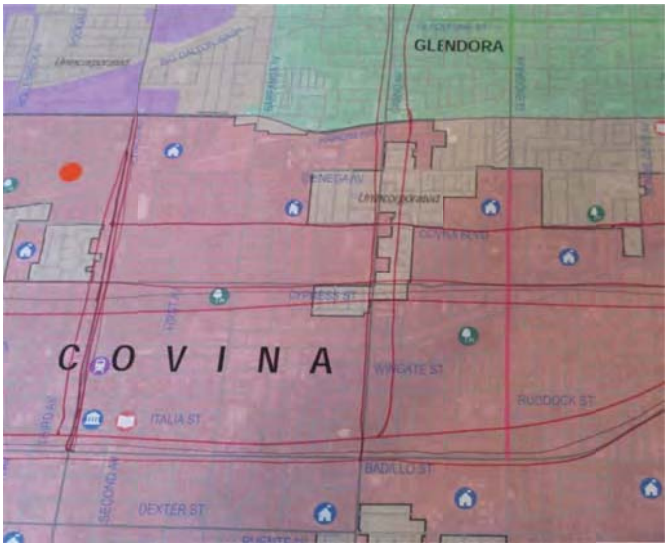
The City solicited public input to the BMP via two workshops. The first workshop was a joint meeting with the Parks and Recreation Department on March 29, 2011. The City held a second stand-alone BMP meeting on March 30, 2011. There were twelve participants at the joint workshop and eight participants at the second workshop. Each workshop had an "open house" structure that allowed participants to peruse the ten poster boards, each of which summarized a component of the bicycle plan. The displays included maps that asked participants to mark their home and place of employment, and desired bicycle facility within

Covina BMP Public workshop materials

the City of Covina.

Several participants lived and/or worked outside of City Limits, and therefore did not mark the origin-destination map. However, many marked the preferred facility map. The most commonly marked roadways for future bikeway facilities were:

- Badillo Street
- Azusa Avenue
- Citrus Avenue
- Arrow Highway
- Cypress Street
- Covina Boulevard
- Grand Avenue



Covina BMP Public workshop materials

These roadways are primarily arterials and collector roads. Each one runs continuously through the City within the overall grid system, which allows each roadway to connect to multiple regional destinations while also connecting to each other.

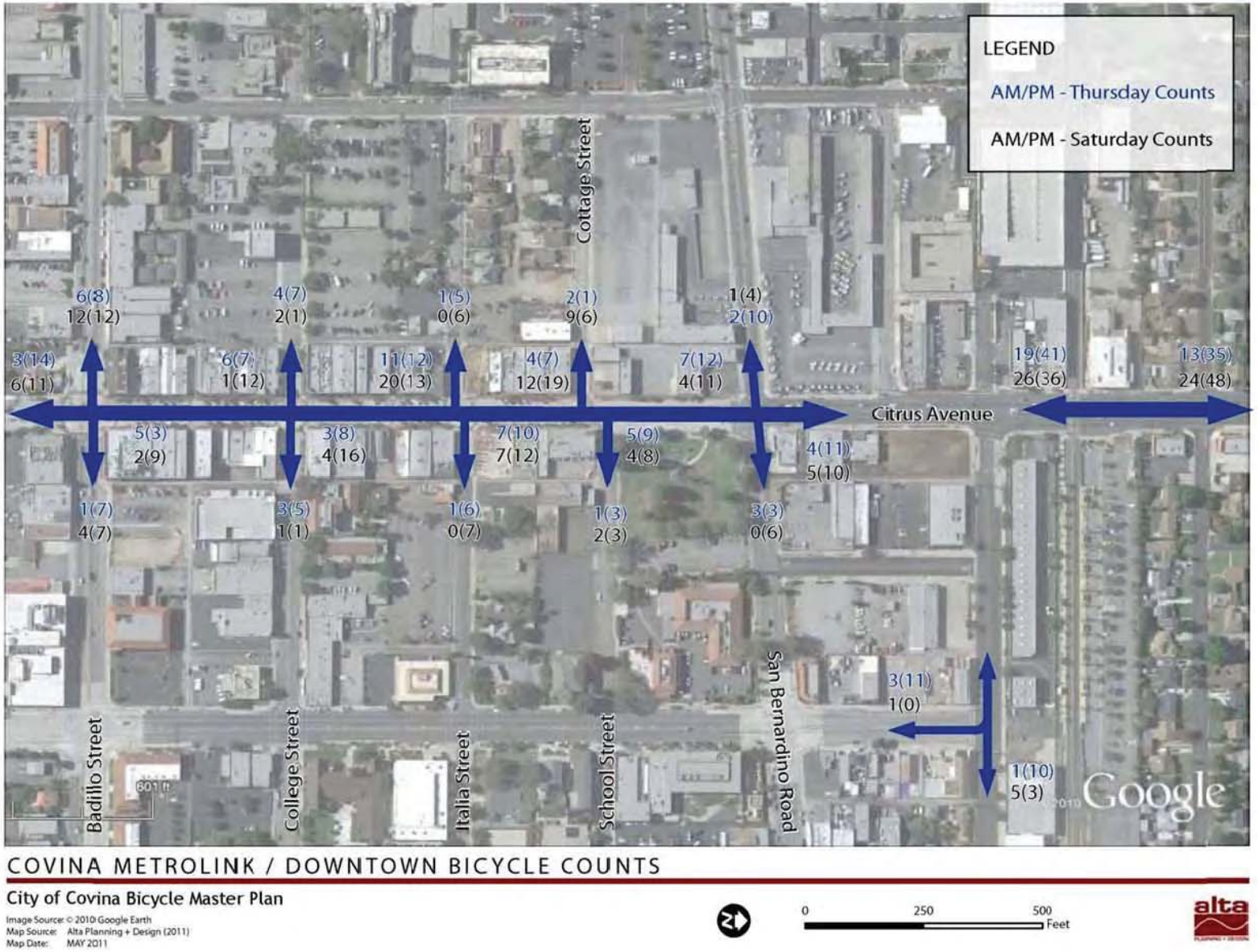
Workshop participants also frequently requested improvements that would provide connectivity to regional destinations. Popular biking destinations mentioned by participants included the Santa Fe Dam Recreation Area, Cal Poly Pomona, and Mount San Antonio College. One participant mentioned the Los Angeles County Bicycle Master Plan and the need for the City plan to be consistent with the County's proposed bicycle facilities. Bicycle parking was also a popular request by workshop participants, with several mentioning the need for more Downtown bicycle parking and bicycle commuter parking at Park-and-Ride lots.

3.3 Bicycle Counts

The City performed bicyclist counts along Citrus Avenue on Thursday, September 30, and Saturday, October 2, 2010.[5] The counts used two methodologies: screenline counts that recorded the number of bicyclists crossing a designated imaginary line, and intersection counts recording bicyclists on their departing intersection leg. The screenline counts focused on capturing behavior around the Covina Metrolink Station, with scheduled times aimed at capturing commuters walking or bicycling to and from the station during A.M. and P.M. peak commute hours. The screenline counts took place from 7:00 A.M. to 10:00 A.M. and 4:00 P.M. to 8:00 P.M. The intersection counts focused on capturing behavior around the Covina downtown corridor during the midday and P.M. peak. The intersection counts took place from 11:00 A.M. to 1:00 P.M. and 4:00 P.M. to 8:00 P.M.

Figure 3-7 presents the bicycle counts from the Metrolink Station area and Downtown area.

[5] Advantec Consulting Engineers and Alta Planning and Design (2011) *Downtown and Metrolink Station Bicycle and Pedestrian Planning Study.*



COVINA METROLINK / DOWNTOWN BICYCLE COUNTS

City of Covina Bicycle Master Plan

Image Source: © 2010 Google Earth
Map Source: Alta Planning + Design (2011)
Map Date: MAY 2011

0 250 500 Feet

Figure 3-7 Covina Metrolink / Downtown Bicycle Counts

3.3.1 Count Results: Metrolink Station

Table 3-1 presents detailed observations about bicyclist behavior near the Covina Metrolink Station. As shown, nearly 80 percent of cyclists were male, 70 percent rode without helmets, and nearly half rode on the sidewalk. Bicyclists represented less than five percent of the Covina Metrolink Station's non-motorized activity. Bicycling activity was heaviest along Citrus Avenue. Second Avenue and Front Street did not have many cyclists.

Table 3-1 Covina Metrolink Cyclist Behavior

	Intersection	Total Cyclists	Male	Female	Child	No Helmet	Sidewalk Riding	Wrong-way Riding	Gate Viol.
Thursday, 7-10 am									
1	Citrus Ave s/o Edna Pl	13	10	3	0	11	3	5	--
2	Citrus Ave n/o Front St	19	15	2	2	12	11	1	1
3	Second Ave s/o Front St	3	3	0	0	2	0	0	--
4	Front St e/o Second Ave	1	1	0	0	1	0	0	--
	SUBTOTAL	**36**	**29**	**5**	**2**	**26**	**14**	**6**	**1**
Thursday, 4-8 pm									
1	Citrus Ave s/o Edna Pl	35	25	8	2	27	18	6	--
2	Citrus Ave n/o Front St	41	30	8	3	32	24	3	1
3	Second Ave s/o Front St	11	8	3	0	10	0	1	--
4	Front St e/o Second Ave	10	8	2	0	7	4	2	--
	SUBTOTAL	**97**	**71**	**21**	**5**	**76**	**46**	**12**	**1**
Saturday, 7-10 am									
1	Citrus Ave s/o Edna Pl	24	20	4	0	9	12	8	--
2	Citrus Ave n/o Front St	26	22	4	0	10	6	4	1
3	Second Ave s/o Front St	1	1	0	0	1	0	0	--
4	Front St e/o Second Ave	5	3	2	0	5	4	0	--
	SUBTOTAL	**56**	**46**	**10**	**0**	**25**	**22**	**12**	**1**
Saturday, 4-8 pm									
1	Citrus Ave s/o Edna Pl	48	40	4	4	32	22	16	--
2	Citrus Ave n/o Front St	36	27	3	6	32	22	3	1
3	Second Ave s/o Front St	0	0	0	0	0	0	0	--
4	Front St e/o Second Ave	3	3	0	0	3	3	0	--
	SUBTOTAL	**87**	**70**	**7**	**10**	**67**	**47**	**19**	**1**
	TOTAL	**276**	**216**	**43**	**17**	**194**	**129**	**49**	**4**
	PERCENT		78%	16%	6%	70%	47%	18%	1%

3.3.2 Count Results: Downtown Covina

Table 3-2 presents the bicyclist counts at the peak hour of activity for each intersection in Downtown Covina. The relatively low numbers of cyclists does not provide strong indications about behavioral trends. The midday peak hour tended to have more activity than the evening peak hour. Pedestrian and cyclist activity was comparable between Thursday and Saturday. Less than a quarter of cyclists rode with helmets. Counters observed about half (50 percent) of all cyclists riding on the sidewalk during the midday; this number rose to three-quarters (75 percent) during the evening.

Table 3-2 Downtown Covina Cyclist Behavior

Intersection	Total Cyclists	Wrong-way Riding	No Helmet	Sidewalk Riding
Thursday, 11-1 pm				
Citrus Ave / Badillo St	15	4	9	8
Citrus Ave / College St	16	3	11	10
Citrus Ave / Italia St	13	2	9	5
Citrus Ave / School St	19	6	16	9
Citrus Ave / San Bernardino Rd	16	0	15	11
TOTAL	**79**	**15**	**60**	**43**
%	**100%**	**19%**	**76%**	**54%**
Thursday, 4-8 pm				
Citrus Ave / Badillo St	32	6	27	28
Citrus Ave / College St	27	9	26	26
Citrus Ave / Italia St	28	4	24	20
Citrus Ave / School St	25	1	19	16
Citrus Ave / San Bernardino Rd	36	0	30	25
TOTAL	**148**	**20**	**126**	**115**
%	**100%**	**14%**	**85%**	**78%**
Saturday, 11-1 pm				
Citrus Ave / Badillo St	24	3	15	9
Citrus Ave / College St	8	2	6	5
Citrus Ave / Italia St	27	0	24	10
Citrus Ave / School St	27	2	14	8
Citrus Ave / San Bernardino Rd	10	0	10	6
TOTAL	**96**	**7**	**69**	**38**
%	**100%**	**7%**	**72%**	**40%**
Saturday, 4-8 pm				
Citrus Ave / Badillo St	39	15	31	26
Citrus Ave / College St	30	1	21	18

Intersection	Total Cyclists	Wrong-way Riding	No Helmet	Sidewalk Riding
Citrus Ave / Italia St	38	12	35	31
Citrus Ave / School St	36	6	27	19
Citrus Ave / San Bernardino Rd	31	0	26	28
TOTAL	**174**	**34**	**140**	**122**
%	**100%**	**20%**	**80%**	**70%**

3.4 Bicycle Commuter Estimates and Forecasts

United States Census "Commuting to Work" data provides an indication of current bicycling behavior. A major objective of bicycle facility enhancements and encouragement programs are to increase the bicycle "mode split" or percentage of people who choose to bike rather than drive. **Table 3-3** presents commute to work data estimates reported by the 2007-2009 U.S. Census American Community Survey for the City of Covina and, for comparative purposes, the United States, California, and Los Angeles County.

Table 3-3 Means of Transportation to Work Data

Mode	United States	California	Los Angeles County	Covina
Bicycle	**0.5%**	**1.0%**	**0.7%**	**0.4%**
Drove Alone – car, truck or van	75.8%	72.9%	72.1%	77.6%
Carpool - car, truck or van	10.4%	11.8%	11.2%	13.6%
Transit	5.0%	5.2%	7.2%	4.2%
Walked	2.9%	2.8%	2.9%	0.6%
Other Means	1.2%	1.4%	1.3%	2.1%
Worked at Home	4.1%	4.9%	4.5%	1.3%

Source: U.S. Census Bureau, 2007-2009 American Community Survey

According to the estimates shown in **Table 3-3**, less than one-half percent of Covina residents commute predominately by bicycle. This estimated bicycle mode share is slightly lower than the overall county estimate and California state estimate, and on par with the national average.

Note that these figures likely underestimate the true amount of bicycling that occurs in the City of Covina for several reasons. First, the data reflects respondents' dominant commute mode and therefore does not capture trips to school, for errands, or other bike trips that would supplant vehicular trips. Moreover, U.S. Census data collection methods only enable a respondent to select one mode of travel, thus excluding bicycle trips if they constitute part of a longer multimodal trip. Walking and bicycling trips may constitute a regular, but not dominant, part of an individual's journey to work.

Table 3-4 presents an adjusted estimate of current bicycling within the City of Covina using U.S. Census data along with several adjustments for likely bicycle commuter underestimations, as discussed above. This model

uses the latest state projections for population growth and reasonable assumptions about future bicycle ridership. **Table 3-5** presents the associated air quality benefits from bicycling.

Table 3-4 Adjusted Existing Bicycling Demand

Variable	Figure	Source
Existing study area population	46,678	2007-2009 American Community Survey (ACS), B00001 3-Year Estimates
Existing employed population	21,786	2007-2009 ACS, B0801 3-Year Estimates
Existing bike-to-work mode share	0.40%	2007-2009 ACS, B0801 3-Year Estimates
Existing number of bike-to-work commuters	87	Employed persons multiplied by bike-to-work mode share
Existing work-at-home mode share	1.3%	2007-2009 ACS, S0801 3-Year Estimates
Existing number of work-at-home bike commuters	28	Assumes 50% of population working at home makes at least one daily bicycle trip
Existing transit-to-work mode share	4.2%	2007-2009 ACS, S0801 3-Year Estimates
Existing transit bicycle commuters	92	Employed persons multiplied by transit mode share. Assumes 25% of transit riders access transit by bicycle
Existing school children, ages 6-14 (grades K-8)	5,846	2007-2009 ACS, S0801 3-Year Estimates
Existing school children bicycling mode share	2.0%	National Safe Routes to School surveys, 2003.
Existing school children bike commuters	117	School children population multiplied by school children bike mode share
Existing number of college students in study area	3,717	2007-2009 ACS, B14001 3-Year Estimates
Existing estimated college bicycling mode share	10.0%	Review of bicycle commute share in seven unversity communities (source: National Bicycling & Walking Study, FHWA, Case Study No. 1, 1995).
Existing college bike commuters	372	College student population multiplied by college student bicycling mode share
Existing total number of bike commuters	696	Total bike-to-work, school, college and utilitarian bike trips. Does not include recreation.
Total daily bicycling trips	1,391	Total bicycle commuters x 2 (for round trips)

Table 3-5 Adjusted Existing Bicycling Air Quality Impact

Variable	Figure	Source
Current Estimated VMT Reductions		
Reduced Vehicle Trips per Weekday	418	Assumes 73% of bicycle trips replace vehicle trips for adults/college students and 53% for school children
Reduced Vehicle Trips per Year	108,993	Reduced weekday vehicle trips x 261 (weekdays / year)
Reduced Vehicle Miles per Weekday	2,907	Assumes average round trip travel length of 5 miles for adults/college students and 1 mile for schoolchildren
Reduced Vehicle Miles per Year	758,731	Reduced weekday vehicle miles x 261 (weekdays / year)
Current Air Quality Benefits Estimates		
Reduced Hydrocarbons (lbs/wkday)	9	Daily mileage reduction x 1.36 grams / mi
Reduced PM10 (lbs/wkday)	0	Daily mileage reduction x 0.0052 grams / mi
Reduced PM2.5 (lbs/wkday)	0	Daily mileage reduction x 0.0049 grams / mi
Reduced NOX (lbs/wkday)	6	Daily mileage reduction x 0.95 grams / mi
Reduced CO (lbs/wkday)	79	Daily mileage reduction x 12.4 grams / mi
Reduced C02 (lbs/wkday)	2,365	Daily mileage reduction x 369 grams / mi
Reduced Hydrocarbons (lbs/yr)	2,275	Yearly mileage reduction x 1.36 grams / mi
Reduced PM10 (lbs/yr)	9	Yearly mileage reduction x 0.0052 grams / mi
Reduced PM2.5 (lbs/yr)	8	Yearly mileage reduction x 0.0049 grams / mi
Reduced NOX (lbs/yr)	1,589	Yearly mileage reduction x 0.95 grams / mi
Reduced CO (lbs/yr)	20,742	Yearly mileage reduction x 12.4 grams / mi
Reduced $C0_2$ (lbs/yr)	617,232	Yearly mileage reduction x 369 grams / mi

Source:

*Emissions rates from **EPA report 420-F-05-022** Emission Facts: Average Annual Emissions and Fuel Consumption for Gasoline-Fueled Passenger Cars and Light Trucks. 2005.*

Table 3-6 presents projected year 2030 bicycling activity within the City of Covina using California Department of Finance population and school enrollment projections. **Table 3-7** presents the associated year 2030 air quality benefit forecasts.

Table 3-6 Projected Year 2030 Bicycling Demand

Variable	Figure	Source
Future study area population	58,063	Calculated based on CA Dept. of Finance, Population Projections for California and Its Counties 2000-2050.
Future employed population	27,100	Calculated based on CA Dept. of Finance, Population Projections for California and Its Counties 2000-2050,
Future bike-to-work mode share	0.8%	Double the rate from 2007-2009 American Community Survey, B0801 3-Year Estimates
Future number of bike-to-work commuters	217	Employed persons multiplied by bike-to-work mode share
Future work-at-home mode share	1.3%	Equal to existing condition rate from 2007-2009 American Community Survey, S0801 3-Year Estimates
Future number of work-at-home bike commuters	176	Assumes 50% of population working at home makes at least one daily bicycle trip
Future transit-to-work mode share	8.4%	Double the rate from 2007-2009 American Community Survey, S0801 3-Year Estimates
Future transit bicycle commuters	569	Employed persons multiplied by transit mode share. Assumes 25% of transit riders access transit by bicycle
Future school children, ages 6-14 (grades K-8)	5,203	Calculated from CA Dept. of Finance, California Public K–12 Graded Enrollment and High School Graduate Projections by County, 2010 Series.
Future school children bicycling mode share	4.0%	Double the rate of national school commute trends. National Safe Routes to School surveys, 2003.
Future school children bike commuters	208	School children population multiplied by school children bicycling mode share
Future number of college students in study area	4,624	Calculated based on CA Dept. of Finance, Population Projections for California and Its Counties 2000-2050, Sacramento, California, July 2007.
Future estimated college bicycling mode share	10.0%	Equal to existing condition assumption from "Review of bicycle commute share in seven university communities" (Source: National Bicycling & Walking Study, FHWA, Case Study No. 1, 1995).
Future college bike commuters	462	College student population x college student bicycling mode share
Future total number of bike commuters	1,633	Total bike-to-work, school, college and utilitarian biking trips. Does not include recreation.
Total daily bicycling trips	3,265	Total bike commuters x 2 (for round trips)

Table 3-7 Projected Year 2030 Bicycling Air Quality Impact

Variable	Figure	Source
Forecasted VMT Reductions		
Reduced Vehicle Trips per Weekday	735	Assumes 73% of biking trips replace vehicle trips for adults/college students and 53% for school children
Reduced Vehicle Trips per Year	191,750	Reduced number of weekday vehicle trips x 261 (weekdays / year)
Reduced Vehicle Miles per Weekday	5,105	Assumes average round trip travel length of 8 miles for adults / college students and 1 mile for schoolchildren
Reduced Vehicle Miles per Year	1,332,479	Reduced number of weekday vehicle miles x 261 (weekdays / year)
Forecasted Air Quality Benefits		
Reduced Hydrocarbons (lbs/wkday)	15	Daily mileage reduction x by 1.36 grams / mi
Reduced PM10 (lbs/wkday)	0	Daily mileage reduction x by 0.0052 grams / mi
Reduced PM2.5 (lbs/wkday)	0	Daily mileage reduction x by 0.0049 grams / mi
Reduced NOX (lbs/wkday)	11	Daily mileage reduction x by 0.95 grams / mi
Reduced CO (lbs/wkday)	140	Daily mileage reduction x by 12.4 grams / mi
Reduced $C0_2$ (lbs/wkday)	4,153	Daily mileage reduction x by 369 grams / mi
Reduced Hydrocarbons (lbs/yr)	3,995	Yearly mileage reduction x by 1.36 grams / mi
Reduced PM10 (lbs/yr)	15	Yearly mileage reduction x by 0.0052 grams / mi
Reduced PM2.5 (lbs/yr)	14	Yearly mileage reduction x by 0.0049 grams / mi
Reduced NOX (lbs/yr)	2,791	Yearly mileage reduction x by 0.95 grams / mi
Reduced CO (lbs/yr)	36,426	Yearly mileage reduction x by 12.4 grams / mi
Reduced CO_2 (lbs/yr)	1,083,980	Yearly mileage reduction x by 369 grams / mi

Source:

*Emissions rates from **EPA report 420-F-05-022** Emission Facts: Average Annual Emissions and Fuel Consumption for Gasoline-Fueled Passenger Cars and Light Trucks. 2005.*

The benefits model estimates that the City of Covina currently has approximately 1,400 bicycle commute trips. With changes in population, and the implementation of bicycle friendly improvements and policies, the model predicts that number could rise to more than 3,200, resulting in a substantial reduction of both Vehicle Miles Traveled (VMT) and associated emissions. This includes a yearly emissions reduction by 2030 of approximately 2,800 pounds of smog forming N0X and approximately 1.1 million pounds of $C0_2$, the principal gas associated with global climate change.

