

CITY OF GLENDALE BICYCLE TRANSPORTATION PLAN



September 2012



City of Glendale Bicycle Transportation Plan

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September 2012

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California Streets & Highways Code 891.2 Compliance Checklist

Approved	Streets and Highways Code 891.2 Bicycle Transportation Account Requirement	Page(s)
	Existing and future bicycle commuters	6-77
	Description of existing and proposed land use pattern	3-1
	Land use planning map	3-4
	Maps of existing and proposed bikeways	5-4, 6-4
	Description of existing bikeways	5-1 to 5-2
	Description of proposed bikeways	6-8 to 6-57
	Maps of existing and proposed bicycle parking facilities	5-10, 6-70, 6-72
	Description of existing and proposed bicycle parking facilities	5-6, 6-64
	Maps of existing and proposed multi-modal connections	5-10, 6-70, 6-72
	Description of existing and proposed multi-modal connections	5-7, 6-68
	Maps of existing and proposed changing and storage facilities	5-10, 6-70, 6-72
	Description of existing and proposed changing and storage facilities	5-7, 6-66
	Bicycle safety education and enforcement programs	5-16, 6-74
	Citizen participation	2-1 to 2-10
	Consistency with transportation, air quality and energy plans	3-10
	Project descriptions and priority listings	7-21, 6-8 to 6-57
	Past expenditures and future financial needs	7-18, 7-19

Contents

1. INTRODUCTION	1-1
2. PUBLIC OUTREACH	2-1
Bicycle Advisory Committee	2-1
Public Workshops	2-4
Other Public Comments	2-10
3. PLANNING CONTEXT	3-1
City Planning	3-1
Bikeway Plans of Neighboring Cities	3-9
Consistency with Regional Plans	3-10
4. GOALS, POLICIES, AND ACTIONS	4-1
Goals	4-1
Policies and Actions	4-2
5. EXISTING CONDITIONS	5-1
Bikeways	5-1
Bicycle Parking	5-6
Bicycle Amenities	5-7
Links to Other Transportation Modes	5-7
Crash Analysis	5-12
Bicycle Counts	5-14
Programs and Promotion	5-16
6. PLANNED PROJECTS	6-1
Bikeways	6-1
Bicycle Parking	6-64
Bicycle Amenities	6-67
Links to Other Transportation Modes	6-74
Programs and Promotions	6-75
Estimated Number of Existing Bike Commuters and Estimated Increase	6-78



7. FUNDING AND IMPLEMENTATION	7-1
Funding	7-1
Implementation	7-18
8. DESIGN GUIDELINES	8-1
Bikeways Guidelines	8-1
Signage and Markings	8-11
Bicycle Parking	8-14
Additional Treatments and Considerations	8-19
9. APPENDICES	9-1
1. Cost Estimates	9-1
2. Glendale Bicyclist Survey	9-15

Figures

Figure 8-1: Bike Path Barrier Post Treatment	8-3
Figure 8-2: Bike Lane Sign (Caltrans)	8-4
Figure 8-3: Bike Lane Striping and Stencil	8-4
Figure 8-4: Bike Lane Treatment at Intersection (MUTCD, AASHTO)	8-5
Figure 8-5: Green Bicycle Lanes	8-6
Figure 8-6: Buffered Bike Lanes	8-6
Figure 8-7: Bike Route Sign	8-7
Figure 8-8: Sharrow Stencil	8-8
Figure 8-9: Sharrow Placement	8-9
Figure 8-10: Long Beach Green Sharrow Lane	8-10
Figure 8-11: Brookline, MA Sharrow Markings	8-10
Figure 8-12: Numbered Bikeway Sign (MUTCD)	8-12
Figure 8-13: Share the Road Sign	8-12
Figure 8-14: Glendale Wayfinding Sign	8-12
Figure 8-15: Vancouver Street Signs	8-13
Figure 8-16: Bicycle Signage and Pavement Markings	8-13
Figure 8-17: Bicycle Route with Directional Signage	8-13
Figure 8-18: “Inverted-U” Bicycle Rack	8-14
Figure 8-19: Glendale Style of “Inverted U” Bicycle Rack	8-14
Figure 8-20: Multi-Bicycle Parking Rack	8-15
Figure 8-21: “Bike” Bike Rack	8-15
Figure 8-22: Bicycle Lockers	8-15
Figure 8-23: Automated Bicycle Parking	8-16
Figure 8-24: Bicycle Parking Sign (Caltrans)	8-16
Figure 8-25: Berkeley Bike Station (two-tier racks)	8-17
Figure 8-26: Wall-mounted Bicycle Rack (without lock)	8-17
Figure 8-27: Bicycle Corral	8-18
Figure 8-28: Before and After Road Diet	8-19
Figure 8-29: Proper Drainage Grate Design	8-20
Figure 8-30: Bicycle Loop Detector Marking	8-21

Maps

Map 3-1: Current and Future Land Use (Zoning) Map	3-4
Map 5-1: Existing Bikeways	5-4
Map 5-2: Existing Bicycle Parking and Intermodal Links	5-10
Map 6-1: Existing and Proposed Bikeways, Class Designations	6-4
Map 6-2: Detailed Existing and Proposed Bikeways, Class Designations, View 1	6-58
Map 6-3: Detailed Existing and Proposed Bikeways, Class Designations, View 2	6-60
Map 6-4: Existing and Proposed Bicycle Parking, Amenities and Intermodal Links, View 1	6-70
Map 6-5: Existing and Proposed Bicycle Parking, Amenities and Intermodal Links, View 2	6-72



Tables

Table 2-1: BAC Proposed Bikeways Priorities	2-2
Table 2-2: Workshop Attendees Proposed Bikeways Priorities	2-8
Table 5-1: Existing Bikeways on West-East Streets	5-2
Table 5-2: Existing Bikeways on North-South Streets	5-2
Table 5-3: Number of Bicycle-involved Crashes with Injury by Movement	5-13
Table 5-4: 2010 Bicycle Counts and 2005 Average Daily Traffic Volumes	5-14
Table 6-1: Changing Room Requirements	6-67
Table 7-1: Past Expenditures on Bicycle Facilities	7-18
Table 7-2: Capital Financial Needs Excluding High-cost Projects	7-19
Table 7-3: Capital Financial Needs - High-cost Projects	7-19
Table 7-4: Short-Term Bikeways	7-21
Table 7-5: Medium-Term Bikeways	7-21
Table 7-6: Long-Term Bikeways	7-22
Table 7-7: High-cost Long-Term Bikeways	7-22
Table 8-1: Recommended Bikeway Signage and Markings	8-11
Table 9-1: Bicycle Parking Cost Estimates	9-1
Table 9-2: Bikeway Codes and Unit Costs	9-2

Charts

Chart 5-1: Bicycle Crash Analysis	5-12
Chart 9-1: Mode of Transportation for Work or School	9-16
Chart 9-2: Mode of Transportation for Non-work / Non-school	9-17
Chart 9-3: Reason for Cycling	9-17
Chart 9-4: Favorite Places to Bicycle	9-18
Chart 9-5: Areas that Need Improvement	9-19
Chart 9-6: Bicycling Comfort / Skill Level	9-20
Chart 9-7: Bicycling Frequency	9-21
Chart 9-8: Average Ride Length	9-21
Chart 9-9: Bicycling Deterrents	9-22
Chart 9-10: Bicycling and Transit Use	9-22
Chart 9-11: Bicycling and Transit Use Frequency	9-23
Chart 9-12: Transit Operators	9-23
Chart 9-13: Areas in Need of Bicycle Parking	9-24
Chart 9-14: Preferred Bicycling Support Facilities	9-25
Chart 9-15: Trailheads	9-26
Chart 9-16: Improvements that Influence Bicycling	9-27
Chart 9-17: Preferred Encouragement Programs	9-28
Chart 9-18: Age Range	9-28

EXECUTIVE SUMMARY

The City of Glendale has embraced a vision for an active and healthy community, where bicycling can serve as primary form of transportation for residents and visitors. Through many of its current plans and policies, Glendale supports opportunities for healthier lifestyles, reduced dependence on automobiles, safer streets, reduced energy consumption, and the creation of vibrant neighborhoods. The Glendale Bicycle Transportation Plan serves as an important next step toward integrating bicycles into the transportation system. City staff, transportation officials, local advocates, residents, local employees, business owners, transit officials, school staff, and others collaborated to make this Plan one that serves the needs of different types of users and a number of purposes. Enhanced bicycle infrastructure coupled with supportive policies can create a significant cultural change and make cycling a way of life. This Plan aims to increase the safety and attractiveness of bicycling in Glendale, and increase the number of trips made by bicycle.

The Plan intends to guide the City in planning, development, design, and maintenance for new and upgraded bicycle facilities for the next 20 years. The Plan will be a living document; the City will update it every five years in order to stay competitive for Caltrans Bicycle Transportation Account funds, to inventory and evaluate changes to infrastructure, and to adjust planned facilities based on changing future conditions. The following text highlights important points from each chapter of this Plan.

CHAPTER 1 - INTRODUCTION

The Plan required the collaboration, input, and efforts of many parties, and is the result of a citywide effort to become a healthy and more livable city. Many of the City's actions already exemplify this commitment to a more livable Glendale, including the adoption of the Safe and Healthy Streets Plan, the existence of a bicycle parking fund, and an active Safe Routes to School effort. The Glendale Bicycle Transportation Plan will add to these efforts. The Plan is compliant with Caltrans Bicycle Transportation Account requirements.



CHAPTER 2 - PUBLIC OUTREACH

City staff conducted a comprehensive outreach campaign to understand the needs of Glendale residents. The City hosted many events, workshops, and presentations to garner feedback about the Plan and bicycling in general. The opportunities for participation and feedback included the following.

Bicycle Advisory Committee

A diverse group of Glendale stakeholders comprised the Bicycle Advisory Committee (BAC). They guided the planning process and provided detailed feedback on the Plan. Members included various City staff and commission members; representatives from the Glendale Police Department, Glendale Unified School District, Los Angeles County Bicycle Coalition (LACBC), Glendale Community College, and Glendale Transportation Management Associates; Glendale residents; and others. The BAC helped ensure key stakeholder groups' concerns were incorporated into the Plan. The Committee held four meetings to accomplish the following:

- Introduction of the Plan and solicitation of feedback
- Development of goals, policies, and actions
- Review of draft network
- Review of draft Plan

Public Workshops

The City invited the public to shape the Plan through a series of public workshops. The City reached out through the Glendale Bicycle Transportation Plan website, GTV6 updates, LACBC e-mails and website, e-mail blasts to City listservs, and flyers at local bicycle shops and retailers.

The consultant team facilitated the first workshop on April 28, 2011. The team presented the scope of the BTP, example bikeway types, and potential recommendations. Attendees mapped desired bikeways and provided overall comments. In their comments, participants expressed their desires for the following:

- Connections between parks, schools, libraries, and other civic uses
- Increased amenities for commuters
- Increased bicyclist and motorist educational campaigns

The second workshop was held twice: once on October 13, 2011 and again on October 20, 2011. This workshop presented the draft bikeway network, solicited comments, and asked attendees to prioritize the proposed bikeways using a prioritization dot exercise. Attendees' bikeway priorities were the following:

- Verdugo Road
- Brand Boulevard
- Verdugo Wash
- Canada Boulevard

The City held a third public workshop on January 18, 2012 to gather comments on the draft Plan. In their comments, participants expressed a desire for the following:

- A clearer implementation strategy with schedule for project implementation, yearly budget estimates and timeline
- Additional outreach meetings for non-English speaking and low-income residents
- The inclusion of responsible parties for “actions” in Chapter 4
- The inclusion of guidance on bicycle parking prioritization

Bicycle Transportation Plan Website, Calls, Mail, and Fax

The Plan website hosted information about the planning process, including all draft bikeway documents, information about bikeway types, contacts for City staff, an e-comment form, and the mailing address and fax number for comments. The public submitted comments to staff through these channels. The comments consisted of the following:

- Would like to see road diets implemented
- A ciclovía (streets shut down for use by non-motorized users) would be a great event for Glendale
- Eager to see City take aggressive steps toward implementation
- Include guidance on bicyclist detection at signals

Additional Stakeholder Meetings

City staff conducted outreach at existing meetings for other organized groups in Glendale. Staff presented the purpose of the Plan, potential impacts to the City, and draft recommendations, then requested feedback. Presentations were made to the Glendale Homeowners Coordinating Council, Downtown Glendale Merchants Association, and Glendale Transportation Management Associates.



Glendale Bicyclist Survey

As part of the Glendale Safe and Healthy Streets Plan initiative, the City circulated a pedestrian and bicyclist survey to ascertain attitudes and barriers toward bicycling and walking. The survey responses identified areas in need of bicycle parking, barriers to bicycling, and desired bikeways. The results of this survey were analyzed and incorporated into the Plan. Key takeaways include the following:

- Aggressive drivers, high car speeds, and lack of bicycle infrastructure are the greatest deterrents to bicycling.
- Bike lanes on major streets would result in the greatest improvement to the bicycling environment.
- Survey takers would like to see decreased traffic volumes and traffic calming.

City staff reviewed all comments received as part of the planning process, documented them, and incorporated many suggestions into the final Plan.

CHAPTER 3 - PLANNING CONTEXT

Numerous planning documents and policies influence the bikeway system, and the Plan must fit into the context of other endeavors. The consultant team and staff reviewed the following documents to ensure the Plan is consistent with other plans and policies. The team reviewed the following documents:

- Los Angeles County Metro Bicycle Transportation Strategic Plan of 2006
- Southern California Association of Governments Regional Transportation Plan
- Bicycle plans of neighboring cities
- 1995 Glendale Bikeway Master Plan
- Glendale General Plan's Land Use, Circulation, and Recreation Elements
- Glendale Downtown Specific Plan
- Glendale Downtown Mobility Study
- Glendale Safe and Healthy Streets Plan
- Glendale Safe Routes to School Plans
- Greener Glendale Plan
- Glendale Municipal Code

This Plan serves as an update and expands greatly upon the 1995 Glendale Bikeway Master Plan. The General Plan's Land Use and Circulation elements call for more integrated land use and transportation, with an emphasis on developing Glendale's core downtown area with more dense housing, and incorporating bicycles and walking as primary modes

of transportation. The Recreation Element contains a map of existing and future areas for parks and trails; this Plan proposes links to these facilities.

The Downtown Specific Plan, Downtown Mobility Study, Safe and Healthy Streets Plan, and Safe Routes to School Plans call for policies and planning that support bicycling through engineering, education, enforcement, encouragement, and evaluation.

The Greener Glendale Plan serves as the Climate Action Plan for the City. The City incorporates planned bikeways and new facilities into repaving and resurfacing projects as they occur, and will continue to do so with the implementation of this Plan.

Chapter 10.60 of the Municipal Code describes requirements for bicycles. The City currently requires bicycles to be registered, prohibits sidewalk riding in business districts except where the sidewalk is designated as a route, and establishes bicycle parking standards in the Downtown Specific Plan area. The City may consider revising the code based on the recommendations in Chapter 6 of this Plan. These include a recommendation to repeal bicycle registration, as well as recommended bicycle parking standards and amenities guidelines for all new development.

The team reviewed bikeway plans of neighboring cities to ensure regional connections. The Plan connects to existing and proposed bikeways in the cities of La Cañada Flintridge, Burbank, Pasadena, and Los Angeles, as well as in the unincorporated communities of Los Angeles County.

The Plan is also consistent with regional plans such as the Metro Bicycle Transportation Account Compliance Document, the Metro Bicycle Transportation Strategic Plan of 2006, and regional transportation programs such as the Regional Transportation Plan.

CHAPTER 4 - GOALS, POLICIES, AND ACTIONS

Glendale hopes to accomplish several goals with this BTP. They are the following:

1. Create an environment where people of all ages can circulate safely and easily on a bicycle.
2. Increase the number of bicyclists by enticing more people to use their bicycles instead of driving.
3. Promote the health of Glendale residents.
4. Enhance the economic viability of Glendale.
5. Reduce greenhouse gas emissions and energy consumption.
6. Develop and implement an educational program for safe bicycling.



In order to accomplish these goals, the City outlines in this Plan many policies with subsequent actions.

1. The City will develop a complete bikeway network throughout Glendale.
2. The City will actively accommodate and encourage safe and convenient bicycle utilitarian trips to schools, employment sites, stores, parks, and other destinations throughout Glendale.
3. The City will take steps to reduce the bicycle-involved crash rate (fewer crashes per mile ridden).
4. The City will make bicycle parking available, secure, and convenient throughout Glendale.
5. The City will work to implement Safe Routes to School (SRTS) programs in each Glendale school within the next 10 years.
6. The City will ensure that new development is bikeable, walkable, and barrier-free.
7. The City will implement this Bicycle Transportation Plan within 20 years.

Actions are specific manners of accomplishing policies, and then the overarching goals. For example, for Policy 1 (above), examples of actions include “implement planned citywide network of bikeway improvements,” and “add destination and way-finding signage along bikeways.”

CHAPTER 5 - EXISTING CONDITIONS

This chapter details existing conditions of bikeways, bicycle parking, amenities, transportation links, and programs. This serves as the starting point for planned projects.

Caltrans designates three types of bikeways:

- Class I Bicycle Paths provide a paved right-of-way separated from any street or highway.
- Class II Bicycle Lanes provide a striped lane for one-way bicycle travel on a street.
- Class III Bicycle Routes provide for shared use with pedestrian or motor-vehicle traffic, and can be enhanced with pavement markings and signage.

The City has 10.9 miles of Class II bicycle lanes and 11.1 miles of Class III bicycle routes; however, these facilities do not form a complete network. The map on page 5-4 shows existing facilities in the City.

The City has recently ramped up its bicycle parking program. Bicycle parking is currently provided in the following forms:

- Bicycle lockers: higher security parking, best for long-term storage
- Inverted-U racks: short-term racks that support bicycles well
- Front-wheel support racks: often provided at schools
- Wave racks: short-term racks

The City has purchased and installed over 300 inverted-U racks in downtown, at transit stops, and at the request of business-owners throughout the City. In addition, many employers have bicycle parking available for employees. Amenities such as clothing lockers and showers are not available publicly. The Larry Zarian Transportation Center serves as the primary transit hub in Glendale with Metrolink, Amtrak, Greyhound, Metro, and Glendale Beeline services. Glendale also has three “park-and-ride” lots for commuters to park and take transit. There are no existing bikeway connections to these facilities, but they do have bicycle parking available. The map on page 5-10 shows existing parking, amenities, and intermodal links in the City.

According to Glendale Police Department data, between September 1, 2006 and November 30, 2010, 155 bicycle-involved crashes occurred, resulting in 143 injuries and zero deaths. Reports show that bicyclists were at fault in half of these crashes. The data indicates that intersections and turning movements are the most problematic for bicyclists. Special consideration to alert motorists of bicyclists and increased education could help reduce the crash rate.

In 2009 and 2010, the City conducted bicycle and pedestrian counts at 26 locations as part of the Safe and Healthy Streets initiative. The locations with the highest volume of bicyclists in 2010, in order by volume, are the following:

1. Flower Streer and Sonora Avenue
2. Verdugo Road and Mountain Street
3. Glenoaks Boulevard and Grandview Avenue
4. Cañada Boulevard and Verdugo Road
5. San Fernando Road and Los Feliz Road

The City will continue to monitor bicyclists at these locations in order to understand the impacts of new infrastructure and programs.



The City supports active living, including bicycling, through a number of education, encouragement, and enforcement activities. Programs include the following:

- **Safe Routes to School programs and plans** — encourage kids to walk or bike to school instead of being driven
- **Mayor’s Ride** — bicycle ride with the Mayor
- **Glendale History Ride** — bicycle ride led by LACBC, Glendale Historical Society, and Community Services and Parks Department to showcase historical points of interest by bicycle
- **“Bike to Work” Day** — promoted county-wide to encourage employees to ride a bike to work at least once a week
- **Glendale Bicycle Month** — promotion of bicycle-related activities throughout the City including the “ice cream ride,” “bike to happy hour,” and others
- **Glendale Employee Ridesharing Program** — offers monetary incentives to City employees that bike to work at least 10 times per month
- **Enforcement** — Police Department involvement enforcing traffic laws

CHAPTER 6 - PLANNED PROJECTS

To better accommodate and encourage bicycling in Glendale, the City plans many improvements including new bikeways, bicycle parking, links to transit, amenities, and programs. The network provides access to destinations such as schools, parks, hospitals, commercial corridors, housing, and regional connections. More confident cyclists may be comfortable bicycling on a major arterial that has a bicycle lane, whereas a novice cyclist may feel more comfortable on a parallel neighborhood street. This Plan aims to serve all types of users.

The type of planned facility depends, among other factors, on the street or right-of-way width, adjacent land uses, and average daily traffic volumes and speeds. On wide streets with higher speeds, more aggressive facilities — such as wide bike lanes with pavement treatments painted buffers — are planned. On quieter streets, signage and pavement markings may be enough.

This Plan proposes 65 miles of Class III bike routes, 20 miles of Class II bike lanes, and 14 miles of Class I bike paths. The map on page 6-4 shows the proposed network.

The proposed projects are described in detail. The proposed facility width is specified, as are other proposed changes, such as road diets or the addition of wayfinding signage. Any additional treatments to enhance the bikeway are specified. These include the following:

- **Sharrows** — these pavement markings enhance Class III routes, and show drivers and bicyclists where to ride in the lane
- **Colored bicycle lane** — coloring the pavement below the bicycle lane stencil can enhance the visibility and traffic calming effects of bicycle lanes
- **B-type sharrows** — this device provides more frequent and prominent markings of the shared use arrow, and is used to emphasize the shared lane more than a typical sharrow
- **Road diet** — a road diet is the elimination of one or more lanes (parking, travel, or two-way-left-turn) to make room for bicycle facilities
- **Signage** — wayfinding signage can enhance the bikeway network, especially on class III facilities

The maps on pages 6-58 and 6-60 illustrate the proposed network of bikeways.

The City has designated several study corridors. These corridors will require one or more of the following: further approval from City Council, an experimentation process at the federal and state level, or further engineering study. These corridors will be evaluated to determine the best way to accommodate bicyclists.

The study corridors include:

- Brand Boulevard
- Honolulu Avenue
- Verdugo Road
- Concord Street
- Chevy Chase Drive
- La Crescenta Avenue
- Verdugo Wash Bicycle Path
- San Fernando Railroad (Metrolink Valley Subdivision) Bicycle Path

In the interim, the City will try to accommodate bicyclists on many of these facilities through less aggressive measures or with pilot projects.

The City will continue its bicycle parking program with additional parking available by request (400 racks recommended), as well as more frequent placement of inverted-U racks at destinations such as the Glendale Galleria, supermarkets, and the library. The Plan also recommends new development standards for bicycle parking. This will increase the amount of parking available without financial burden to the City. The City will also consider passing



a “bicycles in buildings” ordinance to ensure bicycles are allowed in buildings for commuters who lack access to secure spots.

The City will consider an ordinance to increase the number of amenities throughout Glendale. The requirements will ensure new developments of a certain size and type include clothing lockers, showers, and other amenities for bicyclists. The City will also work with organizations such as Bikestation to provide facilities for commuters near the Glendale Transportation Center. In addition, the City will ensure links to transit remain a priority with adequate bicycle parking at stations, and racks available on buses.

The maps on pages 6-70 and 6-72 show the locations of proposed bicycle parking, amenities, and links to transit.

An integral part of the success of the Plan will be the implementation of new programs and promotion of bicycling. The City will continue to seek funding to provide additional education, encouragement, enforcement, and evaluation programs, and will continue to provide existing programs.

Proposed educational programs include the continuation of Safe Routes to School programs, creating a bicycle safety education program at employment sites, and safety education for Beeline bus drivers and the Glendale Police Department.

The City will seek funds for encouragement campaigns that regularly update the bicycle web page and bicycle map to provide all bike-related information. The City also intends to initiate a ciclovia that will temporarily close streets to cars for use by other users, to work with non-profit organizations to provide free helmets and lights to low-income cyclists, and to engage in other encouragement efforts.

The City will coordinate with the Glendale Police Department to ensure mutual understanding of bicycle-related traffic laws, and to create a continuing education curriculum for officers.

The City will also continue its evaluation of bicyclists with an annual or biannual bicycle count, conducted with the assistance of outside organizations.

According to the 2005 to 2009 American Community Survey, approximately 0.5% of Glendale workers age 16 and over commute by bicycle. With these new planned facilities and programs, the City sets a goal of 5% bicycle commuters.

CHAPTER 7 - FUNDING AND IMPLEMENTATION

A variety of potential funding sources, consisting of local, state, regional, and federal funding programs, may be used to construct the proposed bicycle improvements. Most Federal and State programs are competitive, and involve the completion of applications. Local funding for projects can come within the City that compete only with other projects within the City. This chapter provides descriptions, eligible projects, approximate amount available (if known), and contact information for potential funding sources.

The Plan is geared toward implementation. To date, the City has spent \$2,034,000 on bicycle parking, Beeline Transit bike racks, loop detectors, road improvements, and signage and striping for bikeways.

The approximate total capital cost for the planned bikeways is \$5,357,000. Including another \$451,000 for bicycle parking, the total capital cost of planned projects is approximately \$5,808,000. These costs exclude two of the very high cost, long-term projects. Bicycle paths along the Verdugo Wash and the Metrolink Valley Subdivision railroad right-of-way (called in this Plan, San Fernando Railroad) are roughly estimated to cost an additional \$12,264,000. The City would like to set aside an additional \$125,000 annually for programs. These costs are planning-level, and do not include engineering-level design, maintenance costs, and other contingencies. Several of the treatments, such as colored bicycle lanes and b-type sharrows, will likely require additional maintenance costs.

Projects will be implemented as funds become available, with routine maintenance, or in conjunction with new development. Projects are categorized into three categories, short-term, medium-term, and long-term, according to criteria such as public preferences, staff preferences, destinations served, completion of network, history of bicycle-involved crashes, and others. Priority tables can be found on pages 7-21 and 7-22.



CHAPTER 8 - DESIGN GUIDELINES

This chapter provides general guidelines for the City when constructing facilities identified by the Plan. The City will need to follow standard manuals such as the California Manual on Uniform Traffic Control Devices, the Highway Design Manual, and others. The City may also have to amend its own street design guidelines in order to implement the bikeways as planned. Glendale should continue to research new bikeway design treatments as time goes on. This chapter provides design guidance for the following:

- Class I Bike Paths
- Class II Bike Lanes, including colored and buffered bike lanes
- Class III Bike Routes, including sharrows and b-type sharrows
- Signage and markings, including directional signage
- Bicycle Parking
- Road diets
- Drainage grate design
- Loop detectors

APPENDICES

Cost Estimates

The Cost Estimates Appendix provides detailed costs per section of bikeway using average unit costs experienced in Southern California or by the City of Glendale. It also contains cost estimates for bicycle parking.

Glendale Bicyclist Survey

The full results of the Glendale Bicyclist Survey are presented in this appendix with accompanying text analysis and charts for each question.

1. INTRODUCTION

Bicycling is an important part of many Glendale residents' ways of life, and many more residents and visitors are using the bicycle as their main form of transportation. The City of Glendale and its residents are prepared to progress to an advanced stage of integrating bicycles into the transportation system. Glendale already supports bicycling through many of its endeavors, including the adoption of the Safe and Healthy Streets Plan, the 1995 Bicycle Master Plan, Glendale rideshare program, citywide safe routes to school plans and programs, bicycling events, bicycle parking, and recently installed bikeways. This Plan adds to the existing momentum. Cyclists now regularly traverse Glendale's neighborhoods and have become an everyday part of its streets. With sufficient bicycle facilities and programs, the City can reach the "tipping point" where there are enough bicyclists to create significant cultural change and make cycling a way of life.

Glendale recognizes the value of becoming more bicycle friendly. The City wishes to offer opportunities for healthier lifestyles, reduce dependence on automobiles, reduce global warming gases and air pollution, reduce energy consumption, and create more desirable neighborhoods. Elevating the status of bicycling is entirely consistent with City's other efforts to respond to these issues. This document updates the City's 1995 Bicycle Master Plan, and will launch Glendale to the next stages of accommodating and encouraging bicycle travel for both utilitarian and recreational trips. The Plan will serve as the guiding document for the City to follow in improving its bicycle infrastructure and programs. This plan builds upon the Circulation Element of the 1998 General Plan. This Plan prioritizes projects and enables the City to apply for outside funding in a systematic manner. It will help to usher Glendale well into the ranks of bicycle-friendly cities, and into the age of environmental sustainability.

The planning process for what is now called the "Glendale Bicycle Transportation Plan," began as the "Glendale Bicycle Master Plan." Although the name changed, the content remains the same. The City conducted an aggressive public outreach effort to learn the needs of local cyclists, to collect information from a broad variety of stakeholders, and to assess the community's priorities. The City held three sets of public workshops. The first set of public workshops introduced the planning effort. City staff and the consultant team presented draft bikeway recommendations at the second set of workshops, and attendees were asked to describe their priorities within the draft bikeway network. During the third workshop, staff presented the draft Plan for comment and review. To complement this effort, a Bicycle Advisory Committee (BAC) made up of diverse local representatives, City officials, transportation officials, and bicycling advocates, among others, helped to steer the planning effort. Finally, the consultant team collected comments from a significant number of people through e-mail, mail, fax, comment forms, and phone.

Chapter 2 describes the public outreach effort. Chapter 3 sets the planning context for this Plan. Chapter 4 contains the goals, policies, and actions to serve as the philosophical foundation and implementation strategy for this Plan. Chapter 5 assesses existing conditions for bicyclists in Glendale, including existing bikeways, bicycle parking, and bicycle-involved

crashes. Chapter 6 contains the proposed bikeway network, amenities, parking, and other programs. Chapter 7 provides a funding and implementation plan. Chapter 8 illustrates bikeway design guidelines.

In order to be eligible for Bicycle Transportation Account funds, this Bicycle Transportation Plan contains the following as specified by California Streets and Highways Code 891.2:

1. Estimated number of existing bike commuters and estimated increase
2. Map and description of existing and proposed land use
3. Map and description of existing and proposed bicycle routes
4. Map and description of existing and proposed bicycle parking
5. Map and description of existing and proposed links to other transportation modes
6. Map and description of existing and proposed facilities for changing and storing clothes and equipment
7. Description of safety education programs, efforts by law enforcement, and effect on accident rates
8. Description of public input
9. Description of coordination with other local and regional transportation, air quality, and energy conservation plans
10. Description of projects and their priorities
11. Description of past expenditures and future financial needs

The California Streets and Highway Code 891.2 compliance checklist on page v identifies the pages where each of these can be found.



Glendale History Ride, 2011

2. PUBLIC OUTREACH

Public input was the foundation of this Bicycle Transportation Plan. The City implemented a comprehensive public outreach program to learn about the local cycling environment, to understand cyclists' needs and ensure they are met, and to set priorities. Outreach included distributing comment cards at public counters and bicycle shops, and on Beeline buses. In addition, the City issued press releases and posted information about the outreach meetings on the City website and on GTV6. City staff also prepared a flyer and distributed it to public counters, bicycle shops in Glendale, and the Los Angeles County Bicycle Coalition (LACBC) mailing list, in order to solicit the public's participation.

People wishing to comment have had the opportunity to:

- Participate as a member of the Bicycle Advisory Committee
- Attend public workshops
- Mail or fax a comment card to the City
- Call the Traffic and Transportation Division and select an option to comment on the Bicycle Transportation Plan
- Visit the Glendale Bicycle Transportation Plan website and submit an e-comment

Bicycle Advisory Committee

A diverse group of Glendale stakeholders comprised the Bicycle Advisory Committee (BAC), including representatives from the following groups:

- Glendale Parks, Recreation and Community Services Commission
- Glendale Transportation and Parking Commission
- Glendale Planning Commission
- Glendale Unified School District
- Thomas Jefferson Elementary School
- Richardson D. (R.D.) White Elementary School
- Glendale Chamber of Commerce
- Los Angeles County Bicycle Coalition
- Glendale Community College
- Glendale Transportation Management Association



BAC Members draw candidate routes on large-scale maps.

- Glendale Public Works Department
- Glendale Community Services and Parks Department
- Glendale Community Development Department
- Glendale Residents

The BAC advised the project team of their concerns, and provided guidance and input on the development of the Bicycle Transportation Plan. The Committee held four meetings. The first meeting took place early in the planning process to introduce the effort and solicit feedback. During the second meeting, the BAC helped develop the Goals, Policies, and Actions Chapter of this Plan. During the third meeting, they reviewed and commented on proposed draft bikeways. They also participated in a prioritization exercise to rank the draft proposed network. Each member received 20 green dots and 20 yellow dots to place next to bikeways of high priority — green dots represented first priority and received two points per dot, and yellow dots represented second priority and received 1 point per dot. The following table shows the points received in descending order of each proposed bikeway.