3.5 Bicycle Collisions

Table 3-8 presents a summary of collisions involving bicyclists in the City of Covina from 2000 through 2008. **Figure 3-8** presents the corresponding collision locations. The California Highway Patrol's SWITRS website provided this collision information.

Table 3-8 City of Covina Bicycle Collision Summary (2005 – 2009)

Year	Total	Auto-Involved	Bicycle-Only	Injury	Property Damage
2005	17	17	0	12	5
2006	17	13	4	15	2
2007	20	17	3	20	0
2008	16	13	3	14	2
2009	10	8	2	9	1
Total	80	68	12	70	10

Source: Statewide Integrated Traffic Records System (SWITRS)

The City had 80 bike collisions from 2005 to 2009, at an average of 16 incidents per year. While there were no recorded bicyclist fatalities in the City, 87 percent of the collisions resulted in injury to the cyclist. Approximately 12 percent of the collisions were single-rider incidents that resulted in injury to the cyclist.

As shown in **Figure 3-8**, most collisions occurred on major arterial and collector facilities. Roadways that recorded multiple incidents include:

East-West Roadways

- San Bernardino Road (15 collisions)
- Cypress Street (8 collisions)
- Badillo Street (8 collisions)
- Puente Street (7 collisions)
- Covina Blvd (5 collisions)

North-South Roadways

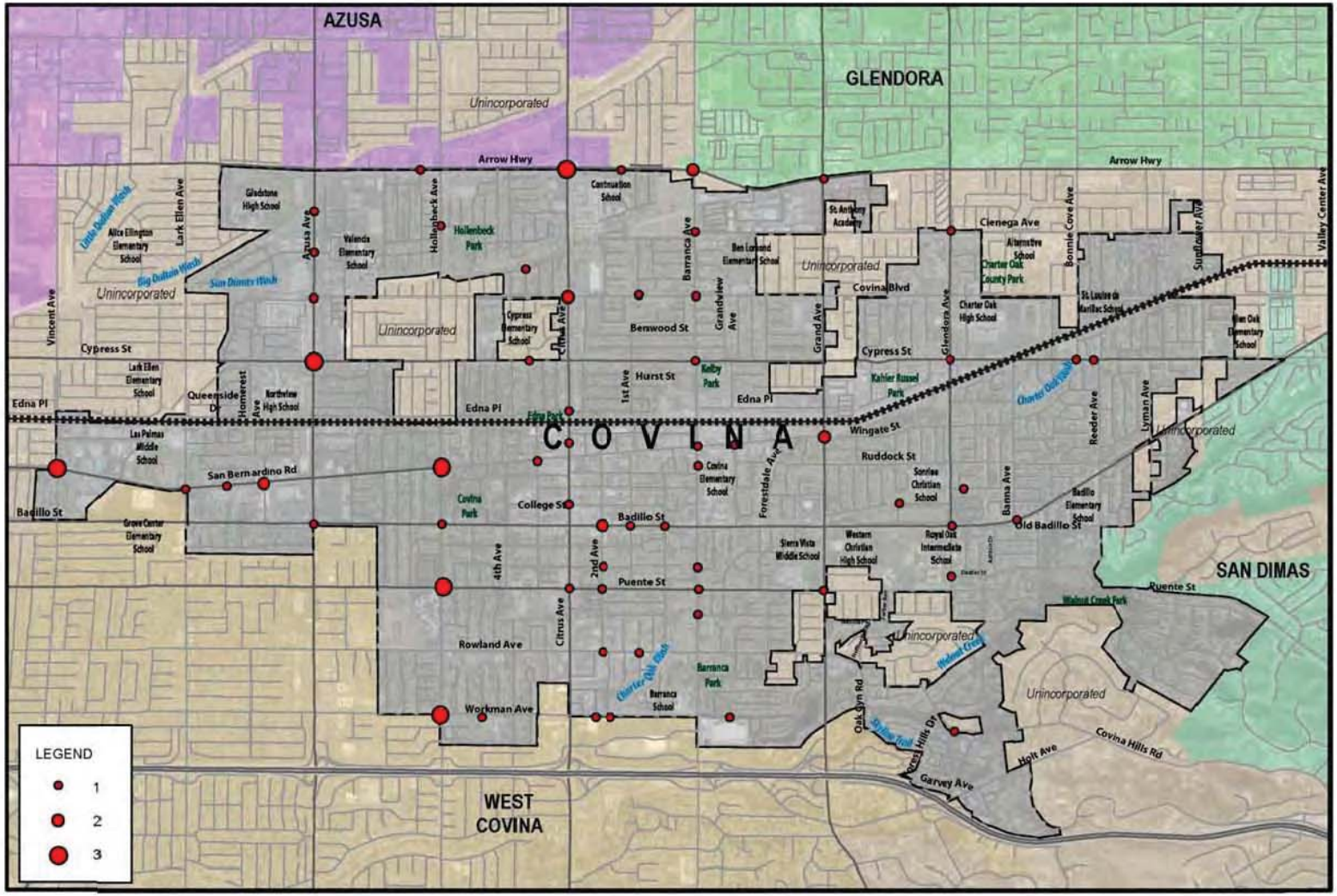
- Hollenbeck Avenue (11 collisions)
- Azusa Avenue (7 collisions)
- Barranca Avenue (10 collisions)
- Citrus Avenue (9 collisions)
- Glendora Avenue (4 collisions)

Collisions clustered near several intersections, particularly

- Vincent Avenue / San Bernardino Road
- Cypress Street / Azusa Avenue
- San Bernardino Road / Hollenbeck Avenue
- Hollenbeck Avenue / Puente Street
- Hollenbeck Avenue / Workman Avenue
- Arrow Highway / Citrus Avenue

These intersections sit adjacent to a shopping center, park, and school, respectively. Also alarming is the cluster of collisions near Covina Elementary School in the area bounded by Barranca Avenue, San Bernardino Road, Prospero Drive, and Badillo Street. There were three bicyclist collisions recorded near the school between 2005 and 2009.

The collision records indicate that existing roadways need additional treatment, such as bike lane striping and signage, to further improve bicyclist safety on City roadways. The high injury rate also indicates that the roadway system may need traffic calming measures to slow traffic, which would reduce the incidence and severity of bicyclist injuries. The Bicycle Master Plan recommendations take into account the hazards identified by this collision analysis, as discussed in **Chapter 4**.



CITY OF COVINA BICYCLE COLLISIONS (2005 - 2009)

City of Covina Bicycle Master Plan

Image Source: © 2010 Google Earth
Map Source: Los Angeles MTA (2006, 2010); Alta Planning + Design (2011)
Map Date: APRIL 2011

0 0.25 0.50 Miles

Figure 3-8 City of Covina Bicycle Collisions (2000-2008)

4 Recommended Network

This chapter presents the proposed citywide bikeway network and parking plan. The bikeway facilities proposed in this BMP fall within one of three facility categories:

- Arterial Class II bike lanes and Class III bike routes
- Class I bike paths
- Neighborhood Preferred Bikeway routes (Bike Boulevards)

The three facility types address the needs of experienced bicyclists (primarily Classes II and II) as well as those with less experience (primarily Class I and Neighborhood Preferred Bikeway routes/Bike Boulevard).

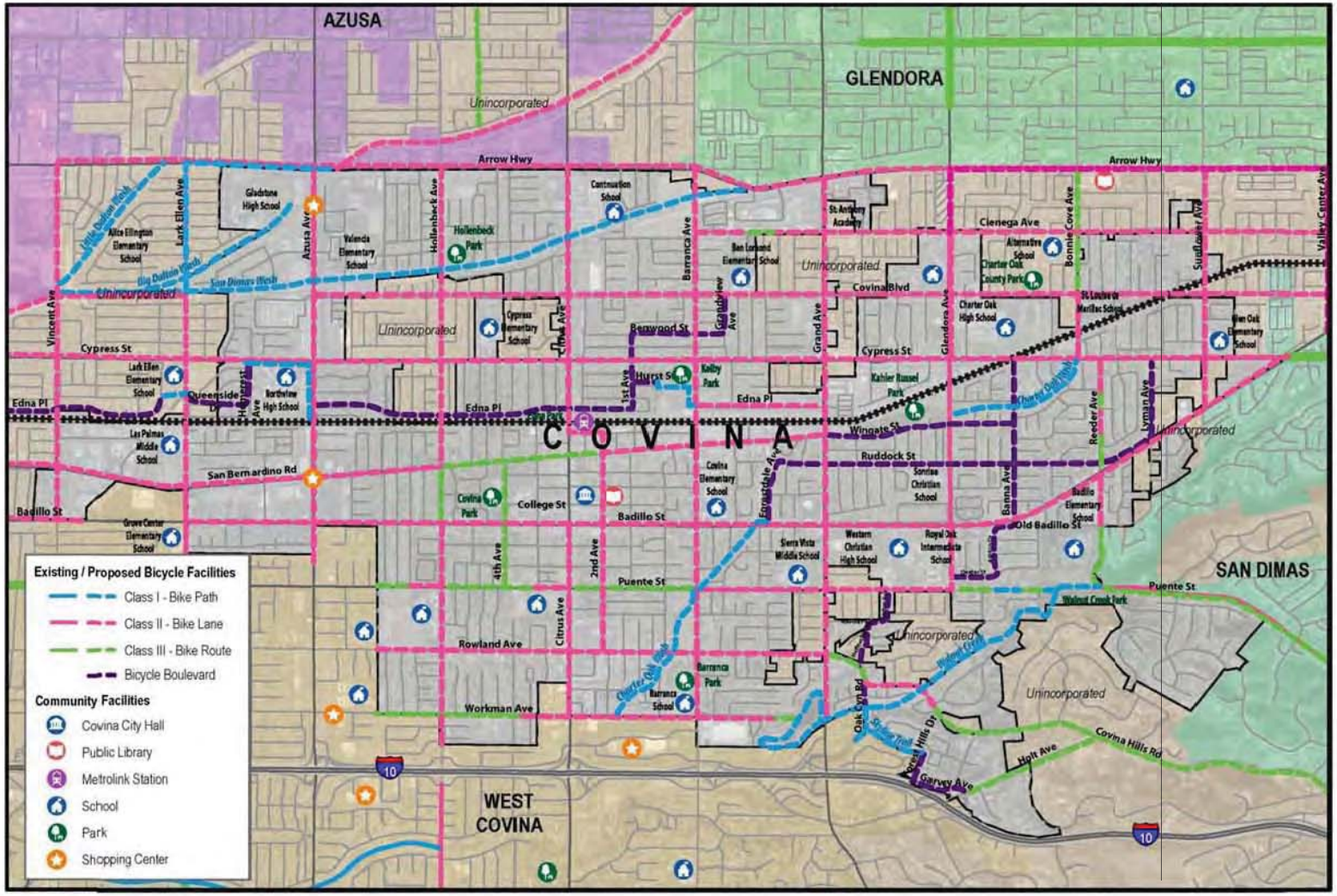
The BMP also recommends end-of-trip and intermodal facilities. The recommended parking types fall within three categories: bike racks, bike lockers, and secure bike parking (e.g. BikeStation).

Figure 4-1 shows the entire proposed citywide bikeway network. **Figure 4-2** shows the proposed network within the overall regional context, which includes proposed bikeways within the rest of Los Angeles County.

Table 4-1 presents the unit costs assumed in calculating the costs of bikeway implementation by segment. The unit costs accounted for local labor and material costs.

Table 4-1 Planning-Level Bikeway Cost Assumptions

Facility Type	Unit Cost	
Class I Bike Path	$2,640,000	per mile
Bike Path Connection	$500,000	per mile
Class II Bike Lane	$100,000	per mile
Class III Bike Route	$28,000	per mile
Neighborhood Route/Bike Boulevard	$30,000	per mile
New Traffic Signal	$100,000	per unit
Enhanced Crosswalk	$100,000	per intersection
Ladder Crosswalk	$15,000	per intersection
Bike Rack	$300	per rack
Bike Locker	$1000	per locker
Secure Bike Parking	Varies	per facility



CITY OF COVINA PROPOSED BIKEWAYS

City of Covina Bicycle Master Plan

Image Source: © 2010 Google Earth
Map Source: Los Angeles MTA (2006, 2010); Alta Planning + Design (2011)
Map Date: APRIL 2011

0 0.25 0.50 Miles

Figure 4-1 Proposed Citywide Bikeway Network

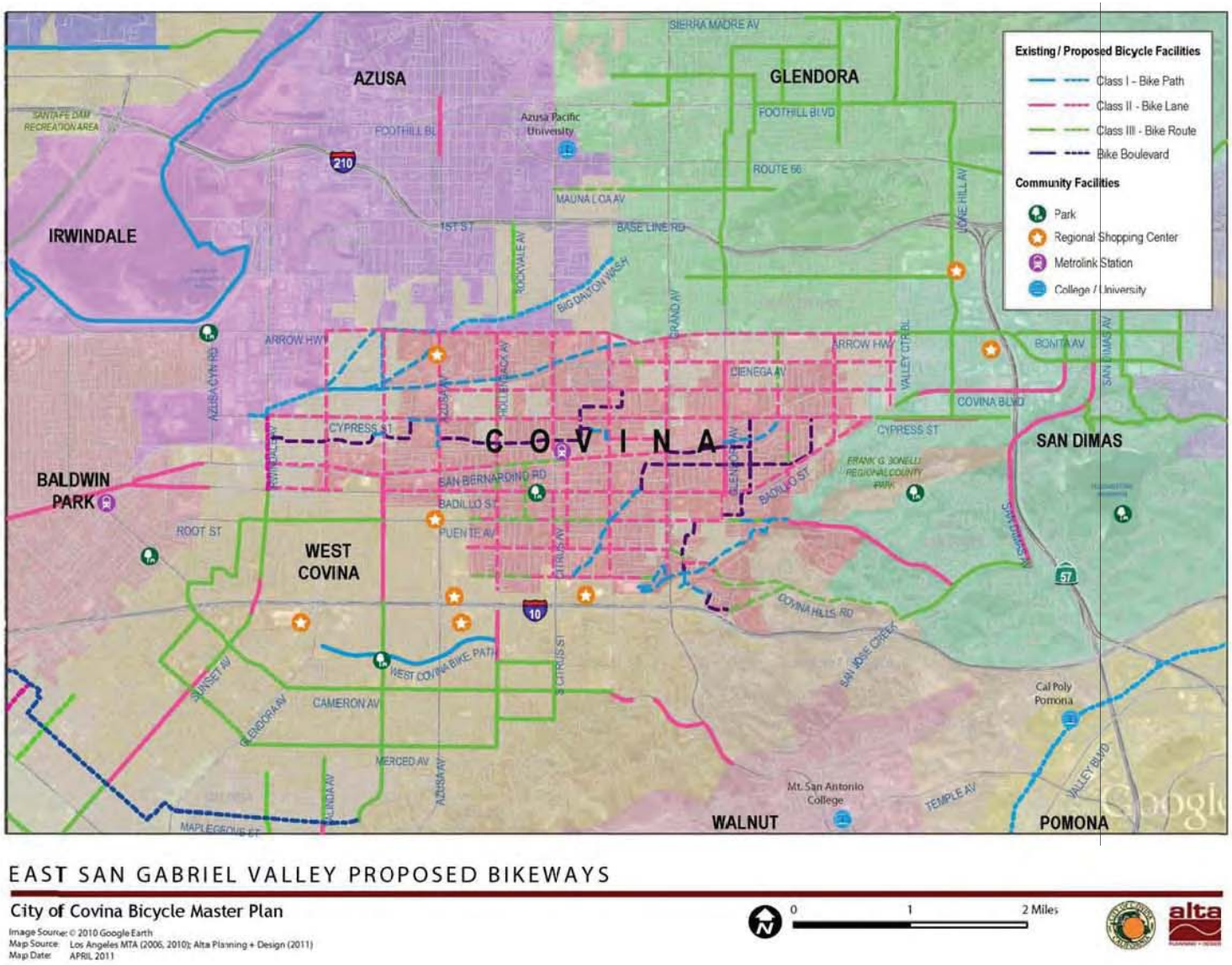


Figure 4-2 Proposed Regional Bikeway Network

4.1 Arterial Bikeway Network

Table 4-2 and Table 4-3 present the proposed Class II and III bikeways recommended for the City of Covina. The tables include segment length miles and an estimated planning-level cost of implementation based on the unit costs presented in Table 4-1.

Table 4-2 Proposed Arterial Bikeway Network (North-South)

Roadway	Class	From	To	Length (miles)	Planning-Level Cost Estimate
Vincent Ave	2	Edna Place	Badillo St	0.45	$45,000
Lark Ellen Ave	2	Edna Place	Grovecenter St	0.52	$52,000
Azusa Ave	2	Arrow Hwy	200' south of Grovecenter St	1.52	$152,000
Hollenbeck Ave	2	Arrow Hwy	Workman Ave	2.16	$216,000
Hollenbeck Ave (Northbound Only)	2	Workman Ave	Mardina St	0.11	$11,000
4th Ave	3	San Bernardino Rd	Puente St	0.49	$13,790
Citrus Ave	2	Arrow Hwy	Front St	1.05	$105,000
	2	Badillo St	Workman Ave	0.75	$75,000
Second Ave	2	Front St	Rowland Ave	0.87	$87,000
Barranca Ave	2	Arrow Hwy	Workman Ave	2.16	$216,000
Grand Ave	2	Arrow Hwy	Walnut Creek channel	2.15	$215,000
Glendora Ave (Bike Lane Improvements)	2	Arrow Hwy	Badillo St	1.41	$141,000
Bonnie Cove Ave	2	Badillo St	Puente St	0.25	$25,000
	3	Cienega Ave	Covina Blvd	0.25	$7,000
Reeder Ave	2	Covina Blvd	Cypress St	0.25	$25,000
	2	Cypress St	Farland St	0.12	$12,000
Sunflower Ave	3	Farland St	Sachs Pl	0.07	$2,070
	2	Sachs Pl	350' south of Sachs Pl	0.07	$7,000
	3	350' s/o Sachs Pl	Ruddock St	0.15	$4,140
	2	Ruddock St	Old Badillo St	0.25	$25,000
	3	Old Badillo St	Puente St	0.28	$7,800
	2	Cienega Ave	Badillo St	0.69	$69,000
			TOTAL	**16.0**	**$1,512,800**

Table 4-3 Proposed Arterial Bikeway Network (East-West)

Roadway	Class	From	To	Length (miles)	Planning-Level Cost Estimate
Arrow Hwy	2	Enid Ave	1000' e/o Grand Ave	2.6	$260,000
Cienega Ave	2	Barranca Ave	Starcrest Dr	0.21	$21,000
	3	Starcrest Dr	200' e/o Starcrest Dr	0.04	$1,060
	2	200' e/o Starcrest Dr	Sunflower Ave	1.77	$177,000
Covina Blvd	2	Azusa Ave	Asherton Ave	3.76	$376,000
Cypress Ave	2	Leaf Ave	Badillo St	4.19	$419,000
Edna Pl	2	Barranca Ave	Grand Ave	0.49	$49,000
Front St	2	Citrus Ave	Second Ave	0.12	$12,000
San Bernardino Rd	2	Morada Ave	Hollenbeck Ave	1.64	$164,000
	3	Hollenbeck Ave	Second Ave	0.63	$17,550
	2	Second Ave	Grand Ave	0.87	$87,000
Badillo St	2	250' w/o Vincent Ave	600' e/o Vincent Ave	0.2	$20,000
	2	Lark Ellen Ave	San Dimas city limit	4.05	$405,000
Puente St	3	Armel Dr	Heathdale Ave	0.09	$2,650
	2	Heathdale Ave	Hollenbeck Ave	0.13	$13,000
	3	Hollenbeck Ave	3rd Ave	0.39	$10,870
	2	3rd Ave	Citrus Ave	0.13	$13,000
	3	Citrus Ave	Barranca Ave	0.51	$14,210
	2	Barranca Ave	Glendora Ave	1.00	$100,000
	3	Glendora Ave	400' e/o Shouse Ave	0.20	$5,570
	3	300' w/o Starglen Dr	Starglen Dr	0.06	$1,700
	3	Reeder St	San Dimas city limit	0.26	$7,320
Rowland Ave	2	Armel Dr	Grand Ave	1.73	$173,000
Covina Hills Rd	3	Grand Ave	Oak Canyon Rd	0.22	$6,100
	2	Oak Canyon Rd	Rancho Sinaloa Dr	0.33	$33,000
	3	Rancho Sinaloa Dr	San Dimas city limit	0.41	$11,450
Workman Ave	3	150' w/o Armel Dr	Citrus Ave	0.89	$24,820
	2	Citrus Ave	Workman St/ Workman Ln	0.82	$260,000
	3	Workman St/ Workman Ln	400' e/o Workman St/Ln	0.08	$2,120
Holt Ave	3	Garvey Ave N	Covina Hills Rd	0.56	$15,800
			TOTAL	**28.4**	**$2,703,220**

Each of the proposed Class II bike lane segments falls within one of five methods of implementation:

1. **Add Bike Lanes to existing roadway lane geometry.**

   Sufficient curb-to-curb roadway width exists to stripe a bike lane. Some existing vehicle lanes may require narrowing to 10 feet. This minimum vehicle lane width has been used at numerous locations within the City.

2. **Add Bike Lanes, reduce to one travel lane in each direction, add a center turn lane, and maintain or restore curbside parking on both sides.**

   Sometimes referred to as a "road diet", this strategy for accommodating bike lanes takes advantage of excess roadway capacity, based upon relatively low Average Daily Traffic (ADT) volumes. A typical "road diet" conversion will involve restriping four through lanes as two through lanes with a center turn lane and two bike lanes.