TABLE 2-1: BAC PROPOSED BIKEWAYS PRIORITIES

Proposed Bikeway	Points
Oakmont View Dr. - Verdugo Park - Civic Auditorium	52
Verdugo Rd.	44
Verdugo Wash Bike Path	39
Glenoaks Blvd. - Ethel St.	34
Louise St.	33
Sonora Ave. - Riverside Dr.	32
Cañada Blvd.	32
Honolulu Ave. - Verdugo Rd.	27
San Fernando Railroad Bike Path	19
Chevy Chase Dr. - Acacia Ave.	18
Kenneth Rd. - Brand Blvd. - Mountain St.	17
Glenoaks Blvd.	17
Western Channel Bike Path	17
Montrose Ave. - Honolulu Pl.	16
Chevy Chase Dr. - Linda Vista Rd. - Lida St.	15
Wilson Ave. - Harvey Dr.	14
Ocean View Blvd.	13
Columbus Ave.	13
Opechee Way	13
Flower St.	12

Proposed Bikeway	Points
La Crescenta Ave.	11
Pacific Ave. - Burchett St.	11
Mountain St. - Highland Ave. - Cumberland Rd. - Valley View Rd.	9
Mountain St. - Grandview Ave.	9
Brand Blvd.	7
Western Ave.	7
Riverdale Dr. - Maple St. - Rock Glen Ave. - Lincoln Ave.	7
Harvard St.	6
Concord St.	6
Glorietta Ave.	6
Geneva St.	6
Monterey Rd. - Doran St. - Adams St.	6
Glendale Ave.	5
Justin Ave.	5
Alameda Ave.	4
Lake St. - Garden St.	3
Allen Ave.	3
Glenwood Rd. - Fifth St. - Concord St. - Stocker St. - Rossmoyne Ave.	3
Los Feliz Blvd.	3
Central Ave.	3
Fern Ln.	2
Glenwood Rd.	2
Doran St. - Chester St. - Lexington Dr.	2
California Ave.	2
Ramsdell Ave.	2
Roselawn Ave. - Rosemont Ave.	2
Las Palmas Ave.	1
Highland Ave.	1

The BAC's priorities were taken into account when prioritizing project implementation. The proposed network has changed since the prioritization exercise took place; therefore, not all final bikeways are incorporated into this table.

Public Workshops

The City invited the public to participate in the planning process through a series of workshops and meetings. The public was notified about the meetings through multiple channels, including the following:

- City of Glendale Bicycle Transportation Plan website
- GTV6 updates
- Los Angeles County Bicycle Coalition's Glendale Safe and Healthy Streets website
- E-mail blasts to groups in the community, the City's e-mail listserv, and interested parties
- Flyers at local bicycle shops and retailers

The purpose and timing of each workshop is explained further below.

WORKSHOP 1

The first workshop took place on April 28, 2011 from 6:00 pm to 7:30 pm at the Glendale Central Library. City staff and the consultant team presented the overall scope for the Bicycle Transportation Plan, tentative schedule, example bikeway types, and recommendations the public might find in the plan. Workshop attendees asked questions and made comments following the presentation. Their statements expressed a desire for the following:

- Increased public education signage
- Regional motorist and cyclist education
- A preferred road diet on Verdugo Road
- Connections between parks, schools, libraries and other civic uses
- Increased amenities for commuters
- Traffic calming north of Glendale Community College on Mountain Street and Verdugo Road
- Increased opportunities for recreational riding in Verdugo Park
- Identification of "healthy" bikeways with low traffic volumes
- A "how to ride a bicycle" education campaign for children

Participants also expressed concerns for safety with the use of colored bike lanes, including reflectivity and slip resistance. The team addressed questions and took note of concerns and comments for use in the planning effort.

The next part of the workshop featured a mapping exercise. Attendees drew desired bikeways, bicycle parking, and difficult locations for cyclists on large-scale maps of Glendale.

The team used these maps when proceeding with fieldwork and the planning effort.



First public workshop at Glendale Central Library

WORKSHOP 2

The City hosted two separate, second-round workshops to provide multiple opportunities for Glendale residents to attend. The City held the first of the two workshops on October 13, 2011 at City Hall in southern Glendale. The City held the second workshop on October 20, 2011 at the Sparr Heights Community Center in northern Glendale. During both meetings, the consultant team and City staff presented work on the Bicycle Transportation Plan to date, including a draft bikeways map. Attendees then engaged in a question and comment session with the consultant team and City staff, including the Senior Transportation Planner



Attendees draw desired and candidate bikeways on large-scale maps

Questions included:

- Why is Brand Boulevard not included as a bikeway?
- Is the City willing to conduct a road diet on Verdugo Road?
- Will the City consider channelized turn lanes on Cañada Boulevard?

Comments included:

- Sharrows are a great indicator of cyclists' rights to drivers.
- A road diet and traffic calming on Verdugo Road are desired.

The attendees also participated in a prioritization exercise at both meetings. Each attendee received 5 green dots and 5 yellow dots to place next to bikeways of high priority. Green dots represented first priority and received two points per dot, yellow dots represented second priority and received 1 point per dot, and no dot indicated third priority and received zero points. The following table shows the proposed bikeways in descending order by points received.

TABLE 2-2: WORKSHOP ATTENDEES PROPOSED BIKEWAYS PRIORITIES

Proposed Bikeway	Points
Verdugo Rd.	64
Brand Blvd.	59
Verdugo Wash Bike Path	50
Cañada Blvd.	50
San Fernando Railroad Bike Path	32
Honolulu Ave. - Verdugo Blvd.	30
Louise St.	26
Glenoaks Blvd. - Ethel St.	22
Broadway	21
Los Feliz Blvd.	20
Wilson Ave. - Harvey Dr.	19
Sonora Ave. - Riverside Dr.	17
Chevy Chase Dr. - Acacia Ave.	14
La Crescenta Ave.	12
Glendale Ave.	11
Montrose Ave. - Honolulu Pl.	10
Kenneth Rd. - Brand Blvd. - Mountain St.	10
Doran St. - Chester St. - Lexington Dr.	10
Ocean View Blvd.	9
Harvard St.	8
Columbus Ave.	8
Glenoaks Blvd.	7
Orange St.	7
Glorietta Ave.	5
Las Palmas Ave.	5
Concord St.	5
Western Ave.	4
Pacific Ave. - Burchett St.	4
Monterey Rd. - Doran St. - Adams St.	4
Roselawn Ave. - Rosemont Ave.	3
Chevy Chase Dr. - Linda Vista Rd. - Lida St.	3
Kenilworth Ave.	3
Mountain St. - Highland Ave. - Cumberland Rd. - Valley View Rd.	2
California Ave.	2
Central Ave.	2

Proposed Bikeway	Points
Western Channel	1
Flower St.	1
Riverdale Dr. - Maple St. - Rock Glen Ave. - Lincoln Ave.	1
Ramsdell Ave.	1
Fern Ln.	0
Opechee Way	0
Glenwood Rd.	0
Glenwood Rd. - Fifth St. - Concord St. - Stocker St. - Rossmoyne Ave.	0
Lake St. - Garden St.	0
Oakmont View Dr. - Verdugo Park - Civic Auditorium	0
Mountain St. - Grandview Ave.	0
Alameda Ave.	0
Allen Ave.	0
Justin St.	0
Highland Ave.	0
Geneva St.	0



Workshop attendees prioritize proposed bikeways.

Other Public Comments

The City created a webpage for the Bicycle Transportation Plan where the public could provide comments for use during the planning process. Several community members sent in e-mails, faxes, and letters to City staff and the consultant team.

The following summarizes public comments received via e-mail, website, mail, and fax:

- Several signals do not detect cyclists, including those at the intersections of Louise Street and Wilson Avenue and at Lake Avenue and Western Avenue
- The City should be cautious in removing parking around schools where parents may park and walk.
- Residents are eager to see the City take aggressive timelines toward implementation.
- Kenneth Road sees many bicyclists over the weekend and is an important bikeway to include in the Plan.
- Residents are excited that the City of Glendale is incorporating new bikeways and creating a new Bicycle Transportation Plan.
- Residents are supportive of the Bicycle Transportation Plan and would like a strong connection between North and Central / South Glendale, especially a Class I Bicycle Path.
- The City should be cautious in using “Botts’ dots” that force cyclists into traffic to avoid these hazards.
- Residents would like bicycle safety classes for school-age children.
- Bicycle parking in apartment communities will allow for higher-density housing residents to bicycle more easily.
- Residents would like to see a road diet on Verdugo Road north of Glendale Community College.
- A ciclovía in Glendale would be a great way to get Glendale residents excited about bicycling.
- The City should take extra precaution in designing bikeways so cyclists do not have to negotiate with buses.
- The City should add bicycle boxes at intersections with bicycle-only phases.
- Brand Boulevard merchants are concerned about alterations to Brand Boulevard, especially the potential for reverse-in angled parking.

The team considered these comments when preparing this Bicycle Transportation Plan.

ADDITIONAL STAKEHOLDER MEETINGS

The City held several additional stakeholder meetings to reach out to other organized groups that will be affected by the Bicycle Transportation Plan. The following summarizes the results of these meetings. By targeting existing groups, Staff was able to engage a greater number of people in the planning process.

Glendale Homeowners Coordinating Council (GHCC)

City staff presented elements of the Bicycle Transportation Plan, including draft bikeways, to roughly 50 attendees at the GHCC meeting in November 2011. Members were generally supportive and receptive of the plan. Comments and questions received included:

- What will happen to parking and travel lanes due to the plan?
- What is the estimated cost of sharrows and other improvements?
- Does the plan include education and training so bicyclists ride safely?
- Will there be facilities on Sonora Avenue?

Staff answered questions and provided directives to where attendees could find further information.

Downtown Glendale Merchants Association

Staff presented a preliminary draft of the Glendale Bicycle Transportation Plan to the Downtown Glendale Merchants Association. Overall, the association received the Plan positively, and believed it to be a progressive step for the city. Merchants requested to be assured there would be a balance between bicyclists' needs and vehicle parking needs.

Glendale Transportation Management Associates

City staff presented to approximately five member companies of the Glendale Transportation Management Associates. The planning efforts were well received with positive comments. Attendees were interested in the plans for bicycle facilities and requested information about bicycle rack installation city-wide.

Glendale Bicyclist Survey

LACBC worked with the City of Glendale to provide a bicyclist and pedestrian survey to the public on the Internet as part of the Glendale Safe and Healthy Streets initiative.

The survey asked respondents about preferences for amenities including on-street bicycle parking, rest areas, changing facilities, and secure bicycle parking (lockers). Survey respondents strongly prefer secure bicycle parking and bicycle racks on the street over other options. They would like more rest areas and changing facilities, but less so than bicycle parking.

Survey respondents identify bike lanes on major streets as the greatest improvement the City of Glendale can make to improve bicycling and to potentially increase the number of cyclists. Other important improvements include paving more bike paths, adding bike routes on quieter streets, and decreasing traffic speeds with traffic calming measures.

This survey provides valuable information to help plan and prioritize improvements for bicyclists. However, it should not be considered a representative sample of Glendale residents. For example, very few young people filled out the survey. The survey results also likely capture the sentiments of people that bicycle more than average residents. Question 1 indicates this with 7% reporting that they commute by bicycle five days per week.

The survey inquired regarding the following:

- Why the respondent rides a bicycle
- How often he / she rides
- His / her favorite places to ride
- His / her bicycling comfort / skill level
- Whether he / she uses any transit operators used in conjunction with bicycling
- What areas are in need of improvement
- What areas are in need of parking

The key findings from the survey include the following:

- Commutes vary in origin and destination widely, stressing the importance of an integrated citywide network as well as connections to surrounding regions.
- Many survey respondents bike for trips outside their work or school commutes, showcasing the importance of providing a local network for novice users.
- Respondents bicycle primarily for exercise / health and pleasure.
- Aggressive drivers, high car speeds, and lack of bicycle infrastructure are the greatest deterrents to bicycling.
- Almost 40% of respondents use their bicycles in conjunction with transit.

Survey respondents listed top priority locations with suggested improvements. They include the following:

- Verdugo Road — Traffic enforcement, resurfacing, road diet
- Brand Boulevard — Diagonal parking is dangerous, bike lanes
- San Fernando Road — Resurfacing, bike lanes
- Glenoaks Boulevard — Speeding, traffic enforcement, incomplete bike lane, widen lane

-
- Colorado Street — Bike lanes, resurfacing, signs and road markings indicating share the road
 - Cañada Boulevard — Change grates (gaps are too wide), share the road signs, bikeway
 - Glendale Avenue — Sharrows or bike lane, speeds too fast, aggressive drivers
 - Broadway — Too narrow, lack of bicycle parking
 - Central Avenue — Bike lanes
 - Glendale Boulevard — Bike lanes, resurfacing
 - Foothill Boulevard — Continue bike lane in Glendale, provide shade
 - Chevy Chase Drive — Bike lanes or sharrows
 - Los Angeles River — Create better access points, river path
 - Honolulu Avenue — Bike lanes or signs
 - Kenneth Road — Resurfacing, speeding

Survey respondents also provided locations in need of improved bicycle parking. They include the following:

- Supermarkets (Whole Foods, Trader Joe's, etc) — lack of parking, poor quality
- Glendale Galleria — lack of parking, safety, accessibility
- Americana — lack of parking
- Post Office — lack of parking
- Glendale High School — lack of parking
- Montrose Shopping Area — lack of parking
- Hospital — lack of parking
- Broadway — lack of parking
- Library — safety
- Parks — lack of parking, safety
- Colorado — lack of parking
- Transit Center — more lockers, racks
- Brand Boulevard — lack of parking, inaccessible
- Central Avenue — lack of parking
- City Hall Complex – lack of parking, lockers
- Community College — lack of parking, safety

Since this survey was conducted, the City has addressed many of the issues identified including installing bicycle parking throughout Glendale. The full survey with detailed results can be found in Appendix 2 on page 9-15.

3. PLANNING CONTEXT

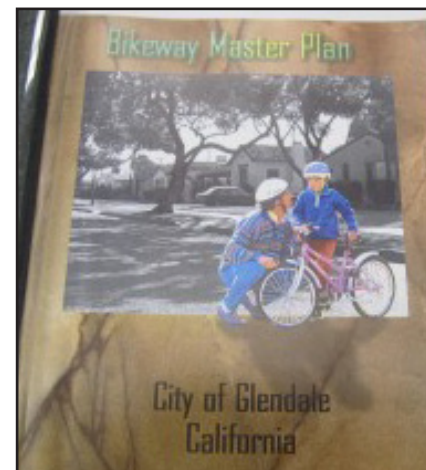
Many other planning documents influence the bikeways system. This Bicycle Transportation Plan must fit into the context of other planning endeavors. Related documents and data are described below.

City Planning

PREVIOUS BICYCLE PLAN

In 1995, the City adopted its most recent Bikeway Master Plan. This Plan calls for a comprehensive network of bike lanes and routes that will serve both commuters and recreational riders of varying abilities. The Plan contains similar sections as to those included in this plan, such as:

- Bicycle goals, policies, and objectives
- Existing bicycle facilities
- Accident analysis
- Proposed bicycle network and related facilities
- Proposed programs to promote ridership



Cover of Glendale 1995 Bikeway Master Plan

The Plan also recommends two phases of implementation of Class I Bicycle Paths, Class II Bicycle Lanes, and Class III Bicycle Routes. The City has implemented several of the recommendations in this plan, but has not yet completed it. This Plan is consistent with and expands on the 1995 Bikeway Master Plan.

GENERAL PLAN

Land Use

The City revised the Land Use Element of the General Plan in 1986, and has since amended the element multiple times. This section of the General Plan identifies current and future zoning patterns, areas for increased density, and goals for Glendale.

Currently, the City has few dense residential developments and mixed-use areas. In the future, the City intends to cluster high-density residential development around commercial areas in Central Glendale, Southeast Glendale, and West Glendale (specifically around the Downtown Specific Plan area) with an additional small pocket located in North Glendale. Mixed-use development areas are generally along Glendale's major arterials. The

residential densities range from 35 to 100 dwelling units / acre. Higher densities can be permitted in the Downtown Specific Plan area.

Planned commercial districts with corresponding higher density housing are planned in the Downtown area along streets such as Colorado Street, Central Avenue, Glenoaks Boulevard, Broadway, and Brand Boulevard. The City wishes to concentrate housing and services along these corridors where there is already existing infrastructure (regional freeway network, bus network, Glendale Transportation Center, businesses, smaller blocks) to support increases in density without adding as many vehicle trips, allowing Glendale to grow responsibly. This Bicycle Transportation Plan recommends new facilities in these areas to promote bicycle travel.