3. **Add Bike Lanes and prohibit curbside parking on one side only.**

   If traffic volumes are higher and a lane reduction as above is not feasible, removal of parking on one side of the street can provide enough space to stripe two bike lanes. This involves reducing travel lane widths to 10 or 11 feet where appropriate. Adjacent land uses and their demand for on-street parking generally determine which side of the street to remove parking.

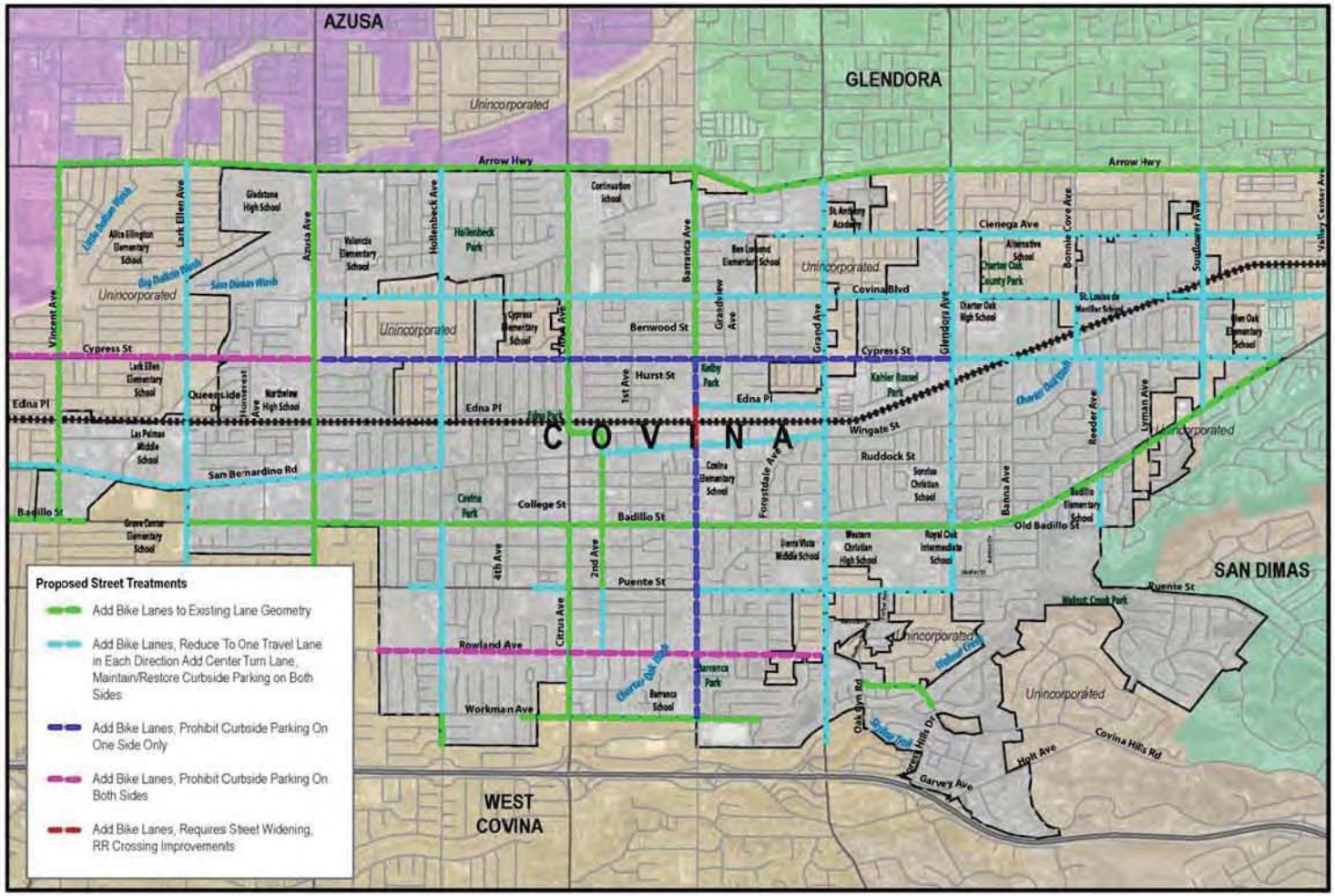
4. **Add Bike Lanes and prohibit curbside parking on both sides.**

   Similar to the third method above, four travel lanes are maintained but enough roadway width is still not available to stripe bike lanes. In this case, parking will be prohibited on each side of the street.

5. **Add Bike Lanes where street widening and railroad crossing improvements would be required.**

   There is only one location where street widening is required to implement bike lanes: Barranca Avenue at the railroad crossing.

Figure 4-3 illustrates the proposed Class II bike lane network showing the five methods of implementation by roadway segment. The subsequent pages provide graphic illustrations of typical existing and proposed arterial cross-sections where bike lanes will be added.



CITY OF COVINA PROPOSED ON-STREET BIKEWAY TREATMENT

City of Covina Bicycle Master Plan

Image Source: © 2010 Google Earth
Map Source: Los Angeles MTA (2006, 2010); Alta Planning + Design (2011)
Map Date: APRIL 2011

0 0.25 0.50 Miles

Figure 4-3 Proposed Class II Bike Lane Implementation

Vincent Avenue is currently two lanes in each direction with a center stripe or left-turn lane. ADT volumes are appropriate for such an arterial. This BMP proposes removing on-street parking on one or both sides of the street (depending on street width) to accommodate bike lanes in both directions. **Figure 4-4** illustrates sample cross-sections of the existing and proposed lane configurations.

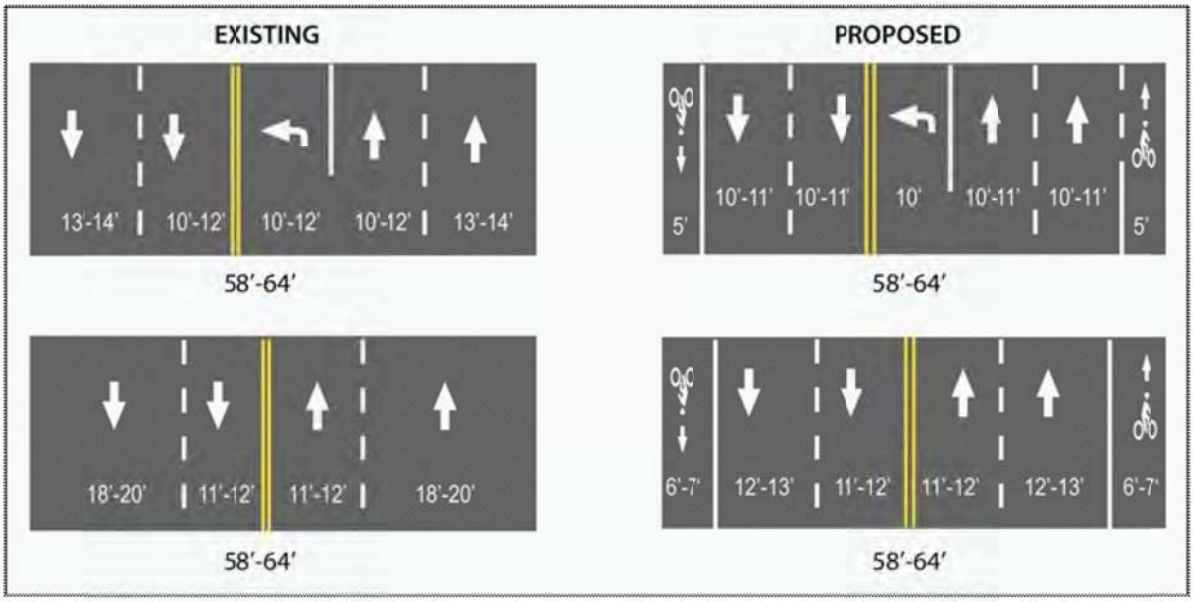


Figure 4-4 Vincent Avenue Proposed Bike Lane Treatment

Lark Ellen Avenue is currently two lanes in each direction with a center stripe that opens to a left-turn lane at most arterial and some minor street intersections. Average daily traffic (ADT) volumes are low for an arterial roadway. This plan proposes reducing the number of travel lanes to one in each direction, maintaining a continuous center turn lane, and providing one bike lane in each direction. **Figure 4-5** illustrates sample cross-sections of the existing and proposed lane configurations.

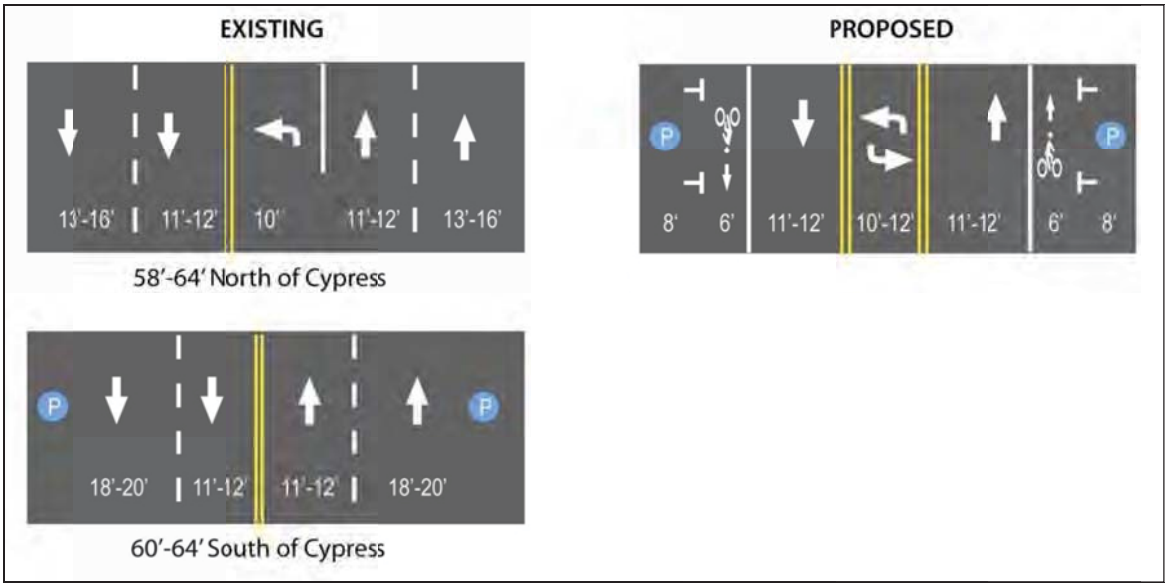


Figure 4-5 Lark Ellen Avenue Proposed Bike Lane Treatment

Azusa Avenue, Grand Avenue, and Arrow Highway are each currently two lanes in each direction with a center left-turn lane or raised median. ADT volumes are moderate to high for these arterial roadways. The curb lane is rather wide and can accommodate both on-street parking and bike lanes on both sides in most locations, although on-street parking is currently prohibited in many areas of Azusa and Grand. Azusa Avenue is a state highway (SR-39); therefore, bike lane implementation will require coordination with Caltrans. **Figure** 4-6 illustrates sample cross-sections of the existing and proposed lane configurations.

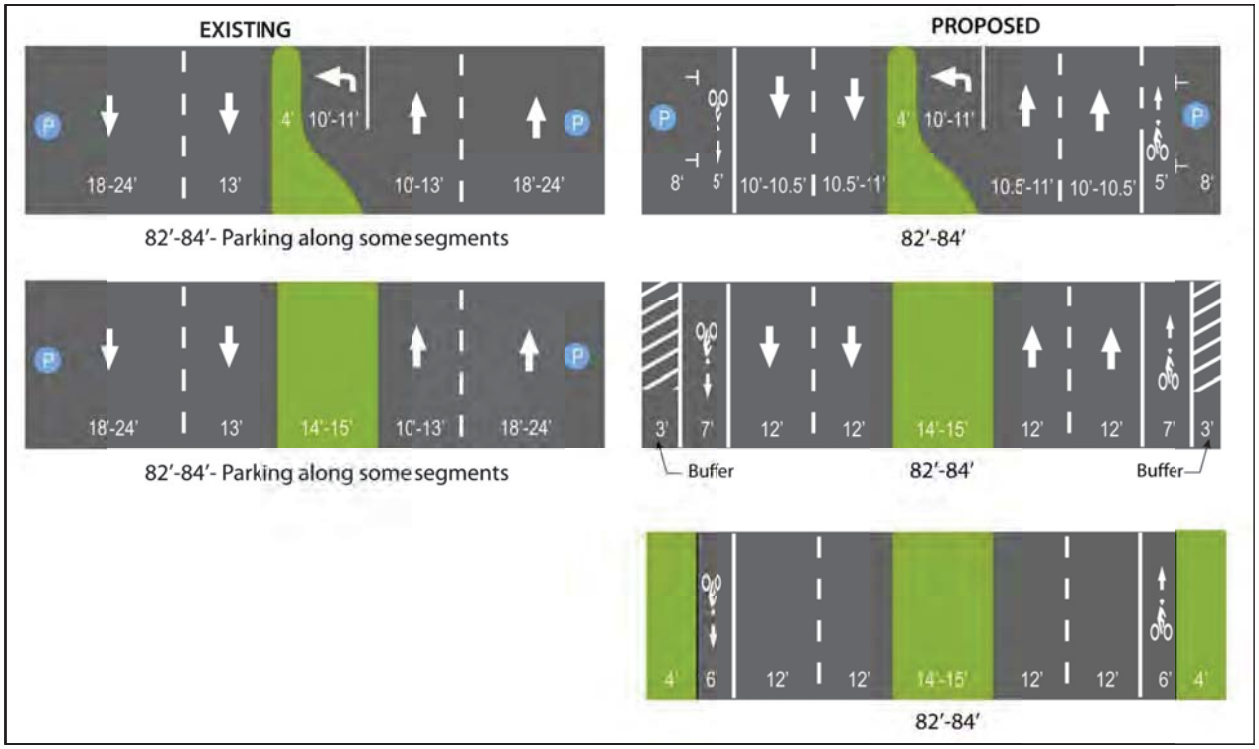


Figure 4-6 Azusa Avenue, Grand Avenue, and Arrow Highway Proposed Bike Lane Treatment

Hollenbeck Avenue is currently two lanes in each direction for most of its length, with a center stripe that opens to a left-turn lane at most arterial and some minor street intersections. ADT volumes are low for an arterial roadway. This BMP proposes reducing the number of travel lanes to one in each direction, maintaining a continuous center turn lane, and providing one bike lane in each direction. **Figure 4-7** illustrates sample cross-sections of the existing and proposed lane configurations.

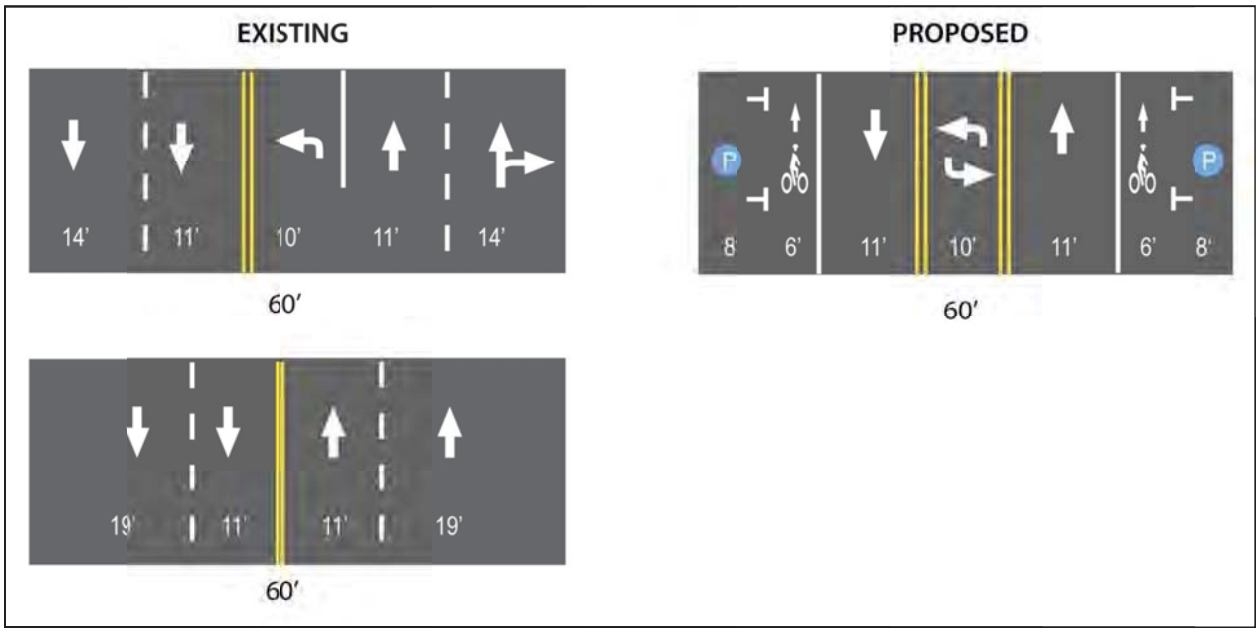


Figure 4-7 Hollenbeck Avenue Proposed Bike Lane Treatment

Citrus Avenue is currently two lanes in each direction with a center left-turn lane or raised median along most of its length. The ADT volumes are appropriate for an arterial roadway. The curb lane is rather wide and can accommodate both on-street parking and bike lanes on both sides in most locations. This proposed lane configuration is similar to that of Arrow Highway. However, the segment between Front Street and Badillo Street in the downtown area is not appropriate for bike lanes because of the angled parking established there. It is not recommended that bike lanes be provided where there is angled parking for visibility and safety concerns. The Class II bike lanes will be routed to the east on Second Avenue through this area.

Second Avenue is currently two lanes in each direction with a center left-turn lane north of Puente Street and a center stripe south to Rowland Avenue. ADT volumes are very low for this roadway. The curb lane is rather wide and can accommodate both on-street parking and bike lanes on both sides north of Puente. South of Puente, the recommended method to add bike lanes is by reducing the number of travel lanes to one in each direction with a continuous center turn lane. **Figure 4-8** illustrates sample cross-sections of the existing and proposed lane configurations.

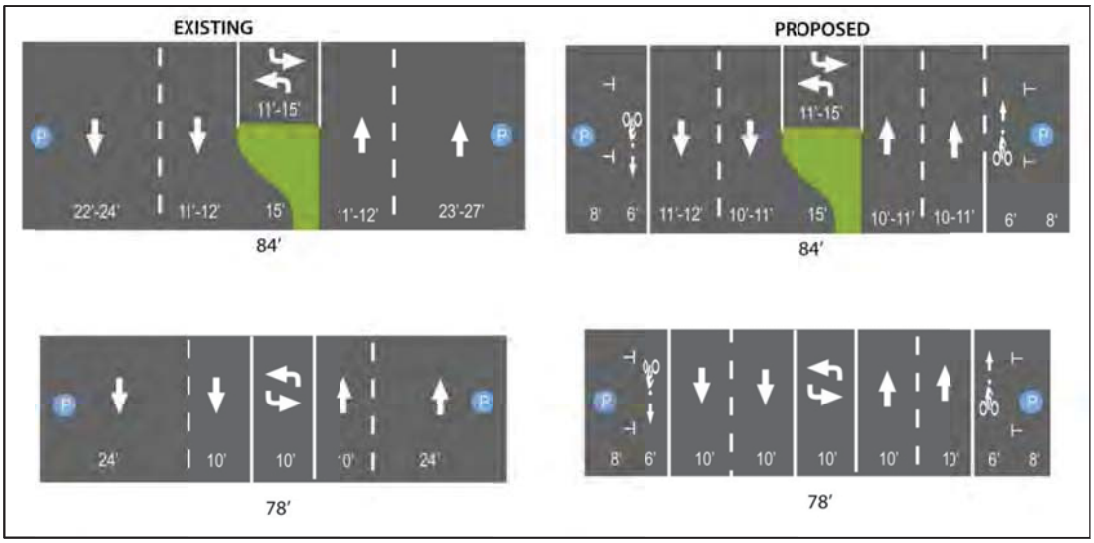


Figure 4-8 Second Avenue North of Puente Street Proposed Bike Lane Treatment

Barranca Avenue is currently two lanes in each direction with a center left-turn lane along most of its length. ADT volumes are appropriate for such an arterial. This plan proposes removing on-street parking on one side of the street to accommodate bike lanes in each direction. The adjacent uses (multi-family residential and commercial) and their parking demand will determine which side of the street to maintain parking. **Figure 4-9** illustrates sample cross-sections of the existing and proposed lane configurations.

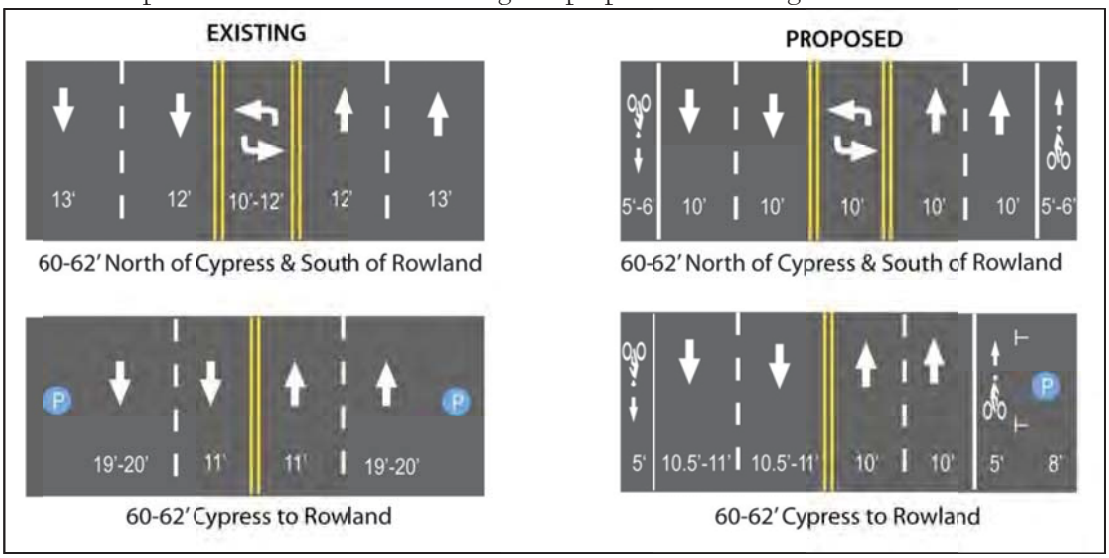


Figure 4-9 Barranca Avenue Proposed Bike Lane Treatment

Glendora Avenue currently has two lanes in each direction with a center stripe that opens to a left-turn lane at most arterial and some minor street intersections. This roadway also has a striped and signed bike lane, although it has a substandard width in some locations. On-street parking is currently allowed in the bike lane, which is not a standard design. The ADT volumes are relatively low for an arterial roadway. This plan proposes reducing the number of travel lanes to one in each direction, maintaining a continuous center turn lane and on-street parking, and providing a six-foot bike lane in each direction. **Figure 4-10** illustrates sample cross-sections of the existing and proposed lane configurations.