Map 3-1 illustrates the most current zoning in the City.

Circulation Element

The Glendale Planning and Public Works Divisions completed a comprehensive revision of the Circulation Element of the General Plan in 1998, and have since amended the element multiple times. The Circulation Element vision “preserves and enhances the quality of life in the city by allowing for commerce to thrive, protecting the character of residential neighborhoods, and minimizing adverse environmental impacts.” The Element outlines several goals and plans to accomplish the vision, including transportation systems management, transportation demand management, traffic calming programs, and sustainable community planning. The Plan states that Glendale needs to take creative approaches as capital intensive projects such as road widening become less and less feasible. The Plan identifies each street’s classification, which includes purpose, lane configuration and design, and zoning of frontage property. At the time of the Circulation Element’s adoption, the City had an existing Bikeways Master Plan, and the element includes all the recommended bikeway improvements, including phases for development. This Bicycle Transportation Plan is consistent with, and builds upon, these previous plans.

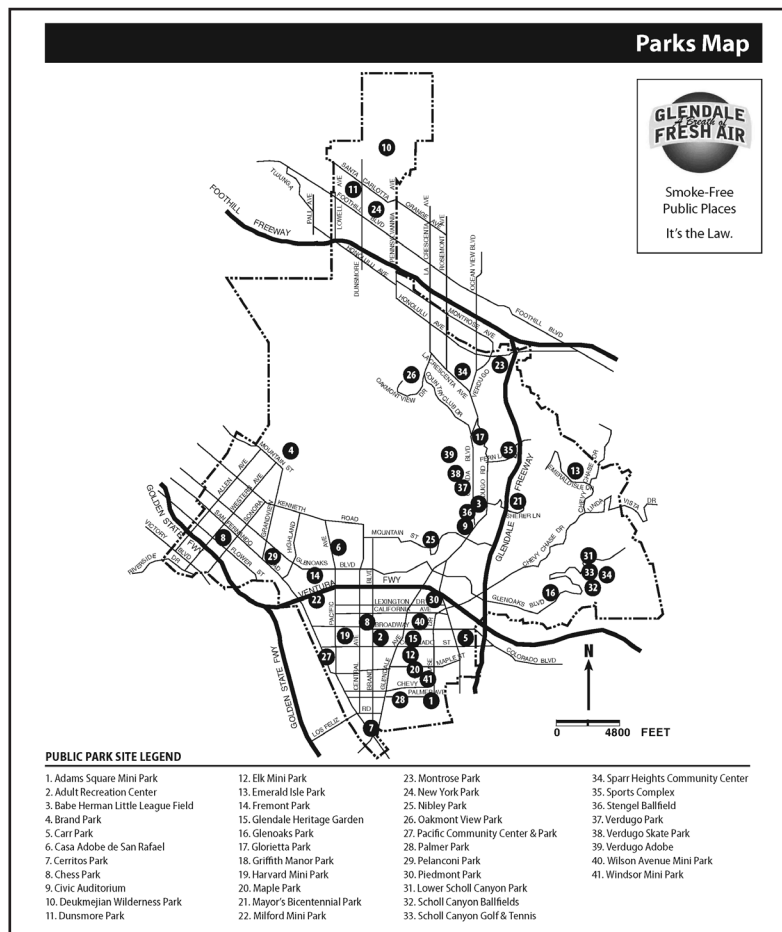
“Complete Streets” provisions of the Circulation Element are applicable to all street types and aim to accommodate all users, including automobiles, bicycles, transit and pedestrians, where applicable and appropriate. While Complete Streets policies seek to improve overall mobility, prioritization of each street into Primary Pedestrian Areas, Primary Bicycle Routes, Primary Transit Streets and Primary Auto Routes will establish an appropriate hierarchy and aid in coordinated implementation of street improvements. While the City’s existing General Plan and community plans refer to the “Bikeway Master Plan,” this Bicycle Transportation Plan is the same document, and is an update to the 1995 Bikeway Master Plan.

Complete Streets policies are integral to sustainable development, and are a key component for incorporating sustainable policies into the City’s General Plan. The Bicycle Transportation Plan will become the primary implementation tool to implement sustainable transportation policy relating to bicycle transportation. Glendale’s Safe and Healthy Streets Plan also identifies sustainable transportation policies.

The Circulation Element of the General Plan recommends traffic calming, which can take a variety of forms. The Circulation Element provides for flexibility in locating and providing traffic calming to allow improvements to allow for context sensitivity.

Recreation Element

Glendale last updated the Recreation Element of the General Plan in 1996. The Element identifies an extreme deficiency of park land as a result of residential growth and states the need to preserve Glendale's quality of life by providing park land. The Plan provides a map of open space areas, and potential future areas for parks and trails. This Plan will address those linkages when possible with the provision of bicycle facilities.

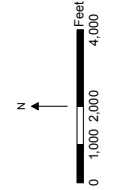
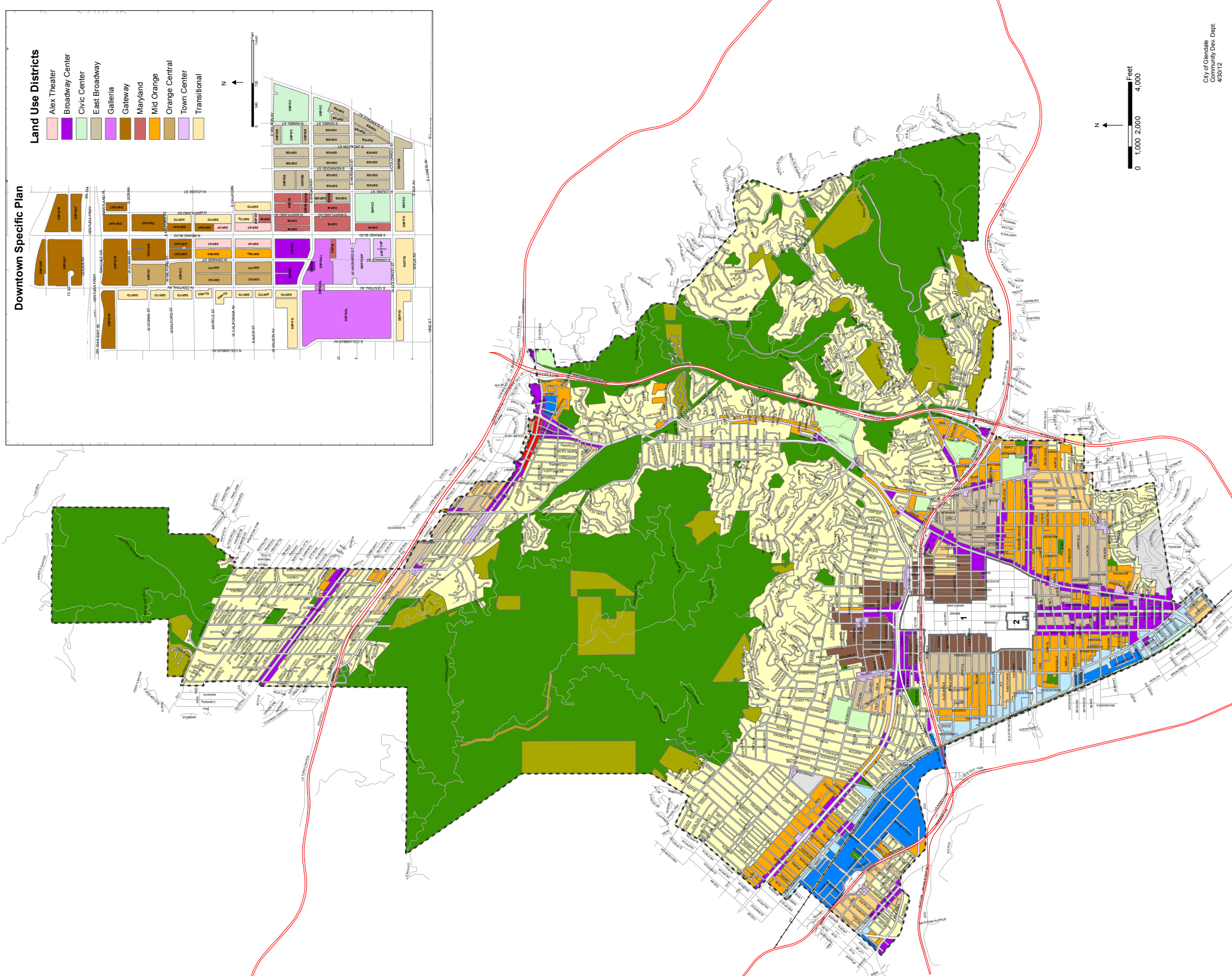
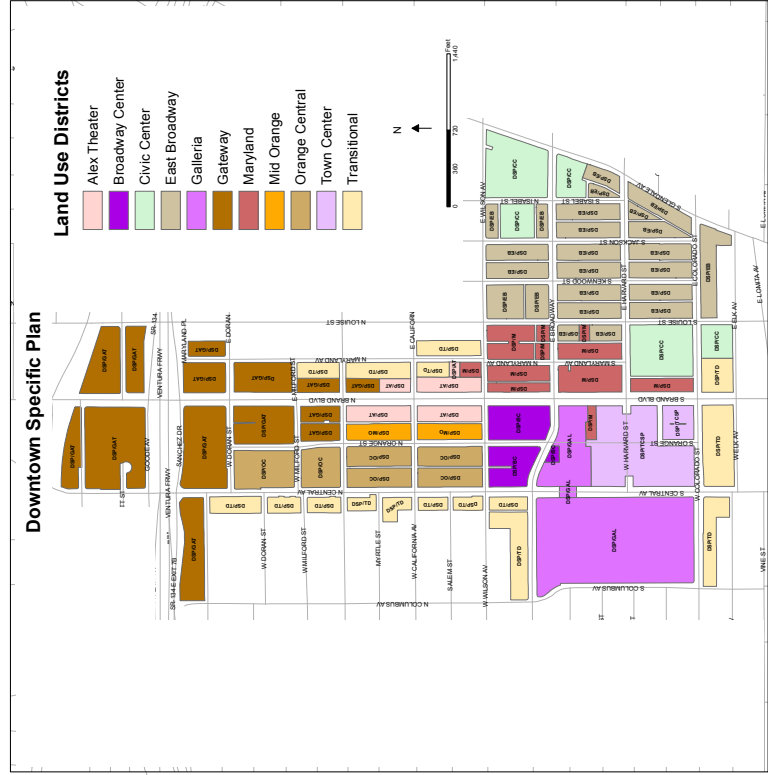


MAP 3-1: CURRENT AND FUTURE LAND USE (ZONING) MAP



CITY OF GLENDALE
COMPREHENSIVE GENERAL PLAN
LANDUSE ELEMENT

RESIDENTIAL	COMMERCIAL	PUBLIC
Very Low Density/Open Space	Neighborhood	Industrial
Low Density	Community Services	Public/Semi-Public
Moderate Density	Regional	Recreation/Open Space
Medium Density	Specific Plan Areas	Mixed Use
Medium High Density	Glendale city boundary	Cemetery
High Density		Freeways
		Railroad



City of Glendale
Community Dev. Dept.
4/30/12

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DOWNTOWN SPECIFIC PLAN

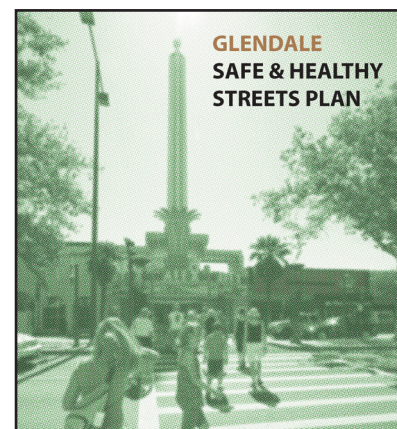
Glendale's City Council adopted the Downtown Specific Plan in 2006. The Plan sets the regulatory framework, physical standards, and guidelines for economic development, streetscape improvements, transportation development, parking, and pedestrian amenities, among others, in the downtown area. Brand Boulevard in Central Glendale serves as the center of the planning area. The Plan recommends encouraging bicycle travel and providing bicycle routes with lane markings and signage within and to and from major downtown destinations.

DOWNTOWN MOBILITY STUDY

Glendale's City Council adopted the Downtown Mobility Study on March 6, 2007. The study complements the Downtown Specific Plan. The Mobility Study focuses primarily on transit and pedestrian-friendly policies within the Downtown Specific Plan Area. It includes several street cross sections and policy recommendations that affect the Bicycle Plan including revising level of service criteria based on movement of people; limiting future road widening to the "auto priority" streets of Central Avenue, Colorado Street, and Glendale Avenue; and updating the Glendale Beeline routes. The Plan also calls for Transportation Demand Management techniques that reduce the number of vehicles in the Downtown area.

SAFE AND HEALTHY STREETS PLAN

The City of Glendale recently collaborated with the Los Angeles County Bicycle Coalition to create and implement the Safe and Healthy Streets Plan. The Plan, including outreach, development, and the hiring of an initiative coordinator, was funded through a Policies for Livable, Active Communities and Environments (PLACE) grant from the Los Angeles County Department of Public Health. The Plan focuses on creating a healthier Glendale by promoting opportunities for physical activity through increasing non-motorized transportation options. Policies in the Plan address education, encouragement, enforcement, engineering, and evaluation. City Council adopted this policy document on April 19, 2011. The Safe and Healthy Streets Plan serves as a document to coordinate local pedestrian and bicycle policies so that these, in turn, can be incorporated into the General Plan should funding become available. The Bicycle Transportation Plan provides for implementation of those policies relating to implementation of bicycle facilities, and is consistent with the Safe and Healthy Streets Plan.



SAFE ROUTES TO SCHOOL PLANS

The City of Glendale recently completed its third phase of Safe Routes to School (SRTS) planning for each one of its schools (K to 8). The planning process is phased and ongoing, with scheduled completion of a SRTS plan for each elementary and middle school in Glendale Unified by 2013. The City initiated the process by meeting with the Glendale Unified School District in 2009 to discuss the creation of a citywide program and plan, and to determine which schools should be targeted first. Schools that had a history of pedestrian and bicycle crashes, high-levels of congestion, high speed traffic, small school enrollment boundaries, parent requests, or principal enthusiasm, among other factors, were prioritized. The City has received state and federal funding, and has begun implementation of engineering improvements and programs at 12 out of 30 schools. This Plan will provide safer bicycling routes to Glendale schools, and is consistent with existing SRTS Plans. The Safe Routes to School and Bicycle Planning efforts are mutually supportive of each other, and many of the programs will overlap.

GREENER GLENDALE PLAN

The Greener Glendale Plan serves as Glendale's Climate Action Plan and includes a greenhouse gas inventory (GHG) and policies and programs for GHG reduction in compliance with AB32 (2006). On November 1, 2011, City Council adopted the first document of this plan, the Greener Glendale Plan for Municipal Operations. The Plan assesses what actions the City has already taken to be more sustainable, and recommends how it can build on these efforts. The Bicycle Transportation Plan is integral to several Greener Glendale Plan Transportation and Urban Design objectives for reducing GHG, including the following:

- Objective T1 — Facilitate the Provision of Alternative Transportation Infrastructure
- Objective T2 — Promote and encourage the use of Alternative Forms of Transportation
- Objective UD 4 — Continue to implement Southern California Association of Government (SCAG) Compass Blueprint strategies in Glendale to coordinate with regional efforts to increase sustainability and livable environments.
- Objective UD 5 — Incorporate sustainability concepts in the Greener Glendale Plan into Community Plans and other General Plan documents.

The City already incorporates planned bikeways and new facilities into repaving or resurfacing projects as they occur, and the City will continue to do so with the recommendations in this BTP.

The second document, the Greener Glendale Plan for Community Activities, was recently adopted by City Council on March 27, 2012. Initial community outreach was conducted in the first quarter of 2011, and a draft document was presented to the community for final review in December 2011.

MUNICIPAL CODE

Chapter 10.60 of the Glendale Municipal Code describes requirements for bicycles. The City currently requires bicycles to be registered with the City, and requires bicyclists to obtain a bicycle license. Bicycle registration fees are \$0.50 per year. However, the City does not actively collect and enforce bicycle registration. The City plans to remove this requirement.

Section 10.64.025 prohibits bicycle riding on sidewalks in business districts except where sidewalks are officially designated as part of a bicycle route.

Section 10.28.250 allows for temporary bicycle parking zones for special events.

Section 30.32.173 establishes Bicycle Parking Standards in the Downtown Specific Plan zone. The code requires 1 bicycle parking space per 20 dwelling units, and 1 space per 10,000 square feet of office space floor area. The code also allows for a reduction in the number of auto parking spaces required when development provides increased bicycle parking. In addition, location and design standards of the parking are specified in detail.

Bikeway Plans of Neighboring Cities

Neighboring jurisdictions have bicycle plans that propose links to streets in Glendale. This Plan will create a complete network by connecting to these existing and planned bikeways.

The **City of La Cañada Flintridge** is currently in draft stages of its Bicycle Master Plan. The City has planned preliminary routes on two streets that will connect to those in Glendale. There is a planned Class II bike lane on Foothill Boulevard, and an existing Class II on Verdugo Boulevard.

The **City of Burbank** has several existing and planned routes that could connect through Glendale. There are existing and planned bikeways on Riverside Drive, Lake Street, Glenoaks Boulevard, and Kenneth Road. These are top priority bikeways for the City of Burbank. The City has planned bikeways on Flower Street and S. 6th Street (which connects to Glenwood Road in Glendale) during a later phase of development.

The **City of Pasadena** has only one bikeway that connects in Glendale. There is a proposed bikeway on Lida Street, which connects to Linda Vista Road (off of Chevy Chase Drive) in East Glendale.

The **City of Los Angeles** has an existing bicycle route on Colorado Boulevard. The City of Los Angeles recently adopted a new Bicycle Master Plan. This includes planned bicycle lanes on the following streets:

- Colorado Boulevard connecting to Colorado Street in Glendale as well as Wilson Avenue,
- San Fernando Road, and
- Hyperion Avenue, which becomes Glendale Boulevard.

The **County of Los Angeles** recently updated its Bicycle Master Plan. There is an existing Class II bikeway on Foothill Boulevard between Pennsylvania Avenue and Briggs Avenue.

The County proposed the following candidate routes that connect in Glendale. They include the following streets:

- La Crescenta Avenue between Foothill Boulevard and Orange Avenue
- Ramsdell Avenue between Markridge Road and Montrose Avenue
- Rosemont Avenue between Rockdell Street and Honolulu Avenue
- Verdugo Flood Control Channel between Crescenta Valley Park and Shirley Jean Street

- Orange Avenue / Whittier Drive between Pennsylvania Avenue and Briggs Avenue
- Ocean View Boulevard between Foothill Boulevard and Honolulu Avenue

This Bicycle Transportation Plan connects to existing and proposed bikeways in other jurisdictions when feasible.

Consistency with Regional Plans

METRO BICYCLE TRANSPORTATION ACCOUNT COMPLIANCE DOCUMENT

The Los Angeles County Metropolitan Transportation Authority “Metro Bicycle Transportation Account Compliance Document” of 2006 shows an existing bicycle lane on Colorado Boulevard. All other bikeway connections in this document are consistent with those described above for each city.

METRO BICYCLE TRANSPORTATION STRATEGIC PLAN

The Los Angeles County Metropolitan Transportation Authority “Metro Bicycle Transportation Strategic Plan” of 2006 proposes bicycle transit hubs and gap closures in the regional bikeway network. The Glendale Metrolink Station, Hub 601, received 167 points out of 359 possible points on a metric of future bicycling and walking activity. This plan connects to the Glendale Transportation Center and prioritizes intermodal connections.

REGIONAL TRANSPORTATION PROGRAMS

This Bicycle Transportation Plan supports regional transportation goals, including those of the Los Angeles County Metropolitan Transportation Authority (LACMTA) and the Regional Transportation Plan (RTP) put forth by the Southern California Association of Governments (SCAG). The Southern California Air Quality Management District (SCAQMD) delegates its transportation planning to SCAG through its RTP document, which identifies goals and objectives that promote bicycling and reduce air emissions. An emphasis on utilitarian bicycling, including supporting amenities and infrastructure, is an important aspect of meeting these goals. The SCAG Regional Mobility Plan incorporates the LACMTA Countywide Bicycle Plan. This plan includes local bicycle routes in Glendale that will link with those in the LACMTA Plan.

4. GOALS, POLICIES, AND ACTIONS

The City of Glendale will use this Plan to create more complete streets that provide safe and comfortable travel options for all users. The following goals, policies and actions were developed by City staff in conjunction with the Bicycle Advisory Committee. Goals set the context for planning objectives and actions to carry out the Bicycle Master Plan. They provide long-term vision and serve as the foundation of the plan. Goals are broad statements of purpose. Policies will establish a framework of principles to manage the future bicycle system. Actions will flow from policies and provide direct guidance to implement the various elements of the Plan.

Goals

1. Create an environment where people of all ages can circulate safely and easily on a bicycle.
2. Increase the number of bicyclists by enticing more people to use their bicycles instead of driving.
3. Promote the health of Glendale residents.
4. Enhance the economic viability of Glendale.
5. Reduce greenhouse gas emissions and energy consumption.
6. Develop and implement an educational program for safe bicycling.



Bicycle rodeo at R.D. White Elementary School

Policies and Actions

POLICY 1: THE CITY WILL DEVELOP A COMPLETE BIKEWAY NETWORK THROUGHOUT GLENDALE.

Actions

- Implement planned citywide network of bikeway improvements.
- Create a network of bikeways so that every neighborhood is within 1/2 mile of a bikeway (bike lane, bike path, bike route, etc.) in the north-south and east-west directions.
- Ensure the maintenance of the bikeway and roadway system, and prioritize maintenance for bikeways.
- Recognize that bicyclists ride on all streets.
- Ensure that bicyclists can activate traffic signals at all vehicle-activated intersections.
- Add destination and way-finding signage along bikeways.
- Implement traffic calming techniques to create suitable bikeways.
- Re-stripe where appropriate on multi-lane streets (based on traffic volumes, speed, and street cross-section) with road diets and/or narrower travel lane widths to dedicate space for bicyclists.
- Where appropriate, install roundabouts, mini-roundabouts, traffic circles, and other treatments to reduce the need for bicycles to stop, and consider these options in place of stop signs and traffic signals.
- Coordinate and link Glendale's bikeway network with proposed and existing bikeways in surrounding jurisdictions.
- Conduct periodic bicycle counts at various locations using commonly accepted methodologies to evaluate the bicycle facilities.
- Include bicycles as a factor when considering traffic calming measures.
- Consider implementing planned bikeways in the City's ongoing Capital Improvement Programs.

POLICY 2: THE CITY WILL ACTIVELY ACCOMMODATE AND ENCOURAGE SAFE AND CONVENIENT BICYCLE UTILITARIAN TRIPS TO SCHOOLS, EMPLOYMENT SITES, STORES, PARKS, AND OTHER DESTINATIONS THROUGHOUT GLENDALE.

Actions

- Ensure the bikeway network and facilities serve all users, including children, intermediate cyclists, experienced cyclists, and recreational cyclists.
- Carry out promotional efforts to encourage bicycle use.
- Initiate and support promotional rides, bike-to-work days, bike-to-school days, education events and other activities to encourage more people to ride bicycles.
- Encourage existing employers and commercial landowners to provide bicycle parking, showers, and clothing lockers for commuters.
- Assist employers with promotional campaigns to encourage bicycle commuting.
- Continue to work with schools to implement Safe Routes to Schools programs promoting bicycling to school.
- Maintain bicycle racks on Glendale Beeline buses. Replace racks with new three-bicycle bike racks if needed. Conduct targeted promotional efforts to educate cyclists on how to use the bus bike racks.
- Implement a complete network of bikeways that provides access to schools and enhances connectivity.

POLICY 3: THE CITY WILL TAKE STEPS TO REDUCE THE BICYCLE-INVOLVED CRASH RATE (FEWER CRASHES PER MILE RIDDEN).

Actions

- Implement planned citywide network of bikeway improvements.
- Improve bicycle safety with enhanced signage and striping.
- Use bicycle friendly measures when implementing traffic calming programs.
- Provide bicycle safety education in schools, at work sites, and at public venues. These programs should include comprehensive safety training.
- Publish safe bicycle-riding tips and bikeway maps.
- Provide information on the City's website regarding safe bicycle riding.
- Work with the Glendale Police Department to ensure enforcement of traffic laws as applicable to bicyclists, pedestrians, and motorists.
- Work with the Glendale Police Department to ensure understanding of safe riding and crash report procedures.
- Educate bicyclists and motorists about safe use of the streets.
- Work with schools to implement Safe Routes to Schools programs.
- Work with outside organizations and agencies to provide free helmets and lights to students and low-income cyclists.

POLICY 4: THE CITY WILL MAKE BICYCLE PARKING AVAILABLE, SECURE, AND CONVENIENT THROUGHOUT GLENDALE.

Actions

- Create design standards for bicycle parking regarding the device type, spacing, visibility, accessibility, etc.
- Add safe, convenient, standardized bicycle parking at parks, schools, libraries, and other civic buildings where needed.
- Seek funds to create a bike station.
- Encourage existing commercial property owners to install bicycle racks and/or bicycle lockers on their property. Initiate a bicycle parking program to create bicycle parking in existing shopping and neighborhood centers.
- Require bicycle parking in new commercial and industrial developments. Permit reductions in auto parking or other accommodations where needed to allow for the placement of bicycle racks and lockers.
- Provide bicycle parking at local bus stops.
- Work with Metro, Metrolink, and Glendale Beeline to provide and maintain bicycle lockers, racks, and other parking options at transit stations and stops.
- Conduct periodic surveys to determine where bicycle parking is needed.
- Maintain existing bicycle parking.

POLICY 5: THE CITY WILL WORK TO IMPLEMENT SAFE ROUTES TO SCHOOL (SRTS) PROGRAMS IN EACH GLENDALE SCHOOL WITHIN THE NEXT 10 YEARS.

Actions

- Maintain and strengthen the citywide SRTS coalition of key stakeholders.
- Form SRTS coalitions of key stakeholders at each school.
- Complete SRTS plans for each school that include all “5 Es”: education, engineering, evaluation, enforcement, and encouragement.

POLICY 6: THE CITY WILL ENSURE THAT NEW DEVELOPMENT IS BIKEABLE, WALKABLE, AND BARRIER-FREE.

Actions

- Support the inclusion of smart growth policies into the City's General Plan and implementation of these policies into the Zoning Code.
- Expand smart growth principles in the Downtown Specific Plan citywide when feasible and in accordance with the General Plan, any adopted Community Plans, and the Zoning Code.
- Support compact and mixed-use development in accordance with the General Plan, any adopted Community Plans, and the Zoning Code.
- Work with the Glendale Unified School District to maintain existing neighborhood schools.
- Require large new development to be designed with small blocks that have interconnected street networks, both internally and with adjacent development.
- Adopt Living Streets standards and guidelines.
- Expand existing requirements and incentives for bicycle parking, showers, and clothing lockers citywide to cover a great number of developments.
- Apply Downtown Specific Plan bicycle parking requirements to new multi-family residential developments citywide.

POLICY 7: IMPLEMENT THIS BICYCLE TRANSPORTATION PLAN WITHIN 20 YEARS.

Actions

- Create a tiered priority project list based on immediate needs and available funds.
- Aggressively pursue all federal, state, and local funding options; leverage funds to maximize matching opportunities.
- Work with state and federal representatives to continue and expand existing funding and policies that support bicycling.
- Seek opportunities to piggyback bikeway projects onto new development, road resurfacing, re-striping, etc.
- Update the Bicycle Transportation Plan every five years.
- The Circulation Element of the General Plan should incorporate this Plan as part of its update.

5. EXISTING CONDITIONS

In 1995, Glendale was one of the first jurisdictions in Southern California to adopt a Bicycle Master Plan. In addition, the City actively incorporates and promotes bicycling, walking and transit through its rideshare program, Transportation Demand Management ordinance, and citywide events. Given more recent interest to prioritize non-auto modes, the City has begun to prioritize bicycling, and has grown the network through street re-pavings and re-surfacings. The City has started a bicycle parking program, and actively installs new racks throughout the City. The following describes in detail existing conditions for bicyclists in Glendale.

Bikeways

Caltrans designates three types of bikeways:

Class I: Referred to as a bike path, shared-use path, or multi-purpose trail. Provides for bicycle travel on a paved right-of-way completely separated from any street or highway. Other users may also be found on this type of facility.

Class II: Referred to as a bike lane. Provides a striped lane for one-way bicycle travel on a street or highway.

Class III: Referred to as a bike route. Provides for shared use with pedestrian or motor vehicle traffic. Class III bikeways have been enhanced in Glendale with “sharrows” which stand for shared-use arrow markings. The sharrow pavement marking indicates to cyclists where to travel in the lane, and it alerts motorists to expect cyclists.

Chapter 8 provides design guidelines for each of these types of bikeways, including other features that are described in the proposed projects.

The following tables show existing bikeways in Glendale.

TABLE 5-1: EXISTING BIKEWAYS ON WEST-EAST STREETS

Street	From	To	Facility Type (Class I, II, III)
Santa Carlotta Street	Lowell Avenue	Pennsylvania Avenue	Class II bike lanes
Foothill Boulevard	Lowell Avenue	Pennsylvania Avenue	Class II bike lanes
Markridge Road	Boston Avenue	New York Avenue	Class III bike route with sharrows
Riverside Drive	Victory Boulevard	Western City Limit	Class II bike lanes
Glenoaks Boulevard	Alameda Avenue	Pacific Avenue	Class II bike lanes
Glenoaks Boulevard	Scholl Canyon Park Entrance	East end of Glenoaks Boulevard	Class II bike lanes available during no parking hours
Stocker Street	Pacific Avenue	Louise Street	Class III bike route with sharrows
Riverdale Drive	San Fernando Road	Central Avenue	Class II bike lanes
Maple Street	Central Avenue	Verdugo Road	Class III bike route with sharrows
Rock Glen Avenue	Verdugo Road	Lincoln Avenue	Class III bike route with sharrows
Verdugo Boulevard	Valihi Way	City Limit (La Cañada Flintridge)	Class II bike lanes

TABLE 5-2: EXISTING BIKEWAYS ON NORTH-SOUTH STREETS

Street	From	To	Facility Type (Class I, II, III)
Chevy Chase Drive	Wilson Avenue	Adams Street	Class III bike route with sharrows
Dunsmore Avenue	Markridge Road	Honolulu Avenue	Class III bike route with sharrows
La Crescenta Avenue	Honolulu Avenue	Las Palmas Avenue	Class III bike route
Grandview Avenue	Mountain Street	Glenoaks Boulevard	Class III bike route with sharrows
Verdugo Road	La Crescenta Avenue	Cañada Boulevard (north)	Class II bike lane southbound only

Street	From	To	Facility Type (Class I, II, III)
Lincoln Avenue	Colorado Street	Rock Glen Avenue	Class III bike route with sharrows
New York Avenue	Markridge Road	Honolulu Avenue	Class III bike route with sharrows

Currently, Glendale has no Class I bike paths, 10.9 miles of Class II bike lanes, and 11.1 miles of Class III bike routes. A more extensive network of bikeways utilizing the full spectrum of design tools will accommodate and encourage more bicycling.