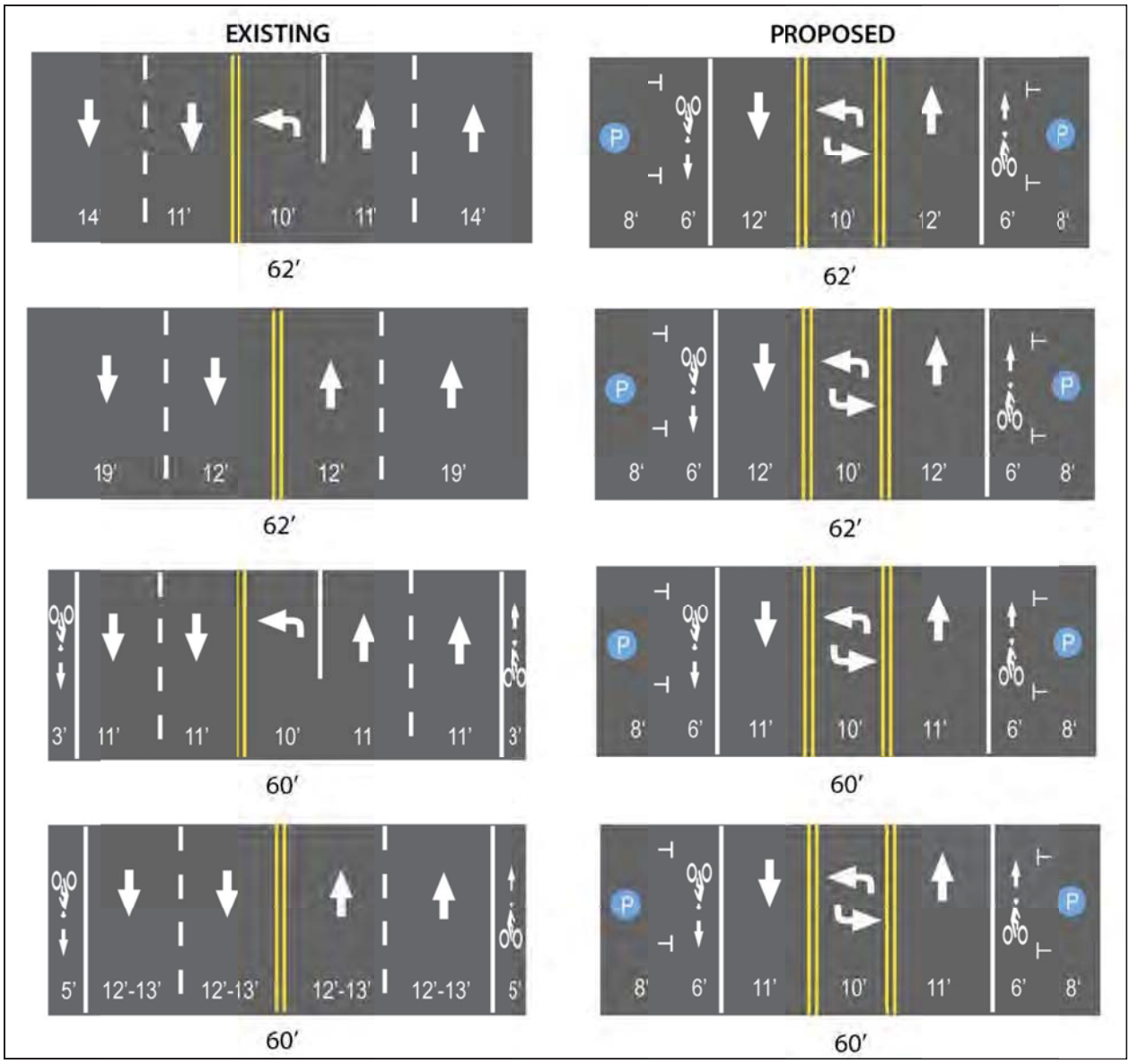


Figure 4-10 Glendora Avenue Proposed Bike Lane Treatment

Bonnie Cove Avenue currently has one lane in each direction north of Covina Boulevard and two lanes in each direction between Covina and Cypress Street. ADT volumes are very low for an arterial roadway. Between Covina Boulevard and Cypress Street, this BMP will reduce the number of travel lanes to one in each direction, maintain a continuous center turn lane, and provide one bike lane in each direction. This segment of Bonnie Cove is similar to Sunflower and Valley Center avenues. The second tier of diagrams below depicts a short narrow segment adjacent to Charter Oak High School. The third tier depicts the approach to the three-way intersection at Cypress Street. The southbound through movement for bicyclists will require entering the proposed Class I bike path along the Charter Creek Wash. **Figure 4-11** illustrates sample cross-sections of the existing and proposed lane configurations.

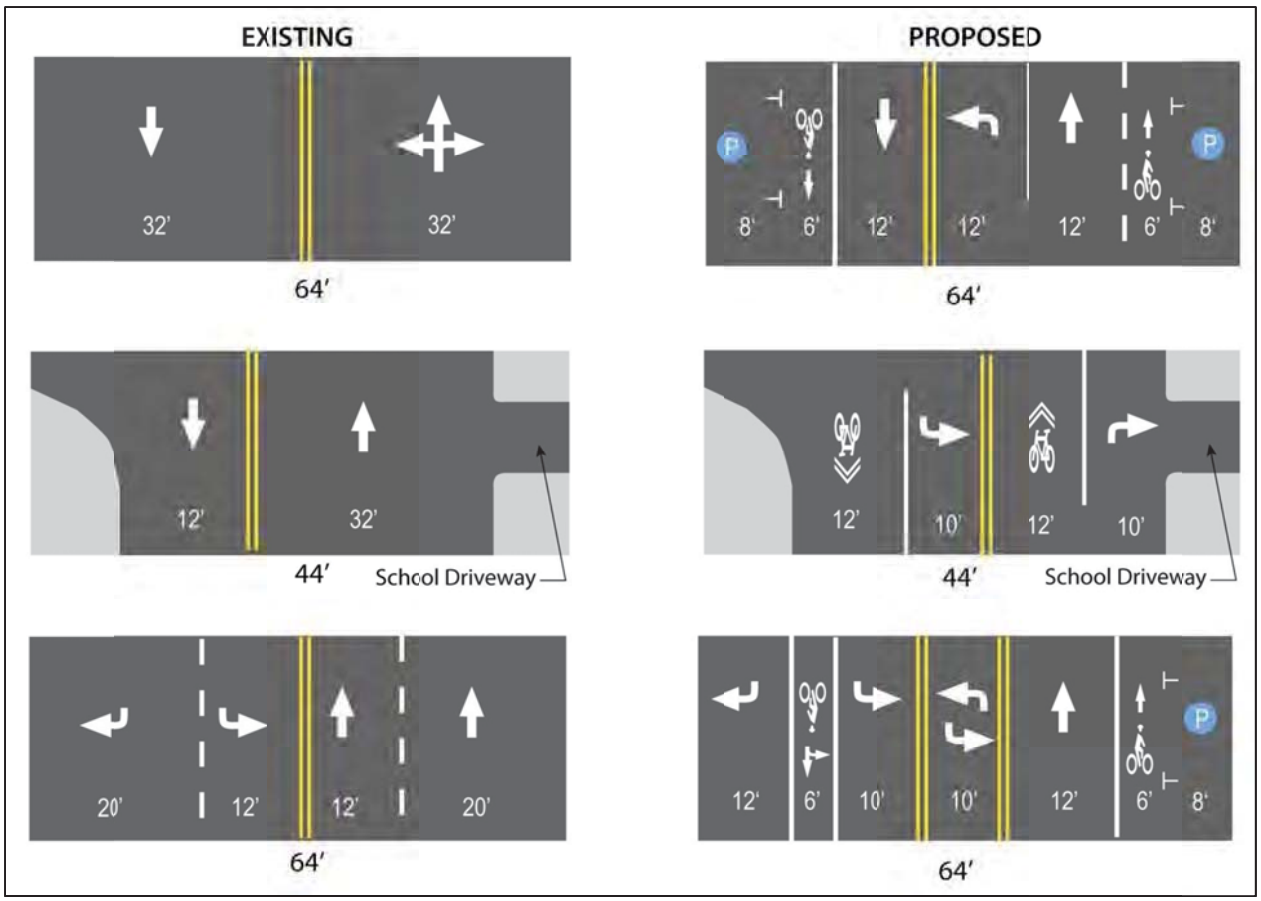


Figure 4-11 Bonnie Cove Avenue Proposed Bike Lane Treatment

Sunflower and Valley Center Avenues are currently two lanes in each direction with a center stripe that opens to a left-turn lane at most arterial and some minor street intersections. ADT volumes are very low for an arterial roadway. This BMP proposes reducing the number of travel lanes to one in each direction, maintaining a continuous center turn lane, and providing a bike lane in each direction. **Figure 4-12** illustrates sample cross-sections of the existing and proposed lane configurations.

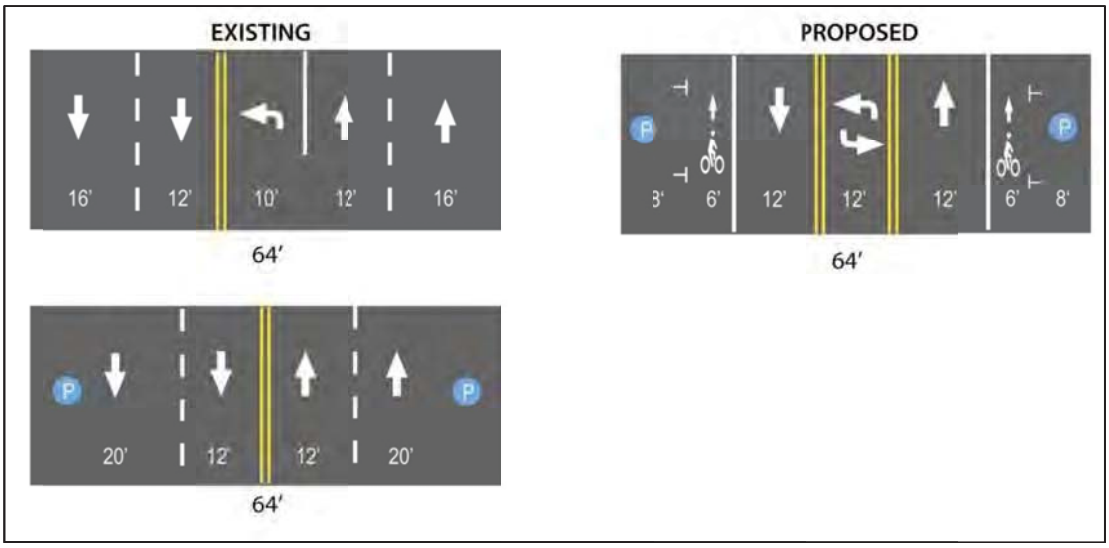


Figure 4-12 Sunflower and Valley Center Avenues Proposed Bike Lane Treatment

Cienega Avenue is currently two lanes in each direction with a center stripe that opens to a left-turn lane at most arterial and some minor street intersections. ADT volumes are very low for an arterial roadway. This plan proposes reducing the number of travel lanes to one in each direction, maintaining a continuous center turn lane, and providing one bike lane in each direction. **Figure 4-13** illustrates sample cross-sections of the existing and proposed lane configurations.

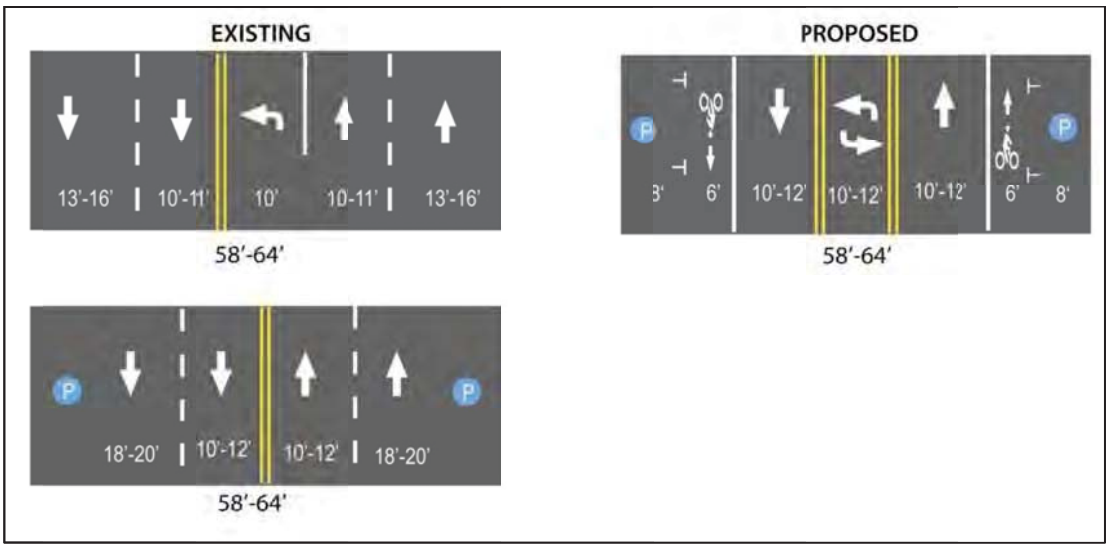


Figure 4-13 Cienega Avenue Proposed Bike Lane Treatment

Covina Boulevard is currently two lanes in each direction with a center stripe that opens to a left-turn lane at most arterial and some minor street intersections. ADT volumes are low for an arterial roadway. This plan proposes reducing the number of travel lanes to one in each direction, maintaining a continuous center turn lane, and providing a bike lane in each direction. **Figure 4-14** illustrates sample cross-sections of the existing and proposed lane configurations.

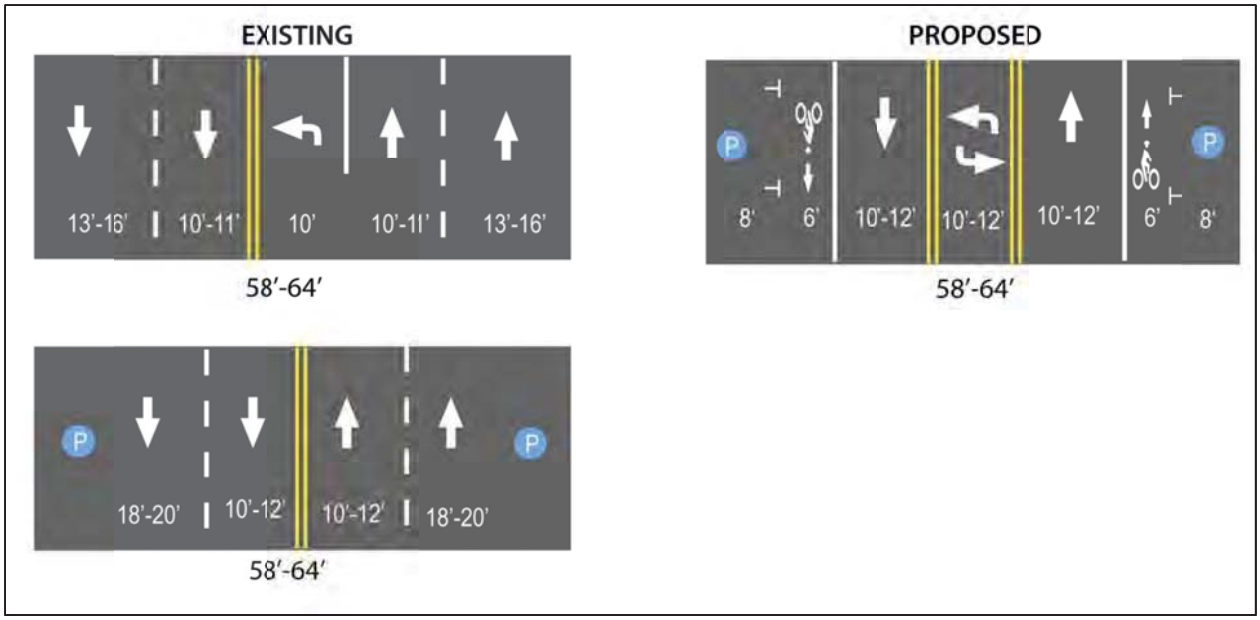


Figure 4-14 Covina Boulevard Proposed Bike Lane Treatment

Cypress Street is currently two lanes in each direction with a center stripe that opens to a left-turn lane at most arterial and some minor street intersections. ADT volumes are less in the eastern part of the City along the roadway relative to the central and western parts. East of Glendora Avenue, this BMP proposes reducing the number of travel lanes to one in each direction, maintaining a continuous center turn lane, and providing a bike lane in each direction. This proposed lane configuration is similar to those of Cienega Avenue and Covina Boulevard. West of Glendora Avenue, on-street parking will be removed on one side of the street to accommodate bike lanes in each direction. This proposed configuration is similar to that of Barranca Avenue.

San Bernardino Road is currently two lanes in each direction with a center stripe or center turn lane along most of its length. ADT volumes are low to moderate for such an arterial roadway. This plan proposes reducing the number of travel lanes to one in each direction, maintaining a continuous center turn lane, and providing a bike lane in each direction west of Hollenbeck Avenue and east of Second Avenue. This proposed lane configuration is similar to those for Cienega Avenue and Covina Boulevard. Between Hollenbeck and Second, street width is too narrow to provide bike lanes, and a Class III bike route is proposed there.

Badillo Street is currently two lanes in each direction with a center raised median along most its length. ADT volumes are appropriate for an arterial roadway. The curb lane is rather wide and can accommodate both on-street parking and bike lanes on both sides. **Figure 4-15** illustrates sample cross-sections of the existing and proposed lane configurations.

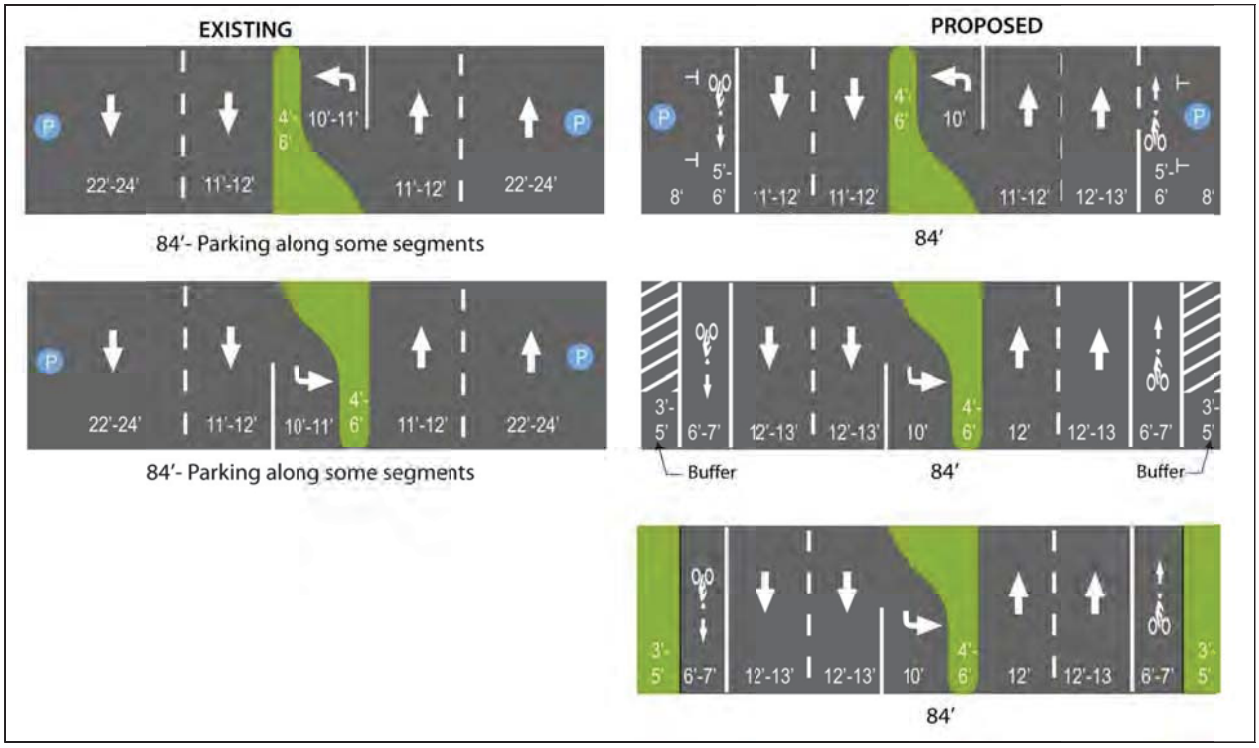


Figure 4-15 Badillo Street Proposed Bike Lane Treatment

Puente Street currently has either one or two lanes in each direction depending on the street width. ADT volumes are low for an arterial roadway. Where Class II bike lanes are proposed, this plan will reduce the number of travel lanes to one in each direction, maintain a continuous center turn lane, and provide one bike lane in each direction.

Figure 4-16 illustrates sample cross-sections of the existing and proposed lane configurations.