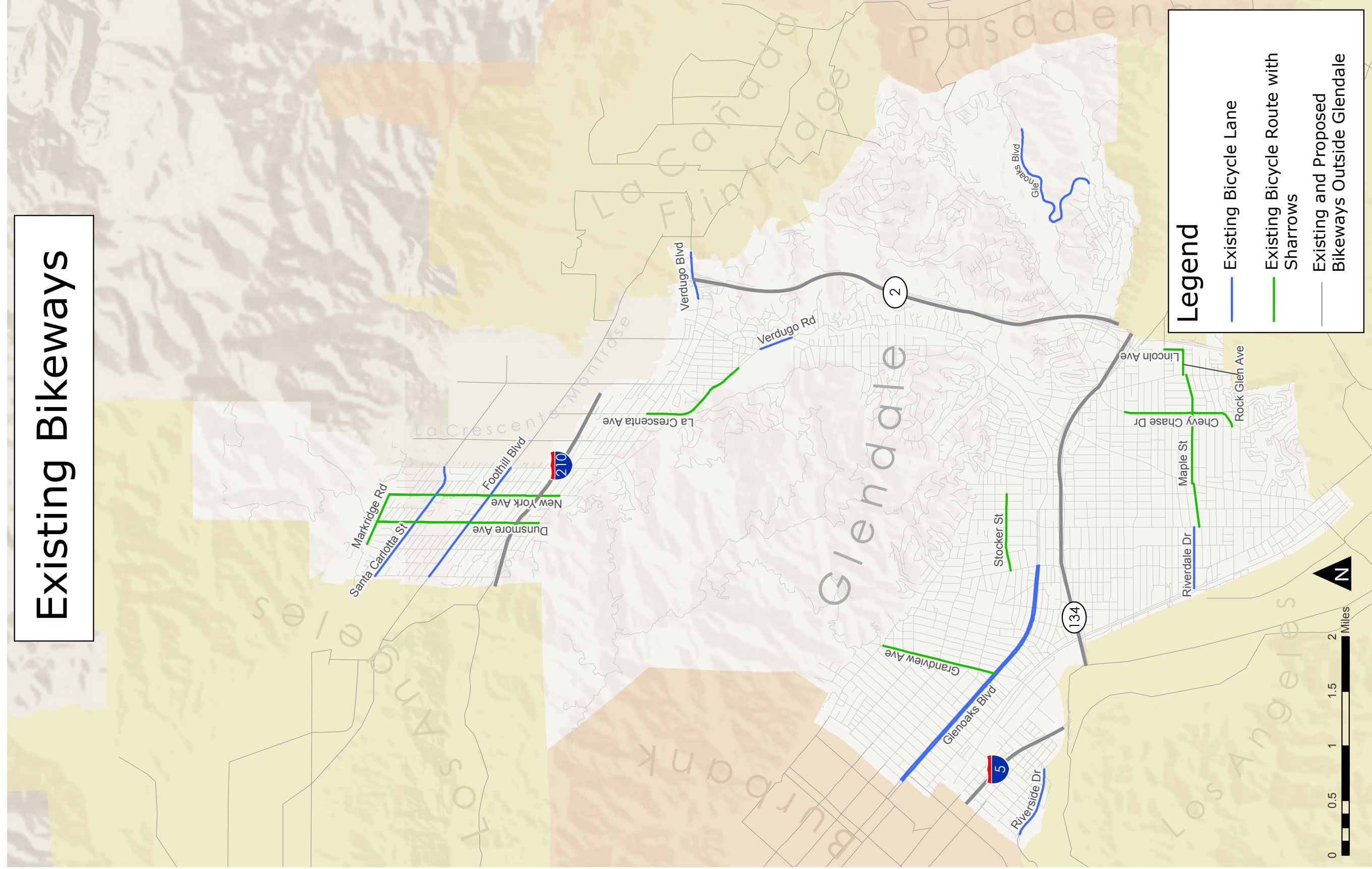
Map 5-1 on the next page shows the existing bikeways.



Existing bicycle facilities in Glendale

MAP 5-1: EXISTING BIKEWAYS

Existing Bikeways



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Bicycle Parking

Bicycle parking can be provided in two general types: racks and high-security bicycle parking. Racks are best for short-term needs like quick shopping trips, stops to the library, post office, and others. Racks are also beneficial in commercial corridors where bicyclists may want to get a meal or go from store to store. Racks should be placed at dispersed locations to take advantage of the point-to-point flexibility of the bicycle. Commuters and those who park for longer times need higher security parking. High-security parking may consist of lockers, attendant parking, or automated parking.

Glendale's Department of Public Works Traffic and Transportation Division has a citywide bicycle parking installation program. As of April 2012, the City has installed approximately 300 racks, and will continue to install racks as needed. Residents and business owners can request racks by calling the Traffic and Transportation Division in the Department of Public Works.

Where the City does have existing bicycle parking, styles are inverted-U racks, wave racks, front-wheel support racks, and bicycle lockers. The inverted-U rack supports bicycles well, is easy to lock using a variety of locks, and works well for bicyclists for short-term parking in commercial areas, including Downtown and in shopping areas. Wave racks are less desirable, as they do not fully support the bicycle frame. Front-wheel support racks do not support the frame of the bicycle, and often cause the front wheel of the bicycle to bend. These are often found in schools, and will be upgraded as part of the SRTS programs.

There are eight bicycle lockers and two wave racks (which accommodate three bicycles each) available at the Larry Zarian Transportation Center, where the Metrolink, Amtrak and Greyhound have stops.



Inverted U-rack near Glendale City Hall

The Civic Center plaza has six lockers, six inverted-U racks, and two wave racks available for employees and visitors.

Glendale Water and Power Public Service Yard has six lockers available. The Public Works Yard: Integrated Waste Management has eight lockers available.

Several provisions in the City's municipal code require bicycle parking. First, the City requires bicycle parking in the Downtown Specific Plan Area for developments of a certain size. The requirement is one bicycle parking space per 20 dwelling units. Second, in compliance with the state mandated Congestion Management Program, the City of Glendale has developed and implemented the Transportation Demand Management ("TDM") Ordinance - TDM Ordinance No. 5,008 on March 2, 1993. The City is responsible for the on-going implementation of the TDM Ordinance.

Section 30-3503-C of this ordinance requires:

Bicycle racks or other secure bicycle parking shall be provided to accommodate four (4) bicycles per the first 50,000 gross square feet of non-residential development and one bicycle per each additional 50,000 gross square feet of non-residential development.

Offices and businesses can request bicycle parking from the City or provide it on site at their own expense, but there is currently no organized system or other requirements for bicycle parking.

Map 5-2 shows existing bicycle parking.

Bicycle Amenities

The City of Glendale currently does not have public showers or clothing lockers for commuters to use. Some private office buildings have such amenities; however, many people who bicycle to work have no place to shower and change. The City of Glendale has a ridesharing program for the City's employees which offers shower facilities and lockers.

The City's municipal code currently does not require the provision of bicycle amenities for any type of development anywhere in Glendale.

Links to Other Transportation Modes

The Larry Zarian Transportation Center (TC), is an Amtrak and Metrolink rail station located at 400 West Cerritos Avenue. The TC serves as a central transportation hub for Amtrak, Metrolink, Greyhound, Metro, and Glendale Beeline service. Ten Pacific Surfliner trains serve the station daily and 54 Metrolink trains serve the station each weekday. The Antelope Valley Line also stops at the TC on Saturdays. There are currently no designated bikeways to the Center.

Glendale is otherwise served by bus services and dial-a-ride. The Los Angeles County Metropolitan Transportation Authority (Metro) provides bus service within the City. The Glendale Beeline operates eight local fixed-route bus routes and two



Wave rack at Glendale Transportation Center

Metrolink express routes. The Beeline's service extends to La Cañada-Flintridge, Montrose and La Crescenta. All Metro and Glendale Beeline buses have racks that hold two bicycles.

Currently, there are eight bicycle lockers and two wave racks provided at the Transportation Center. Other short-term inverted U-racks are available at scattered bus stops throughout Glendale.

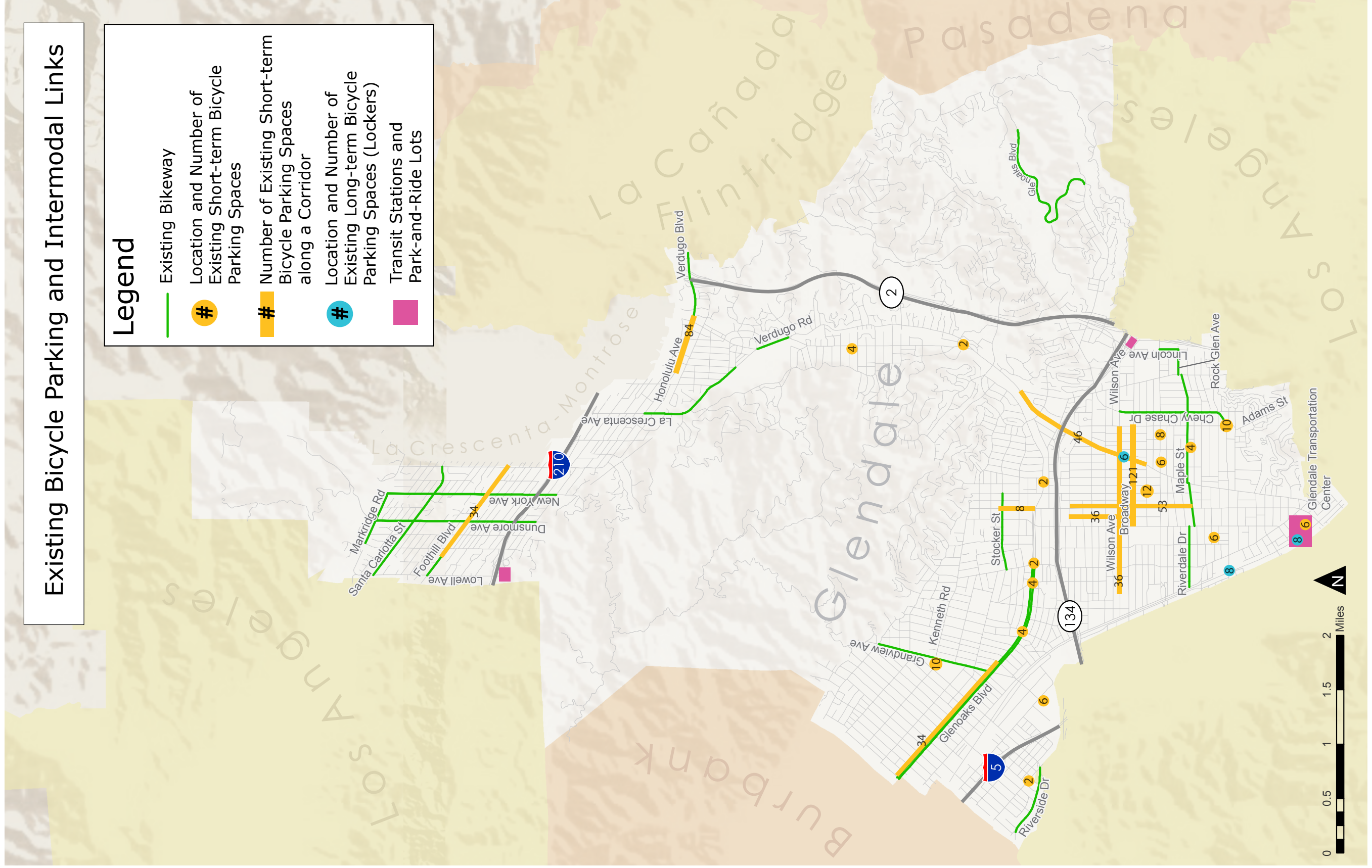
Metrolink commuter trains provide two bicycle racks in each car. If the racks are full, bicyclists must try another car or wait for the next train. As a pilot project, Metrolink increased bicycle parking in several of its cars to accommodate up to 18 bicycles. Metrolink will study whether to keep or expand this program, depending upon its success.

There are three "park and ride" lots in Glendale, free of charge to users. They are located at the TC, 1533 Wilson Avenue, and 3930 Lowell Avenue. There are no designated bikeways to any of these park and ride lots, and no bicycle parking available at the Wilson and Lowell lots.

Map 5-2 shows existing Intermodal Links.

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MAP 5-2: EXISTING BICYCLE PARKING AND INTERMODAL LINKS



Existing Bicycle Parking and Intermodal Links

Legend

- Existing Bikeway
- # Location and Number of Existing Short-term Bicycle Parking Spaces
- # Number of Existing Short-term Bicycle Parking Spaces along a Corridor
- # Location and Number of Existing Long-term Bicycle Parking Spaces (Lockers)
- Transit Stations and Park-and-Ride Lots

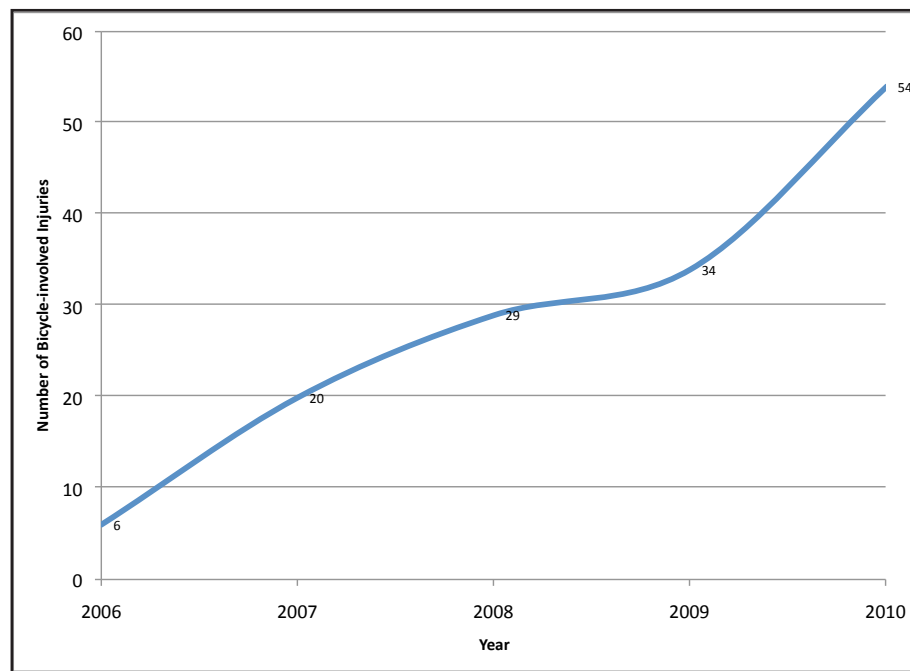


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Crash Analysis

Glendale Police Department records show that between September 1, 2006 and November 30, 2010, 155 bicycle-involved crashes occurred in Glendale, resulting in 143 injuries and zero deaths. The 2005 to 2009 Census American Community Survey (ACS) 5-year estimates show 526 out of 91,892 Glendale workers age 16 and over commute by bicycle, which is approximately 0.5% of the commuting population.

CHART 5-1: BICYCLE CRASH ANALYSIS



As shown in the chart above, injuries due to bicycle-involved crashes have risen since 2006. This could be due to an increase in the overall number of cyclists in Glendale. ACS data does not capture recreational bicyclists or many of the utilitarian cyclists that bicycle for short-trips and errands. Glendale Safe and Healthy Streets performed a bicycle count at 24 locations throughout Glendale in September 2009. Volunteers counted 360 bicyclists during the weekday morning peak-hour, 534 bicyclists during the weekday evening peak-hour, and 855 bicyclists during the weekend mid-day peak hour. This recent count data implies that the number of bicyclists in Glendale is much higher than the 526 commuters captured by ACS data. Continued counts will be needed to substantiate whether the increase in crashes is due to an increase in cyclists.

A great number of injuries occurred when both parties (bicyclists and automobile) were travelling straight. An equal number of injuries occurred when bicyclists were travelling straight and the car was turning right. The table below summarizes the most common crash types.

TABLE 5-3: NUMBER OF BICYCLE-INVOLVED CRASHES WITH INJURY BY MOVEMENT

Car Movement	Straight	Right-turn	Left-turn	Entering Traffic
Bike Movement				
Straight	30	30	17	7
Right-turn	1	0	0	0
Left-turn	1	0	2	0
Entering Traffic	9	1	0	0

According to the police report data, half (77) of the injuries were crashes where the bicyclist was at fault. Most of the instances where the bicyclist was at fault occurred when both parties were traveling straight (19 injuries). Sixteen injuries where the bicyclist was at fault occurred when the bicyclist was traveling straight and an automobile was making a right-turn. In addition, 52 of the 143 injuries (36%) were caused by the bicyclist violating the automobile's right-of-way. Another 18 injuries (12%) occurred when the bicyclist was riding on the wrong side of the road.

According to police report data, when automobiles have been at fault, the most typical crashes occurred during turning movements. Fifteen injuries resulted from cars turning left, and another fourteen resulted from cars turning right, both when the bicyclist was travelling straight.

Fifty-four injuries (38%) occurred in the intersection.

The most common collision type was the broadside — over 63% of injuries were broadside collisions. The second-most common collision type was the sideswipe, with about 16% of injuries resulting from this type.

This data indicates that intersections and turning movements are the most problematic for bicyclists. Special consideration should be given to alert motorists to bicyclists' presence at the intersections to prevent turning movement crashes.

Bicycle Counts

The City of Glendale collaborated with the Los Angeles County Bicycle Coalition and the Los Angeles County Department of Public Health to conduct bicycle and pedestrian counts at 26 locations throughout the City in 2009 and 2010. These counts helped inform the City as to where bikeways and additional bicycle facilities are needed. The counts also give a better sense of modal split, as well as peak travel hours for bicyclists.