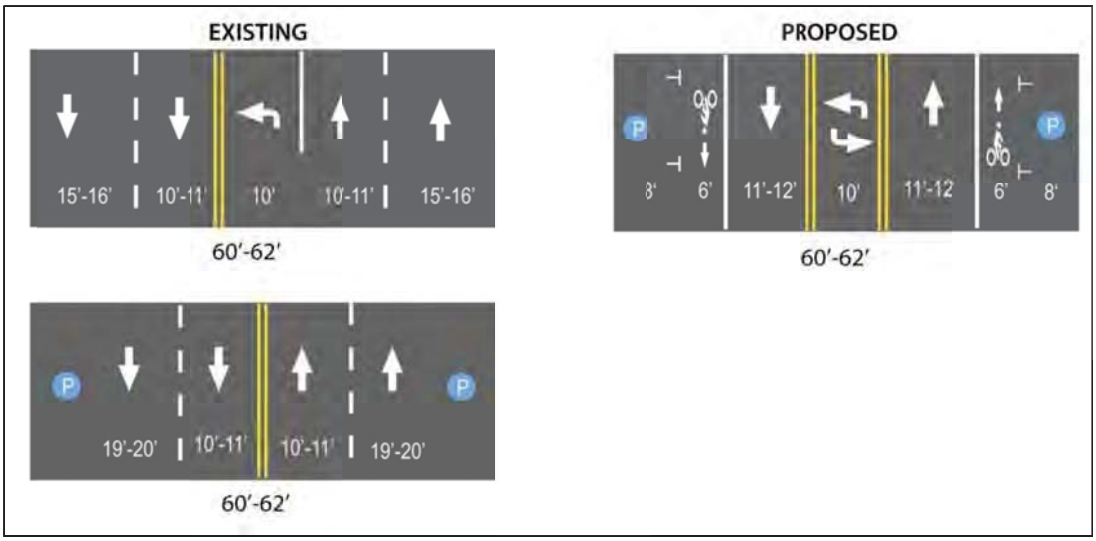


Figure 4-16 Puente Street Proposed Bike Lane Treatment

Rowland Avenue is currently two lanes in each direction with a center raised median along most its length. ADT volumes are appropriate for an arterial roadway. The curb lane is not as wide as are those along Badillo Street, so adding bike lanes in each direction and removing on–street parking on both sides are proposed. **Figure 4-17** illustrates sample cross-sections of the existing and proposed lane configurations.

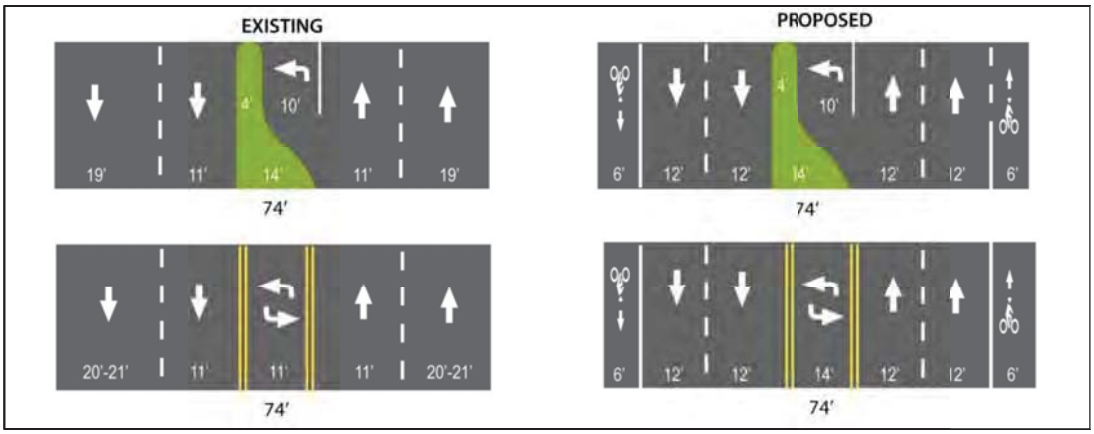


Figure 4-17 Rowland Avenue Proposed Bike Lane Treatment

Workman Avenue is currently two lanes in each direction with a center stripe or turn lane east of Citrus Avenue. West of Citrus, the roadway will be a Class III route. East of Citrus Avenue, Covina shares roadway jurisdiction with the City of West Covina. Implementing bike lanes in both directions will require inter-jurisdictional cooperation. **Figure 4-18** illustrates sample cross-sections of the existing and proposed lane configurations.

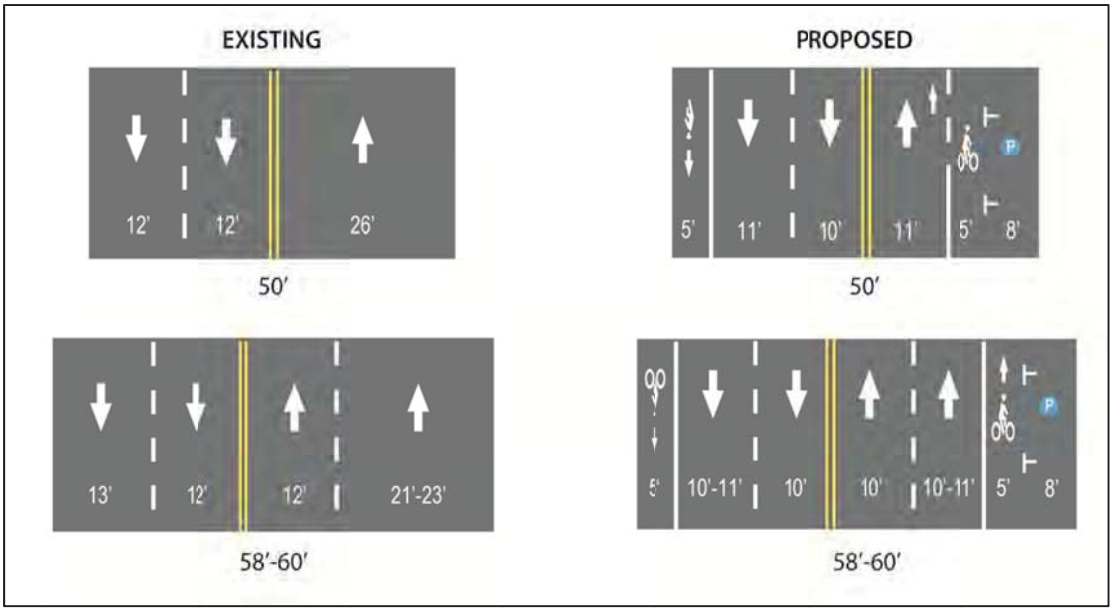


Figure 4-18 Workman Avenue Proposed Bike Lane Treatment

4.2 Class I Bike Path Network

Opportunities for off-street Class I bike lanes in Covina are primarily limited to rivers, washes, and arroyos, some of which are paved channels. Skyline Trail is an existing off-road facility that caters primarily to equestrians. The mostly earthen trail is of adequate width to accommodate implementation of an official Class I bike path. Portions of Walnut Creek have also been opened for equestrian use.

Table 4-4 presents the proposed Class I bikeways recommended for the City of Covina, and **Figure 4-19** illustrates the proposed network.

Table 4-4 Proposed Class I Bikeway Network

Route Description	Class	From	To	Length (miles)	Planning-Level Cost Estimate
Big Dalton Wash	1	Lark Ellen Ave	Covina Town Square (w/o Azusa Ave)	0.45	$1,188,000
San Dimas Wash	1	Big Dalton Wash	Arrow Hwy	2.47	$6,515,000
Charter Oak Wash	1	Glendora Ave	Cypress St / Bonnie Cove Ave	0.58	$1,520,000
Charter Oak Wash	1	Workman Ave	Badillo St	0.96	$2,530,000
Skyline Trail	1	Oak Cyn Rd / Walnut Crk Rd	Forest Hills Dr	0.36	$945,000
Walnut Creek	1	Grand Ave	Puente St	2.18	$5,760,000
Workman Ave	1	400' e/o Workman St/Ln	600' e/o Workman St/Ln	0.19	$500,000
Puente St	1	Starglen Dr	Walnut Creek channel	0.19	$490,000
	1	400' e/o Shouse Ave	300' w/o Starglen Dr	0.09	$225,000
			TOTAL	**7.47**	**$19,673,000**

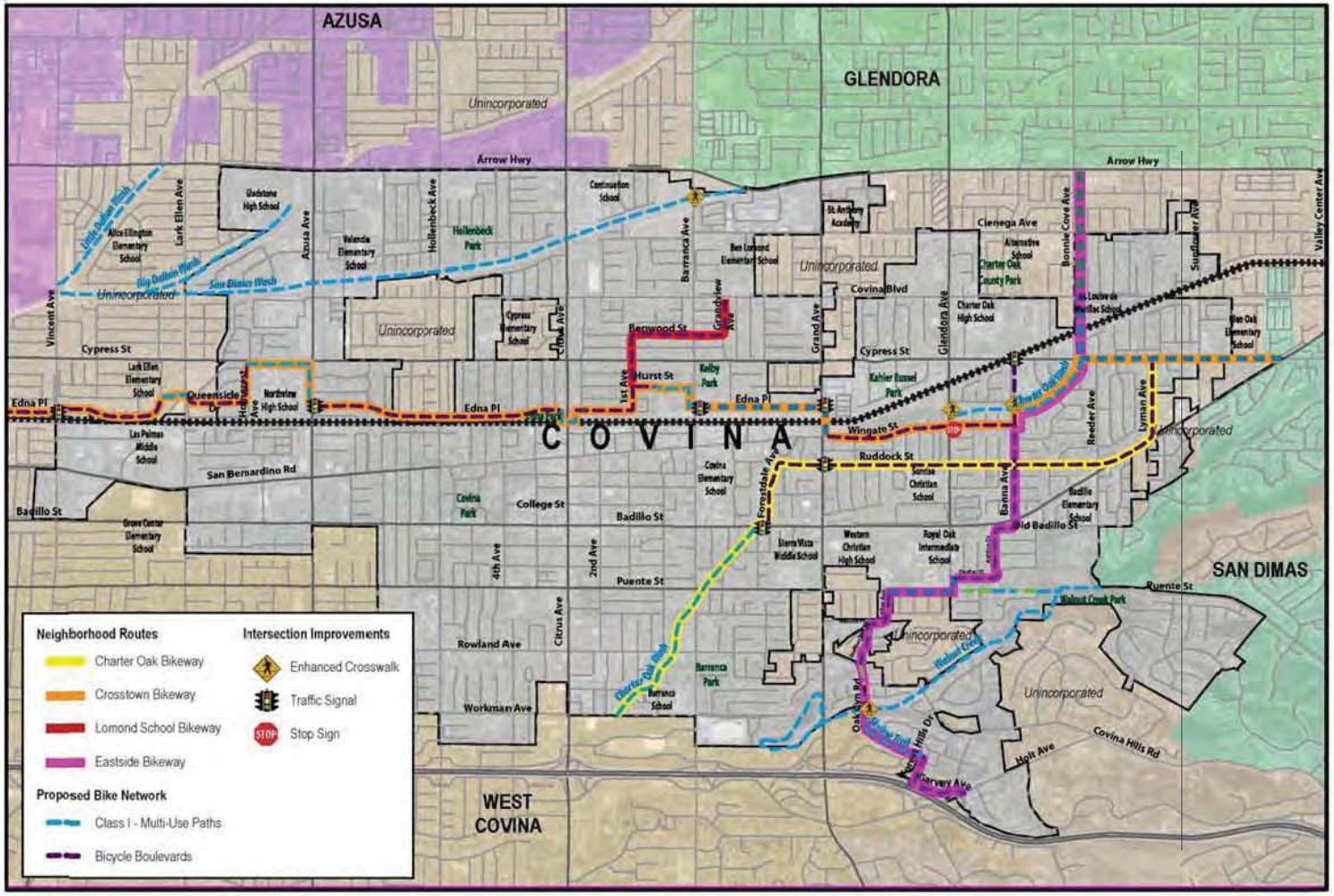


Figure 4-19 Proposed Class I Bikeways and Bike Boulevards

All proposed Class I bike paths will intersect cross streets at street level. Street-level crossings will require specific treatments, such as a ladder-style crosswalk with appropriate signage, a new traffic signal, or other enhanced crossing treatments. Enhanced crossing treatments include a ladder-style crosswalk and signage, plus user-activated overhead flashing yellow indicators. This treatment enhances the visibility of cyclists and pedestrians crossing the road. Where arterial crossings are particularly wide, the City should consider installing a refuge island and/or bulb outs (curb extensions) as well. **Table 4-5** presents the list of Class I bike path crossings included in the proposed bikeway network.

Table 4-5 Class I Bike Path Crossing Treatments

Class I Path	Crossing	Crossing Type	Planning-Level Cost Estimate
Big Dalton Wash	Vincent Ave	Enhanced Crosswalk	$100,000
San Dimas Wash	Lark Ellen Ave	Enhanced Crosswalk	$100,000
	Azusa Ave	New Signal	$100,000
	Conwell Ave	Ladder Crosswalk	$15,000
	Hollenbeck Ave	Enhanced Crosswalk	$100,000
	Citrus Ave	New Signal	$100,000
	Barranca Ave	Enhanced Crosswalk	$100,000
	Arrow Hwy	Enhanced Crosswalk	$100,000
Charter Oak Wash	Workman Ave	Enhanced Crosswalk	$100,000
	Rowland Ave	Enhanced Crosswalk	$100,000
	Barranca Ave / Puente St	Existing Signal	$0
	Badillo St	New Signal	$100,000
	Glendora Ave	Enhanced Crosswalk	$100,000
	Banna Ave	Ladder Crosswalk	$15,000
	Cypress St / Bonnie Cove Ave	Existing All-Way Stop Control	$0
Walnut Creek	Oak Canyon Rd	Ladder Crosswalk	$15,000
	Covina Hills Rd	Enhanced Crosswalk	$100,000
		TOTAL COST	**$1,245,000**

4.3 Bike Boulevards

Less experienced bicyclists may not be comfortable riding on arterial roadways even if a Class II bike lane is provided. Covina has some opportunities to link certain residential streets and parks to create longer-distance routes with minimal travel on arterials. Four bike boulevards are proposed as part of the City's bikeway network and are shown in **Figure 4-19**. Note that the cost estimates for all Class I, II, and III segments and crossing treatments have already been accounted for in Section 4.2. Only additional costs for preferred bike boulevard implementation are shown in the following tables.

4.3.1 Crosstown Bikeway

This route traverses the city in an east-west alignment generally near the rail corridor. The route consists of many segments. Therefore, adequate and appropriate signage is critical. The route includes various segments of Edna Place; traverses Kelby and Kahler Russel parks; and links the schools of Lark Ellen Elementary, Northview High, Charter Oak High, and Glen Oak Elementary. **Table 4-6** presents the individual segments of this bikeway.

Table 4-6 Proposed Crosstown Bikeway

Street/Path	Class/ Type*	From	To	Length (miles)	Planning-Level Cost Estimate
Queenside Dr	BB	Lark Ellen Ave (frontage road)	Homerest Ave	0.24	$7,160
Homerest Ave	BB	Queenside Dr	Cypress St	0.18	$5,280
Cypress St (south side)	1	Homerest Ave	Azusa Ave	0.25	-
Azusa Ave (west side)	1	Cypress St	Edna Pl	0.18	-
Edna Pl	BB	Azusa Ave	Citrus Ave	1.02	$30,570
Citrus Ave (west side)	1	Edna Pl	Metrolink Station Signal	0.03	-
Citrus Ave (east side)	1	Metrolink Station Signal	Edna Pl	0.03	-
Edna Pl	BB	Citrus Ave (east side)	1st Ave	0.25	$7,560
1st Ave	BB	Edna Pl	Benwood St	0.30	$9,090
Benwood St	BB	1st Ave	Grandview Ave	0.36	$10,850
Grandview Ave	BB	Benwood St	Covina Blvd	0.15	$4,550
Hurst St	BB	1st Ave	Kelby Park	0.10	$2,900
Kelby Park Path / Drwy	1	Hurst St Terminus	Barranca Ave / Park Drwy	0.15	-
Barranca Ave (west side)	1	Barranca Ave / Park Drwy	Edna Pl	0.09	-
Edna Pl	2	Barranca Ave	Grand Ave	0.50	-

Table 4-6 Proposed Crosstown Bikeway

Street/Path	Class/ Type*	From	To	Length (miles)	Planning-Level Cost Estimate
Grand Ave	2	Edna Pl	San Bernardino Rd / Wingate St	0.12	-
Wingate St	BB	Grand Ave	Banna Ave	0.76	$22,670
Banna Ave	BB	Wingate St	Charter Oak Wash	0.06	$1,760
Charter Oak Wash	1	Banna Ave	Cypress St Bonnie Cove Ave	0.33	-
Cypress St	2	Bonnie Cove Ave	Badillo St	0.82	-
*BB is a Bicycle Boulevard route.			**TOTAL**	**5.92 (3.42 BB)**	**$102,390**

4.3.2 Lamond School Bikeway

This neighborhood bikeway will link the Crosstown with Lamond Elementary School.

Table 4-7 Proposed Lamond School Bikeway

Street/Path	Class/Type*	From	To	Length (miles)	Planning-Level Cost Estimate
1st Ave	BB	Hurst St	Benwood St	0.20	$6,140
Benwood St	BB	1st Ave	Grandview Ave	0.36	$10,850
Grandview Ave	BB	Benwood St	Covina Blvd	0.15	$4,550
*BB is a Bicycle Boulevard route.			**TOTAL**	**0.71 (all BB)**	**$21,540**

4.3.3 Eastside Bikeway

This route traverses the eastern side of the city in a north-south alignment. The route consists of many often short segments. Therefore, adequate and appropriate signage is critical. The route includes short segments of Class II and III bikeways as well as the only existing off-street multi-purpose path in Covina. The Eastside bikeway connects five schools with each other.

Table 4-8 Proposed Eastside Bikeway

Street/Path	Class/ Type*	From	To	Length (miles)	Planning-Level Cost Estimate
Bonnie Cove Ave	3	Cienega Ave	Covina Blvd	0.25	-
Bonnie Cove Ave	2	Covina Blvd	Cypress St/ Bonnie Cove Ave	0.25	-
Charter Oak Wash	1	Cypress St/ Bonnie Cove Ave	Banna Ave	0.33	-
Banna Ave	BB	Charter Oak Wash	Old Badillo St	0.66	$19,830

Table 4-8 Proposed Eastside Bikeway

Street/Path	Class/ Type*	From	To	Length (miles)	Planning-Level Cost Estimate
Old Badillo St	BB	Banna Ave	Ashton Dr	0.07	$2,160
Ashton Dr	BB	Old Badillo St	Dexter St	0.19	$5,680
Dexter St	BB	Ashton Dr	Glendora Ave	0.18	$5,510
Glendora Ave	2	Dexter St	Puente St	0.05	-
Puente St	2	Glendora Ave	Farber Ave	0.25	-
Farber Ave	BB	Puente St	Navilla Pl	0.12	$3,580
Navilla Pl	BB	Farber Ave	Heffner Hill Rd	0.09	$2,560
Heffner Hill Rd	BB	Navilla Pl	Covina Hills Rd	0.20	$5,850
Covina Hills Rd	3	Heffner Hill Rd	Oak Canyon Rd	0.06	-
Oak Canyon Rd	BB	Covina Hills Rd	Skyline Trail	0.09	$2,670
Skyline Trail	1	Oak Canyon Rd	Forest Hills Dr	0.35	-
Forest Hills Dr	BB	Skyline Trail	Garvey Ave N	0.13	$4,030
Garvey Ave N	3	Forest Hills Dr	Holt Ave	0.21	-
*BB is a Bicycle Boulevard route.			**TOTAL**	**3.48 (1.73 BB)**	**$51,870**

4.3.4 Charter Oak Bikeway

This route follows the southern segment of Charter Oak Wash and then traverses neighborhood streets (primarily Ruddock Street) to the Charter Oak area in the northeast part of Covina. The Class I path along the wash requires at-grade crossing treatments at Rowland Avenue, Puente Street/ Barranca Avenue, and Badillo Street. The crossing at Puente/Barranca will be achieved at the existing signalized intersection. The Rowland crossing will require an enhanced crosswalk treatment with signage and overhead or in-pavement flashers. The crossing at Badillo Street is very wide and likely requires a new traffic signal at the intersection of Monte Vista Avenue.

Table 4-9 Charter Oak Bikeway

Street/Path	Class/ Type*	From	To	Length (miles)	Planning-Level Cost Estimate
Charter Oak Wash	1	Workman Ave	Badillo St	0.91	-
Badillo Connection to Forestdale	1	Badillo St	Forestdale Ave	0.05	-
Forestdale Ave	BB	Badillo St Connection	Ruddock St	0.23	$7,050
Ruddock St	BB	Forestdale Ave	Lyman Ave/Badillo St	1.50	$45,110
Lyman Ave	BB	Badillo St	Cypress St	0.31	$9,200
*BB is a Bicycle Boulevard route.			**TOTAL**	**3.0 (2.04 BB)**	**$61,360**

4.4 Bikeway Maintenance

Maintenance is an important component of providing a comfortable, safe, and reliable bikeway network. The City shall perform the following efforts to ensure that bikeways receive proper maintenance and cleaning.

- Maintain safe bikeways through regular inspection and maintenance.
- Establish routine maintenance schedules and standards for citywide bikeways.
- Maintain striping, roadway surface, lighting and landscaping in good condition on and adjacent to bikeways.
- Monitor and maintain adequate lighting along City bikeways.

Typical maintenance costs for the bikeway network proposed in this report are presented in **Table 4-10**.

Table 4-10 Typical Bikeway Maintenance Costs

Facility Type	Unit Cost	
Class I Bike Path	$10,000	per mile
Class II Bike Lane	$3,500	per mile
Class III Bike Route	$3,500	per mile
Neighborhood Route	$2,500	per mile

4.5 Bicycle End-of-Trip and Intermodal Facilities

Support facilities and multi-modal connections to other modes of transportation are essential components of a bicycle system. With bike theft an ongoing issue, not having secure and well-located bicycle parking can become a prohibition to biking. A comprehensive bicycle parking strategy is one of the most important things that a jurisdiction can do to immediately enhance the bicycling environment. Moreover, a bicycle parking strategy with connections to public transit will increase the geographical range of residents traveling without using an automobile.

The City has installed a BikeStation secure parking facility at the Covina Metrolink Station. A second BikeStation, which was funded by the 2011 Metro Call for Projects, is planned for Downtown Covina. An additional 20 racks are planned to be installed during the 2011-2012 fiscal year in the greater downtown area. Moving forward, the City will place bike parking at the following high-priority locations:

- Parks
- Schools
- Commercial/office areas
- Civic/government buildings
- Public transit stations

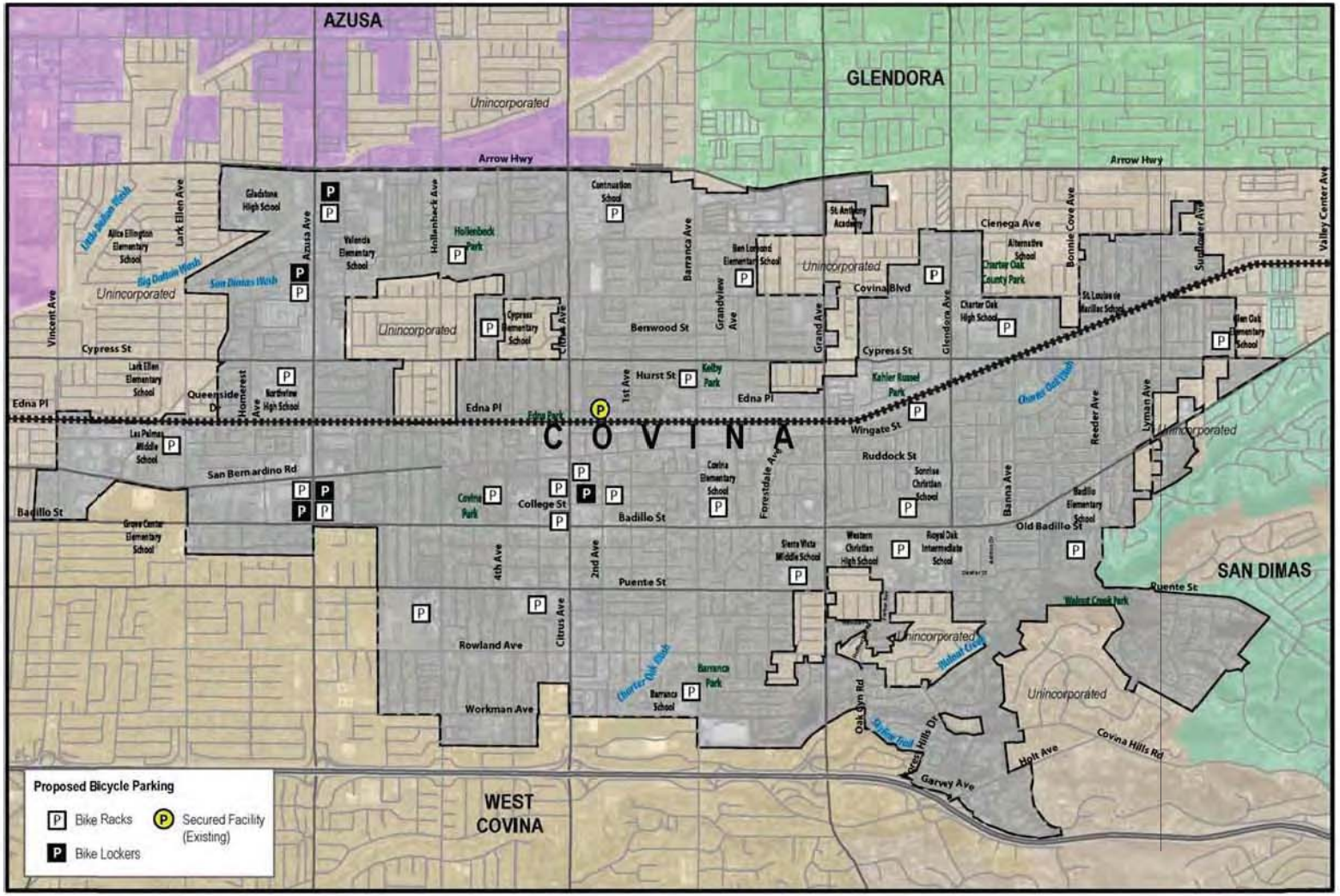
Bicycle parking shall be visible and accessible, while not impeding pedestrians. Although there are many different bike rack designs, all racks should support the bicycle frame and allow for both the frame and one or both wheels to lock to the rack.

For longer-term parking, bike lockers and secure parking facilities can protect bikes from the elements.

The City does not have any and is not proposing any publicly accessible facilities for changing and storing clothes and equipment as a part of this Plan. However, the City will revise its development code and parking standards to allow for bicycle parking and other end-of-trip bicycle facilities (e.g. locker rooms and showers) to mitigate traffic impacts from new development or redevelopment projects. The City will also promote secure bike parking at places of employment and residential complexes.

Long-Term Bike Parking Facility
Metrolink BikeStation®, Covina CA

Figure 4-20 recommends the general locations for bike racks and bike lockers in Covina. The proposed parking distribution focuses on commercial corridors, parks, and schools.



CITY OF COVINA PROPOSED BIKE PARKING

City of Covina Bicycle Master Plan

Image Source: © 2010 Google Earth
Map Source: Los Angeles MTA (2006, 2010); Alta Planning + Design (2011)
Map Date: APRIL 2011

0 0.25 0.50 Miles

Figure 4-20 Proposed Bike Parking Locations

4.6 Project Priority

This section provides the methodology for prioritizing the proposed bicycle projects. Each criterion contains valuable information about a facility and its ability to address an existing or future need in the City of Covina. The resulting project ranking determines each project's relative importance in funding and scheduled construction.

4.6.1 Prioritization Criteria

The BMP used the following measures to evaluate the ability for each proposed bikeway facility to fulfill Covina cyclists' needs.

Connectivity to Existing Facilities

Existing facilities promote and support walking and bicycling, but their failure to connect to larger systems leaves gaps in the network. These gaps discourage walking/biking because they limit route continuity and prevent direct connections to desirable destinations. Projects that extend or connect to the existing Glendora Avenue and Hollenbeck Avenue bike lanes qualify for this prioritization criterion.

Connectivity to Proposed Regional Facilities

Over the life of this BMP, there will be efforts to construct bikeway facilities in adjacent cities and unincorporated areas. Proposed facilities that anticipate future regional connections will eliminate network gaps and provide direct connections to desirable destinations outside the City. Projects that extend or connect to the existing and proposed facilities qualify for this prioritization criterion.

Connections to Activity Centers

Activity centers are the major trip-driving destinations within the City. Increasing bicycle and pedestrian accessibility to major activity centers can reduce traffic congestion and support residents and visitors who choose to bicycle or walk. Bikeway projects that connect to the Downtown Covina corridor on Citrus Avenue, and to commercial centers, like the Eastland Shopping Center, Covina Square, Berkeley Square, and the commercial strip at Azusa Avenue / Arrow Highway, qualify for this prioritization criterion.

Proximity to Schools

School children typically have higher rates of bicycling and walking than adults for transportation. To encourage more students to bike and walk to school, proposed facilities within 0.25 mile of K-12 schools (public and private) qualify for this prioritization criterion.

Collisions

New facilities can reduce the frequency of bicycle/pedestrian collisions with motor vehicles. Projects that serve areas with concentrated amounts of bicycle/pedestrian collisions qualify for this prioritization criterion.

Public Input

The City solicited public input using a website survey and public workshops. Feasible projects with demonstrated public endorsement qualify for this prioritization criterion.

The project team assigned importance-based multipliers to each facility criterion based on their relative importance to the City's overall circulation, connectivity, access, and funding. The extent to which proposed projects address these criteria determines the project's prioritization in construction and funding. The ranking exercise resulted in the following prioritization:

1. Connectivity to Existing Facilities
2. Connectivity to Proposed Regional Facilities
3. Connections to Activity Centers
4. Proximity to Schools
5. Public Input
6. Bicycle Collisions
7. Project Cost

4.6.2 Project Ranking

Table 4-11 shows how the ranking exercise described in the previous section translated into weights for project prioritization. Weights are based on direct, secondary, or no service at all. Direct service means that a facility intersects with a destination, whereas secondary access occurs when the primary facility connects to another proposed facility that meets the criteria.

Table 4-11 Project Criteria Weight and Scoring

Criteria	Score	Multi-plier	Total Possible Score	Description
Connectivity, Existing	2	3	6	Direct access to an existing bicycle facility.
	1	3	3	Secondary access to an existing bicycle facility.
	0	3	0	No direct access to an existing bicycle facility.
Connectivity, Proposed Regional	2	3	6	Proposed facility is a regional bicycle facility.
	1	3	3	Direct access to a proposed regional bicycle facility.
	0	3	0	No direct access to a proposed regional bicycle facility.
Activity Centers	2	2	4	Direct connection to a major trip-driving destination in Covina.
	1	2	2	Secondary connection to a major trip-driving destination in Covina.
	0	2	0	No connection to a major trip-driving destination in Covina.
Schools	2	2	4	Direct access to a K-12 school (within a 1/4 mile).
	1	2	2	Secondary access to a K-12 school (within 1/2 mile)
	0	2	0	No direct access to a K-12 school.
Public Input	2	1	2	Identified by the public as desirable for a future facility multiple times.
	1	1	1	Identified by the public as desirable for a future facility once.
	0	1	0	Not identified by the public as desirable for a future facility
Bicycle Collisions	2	1	2	Roadway that experienced three or more collisions in the last ten years.
	1	1	1	Roadway that experienced one to two collisions in the last ten years.
	0	1	0	Roadway that did not experience a collision in the last five years.

Table 4-11 Project Criteria Weight and Scoring

Criteria	Score	Multi-plier	Total Possible Score	Description
	4	1	4	Project costs $0 - 15,000
	3	1	3	Project costs $15,001 - $125,000
Cost	2	1	2	Project costs $125,001 - $400,000
	1	1	1	Project costs $400,000 - $1,000,000
	0	1	0	Project costs $1,000,000+
Total Possible Score			**28**	

Table 4-12 presents the proposed bicycle projects in the City ranked according to the weighted criteria. The City will implement these projects in the rough order of their prioritization, provided there is available funding. These rankings are not the final implementation order, but a guide to direct the City as funding and opportunities arise.

Table 4-12 Project Priority

Path / Street	Class	Limit 1	Limit 2	Length (Miles)	Connectivity (Existing)	Connectivity (Proposed/ Region)	Activity Centers	Schools	Public Input	Collisions	Cost	
					Multiplier							
					3	3	2	2	1	1	1	Total
Badillo St	2	Lark Ellen Ave	San Dimas city limit	4.05	2	2	2	2	2	2	1	25
San Bernardino Rd	2	Morada Ave	Hollenbeck Ave	3.14	2	2	2	2	1	2	2	25
Covina Blvd	2	Azusa Ave	Asherton Ave	3.76	2	2	1	2	2	2	2	24
Azusa Ave	2	Arrow Hwy	200' south of Grovecenter St	1.52	1	2	2	2	2	2	2	23
Cienega Ave	2	Barranca Ave	Valley Center Ave	5.58	2	2	2	2	0	1	2	23
Cypress Ave	2	Leaf Ave	Badillo St	4.19	2	2	1	2	2	2	1	23
Crosstown	1/BB	Vincent Ave	Grand Ave	4.44	2	2	2	2	0	0	3	23
Hollenbeck Ave	2	Arrow Hwy	Mardina St	2.27	2	2	1	2	0	2	2	22
Glendora Ave	2	Arrow Hwy	Puente St	1.66	2	2	1	2	0	2	2	22
Lark Ellen Ave	2	Edna Place	Grovecenter St	0.52	2	2	1	2	0	1	3	22
Citrus Ave	2	Arrow Hwy	Front St	1.05	1	2	2	1	2	2	3	22
Citrus Ave	2	Badillo St	Workman Ave	0.75	1	2	2	2	2	0	3	22
Grand Ave	2	Arrow Hwy	Walnut Creek channel	2.15	1	2	1	2	2	2	2	21

Table 4-12 Project Priority

Path / Street	Class	Limit 1	Limit 2	Length (Miles)	Connectivity (Existing)	Connectivity (Proposed/ Region)	Activity Centers	Schools	Public Input	Collisions	Cost	
					Multiplier							
					3	3	2	2	1	1	1	Total
Arrow Hwy	2	Enid Ave	1000' e/o Grand Ave	2.6	1	2	2	1	2	2	2	21
Charter Oak	1/BB			2.04	1	2	2	2	0	0	3	20
Barranca Ave	2	Arrow Hwy	Workman Ave	2.16	0	2	2	2	1	2	2	19
Workman Ave	2/3	150' w/o Armel Dr	400' e/o Workman St/Ln	1.79	0	2	2	2	1	2	2	19
Badillo St	2	250' w/o Vincent Ave	600' e/o Vincent Ave	0.2	2	2	0	0	2	2	3	19
Puente St	2/3	Armel Dr	San Dimas city limit	2.77	1	2	0	2	1	2	2	18
Edna Pl	2	Barranca Ave	Grand Ave	0.49	1	1	2	2	0	0	3	17
Rowland Ave	2	Armel Dr	Grand Ave	1.73	0	2	1	2	1	2	2	17
Eastside	1/2/ 3/BB			1.73	1	2	1	2	0	0	3	18
Second Ave	2	Front St	Rowland Ave	0.87	0	1	2	1	1	2	3	15
Vincent Ave	2	Edna Place	Badillo St	0.45	0	2	1	1	0	1	3	14
Reeder Ave	2/3	Cypress St	Puente St	0.94	1	1	0	2	0	1	3	14
San Dimas	1	Big Dalton	Arrow Hwy	2.47	0	2	2	2	0	0	0	14

Table 4-12 Project Priority

Path / Street	Class	Limit 1	Limit 2	Length (Miles)	Connectivity (Existing)	Connectivity (Proposed/ Region)	Activity Centers	Schools	Public Input	Collisions	Cost	
					Multiplier							
					3	3	2	2	1	1	1	Total
Wash		Wash										
Walnut Creek	1	Grand Ave	Puente St	2.18	0	2	1	2	0	0	0	12
Charter Oak Wash	1	Workman Ave	Badillo St	0.96	0	1	2	2	0	0	0	11
4th Ave	3	San Bernardino Rd	Puente St	0.49	0	0	2	1	0	0	4	10
Sunflower Ave	2	Cienega Ave	Badillo St	0.69	0	1	0	2	0	0	3	10
Big Dalton Wash	1	Vincent Ave	Covina Town Square (w/o Azusa Ave)	1.04	0	2	2	0	0	0	0	10
Lamond School	BB			0.71	0	1	0	2	0	0	3	10
Bonnie Cove Ave	2/3	Cienega Ave	Cypress St	0.5	0	0	1	2	0	0	3	9
Front St	2	Citrus Ave	Second Ave	0.12	0	1	1	0	0	0	4	9
Puente St	1	400' e/o Shouse Ave	300' w/o Starglen Dr	0.09	0	1	0	1	0	0	2	7
Covina Hills Rd	2/3	Grand Ave	San Dimas city limit	0.96	0	1	0	0	0	0	3	6
Holt Ave	3	Garvey Ave N	Covina Hills Rd	0.56	0	1	0	0	0	0	3	6

Table 4-12 Project Priority

Path / Street	Class	Limit 1	Limit 2	Length (Miles)	Connectivity (Existing)	Connectivity (Proposed/ Region)	Activity Centers	Schools	Public Input	Collisions	Cost	
					Multiplier							
					3	3	2	2	1	1	1	Total
Workman Ave	1	400' e/o Workman St/Ln	600' e/o Workman St/Ln	0.19	0	1	1	0	0	0	1	6
Puente St	1	Starglen Dr	Walnut Creek channel	0.19	0	1	0	1	0	0	1	6
Charter Oak Wash	1	Glendora Ave	Cypress St / Bonnie Cove Ave	0.58	0	1	0	1	0	0	0	5
Skyline Trail	1	Oak Cyn Rd / Walnut Crk Rd	Forest Hills Dr	0.36	0	1	0	0	0	0	1	4

Note: BB – Bicycle Boulevard

5 Recommended Programs

Creating a city that supports and encourages its residents to bicycle involves more than just infrastructure improvements. This chapter describes programs that will educate people about bicyclists' rights and responsibilities, and safe bicycle operation; connect current and future bicyclists to existing resources; and encourage residents to bicycle more frequently.

5.1 Enforcement

Motorists, pedestrians and bicyclists alike are sometimes unaware of each other's rights as they travel city streets. Enforcement programs target unsafe bicyclist and motorist behaviors and enforce laws that reduce bicycle/motor vehicle collisions and conflicts. Enforcement fosters mutual respect between roadway users and improves safety. These programs generally require coordination between law enforcement, transportation agencies, and bicycling organizations. Educating the public through enforcement policies will supplement the physical improvements made in the City of Covina.

5.1.1 Targeted enforcement

Target Audience: Cyclists and motorists

Traffic enforcement agencies, e.g. the Police Department, enforce laws pertaining to bicycles as part of responsible normal operation. Targeted enforcement is one way to publicize bicycle laws in a highly visible and public manner. Targeted enforcement may take the form of intersection stings; handing out informational sheets to motorists, bicyclists and pedestrians; and enforcing speed limits and right-of-way.

The City police department shall work with motorists and bicyclists to identify and enforce traffic regulations at problematic locations. The City shall consider the option of a roadway safety course in lieu of fines.

5.1.2 Speed Radar Trailer / Permanent Speed Signs

Target Audience: Motorists

Speed radar trailers can help reduce traffic speeds and enforce speed limits in areas with speeding problems. Police set up an unmanned trailer that displays the speed of approaching motorists along with a speed limit sign. Speed trailers may be effective on busier arterial roads without bikeway facilities or near schools with reported speeding. The speed trailer's roadway placement shall not obstruct bicycle traffic.

Speed trailers work as both an educational and enforcement tool. By itself, the unmanned trailer educates motorists about their current speed in relation to the speed limit.

Speed Radar Trailer

Speed trailers can transport easily to streets where local residents complain about speeding problems. The Sheriff's Department may station an officer near the trailer to issue speeding citations when speeding continues to occur.

City staff may provide the management role for this program, working with the public to determine which locations are in most need. This program can be administered randomly, cyclically, or as demand necessitates because of the speed trailers' portability.

Portland, OR Bicycle Patrol Officer

5.1.3 Bicycle Patrol Units

Target Audience: Cyclists and motorists

On-bike officers are an excellent tool for community and neighborhood policing because they are more accessible to the public and able to mobilize in areas where patrol cars cannot (e.g., overcrossings and paths). Bike officers undergo special training in bicycle safety and bicycle-related traffic laws and are therefore especially equipped to enforce laws pertaining to bicycling. Bicycle officers help educate cyclists and motorists through enforcement and also serve as excellent outreach personnel to the public at parades, street fairs, and other gatherings.

The City of Covina Police Department currently includes bicycle officers. The City shall work with the Police Department to provide bicycle patrol units at prominent public events and to provide instruction on the "rules of the road" at schools and other events.

5.1.4 Bicycle Light Enforcement

Target Audience: Cyclists

California Vehicle Code (CVC) §21201 requires bicycles to mount a front white light and red rear reflectors. Bicycling without lights reduces bicyclists' visibility and visibility to motor vehicles, and therefore increases bicyclists' risks of being involved in bicycle-car crashes. For these reasons, increasing bicycle light use shall be a top priority for improving bicycle safety in the City of Covina.

Bicycle light enforcement can effectively impact behavior particularly if bicyclists can avoid penalty by obtaining a bike light. One option is for officers to give offenders warnings, explain the law, and install a free bike light at the time of citation. Alternatively, officers can write "fix it tickets" and waive the fine if bicyclists can prove that they have purchased a bike light within a specified timeframe. When citing bicyclists, officers can also provide coupons for free or discounted lights at local bike shops, if available.

Bicycle light enforcement can work in tandem with outreach efforts. The Los Angeles County Bicycle Coalition (LACBC) administers a program called "City Lights" that features free bicycle lights in conjunction with educational materials. The City can tailor this program to fit its unique needs.

Bike light outreach campaigns can include the following components:

- Placing advertisements on transit benches, transit vehicles, and in local newspapers reminding bicyclists about the importance of bike lights.
- Distributing media releases with statistics about the importance of using bike lights and relevant legal statutes.
- Partnering with local cycling groups to publicize bicycle light use, especially at schools. Groups should receive campaign materials to distribute to constituents along with coupons for free or discounted bike lights.
- Stationing volunteers at key intersections and paths to thank bicyclists for using bike lights, rewarding cyclists with a small gift.
- Organizing a community bike light parade with prizes.
- Providing discounts on bike lights and reflective gear at local bike shops.

The City of Covina shall work through the Police Department and local bike shops to offer incentives for mounting bike lights, including staging bike light giveaways and providing coupons rather than tickets to offenders.

5.2 Education

Education programs enable bicyclists, pedestrians, and motorists to understand how to travel safely in the roadway environment according to the law. Education programs are available in an array of mediums, from long-term courses with detailed instruction to single sessions focusing on a specific topic. Curriculums shall be appropriate to the target audience and to the format of instruction.

5.2.1 Youth Bicycle Safety Education

Target Audience: Youth

Youth bicycle safety programs educate students about the rules of the road, proper use of bicycle equipment, biking skills, street crossing skills, and the benefits of bicycling. Such education programs are frequently part of Safe Routes to School programs. Bicycle safety education can be integrated into classroom time, physical education periods, or after school. Classroom lessons administered by a volunteer, trained professional, law enforcement officer, or teacher can teach children about bicycling and traffic safety. Individual lessons should focus on one or two key issues and include activities that are fun and engaging. Bicycle safety lessons are most appropriate for fourth through eighth grade students[6]. The National Center for Safe Routes to School (SR2S) online guide summarizes key messages to include in pedestrian and bicycle safety curriculums.[7]

In addition to classroom-based activities, periodic "safety assemblies" can also provide bicycle safety education. Safety assemblies convey a safety message through the use of engaging and visually stimulating presentations, videos, skits, guest speakers, or artistic displays. Assemblies should be relatively brief and focus

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[6] Safe Routes to School National Partnership, http://www.saferoutespartnership.org/state/bestpractices/personalsafety

[7] http://www.saferoutesinfo.org/guide/education/key_messages_for_children.cfm

on one or two topics. Classes receiving on-going instruction on related topics can participate by presenting their lessons to the rest of the school. Schools can reinforce safety assembly lessons by reiterating the message in school announcements, school newsletters, posters, or other means. Beyond providing safety instruction, safety assemblies are a good avenue to generate enthusiasm about biking in children.

Apart from Safe Routes to School programs, the City shall provide youth bicycle safety education on a citywide basis during critical periods, such as at the beginning of the school year.

5.2.2 Bicycle Skills Courses

Target Audience: General public

Most bicyclists do not receive comprehensive instruction on safe and effective bicycling techniques, laws, or bicycle maintenance. Bike skill training courses are an excellent way to improve both cyclist confidence and safety. The League of American Bicyclists (LAB) developed a comprehensive bicycle skills curriculum considered the national standard for adults seeking to improve their on-bike skills. The classes include bicycle safety checks and basic maintenance, basic and advanced on-road skills, commuting, and driver education.[8] Non-profit organizations like the LACBC typically partner with LAB-certified instructors to offer bicycle skills courses. Another local area bicycle advocacy organization, CICLE (Cyclists Inciting Change thru Live Exchange), offers skills instruction courses.[9]

The City shall partner with non-profit organizations such as the LACBC and CICLE to incorporate bicycle skills courses into recreation center programs or other city programs, especially in conjunction with opening new bicycle facilities and other bicycle-involved special events.