The locations with the highest volume of bicyclists in 2010, in order by volume, are the following:

1. Flower Street and Sonora Avenue
2. Verdugo Road and Mountain Street
3. Glenoaks Boulevard and Grandview Avenue
4. Cañada Boulevard and Verdugo Road
5. San Fernando Road and Los Feliz Road

In 2009 and 2010, Flower Street and Sonora Avenue had the highest volume of bicyclists. Many of the areas where bicyclists travel also have high traffic volumes. The following table shows count locations, volume of bicyclists in 2010, and corresponding traffic volumes. Many locations with high bicycle counts also have high average daily traffic (ADT) volumes. Table 5-4 shows count locations, corresponding bicycle counts, and ADTs for the corresponding streets at that location (if available).

TABLE 5-4: 2010 BICYCLE COUNTS AND 2005 AVERAGE DAILY TRAFFIC VOLUMES

Intersection (Street 1 and Street 2)	Bicyclists (2010)	Existing ADT (Street 1 and Street 2)
Brand Blvd. and Broadway	112	26,900 and 28,400
Brand Blvd. and Chevy Chase Dr.	92	32,100 and 17,900
Broadview Dr. and Oceanview Blvd. (2009 count only)	9 (2009 only)	6,100 and 21,800
Cañada Blvd. and Verdugo Rd.	122	21,900 and 26,600
Central Ave. and Americana Way (2010 count only)	46	35,000 and n/a
Central Ave. and Stocker St.	14	20,900 and 8,700
Colorado St. and Lincoln Ave.	60	21,400 and n/a
Columbus Ave. and Riverdale Dr.	37	6,000 and n/a
Concord St. and Doran St.	26	12,900 and 15,400
Concord St. and Glenwood Rd. (Hoover High School)	18	6,300 and 7,900

Intersection (Street 1 and Street 2)	Bicyclists (2010)	Existing ADT (Street 1 and Street 2)
Flower St. and Sonora Ave.	299	10,400 and 21,700
Foothill Blvd. and Pennsylvania Ave.	71	19,420 and 24,400
Glendale Ave. and Maple St.	67	29,700 and 13,400
Glendale Ave. and Wilson Ave.	92	39,600 and 19,100
Glenoaks Blvd. and Chevy Chase Dr.	90	6,900 and 15,700
Glenoaks Blvd. and Grandview Ave.	129	38,100 and 9,100
Glenoaks Blvd. and Louise St.	65	18,800 and 11,500
Honolulu Ave. and La Crescenta Ave.	108	10,600 and 12,900
Honolulu Ave. and Oceanview Blvd.	68	12,000 and 21,800
Honolulu Ave. and Verdugo Rd.	88	9,200 and 16,000
Jackson St. and California Ave.	24	7,100 and 9,400
Kenneth Rd. and Sonora Ave.	93	10,700 and 9,000
Louise St. and Wilson Ave.	43	7,700 and 15,100
Maple St. and Chevy Chase Dr.	56	4,900 and 12,700
San Fernando Rd. and Los Feliz Rd.	118	28,200 and 26,900
Verdugo Rd. and Harvard St. (Glendale High School)	21	14,700 and 1,700
Verdugo Rd. and Mountain St.	135	55,700 and 30,400

Programs and Promotion

Glendale supports a number of efforts to provide safety education and to promote bicycling. The City recently created a Safety Committee, which is a joint task force between Public Works Traffic and Transportation, Glendale Police Department, Glendale Unified School District, and others. This group assists with the coordination of many of these activities. The following are examples of ongoing programs throughout the City.

EDUCATION AND ENCOURAGEMENT

Safe Routes to School

Safe Routes to School (SRTS) is a program designed to encourage students to walk and bicycle to school instead of being driven by car. The City has applied and received funding for SRTS programs and infrastructure through state and federal safe routes funds. Glendale recently received both infrastructure and non-infrastructure funds in 2011. Glendale has significant momentum in the SRTS movement, including the Mayor's recent proclamation of October as "Walktober."

In addition, the City sponsored a Bicycle Safety Rodeo and Bike to School Day at a local elementary school to encourage and educate students on how to ride safely in the street.

All of Glendale's elementary school participated in International Walk to School Day on October 5, 2011.

Mayor's Ride

Mayor Laura Friedman led a Mayor's bicycle ride in Glendale on Sunday, September 25, 2011. The Los Angeles County Bicycle Coalition partnered with the City to sponsor the ride. The Mayor led the casual ride all over Glendale to increase bicycle awareness as well as encourage physical activity.

Glendale History Ride

The Los Angeles County Bicycle Coalition, Glendale Historical Society, and City of Glendale Community Services and Parks Department sponsored the Glendale History Ride on August 13, 2011. The ride took participants through Glendale's streets to historical points of interests such as the Historic District, the Goode House, and Forest Lawn. Over 50 people participated in the ride.



Glendale City employee on Bike to Work Day, 2010.

“Bike-to-Work” Day

“Bike-to-Work” Day is promoted countywide by Metro and encourages people to try riding a bike to work at least once a week. The City held “Bike-to-Work” Day on May 20, 2010. The City in conjunction with the Los Angeles County Bicycle Coalition offered “pit stop” locations where cyclists could stop for a drink and snack as well as free bike items and coupons.

Glendale Bicycle Month

In April 2010, Mayor Ara Najarian declared May as “Bike Month” in the City of Glendale, and May 20, 2010 as the official “Bike-to-Work” day. The City held numerous activities in conjunction with the Los Angeles County Bicycle Coalition during Glendale Bike Month 2011. The various encouragement activities included “Bike-to-Work” Day with seven pit stops, bicycle raffle and other raffle prizes, and cyclist survey.

The Los Angeles County Bicycle Coalition also sponsored the Bike From Work Happy Hour, the Glendale Ice Cream Ride, and a Basic Bike Repair Workshop. The Los Angeles County Bicycle Coalition offered two basic bike repair workshops to educate participants on how to fix a flat tire, tips about essential gear repair, and how to check for brake wear and adjustment.

The Glendale Transportation Management Association hosted its second annual bicycle expo, which included participation of local bicycle shops and LACBC.



Glendale Ice Cream Ride panorama, 2011

Glendale Employee Ridesharing Program

The City of Glendale’s Employee Ridesharing Program offers a monetary incentive for all City employees that bike to work at least ten times per month and are enrolled in the program.

ENFORCEMENT

The Glendale Police Department enforces traffic laws as they pertain to motorists and bicyclists. The Police Department cites motorists that do not share the roadway with bicyclists, speeding motorists, unsafe drivers, unsafe bicycle riders, and motorists that obstruct bicycle lanes. The Police Department's efforts have helped increase awareness of bicycling and have likely helped reduce the number of bicycle-involved crashes.

EVALUATION

Bicyclist and Pedestrian Count

As described on page 5-14, the City in conjunction with LACBC held bicyclist and pedestrian counts in 2009 and 2010. Volunteers counted at 24 locations (with an additional two locations during the 2010 count) citywide. The information gathered will help the City to track biking and walking trends in Glendale, and to determine where needs might be. The counts should continue to inform bicycle improvements.



A volunteer counts bicyclists and pedestrians during the 2010 count.

6. PLANNED PROJECTS

To better accommodate and encourage bicycling in Glendale, the City plans the improvements outlined below. Projects include new bikeways, bicycle parking, links to transit, bicycle amenities, and programs.

Bikeways

The type of planned bicycle facility and treatment depends on the street or right-of-way width, land uses, and average daily traffic, among other factors. When exclusive right-of-way exists, bike paths are planned. Bike lanes are planned on streets that have enough width to accommodate them. Road diets are planned to create space for bike lanes on multi-lane streets on which traffic volumes could be accommodated with fewer lanes. Improvements to bike lanes are planned where enough space exists to widen bike lanes or stripe buffers. Colored bike lanes are planned to enhance the visibility of bike lanes on streets with high traffic volumes or speeds. Bike routes are planned on streets where network connectivity is needed, but insufficient space exists for bike lanes and/or where traffic volumes do not call for bike lanes. Bicycle routes can be distinguished in multiple ways including the use of signage, pavement markings such as sharrows, and experimental “B-type” sharrows.

Each recommendation below includes proposed bikeway type and width, as well as any additional changes that may be needed on the street to achieve the desired bikeway.

GUIDING ASSUMPTIONS

The following factors should be considered guidelines, and will be modified and interpreted as necessary for a given situation. The following series of general assumptions about travel lane widths, average daily traffic volumes, and other existing conditions provides the basis for the recommendations. The City will use its judgment if it chooses to plan additional bikeways in the future or modify the proposed bikeways due to engineering constraints. The City will also use appropriate experimental processes and guidelines when implementing devices such as bicycle boxes, pavement wayfinding signs, B-type sharrows, colored bike lanes, etc.

Lane Widths

- Minimum travel lane width of 10'
- Prefer 11' lanes next to a median, and prefer 11' curb lanes
- Minimum width of 10' for center-turn lane
- Minimum width of 7' for on-street parking where needed to fit in bike lanes
- Prefer 8' for on-street parking

Bikeway Type

- Minimum width of a bike lane is 5', but prefer to use 6' as the standard wherever possible
- If ideal bikeway fits with the existing roadway configuration using the assumed travel lane widths above, the roadway configuration will not change
- Where bike lanes do not fit, but network connectivity is necessary, Class III bike routes will be planned
- On roadways with on-street parking, painted sharrows will be planned along with the Class III designation
- On busier roadways or in downtown areas where there is on-street parking on both sides, more frequent and prominent "B-type" sharrows are planned along with the Class III designation (see page 8-10)
- Propose bike paths to create connections in the network along existing or potential rights-of-way such as waterways and rail lines
- California code appears to allow for up to a 2'-wide painted buffer where there is on-street parking, with no limit where there is no on-street parking
 - Buffers are painted between the travel lanes and bike lane and/or between on-street parking and striped bike lanes to provide extra comfort to the cyclist where roadway width permits
 - Any deviations will require approval from CTCDC
- Where average daily traffic (ADT) is high (above 15,000), in central areas of the city, at confusing intersections, and at appropriate freeway off and on-ramps, use colored bike lanes to ensure the bikeway is prominent to motorists
- Consider traffic circles to replace stop-controlled intersections to improve bicycle priority streets where appropriate
- Bikeways will not be planned on roads with front-in-angle parking without adequate width; to change the street to reverse-in-angle parking, the City will evaluate speed and ADT for implementation

Road Diets

- For installation of road diets on collectors, minor arterials, and major arterials, the following factors should be considered:
 - A road diet from 4 lanes to 2 lanes with center-turn lane can be considered with ADTs below 15,000
 - A road diet from 6 lanes to 4 lanes with center-turn lane can be considered with ADTs below 25,000
 - Posted speed limit(s)
 - Roadway geometry (horizontal and vertical curves)

-
- Frequency of major and minor intersections, including driveways
 - Density of the type of adjacent land uses (schools, housing)
 - Impact on Emergency Response and Transit services
 - School area pick-up and drop-off zones
 - Environmental review

Several of the preferred bikeways have been planned in two phases. Phase I is considered the interim phase. Phase II recommendations will require significant more outreach and potential council approval. Phase II bikeways are contingent upon treatments such as road diets and reverse-in-angle parking.

Glendale wishes to become a pioneer in its bicycle facilities, and plans to use the latest techniques in bikeway design. Two types of planned facilities — buffered and colored bike lanes — have interim approval from the Federal Highway Administration. Buffered bike lanes are legal in California if the buffer is placed outside of a bicycle lane where there is no on-street parking. If there is on-street parking, the City must go through experimental process with the California Traffic Control Device Committee (CTCDC). Colored bike lanes have interim approval from the CTCDC. The City will need to notify the state in order to implement colored bike lanes.

B-type sharrows will also have to go through the experimental process with the CTCDC. Sharrows on streets without on-street parking will also need to go through the experimental process.

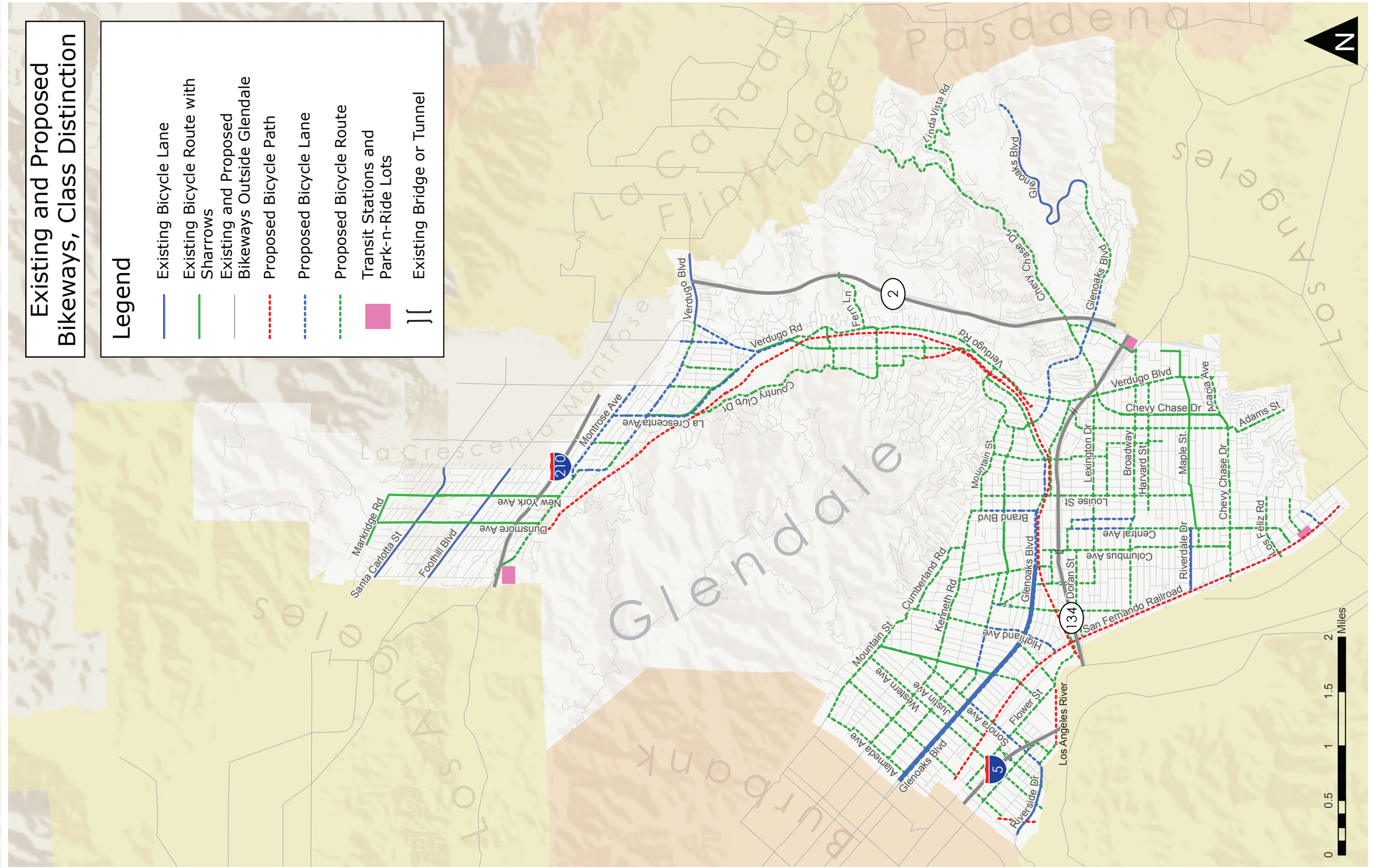
The City will consider installation and maintenance costs prior to implementation. B-type sharrows require more materials than other treatments, and will be implemented at key locations first to evaluate their cost-effectiveness.

Due to the additional cost to go through the experimental process, Glendale will choose to implement these innovative types at key locations.

Directional signage at bikeways that jog will be crucial to create a legible network. The City will explore experimental directional pavement markings and has created a wayfinding sign design that can be used for all Glendale bikeways.

This plan proposes 65 miles of Class III bike routes, most of which are enhanced, 20 miles of Class II bike lanes, and 14 miles of Class I bike paths. There are an additional 3 miles of improved streets for bicyclists that do not have a class designation. The following map shows the planned bikeways using the class designation. The tables in the following pages describe each section of each planned bikeway in detail.

MAP 6-1: EXISTING AND PROPOSED BIKEWAYS, CLASS DESIGNATIONS



Existing and Proposed Bikeways, Class Distinction

- Legend**
- Existing Bicycle Lane
 - Existing Bicycle Route with Sharrows
 - Existing and Proposed Bikeways Outside Glendale
 - - - Proposed Bicycle Path
 - - - Proposed Bicycle Lane
 - - - Proposed Bicycle Route
 - Transit Stations and Park-n-Ride Lots
 - || Existing Bridge or Tunnel

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Planned Bikeways

The following detailed tables order the bikeways based on geographic location. For ease of use, this index also provides an alphabetical list. The bikeway number used in the tables is shown in parentheses here.