5.2.3 Bicycle Rodeos

Target Audience: Children

Bicycle Rodeos are individual events that help students develop basic bicycling techniques and safety skills through the use of a bicycle safety course. Rodeos use playgrounds or parking lots set-up with stop signs, traffic cones, and other props to simulate the roadway environment. Students receive instruction on how to maneuver, observe stop signs, and look for on-coming traffic before proceeding through intersections. Bicycle Rodeos also provide an opportunity for instructors to ensure children's helmets and bicycles are appropriately sized. Events can include free or low-cost helmet distribution and bike safety checks. Trained adult volunteers, local police, and the fire department can administer Rodeos.

The City of Covina shall administer Bicycle Rodeos as stand-alone events and as events incorporated into health fairs, back-to-school events, and Walk and Bike to School days.

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[8] www.bikeleague.org/programs/education/courses.php.

[9] http://www.cicle.org/bike_now/ed_program_page.php

5.2.4 Share the Path Campaign

Target Audience: Bike path users

Conflicts between path users can occur on popular, well-used path systems. "Share the Path" campaigns promote safe and courteous behavior among all users. These campaigns typically involve distribution of bicycle bells and other bicycle paraphernalia, and brochures with safety tips, and maps at bicycle rides and other public events.

Effective Share the Path campaigns generally involve the following:

- Developing a simple, clear **Share the Path brochure** for distribution through local bike shops and wherever bike maps are distributed.
- Hosting a **bicycle bell giveaway** event on a popular shared-use path. Volunteers and agency staff can distribute bells to cyclists and "Share the Path" brochures to other path users, and answer users' questions. Other volunteers may walk along the path and thank bicyclists who use their bells when passing.
- Conducting **media outreach** before a bell giveaway event. The event organizers should publicize positive stories about bicycling and use the event as an opportunity for marketing the path system. Media outreach can include public service announcements promoting courtesy and respect among all path users, and encouraging users to share the path safely.

5.3 Encouragement

Encouragement programs focus on encouraging people to bicycle more frequently by providing incentives, recognition, or services that make bicycling a more convenient transportation mode.

5.3.1 Bicycle Signage Program

A signage program can support individuals choosing to make non-motorized trips by advertising routes and popular destinations. The City may develop a uniform signage concept and plan for bikeways, including uniform sign designs, placement guidelines (e.g. sign location and frequency), a map of proposed bikeways and corridors to receive signage, and guides on avoiding placing excessive signage. Signage posted along bikeways shall be consistent with other City signage standards.

The City shall implement a bicycle signage plan as part of implementing the overall BMP.

Sample Bicycle Signage, Berkeley, CA

5.3.2 Share the Road Education Campaign

A Share the Road campaign educates motorists, bicyclists and pedestrians about their legal rights and responsibilities on the road, and the need for increased courtesy and cooperation among all users. Share the Road campaigns often hold periodic traffic checkpoints along roadways with concentrated bicycle and pedestrian activity. Motorists, bicyclists and pedestrians stop at these checkpoints to receive a Share the Road flyer and can give feedback to officers regarding the campaign. Checkpoints can also occur along local bikeways and paths. Public service announcements on radio and television can help promote the Share the Road campaign. The Marin County Bicycle Coalition offers an example of a successful Share the Road campaign.[10]

The City may implement a citywide Share the Road campaign in conjunction with a new bicycle facility. Alternatively, the City may introduce a targeted campaign that includes law enforcement to respond to roadways with heightened potential for conflict.

5.3.3 Bicycling Maps

One of the most effective ways of encouraging people to bicycle is to distribute maps and guides to show that bicycle infrastructure exists. A map can also demonstrate the ease in accessing different parts of the community by bike, and highlight unique areas, shopping districts, or recreational areas. Maps can be countywide, community-specific, or neighborhood maps, and can be available on paper and/or online.

Schools may create specialized biking and walking maps to direct students to walk and bicycle along the safest routes to school. These specialized maps may include arrows to indicate the routes and show stop signs, signals, crosswalks, sidewalks, trails, overcrossings, and crossing guard locations surrounding the school. The maps shall focus on the attendance boundary of a particular school. Routes should take advantage of low volume residential streets and off-street facilities such as bike paths, sidewalks, and pedestrian bridges.

The City will work with Los Angeles County to include the City of Covina's proposed bikeways in regional existing and proposed bikeway network maps. The Metro website provides bike maps for the region.[11]

5.3.4 Multi-Modal Access Guide

A multi-modal access guide provides information on accessing specific destinations using bicycling, walking and public transit. An access guide can be as simple as a map printed on the back of a business card, or as complicated as multi-page packets. Items commonly included in access guides include:

- An area map depicting bus stops, recommended routes, landmarks, facilities such as restrooms and drinking fountains, bicycle parking, and major roads.
- Information on transit service frequency, fares, accepted payment, schedules, and transit service provider contact information .
- Information on walk or bike travel time from a transit center to a destination.
- Accessibility information for people with disabilities.

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[10] www.marinbike.org/Campaigns/ShareTheRoad/Index.shtml.

[11] http://www.metro.net/around/bikes/bikes-metro/

An effective guide should provide graphics, specific step-by-step travel directions, parking location and pricing information, and information about the benefits of walking and bicycling. High quality access guides should be concise and accurate, and should incorporate input from key stakeholders including public transportation operators, public officials, public and private employees, guide distributors, and those with disabilities. The Metro website provides additional resources on bicycle/public transit connections.[12]

The City of Covina shall work with Foothill Transit and Metrolink to integrate these transit providers' information with the City's bicycle network map to create a citywide multi-modal access guide.

5.3.5 Event Bicycle Parking

Providing safe and secure bicycle parking helps encourage individuals to bicycle. San Francisco passed a city ordinance that requires all major city events to provide bike parking and pioneered an innovative tool for stacking hundreds of bicycles without racks.[13] The City of Covina contracted with the Los Angeles County Bicycle Coalition to provide bike valet services at the City's inaugural Green Fair in March 2011. As a way to accommodate more residents and visitors traveling by bicycle and as a way to encourage others to take up bicycling, the City shall integrate event bicycle parking in future events, such as the Farmers' Market and Family Night event held at Civic Center Park.

5.3.6 Ciclovias/ "Sunday Streets" [14]

First implemented in Bogota, Colombia, the Ciclovia is a community event based around a street closure. Ciclovias provide local recreational and business opportunities for the community and are increasingly popular citywide events. Ciclovias can combine with other popular community events to promote walking and bicycling as a form of viable transportation. Ideally, Ciclovias should provide access to civic, cultural, or commercial destinations.

Inaugural CicLAvia, Los Angeles, CA
October 10, 2010

The City of Covina should pursue implementing a regional Ciclovia with adjacent municipalities on a common roadway, such as Badillo Road.

Alternatively, the City should consider facilitating a Ciclovia in conjunction with other environmentally-friendly events, e.g. the Covina Green Fair and Earth Day. Citrus Avenue and Second Avenue are suitable facilities for hosting Covina-specific events.

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[12] http://www.metro.net/around/bikes/bikes-metro/

[13] www.sfbike.org/?valet

[14] More information is available at www.healthystreets.org/pages/sunday_parkways.htm and http://www.ciclavia.org

5.3.7 Community Bikeway/Walkway Adoption

Community Bikeway/Walkway Adoption programs resemble the widely instituted Adopt-a-Highway programs throughout the country. These programs identify local individuals, organizations, or businesses interested in "adopting" a bikeway, walkway, or shared-use path. "Adopting" a facility means that a person or group is responsible for the facility's maintenance, either through direct action or funding the City's maintenance of that facility. For example, members of a local recreation group may volunteer every other weekend to sweep a bikeway and identify larger maintenance needs. Alternatively, a local bike shop may adopt a bikeway by providing funding for the maintenance costs. Some adopted bikeways post sponsors' names on bikeway signs to display their commitment to bicycling. The City of Covina should actively seek sponsorship and/or adoption relationships when implementing suitable bikeway facilities, such as the proposed BMP Class I bike paths and bike boulevards.

5.3.8 Community Walks/Bike Tours

Community walks and tours are healthy ways to promote historical and cultural aspects of the City. Groups that can organize community tours include City staff, neighborhood organizations, schools, and other groups that want the public to interact with the physical environment. Community walks and bike tours are effective tools for examining potential improvements to the physical environment and educating participants on resources/amenities available within the City. The City of Covina should organize community bike tours through community and business groups, such as the Chamber of Commerce and the Downtown Association.

5.3.9 Bicycling Campaigns[15]

Bike to Work and School events are high profile encouragement programs that introduce people to bicycle commuting. These events also serve to change the general public's perceptions and attitudes toward bicycle commuting. Common elements of Bike to Work events include commuting workshops, guided commutes, and group rides to increase comfort and familiarity with bicycling routes. Organizers can supplement these events with stations or bicycle pit stops to reward bicycle commuters with treats and other incentives, team bicycling challenges, and celebrity events (e.g., Mayor bikes to work).

Bike to School event

The City of Covina should implement Bike to Work and School events in conjunction with Safe Routes to School programs and other regional, statewide, and nationwide events. For instance, the League of American Cyclists promotes May as National Bike Month, during which they designate a Bike-to-Work Week and Bike-to-Work Day.[16]

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[15] http://www.metro.net/around/bikes/bikes-metro/bike-to-work/
[16] http://www.bikeleague.org/programs/bikemonth/

6 Funding

The following section summarizes the City's past bicycle project expenditures, its projected financial need based on the proposed project cost estimates, and potential federal, state, local, and other funding sources.

6.1 Past Expenditures

Metro's *Bicycle Transportation Account Compliance Document* (BTA Document, 2006) contains an inventory of existing bikeway facilities, past expenditures, proposed bikeways, and proposed costs for cities within Metro jurisdiction. Table 3 of the BTA Document (pp. 17-21) indicates past expenditures of $26,996.

6.2 Future Financial Needs

The cost of the proposed network totals to $25.3 million, with the on-street facilities comprising $5.6 million of the total cost. **Table 6-1** summarizes the cost per facility type.

Table 6-1 Bikeway Cost Summary

Facility	Miles	Cost
Arterial Class II / Class III (North- South)	16.0	$1.5M
Arterial Class II / Class III (East-West)	28.4	$2.7M
Class I Bike Path	7.47	$19.7M
Bike Boulevard (excluding sections in Arterial Class II / III)	7.9	$237,160
Crossing Treatments	--	$1.2M
Total	**59.8**	**$25.3M**

6.3 Funding Sources

This section reviews financing options for implementing the City of Covina Bicycle Master Plan. The discussion includes a summary table listing each source of funding, amounts granted or earned in the last five years, and appropriate project opportunities for the City. This narrative also examines existing and potential federal, state, and local funding sources, and strategies available or recommended for pursuit. Finally, this section outlines a strategic approach to using the funding sources discussed.

All levels of government administer programs that may fund bicycle projects, programs, and plans. This section serves as a general guide to these federal, state, regional and non-traditional funding sources. Staff should refer to current guidelines provided by the granting agency when pursuing any funding opportunity. **Table 6-2** is a summary of the funding sources discussed in the subsequent sections.

Table 6-2 Bikeway Improvements Funding Summary

Granting Agency	Due Date	Fund Source(s)	Annual Funding (approx)	Matching Requirement	Eligible Bikeway Projects			Notes
					Comm-ute	Recre ation	Safety/ Educ	
Federal								
Regional Surface Transportation Program (RSTP)	Late winter / early spring (odd numbered years)	FHWA (via LAMTA)	$351 m (56% of CA 2010 STP funds totaling $626.5m)	11.47% (federal req.); 20% (LAMTA req.)	X			Apply through LAMTA Call for Projects, Bikeway category
Congestion Mitigation and Air Quality Program (CMAQ)	Late winter / early spring (odd numbered years)	FHWA (via LAMTA)	$365 m (CA 2010)	11.47% (federal req.); 20% (LAMTA req.)	X			Apply through LAMTA Call for Projects, TDM category
Highway Safety Improvement Program (HSIP)	December	FHWA (via Caltrans)	$74.5m (CA Cycle 4, 2011)	10%	X		X	Apply through Caltrans Call for Projects
Recreational Trails Program (RTP)	Expired in 2009	FHWA (via CA State Parks)	$2.3m (CA FY 2009 / 10)	12% match		X		Program currently awaiting federal reauthorization
Safe Routes to School - Federal	Early 2011	FHWA (via Caltrans)	$23 m nationwide	N/A	X	X	X	Infrastructure improvements must be within 2 miles of elementary or middle school.
New Freedom		FHWA			X		X	Improvements must address barriers to accessibility.

Table 6-2 Bikeway Improvements Funding Summary

Granting Agency	Due Date	Fund Source(s)	Annual Funding (approx)	Matching Requirement	Eligible Bikeway Projects			Notes
					Comm-ute	Recre ation	Safety/ Educ	
Transportation and Community and System Preservation Program (TCSP)	July	FHWA	$61.25 m nationwide (FY 2009)	20%	X	X		Solicitation request through Caltrans or via Congressional designation
Land & Water Conservation Fund (LWCF)	Fall	Federal (via CA State Parks)	$1.7 m CA	50%, including in-kind		X		Eligible projects include those acquire and develop outdoor recreation areas and facilities.
State								
Transportation Enhancement Activities Program (TEA)	Late winter / early spring (odd numbered years)	State (via LAMTA)	$63 m (10% of CA 2010 STP funds totaling $626.5m)	11.47% (federal req.); 20% (LAMTA req.)	X			Apply through LAMTA Call for Projects, Bikeway category
Bicycle Transportation Account	March	State(via Caltrans)	$7.2 m (FY 2010-2011)	min. 10% local match on construction	X		X	Apply through Caltrans Call for Projects
Safe Routes to School – State	June or July	State (via Caltrans	$24 m	10% min.	X	X	X	Primarily construction program to enhance safety of pedestrian and bicycle facilities.

Table 6-2 Bikeway Improvements Funding Summary

Granting Agency	Due Date	Fund Source(s)	Annual Funding (approx)	Matching Requirement	Eligible Bikeway Projects			Notes
					Comm-ute	Recre ation	Safety/ Educ	
Regional Transportation Improvement Program	Sept. (odd numbered years)	State (via LAMTA)	$700+m thru 2013, $400m thru 2015[17]	20% (LAMTA req.)	X			Submit candidate projects to Metro for evaluation and inclusion in the STIP.
AB 2766 Subvention Funds	February	AQMD	$56K (Covina, FY '08-09)	NA	X			Projects must reduce single occupancy vehicle trips.
Environmental Enhancement and Mitigation Program (EEMP)	Oct/Nov	CA Natural Resources Agency, Caltrans	$10 m statewide	Not required but favored	X	X	X	Projects must enhance or mitigate future transportation projects. Projects can include acquisition or development of roadside recreational facilities.
Community-Based Transportation Planning (CBTP) Grant Program	March	State	$3m statewide (FY 2010-2011)	10%	X	X	X	Grant projects must demonstrate how they meet State and Regional Transportation Planning Goals.
Office of Traffic Safety Grants (OTS)	Jan/Feb	Office of Traffic Safety	$56 m	N/A			X	Typical projects include safety programs, education, enforcement, traffic safety, and helmet distribution.

[17] State of California (2010) 2010 State Transportation Improvement Program Fund Estimate. http://www.catc.ca.gov/programs/STIP/2010_STIP_FE_G-09-10.pdf

Table 6-2 Bikeway Improvements Funding Summary

Granting Agency	Due Date	Fund Source(s)	Annual Funding (approx)	Matching Requirement	Eligible Bikeway Projects			Notes
					Comm-ute	Recre ation	Safety/ Educ	
Transportation Development Act (TDA) Article 3 (2% of total TDA)	End of FY (June)	Metro	Per capita, $4.9m statewide	N/A	X	X	X	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.
Regional								
Metro Call for Projects: Bikeway Improvements	Late winter / early spring (biennial, next call in 2013)	Metro	$17.5 m	20% local match	X			Refer to latest Call for Projects Application Package for eligibility requirements.
Metro Call for Projects: Regional Surface Transportation Improvements (RSTI)	Late winter / early spring (biennial, next call in 2013)	Metro	$110 m	35% local match	X			Refer to latest Call for Projects Application Package for eligibility requirements.
Metro Call for Projects: Transportation Enhancement Activities (TEA)	Late winter / early spring (biennial, next call in 2013)	Metro	$6.5 m	20% local match	X		X	Refer to latest Call for Projects Application Package for eligibility requirements.

Table 6-2 Bikeway Improvements Funding Summary

Granting Agency	Due Date	Fund Source(s)	Annual Funding (approx)	Matching Requirement	Eligible Bikeway Projects			Notes
					Comm-ute	Recre ation	Safety/ Educ	
Metro CALL: Transportation Demand Management (TDM)	Late winter / early spring (biennial, next call in 2013)	FHWA - CMAQ	$3.5 m	20% local match	X			Refer to latest Call for Projects Application Package for eligibility requirements.
Local								
Development Impact Fee / Vehicle Trip Fee	Ongoing	Cities or County			X	X	X	Assessed on new development. May allow developer to provide bicycle infrastructure in lieu of other environmental mitigation.
Private Funding Sources	Ongoing	Private Donors			X	X	X	Community and corporate sponsorships for new facilities
Mello-Roos Community Facilities Act	Ongoing	Tax revenue approved by 2/3 vote			X	X	X	

CMAQ = Congestion Mitigation and Air Quality, RTPA = Regional Transportation Planning Agency, RSTP = Regional Surface Transportation Program, SLPP = State Local Partnership Program, TEA = Transportation Equity Act

6.3.1 Federal

Safe, Accountable, Flexible, Efficient Transportation Equity Act – a Legacy for Users (SAFETEA-LU)[18]

The Federal government distributes funding through a number of different programs established by Congress. The latest act, the Safe, Accountable, Flexible, Efficient Transportation Equity Act – a Legacy for Users (SAFETEA-LU) was enacted in August 2005 as Public Law 109-59.

SAFETEA-LU authorized the federal surface transportation programs for highways, highway safety, and transit for the five-year period 2005-2009. SAFETEA-LU legislation expired on September 30, 2009, but at the time of writing, Congress extended funding to September 30, 2011. Congress will likely extend the bill into 2011 or reauthorize the legislation. Until then, there is no guarantee that the SAFETEA-LU programs listed will continue beyond September 2011, nor is it possible to predict future funding levels or policy guidance. Nevertheless, prior federal transportation reauthorization acts contain many of the programs listed in some form, and thus they may continue to provide capital for improvements.

The California Department of Transportation (Caltrans) and regional planning agencies (e.g. LAMTA and SCAG) administer federal monies in California. Most, but not all, of these programs focus on funding transportation rather than recreation projects, with an emphasis on reducing auto trips and providing intermodal connections. Federal funding rules may sometimes limit how municipalities can use awarded funds, e.g. specific to project types, such as capital improvements or safety and education programs. Projects must relate to the surface transportation system.

Specific funding programs under SAFETEA-LU that apply to bicycle and pedestrian project include, but are not limited to:

- Surface Transportation Program (STP)
- Congestion Mitigation and Air Quality (CMAQ)
- Highway Safety Improvement Program (HSIP)
- Recreational Trails Program (RTP)
- Safe Routes to School Program (SRTS)
- New Freedom Program

The following sections describe these and other federal funding sources.

Surface Transportation Program (STP)

The Surface Transportation Program (STP) provides states with flexible funds which may be used for a variety of projects on any Federal-aid Highway including the National Highway System, bridges on any public road, and transit facilities. Bicycle and pedestrian improvements are eligible activities under the STP. This covers a wide variety of projects such as on-street facilities, off-road trails, sidewalks, crosswalks, bicycle and

[18] http://www.fhwa.dot.gov/safetealu/index.htm

pedestrian signals, parking, and other ancillary facilities. SAFETEA-LU also specifically clarifies that the modification of sidewalks to comply with the requirements of the Americans with Disabilities Act (ADA) is an eligible activity.

As an exception to the general rule described above, STP-funded bicycle and pedestrian facilities may be located on local and collector roads which are not part of the Federal-aid Highway System. In addition, bicycle-related non-construction projects, such as maps, coordinator positions, and encouragement programs, are eligible for STP monies. Metro administers STP funds during its biennial Call for Projects. The following section that discusses regional funding sources provides greater detail on the Metro Call for Projects application.

Congestion Mitigation and Air Quality (CMAQ)[19]

First established by Congress in the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 and last renewed by SAFETEA-LU in 2005, the CMAQ program supports surface transportation projects and other related efforts to improve air quality and provide congestion relief. Metro administers CMAQ funds during its biennial Call for Projects within the Transportation Demand Management (TDM) applications. Proposals submitted under the TDM category must meet federal CMAQ requirements to be eligible for the grant award. The following section that discusses regional funding sources provides greater detail on the Metro Call for Projects application.

Highway Safety Improvement Program (HSIP)[20]

The Highway Safety Improvement Program (HSIP) funds safety improvements on all public roads and highways. Local agencies compete for HSIP funds each year by submitting candidate safety projects to Caltrans for review and analysis. Caltrans prioritizes these projects statewide and releases an annual HSIP Program Plan that identifies the approved projects. The State disperses funding annually following the federal fiscal year. Approximately $74.5 million dollars were available in the 2010/2011 funding cycle.

The HSIP considers funding two project types: Safety Index and Work Type. Safety Index Projects qualify for funding based on a State-calculated safety index. These projects receive a statewide priority with this index. A project that fails to receive funding under the Safety Index category automatically moves into the Work Type category and competes for funding with other projects in this category. Work Type projects receive approximately 25 percent of the available HSIP funds, while State-calculated safety index projects receive about 75 percent.

Projects in the Safety Index category include installing raised median islands, protected left-turn phasing, and widened roadways. Work Type Projects include curb ramps, crosswalks, installation of right turn lanes and construction of new bus stop aprons. The City of Covina shall pursue HSIP funds to mitigate areas with high collision rates.

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[19] http://www.fhwa.dot.gov/environment/air_quality/cmaq/

[20] http://www.dot.ca.gov/hq/LocalPrograms/hsip.htm

Recreational Trails Program (RTP)[21]

The Recreational Trails Program (RTP) of the federal transportation bill provides funding to states to develop and maintain recreational trails and trail-related facilities for both nonmotorized and motorized recreational trail uses. Examples of trail uses include hiking, bicycling, in-line skating, and equestrian use. These monies are available for both paved and unpaved trails, but may not be used to improve roads for general passenger vehicle use or to provide shoulders or sidewalks along roads.

Recreational Trails Program funds may apply towards:

- Maintenance and restoration of existing trails
- Purchase and lease of trail construction and maintenance equipment
- Construction of new trails, including unpaved trails
- Acquisition or easements of property for trails
- State administrative costs related to this program (limited to seven percent of a state's RTP dollars)
- Operation of educational programs to promote safety and environmental protection related to trails (limited to five percent of a state's RTP dollars)

The City of Covina may pursue RTP funds for implementing the Class I bike path segments recommended in the BMP.

Safe Routes to School (SRTS) Program[22]

Safe Routes To School (SRTS) began under Section 1404 of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). SRTS aims to encourage children in grades Kindergarten through Eighth (K-8) to walk and bike to school. Consistent with other federal-aid programs, individual State Departments of Transportation (DOT) are responsible for the development and implementation of grant funds. The Federal SRTS program is separate from the State funded Safe Routes to School Program, described later in the document. Some expected outcomes of the program include:

- Improved bicycle, pedestrian, and traffic safety around schools
- Increased numbers of children walking and bicycling to and from schools
- Decreased traffic congestion around schools
- Reduced childhood obesity
- Improved air quality, community safety and security, and community involvement
- Improved partnerships among schools, local agencies, parents, community groups, and nonprofit organizations

A minimum of 70 percent of each year's apportionment is available for infrastructure projects, with up to 30 percent for non-infrastructure projects. The City of Covina may pursue infrastructure project funds to

[21] http://www.parks.ca.gov/?page_id=24324

[22] http://www.dot.ca.gov/hq/LocalPrograms/saferoutes/saferoutes.htm

construct bicycle facilities within two miles of schools, and non-infrastructure funds for education, enforcement, and encouragement programs.

New Freedom Initiative[23]

SAFETEA-LU created a new formula grant program that provides capital and operating costs to provide transportation services and facility improvements that exceed those required by the Americans with Disabilities Act. Examples of pedestrian/accessibility projects funded in other communities through the New Freedom Initiative include installing Accessible Pedestrian Signals (APS), enhancing transit stops to improve accessibility, and establishing a mobility coordinator position. Eligible improvements within the City of Covina BMP include mid-block and high-visibility crossing improvements.

Transportation, Community, and System Preservation (TCSP)[24]

The Transportation, Community, and System Preservation (TCSP) Program provides federal funding for transit-oriented development, traffic calming, and other projects that improve the efficiency of the transportation system, reduce the impact on the environment, and provide efficient access to jobs, services, and trade centers. The program is intended to provide communities with the resources to explore the integration of their transportation system with community preservation and environmental activities. The TCSP program funds require a 20 percent match.

Congress has the discretion to directly allocate TCSP funds for specific projects in the annual transportation appropriations act. If Congress does not fully allocate TCSP funds, the FHWA will request candidate project applications from the States. Covina must apply for TCSP funds through Caltrans.

Land & Water Conservation Fund (LWCF)[25]

The LWCF program provides matching grants to State and local governments for the acquisition and development of public outdoor recreation areas and facilities. The program aims to create and maintain a nationwide legacy of high quality recreation areas and facilities, and to stimulate non-federal investments in the protection and maintenance of recreation resources. Funds can be used for right-of-way acquisition and construction. The City of Covina may pursue LWCF funds for implementing the Class I bike path segments recommended in the BMP.

Partnership for Sustainable Communities[26]

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, more transportation options, and lower transportation costs while protecting the environment in

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[23] http://www.fta.dot.gov/funding/grants/grants_financing_3624.html

[24] http://www.fhwa.dot.gov/tcsp/

[25] http://www.parks.ca.gov/?page_id=21360

[26] http://www.epa.gov/smartgrowth/partnership/

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 both TIGER I and TIGER II grants). Initiatives that speak to multiple livability goals are more likely to score well than initiatives that are narrowly limited in scope to bicycle and pedestrian efforts.

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 Grants funds for activities that include (but are not limited to): acquiring real property; reconstructing or rehabilitating housing and other 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 Grants funds; provide public services for youths, seniors, or the disabled; and initiatives such as neighborhood watch programs." Bicycle Master Plan projects that enhance accessibility are the best fit for this funding source.

6.3.2 State of California

Transportation Enhancements Activities Program (TEA)

Collected by the Federal government, but administered by the State, TEA funds are for the design and construction of improvements that beautify or enhance the interface between transportation systems and adjacent communities. Eligible enhancement projects include provisions of pedestrian and bicycle facilities and safety and educational activities; scenic easement and/or historic site acquisition; landscaping and other scenic beautification; preservation of abandoned railway corridors; and environmental mitigation. Metro administers STP funds during its biennial Call for Projects. The following section that discusses regional funding sources provides greater detail on the Metro Call for Projects application.

Bicycle Transportation Account (BTA)

The State of California Bicycle Transportation Account (BTA) is an annual statewide discretionary program that funds bicycle projects through the Caltrans Bicycle Facilities Unit. Available as grants to local jurisdictions, the program emphasizes projects that benefit bicycling for commuting purposes. The BTA has $7.2 million in funds available each year, with a 10 percent local match requirement of the total project cost.

BTA projects should improve safety and convenience for bicycle commuters and can include:

- New bikeways serving major transportation corridors
- New bikeways removing travel barriers to potential bicycle commuters
- Secure bicycle parking at employment centers, park-and-ride lots, rail and transit terminals, and ferry docks and landings

- Bicycle-carrying facilities on public transit vehicles
- Installation of traffic control devices to improve the safety and efficiency of bicycle travel
- Elimination of hazardous conditions on existing bikeways
- Planning
- Improvement and maintenance of bikeways

Eligible project activities include:

- Project planning
- Preliminary engineering
- Final design
- Right-of-way acquisition
- Construction and/or rehabilitation

Safe Routes to School (SR2S) Program[27]

The State-legislated Safe Routes to School (SR2S) program began in 1999 and has since completed nine funding cycles. The State typically announces the list of awarded projects in the fall. Although both the federal and state programs have similar goals and objectives, they have different funding sources, local funding match requirements, and other program requirements (see previous section).

The SR2S program aims to reduce injuries and fatalities to schoolchildren and to encourage increased walking and bicycling among students. The program achieves these goals by constructing facilities that enhance safety for students in grades K-12 who walk or bicycle to school. Enhancing the safety of the pathways, trails, sidewalks, and crossings also attracts and encourages other students to walk and bicycle.

The SR2S program is primarily a construction program. Construction improvements must occur on public property. Improvements can occur on public school grounds provided the cost is incidental to the overall project cost. Statewide, the program typically provides approximately $25 million annually. The maximum reimbursement percentage for any SR2S project is ninety percent. The maximum amount that SR2S funds to any single project is $900,000. Eligible project elements include bicycle facilities, traffic control devices and traffic calming measures. Up to ten percent of project funding can go toward outreach, education, encouragement, and/or enforcement activities.

As with the Federal SRTS program, The City of Covina may pursue infrastructure project funds to construct bicycle facilities within two miles of schools, and non-infrastructure funds for education, enforcement, and encouragement programs.

[27] http://www.dot.ca.gov/hq/LocalPrograms/saferoutes/saferoutes.htm

Regional Transportation Improvement Program (RTIP)[28]

The Regional Transportation Improvement Program (RTIP) is a capital listing of all transportation projects proposed over a six-year period for the SCAG region. SCAG produces a biennial RTIP update on an even-year cycle. Within Los Angeles County, Metro has the responsibility to evaluate and submit locally prioritized project lists to SCAG for review. Metro solicits project applications in September of odd numbered years. From this list, SCAG develops the RTIP based on consistency with the current RTP, inter-county connectivity, financial constraint and conformity satisfaction. Bicycle-oriented projects funded by the RTIP include installing bicycle-friendly roadway grates, constructing bike parking and filling gaps in the Los Angeles River Bike Path.

The State of California allocates RTIP funding from the greater State Transportation Improvement Program (STIP). The Federal government contributes to STIP funding via the Transportation Enhancements program, which is a setaside from the annual Surface Transportation Program.[29]

AB 2766 Subvention Funds

Within Los Angeles County, the South Coast Air Quality Management District (AQMD) distributes a portion of automobile registration fees directly to cities for programs that reduce mobile source emissions. AQMD calculates each city's allocation based on the prorated share of population. Subvention Funds projects must demonstrably reduce mobile source emissions, particularly of single-occupancy vehicles. Eligible projects include bike lane, end of trip facilities, bike sharing, and bike-oriented research and development. The City of Covina received approximately $56,000 in motor vehicle funds in FY 2008-2009.[30]

Environmental Enhancement and Mitigation Program (EEMP)[31]

Environmental Enhancement and Mitigation Program Funds support projects that offset environmental impacts of modified or new public transportation facilities. These projects can include highway landscaping and urban forestry projects, roadside recreation projects, and projects to acquire or enhance resource lands. The California Natural Resources Agency directly solicits applications annual in the fall months. This grant has limited applicability for the City of Covina.

Community-Based Transportation Planning (CBTP) Grant[32]

The Community-Based Transportation Planning (CBTP) Grant Program funds transportation and land use projects that encourage community involvement, support livable community concepts with a transportation objective, and promote community identity. Grant projects must demonstrate how they meet State and Regional Transportation Planning Goals.

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[28] http://www.metro.net/projects/transport_improvement_pgm/

[29] http://www.fhwa.dot.gov/safetealu/factsheets/transenh.htm

[30] South Coast Air Quality Management District (2010) Staff report: AB 2766 Funds Annual Report from Motor Vehicle Registration Fees for FY 2008-2009. http://www.aqmd.gov/trans/ab2766/staff_rep_fy0809.pdf.

[31] http://resources.ca.gov/eem/

[32] http://www.dot.ca.gov/hq/tpp/grants.html

CBTP grant funded projects should include innovative public and stakeholder participation in the planning and decision-making process. Each project should demonstrate a smart growth - livable community approach to collaborative planning. Completed CBTP products should contribute to positive local planning practice by influencing and integrating those products into the larger regional or blueprint plan. CBTP projects should also set an example, and provide best practice planning solutions for communities statewide.

The City shall pursue CBTP funding for projects that incorporate bikeway improvements into an overall community improvement concept, especially ones that involve significant community outreach.

Office of Traffic Safety (OTS) Grant[33]

Office of Traffic Safety Grants (OTS) fund safety programs and equipment. Bicycle and Pedestrian Safety is a specifically identified priority. This category of grants includes enforcement and education programs, which can encompass a wide range of activities, including bicycle helmet distribution, design and printing of billboards and bus posters, other public information materials, development of safety components as part of physical education curriculum, or police safety demonstrations through school visitations.

The grant cycle typically begins with a request for proposals in October due the following January. In 2006, OTS awarded $103 million to 290 agencies. The City shall pursue OTS grants to fund the education, enforcement, and encouragement presented in the BMP.

TDA Article III (SB 821)[34]

The State of California distributes Transportation Development Act Article 3 funds for application at the county level. Locally, the Los Angeles County Metropolitan Transportation Authority (Metro) administers this program and establishes its policies. Cities can use the funds for planning and constructing bicycle and pedestrian facilities. Metro allocates the fund amounts based on population. 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 allocated fiscal year. Failure to do so may result in losing the allocated funds.

TDA Article 3 funds may go towards the following activities related to the planning and construction of bicycle and pedestrian facilities:

- Engineering expenses leading to construction
- Right-of-way acquisition
- Construction and reconstruction
- Retrofitting existing bicycle and pedestrian facilities, including installation of signage, to comply with the Americans with Disabilities Act (ADA)
- Route improvements such as signal controls for bicyclists, bicycle loop detectors, rubberized rail crossings and bicycle-friendly drainage grates

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[33] http://www.ots.ca.gov/Grants/Apply/default.asp

[34] http://www.metro.net/projects/tda/

- Purchase and installation of bicycle facilities, such as secure bicycle parking, benches, drinking fountains, changing rooms, rest rooms and showers which are adjacent to bicycle trails, employment centers, park-and-ride lots, and/or transit terminals (must be accessible to the general public).
- The City shall utilize TDA Article III funds for ongoing implementation of the BMP, beginning with the BMP priority projects.

6.3.3 Regional

Metro Call for Projects (CFP)

Metro is responsible for allocating discretionary federal, state and local transportation funds to improve all modes of surface transportation. Metro also prepares the Los Angeles County Transportation Improvement Program (TIP). A key component of TIP is the Call for Projects program, a competitive process that distributes the discretionary capital transportation funds to regionally significant projects.

Every other year (pending funding availability), Metro accepts Call for Projects (CFP) applications in several modal categories. The Metro Long Range Transportation Plan (LRTP) determines funding levels based on mode share. As of the writing of this Plan, the Call is currently on an odd-year funding cycle with applications typically due early in the odd years. Metro awarded the City of Covina $827,437 in the 2011 cycle.

Local jurisdictions, transit operators, and other eligible public agencies may submit applications proposing projects for funding. Metro staff ranks eligible projects and presents preliminary scores to Metro's Technical Advisory Committee, comprised of members of public agencies, and the Metro Board of Directors for approval. Upon approval, SCAG updates and formally transmits the TIP to the Southern California Association of Governments (SCAG) and the California Transportation Commission (CTC). The TIP becomes part of the five-year program of projects scheduled for implementation in Los Angeles County.

The modal categories relevant to the implementation of bicycle projects and programs are Bikeway Improvements, Regional Surface Transportation Improvements (RSTI), Transportation Enhancements Activation (TEA), and Transportation Demand Management (TDM). Typically, funding provided for bicycle improvements include funds from SAFETEA-LU, TDA, and CMAQ categories.

Some intersection improvements or grade-separated crossing projects in the BMP may provide an equal or greater benefit to pedestrians. In these cases, the City should apply for funding within the Pedestrian Improvements modal category. Metro's 2009 Long Range Transportation Plan identifies funding totaling $287 million over the next 30 years in the pedestrian mode through the Call for Projects program. Eligible projects under the Pedestrian Improvements category include pedestrian improvements that promote walking for utilitarian travel, pedestrian safety, and linkages to the overall transportation system. Wherever possible, BMP projects shall incorporate with large arterial improvement projects and submit under the RSTI category.

Table 6-3 provides information on each of the relevant modal categories within the Metro Call for Projects as of 2009.

Table 6-3 Metro Call For Projects Funding Summary

Modal Category	Share of Funding*	Eligible Projects**
Bikeway Improvements	8%	Regionally significant projects that provide access and mobility through bike-to-transit improvements, gap closures in the inter-jurisdictional bikeway network, bicycle parking, and first-time implementation of bicycle racks on buses.
Regional Surface Transportation Improvements (RSTI)	40%	On-street bicycle lanes may be eligible if included as part of a larger capacity-enhancing arterial improvement project. Bikeway grade-separation projects may be eligible as part of larger arterial grade-separation projects.
Transportation Enhancement Activities (TEA)	2%	Bicycle-related safety and education programs. Bikeway projects implemented as part of a scenic or historic highway, and landscaping or scenic beautification along existing bikeways may also be eligible.
Transportation Demand Management (TDM)	7%	Technology and/or innovation-based bicycle transportation projects such as Bicycle Commuter Centers and modern bicycle sharing infrastructure. Larger TDM strategies with bicycle transportation components would also be eligible.
Pedestrian Improvements	8%	Pedestrian improvements that promote walking for utilitarian travel, pedestrian safety, and linkages to the overall transportation system.

**Funding estimate is biennial (every other year) based on the approved funding from the 2009 Call.*

***The discussion of eligible projects is based on 2009 CFP requirements and assumes all eligibility requirements are met and the questions in the Call application are adequately addressed. These requirements are subject to change in future cycles. City staff should refer to the latest Call Application Package for detailed eligibility requirements.*

6.3.4 Local

The following section lists fees that the City of Covina should collect through its discretionary permit process or other local processes:

Development Impact Fee / Vehicle Trip Fees

One potential local funding source is developer vehicle trip impact fees, typically tied to trip generation rates and traffic impacts produced by new development. A developer may reduce or mitigate the number of trips (and hence impacts and cost) by paying for on- and off-site bikeway improvements that encourage residents to bicycle rather than drive. Establishing a clear nexus or connection between the impact fee and the project's impacts is critical.

For instance, the City can allowing new development to reduce auto parking in exchange for upgraded bike parking (secure room or bike lockers). Developers can agree to construct locker and shower facilities at non-residential projects in exchange for reduced auto parking or as a factor justifying a reduction in project-generated trips.

Mello-Roos Community Facilities District Act

The California State Legislature enacted the Community Facilities District Act (more commonly known as Mello-Roos) in 1982. The Act enables local government agencies to establish Community Facilities Districts (CFDs) as a means of obtaining community funding. A CFD is an area where an additional tax on property is imposed on those real property owners within the CFD. This local assessment can fund bicycle paths and bicycle lanes. Defining the boundaries of the benefit district may be difficult unless the facility is part of a larger parks and recreation or public infrastructure program with broad community benefits and support. Establishing CFDs requires detailed analysis and outreach, and CFDs may have limited application in the City of Covina.

6.3.5 Private & Non Profit

The following organizations support bicycle and pedestrian facilities and programs through private and non-profit funding sources.

Bikes Belong Coalition, Ltd.[35]

The American Bicycle Industry sponsors the Bikes Belong Coalition, which encourages people to ride bicycles throughout the United States. The coalition administers grants of up to $10,000 to develop bicycle facilities through the Federal Transportation Act. The Bikes Belong Coalition grants program has two application categories: facility and advocacy. For the facility category, Bikes Belong will accept applications from nonprofit organizations whose missions are bicycle and/or trail specific. Public agencies and departments at the national, state, regional, and local levels may also apply, however Bikes Belong encourages municipalities to align with a local bicycle advocacy group that will help develop and advance the project or program. For the advocacy category, the Bikes Belong Coalition will only fund organizations whose primary mission is bicycle advocacy.

Bikes Belong reviews applications three times per year, typically in the spring and fall. Some applications have specific applicant requirements or are by invitation only.

Robert Wood Johnson Foundation (RWJF)[36]

The RWJF funds aim to improve health and health care in the United States. RWJF funds approximately 12 percent of unsolicited projects with grant funds ranging from $2,000 to $14 million. Bicycle and pedestrian projects applying for RWJF funds qualify under the program's goal to "promote healthy communities and lifestyles." The Foundation releases calls for proposals on a rolling basis.

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[35] http://www.bikesbelong.org/grants/

[36] http://www.rwjf.org/grants/

Photo: bikestation.com

City of Covina Bicycle Master Plan

APPENDIX A: City of Covina BMP Online Survey

September 2011

PREPARED BY:
Alta Planning + Design
PREPARED FOR:
City of Covina

City of Covina Bicycle Master Plan

Welcome to the City of Covina Bicycle Master Plan survey. Please complete the questions below. Your participation will help shape the plan.

1. How often do you bike?

- ◯ 5 - 7 days per week
- ◯ 1 - 4 days per week
- ◯ 1 - 3 days per month
- ◯ Less than one day per month
- ◯ Never

2. If you do bike, what are your reasons for bicycling? *(check all that apply)*

- ☐ To get to work or school
- ☐ For exercise/recreation
- ☐ To shop, run errands, or eat out
- ☐ To visit friends/family
- ☐ To get to/from transit
- ☐ Other (please specify)

3. What is the average distance of your bike trips (one-way)?

- ◯ Under 2 miles
- ◯ 2 - 5 miles
- ◯ 6 - 10 miles
- ◯ 11 - 20 miles
- ◯ More than 20 miles

4. Please rate your interest in using each of the following bicycle facilities on a scale from 1 to 5, with 1 being very interested and 5 being not interested.

	1 Very Interested	2	3	4	5 Not Interested
a. Bike Lanes Click_for_example	◯	◯	◯	◯	◯
b. Bike Routes Click_for_example	◯	◯	◯	◯	◯
c. Unpaved Trails or Dirt Paths Click_for_example	◯	◯	◯	◯	◯
d. Paved Paths Click_for_example	◯	◯	◯	◯	◯
e. Bicycle Boulevards (a shared roadway with signage and safety enhancements designed to give priority to cycling traffic) Click_for_example 1 example 2 example 3	◯	◯	◯	◯	◯
f. Roadways with no bicycle facilities	◯	◯	◯	◯	◯

5. Please rate your interest in the following bicycle programs on a scale of 1 to 5, with 1 being very interested and 5 being not interested.

	1 Very Interested	2	3	4	5 Not Interested
a. Riding skills and safety courses for adults	◯	◯	◯	◯	◯
b. Riding skills and safety courses for children	◯	◯	◯	◯	◯
c. Safe Routes to School programs for children	◯	◯	◯	◯	◯
d. Public awareness campaigns	◯	◯	◯	◯	◯
e. Special events	◯	◯	◯	◯	◯
f. Maps and guides	◯	◯	◯	◯	◯
g. Bicycle information websites	◯	◯	◯	◯	◯
h. Commuter incentive programs	◯	◯	◯	◯	◯
i. Information and maps delivered to my home	◯	◯	◯	◯	◯
j. Booths at public events	◯	◯	◯	◯	◯

6. Where do you live?

Nearest Intersection:

ZIP Code:

7. What is your age group?

- ◯ Under 18
- ◯ 18 - 25
- ◯ 26 - 35
- ◯ 36 - 45
- ◯ 46 - 55
- ◯ 56 and over

8. On a scale from 1 to 5, with 1 being very important and 5 being not important, please indicate to what degree the following conditions effect your decision to bicycle.

	1 Very Important	2	3	4	5 Not Important
a. Presence of bike paths, lanes, or routes	☐	☐	☐	☐	☐
b. Condition of bikeway/roadway (i.e. pavement quality, etc.)	☐	☐	☐	☐	☐
c. Traffic volumes/speeds	☐	☐	☐	☐	☐
d. Motorists' behaviors	☐	☐	☐	☐	☐
e. Amount of street lighting	☐	☐	☐	☐	☐
f. Access to bike parking and storage	☐	☐	☐	☐	☐
g. Ability to combine bicycle trips with trolley and/or bus trips	☐	☐	☐	☐	☐
h. Travel time	☐	☐	☐	☐	☐
i. Available information/knowledge of bike routes	☐	☐	☐	☐	☐
j. Weather	☐	☐	☐	☐	☐

Other (please specify)

9. Where would you like to see new bicycle facilities (i.e. bike lanes/routes, bike signs, bike parking/storage, etc.)?

Street (from, to)

School (name)

Park (name)

Other Public Facility (name)

10. Other comments:

11. Optional - If you would like to be notified about public workshops or other important project milestones, please provide your contact information below. If you prefer one method of contact (e.g. email only), please provide only that information.

Name:

Company:

Address:

Address 2:

City/Town:

State:

ZIP:

Email Address:

Phone Number:

Thank you!