Class I Bike Paths	6-8
(4) Glendale Narrows Riverwalk	6-9
(3) San Fernando Railroad	6-9
(1) Verdugo Wash	6-8
(2) Western Channel	6-9
Multipurpose Path	6-10
(1) Glendale Narrows Riverwalk	6-10
On-street Bikeways (Class II, III and other improvements)	6-11
West-East Routes	6-11
(18) Broadway	6-27
(17) California Avenue	6-27
(23) Cerritos Avenue	6-32
(21) Chevy Chase Drive	6-31
(16) Doran Street	6-25
(15) Fairmont Avenue Flyover	6-24
(4) Fern Lane	6-14
(12) Flower Street	6-22
(10) Glenoaks Boulevard	6-19
(11) Glenoaks Boulevard	6-20
(8) Glenwood Road	6-16
(9) Glenwood Road / Fifth Street	6-17
(3) Glorietta Avenue	6-14
(19) Harvard Street	6-29
(1) Honolulu Avenue	6-11
(7) Kenneth Road	6-16
(13) Lake Street	6-23
(22) Los Feliz Boulevard / Road	6-32
(2) Montrose Avenue / Honolulu Place	6-13
(6) Mountain Street	6-15
(5) Opechee Way	6-14
(14) Pioneer Drive	6-24
(20) Riverdale Drive	6-30

North-South Routes

6-33

(10) Alameda Avenue	6-43
(12) Allen Avenue	6-45
(23) Brand Boulevard	6-53
(8) Cañada Boulevard	6-41
(27) Cedar Street	6-54
(21) Central Avenue	6-52
(29) Chevy Chase Drive	6-56
(20) Columbus Avenue	6-51
(17) Concord Street	6-49
(25) Geneva Street	6-54
(26) Glendale Avenue	6-54
(15) Hazel Street	6-48
(16) Highland Avenue	6-48
(13) Justin Avenue	6-46
(18) Kenilworth Avenue	6-49
(2) La Crescenta Avenue	6-33
(4) Las Palmas Avenue	6-34
(24) Louise Street	6-53
(28) Monterey Road	6-55
(9) Mountain Street	6-42
(6) Oakmont View Drive	6-35
(5) Ocean View Boulevard	6-34
(22) Orange Street	6-52
(19) Pacific Avenue	6-50
(1) Ramsdell Avenue	6-33
(3) Roselawn Avenue / Rosemont Avenue	6-34
(14) Sonora Avenue	6-47
(7) Verdugo Road	6-38
(11) Western Avenue	6-44

Class I Bike Paths

(1) VERDUGO WASH	
EXISTING	<ul style="list-style-type: none"> • Channel with concrete sides • At San Fernando Rd. – terraced steps; water contained in mini-channel • At Country Club Dr. – higher sides to channel and water needs cleanup. Existing potential access point.
PROPOSED	<ul style="list-style-type: none"> • Commission further long-term feasibility study to create Class 1 bike path along channel or in channel • Will require experimentation • At San Fernando – create access point • At Country Club Dr. – create access point. Need fence for golf balls and keeping people out of club. • At Crescenta Park – create access point.



Verdugo Wash / Los Angeles River Confluence

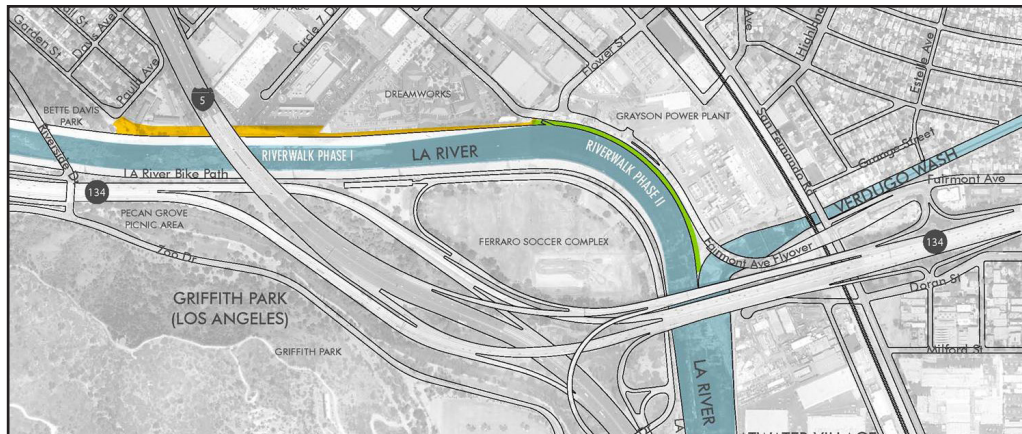
The Verdugo Wash is a channelized wash with concrete sides. Planning a bicycle and pedestrian facility along the Wash will require a special study, as the only options are to provide facilities at the bottom of the wash, alongside the water, or to cap the Wash. Right-of-way does not exist alongside the wash to build a continuous path. Few jurisdictions in the United States have experimented with channelized concrete washes. International

examples, such as the linear park along the Cheonggyecheon River in Seoul, South Korea can serve as prototype examples for this type of development. The picture to the right is typical of the recently redeveloped Cheonggyecheon. This concept will require extensive collaboration and coordination with multiple governmental agencies to receive approval, including but not limited to the Army Corps of Engineers, Los Angeles County Flood Control, California Fish and Game, and City of Los Angeles.



Linear Park, Cheonggyecheon River, Seoul, South Korea

(2) WESTERN CHANNEL			
EXISTING	<ul style="list-style-type: none"> Channel that runs from north Glendale and meets the Los Angeles River 	PROPOSED	<ul style="list-style-type: none"> Commission further feasibility study to create Class I bike path along or inside channel
(3) SAN FERNANDO RAILROAD			
EXISTING	<ul style="list-style-type: none"> Railroad along San Fernando Road (officially Metrolink Valley Subdivision railroad right-of-way) Bike path commissioned by other jurisdictions as well 	PROPOSED	<ul style="list-style-type: none"> Coordinate with Los Angeles Metro and Southern California Regional Rail Authority (SCRRA) to discuss potential Class 1 bike path along railroad right-of-way
(4) GLENDALE NARROWS RIVERWALK			
EXISTING	<ul style="list-style-type: none"> North side of Los Angeles River 	PROPOSED	<ul style="list-style-type: none"> Add Class 1 bike path and pedestrian path along north side of Los Angeles River from Garden St. / Paula Ave. to Flower St.



Draft preliminary concepts for Glendale Narrows Riverwalk Project
 Photo Credit: City of Glendale, Community Services and Parks

MULTIPURPOSE PATH

A multipurpose path is a multi-use path for pedestrians and bicyclists that does not meet the minimum requirements to be designated as a Class I bike path. This section of the Glendale Narrows Riverwalk is too narrow to accommodate a Class I bike path, but will allow bicyclists.

(1) GLENDALE NARROWS RIVERWALK			
EXISTING	<ul style="list-style-type: none"> North side of Los Angeles River 	PROPOSED	<ul style="list-style-type: none"> Add multipurpose bicycle and pedestrian path along north side of Los Angeles River from Flower St. to Verdugo Wash / Los Angeles River confluence (near Fairmont Ave. Flyover)

BRIDGE CONCEPTS

The City of Glendale plans to build a bridge over the Los Angeles River to connect Glendale to the Los Angeles River bicycle path and Griffith Park. Bridge concepts are in early conceptual phases, and there are currently six locations being studied between Garden Street and CA-134. The primary first contender is a bridge at Fairmont Avenue, just north of CA-134. This bridge would come off of Fairmont Avenue, just north of the Fairmont Avenue Flyover, to connect to the Los Angeles River Bicycle Path and then into Griffith Park. The second front contender is a two-stage bridge, just south of Fairmont Avenue and the Verdugo Wash, that would cross over the confluence of the Verdugo Wash and Los Angeles River.

Further studies and evaluation are needed before a final location can be chosen.

On-street Bikeways (Class II, III and other improvements)

WEST-EAST ROUTES

(1) HONOLULU AVENUE			
FROM:	Lowell Ave. (Glendale City Limit)		
TO:	Boston Ave.		
EXISTING	<ul style="list-style-type: none"> • 6 lanes with center-turn lane and on-street parking • CA-210 freeway off-ramp heading toward Lowell Ave. • No parking through underpass • 112' wide east of Lowell 	PROPOSED	<ul style="list-style-type: none"> • Phase 1: Add bike route with sharrows • Phase 2: Add colored 6' to 7' bike lanes (subject to engineering)
FROM:	Boston Ave.		
TO:	Pennsylvania Ave.		
EXISTING	<ul style="list-style-type: none"> • 4 lanes with on-street parking • 60' wide 	PROPOSED	<ul style="list-style-type: none"> • Phase 1: Add bike route with sharrows • Phase 2: Create a road diet with 2 lanes, on-street parking and center-turn lane; add 6' bike lanes
PENNSYLVANIA AVENUE			
FROM:	Montrose Ave.		
TO:	Honolulu Ave.		
EXISTING	<ul style="list-style-type: none"> • 4 lanes with on-street parking • 64' to 84' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike lanes

HONOLULU AVENUE			
FROM:	Pennsylvania Ave.		
TO:	Ramsdell Ave.		
EXISTING	<ul style="list-style-type: none"> Majority 4 lanes with on-street parking (64' wide) Parts have center-turn lane (72' wide) Forced left at Pennsylvania Ave. to continue on Honolulu Ave 	PROPOSED	<ul style="list-style-type: none"> Phase 1: Add bike route with sharrows Phase 2: Create a road diet with 2 lanes, on-street parking, and center-turn lane; add 6' bike lanes
FROM:	Ramsdell Ave.		
TO:	Orangedale Ave.		
EXISTING	<ul style="list-style-type: none"> Majority 4 lanes with on-street parking (64' wide) 	PROPOSED	<ul style="list-style-type: none"> Create a road diet with 2 lanes, on-street parking, and center-turn lane; add 6' bike lanes Council approved pilot project
FROM:	Orangedale Ave.		
TO:	Verdugo Rd.		
EXISTING	<ul style="list-style-type: none"> 2 lanes with on-street parking Parking is diagonal head-in and parallel Calm street with pedestrian activity, restaurants, and retail 60' wide 	PROPOSED	<ul style="list-style-type: none"> Add bike route with sharrows
VERDUGO BOULEVARD			
FROM:	Verdugo Rd.		
TO:	Eastern city limit (La Tour Way)		
EXISTING	<ul style="list-style-type: none"> 4 lanes with center-turn lane, on-street parking, 5' bike lanes 84' wide 	PROPOSED	<ul style="list-style-type: none"> Widen existing bike lanes to 6' with painted buffer Design special bike lane treatment through freeway on- and off-ramps

(2) MONTROSE AVENUE / HONOLULU PLACE			
FROM:	Honolulu Ave.		
TO:	Pennsylvania Ave.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 60' wide • Honolulu Pl. ends at Honolulu Ave. 	PROPOSED	<ul style="list-style-type: none"> • Add wide bike lanes
FROM:	Pennsylvania Ave.		
TO:	La Crescenta Ave.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with center turn lane and diagonal head-in parking on both sides • 74' wide 	PROPOSED	<ul style="list-style-type: none"> • Pilot project • Change to diagonal reverse-in parking • Stripe 16' parking lane • Add 6' bike lanes
FROM:	La Crescenta Ave.		
TO:	Rosemont Ave.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with center-turn lane and diagonal head-in parking on eastbound side only • Parallel parking on westbound side • 63' wide 	PROPOSED	<ul style="list-style-type: none"> • Pilot project • Change to diagonal reverse-in parking • Stripe 16' parking lane • Add 6' bike lanes

(3) GLORIETTA AVENUE			
FROM:	Hermosita Dr.		
TO:	Verdugo Rd.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 30' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows

(4) FERN LANE			
FROM:	Verdugo Blvd.		
TO:	Glendale Sports Complex		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 44' wide • No parking between Delisle Ct. and Sports Complex • Chicanes and mini-circle at Las Positas Rd. • Dead ends at sports complex 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows

(5) OPECHEE WAY			
FROM:	Hermosita Dr.		
TO:	Verdugo Rd.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 36' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows

(6) MOUNTAIN STREET			
FROM:		Grandview Ave.	
TO:		Highland Ave.	
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 26' to 30' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows
HIGHLAND AVENUE			
FROM:		Mountain St.	
TO:		Cumberland Rd.	
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 36' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows
CUMBERLAND ROAD			
FROM:		Highland Ave.	
TO:		Valley View Rd.	
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 30' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows
VALLEY VIEW ROAD			
FROM:		Cumberland Rd.	
TO:		Kenneth Rd.	
EXISTING	<ul style="list-style-type: none"> • 1 lane, no center marking • 18' wide 	PROPOSED	<ul style="list-style-type: none"> • Add signed bike route and directional signage

(7) KENNETH ROAD			
FROM:	Alameda Ave.		
TO:	Brand Blvd.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 36' wide • Cyclists already use this route 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows • Add directional signage to direct people between Kenneth Rd. and Mountain St. on Brand Blvd. • Add mini-circles
BRAND BOULEVARD			
FROM:	Kenneth Rd.		
TO:	Mountain St.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking both sides • Center median • 50' wide 	PROPOSED	<ul style="list-style-type: none"> • Add directional signage from Kenneth Rd. to turn right on Brand Blvd. to reach Mountain St. bike route • Add bike route with sharrows
MOUNTAIN STREET			
FROM:	Brand Blvd.		
TO:	N. Verdugo Blvd.		
EXISTING	<ul style="list-style-type: none"> • Nibly Park and Glendale Community College access • Currently used by cyclists • 2 lanes with on-street parking both sides • 36' to 42' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows
(8) GLENWOOD ROAD			
FROM:	Alameda Ave.		
TO:	Grandview Ave.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 37' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows

(9) GLENWOOD ROAD / FIFTH STREET			
FROM: Sonora Ave.			
TO: Grandview Ave.			
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking both sides • No center marking • 36' wide • West of Grandview Ave. becomes Fifth St. 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows • Replace some stop-controlled intersections with mini-circles
FROM: Grandview Ave.			
TO: Virginia Ave.			
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking both sides • 45' wide • Glenwood Rd. begins east of Grandview Ave. 	PROPOSED	<ul style="list-style-type: none"> • Add 5.5' bike lanes • Replace some stop-controlled intersections with mini-circles
FROM: Virginia Ave.			
TO: Concord St.			
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking both sides • Center median • 21' wide to median each side 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows • Replace some stop-controlled intersections with mini-circles
FROM: Concord St.			
TO: Pacific Ave.			
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking both sides • 36' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows • Replace some stop-controlled intersections with mini-circles

CONCORD STREET			
FROM:	Glenwood Rd.		
TO:	Stocker St.		
EXISTING	<ul style="list-style-type: none"> One-way street with two lanes southbound, on-street parking on the east side only, and drop-off lane 36' wide 	PROPOSED	<ul style="list-style-type: none"> Remove parking Add 6'-wide protected, northbound contraflow colored bike lane on east side of street Separate contraflow lane with double yellow lines or chevroned buffer, and consider pylons
STOCKER STREET			
FROM:	Concord St.		
TO:	Rossmoyne Ave.		
EXISTING	<ul style="list-style-type: none"> Class III bike route with sharrows west of Louise St. to Pacific Ave. 2 lanes with on-street parking 36' wide from Rossmoyne Ave. to Louise St. 40' wide west of Louise St. Sharrows too close to curb and too far apart 	PROPOSED	<ul style="list-style-type: none"> Add bike route with sharrows Replace some stop-controlled intersections with mini-circles
ROSSMOYNE AVENUE			
FROM:	Mountain St.		
TO:	Dryden St.		
EXISTING	<ul style="list-style-type: none"> 2 lanes with on-street parking No center marking 31' wide 	PROPOSED	<ul style="list-style-type: none"> Add bike route with sharrows Replace some stop-controlled intersections with mini-circles
FROM:	Dryden St.		
TO:	Glenoaks Blvd.		
EXISTING	<ul style="list-style-type: none"> 2 lanes with on-street parking 36' wide 	PROPOSED	<ul style="list-style-type: none"> Add bike route with sharrows Replace some stop-controlled intersections with mini-circles

(10) GLENOAKS BOULEVARD

FROM:	Alameda Ave.		
TO:	Highland Ave.		
EXISTING	<ul style="list-style-type: none"> • 5' bike lanes on both sides • 6 lanes, center median, on-street parking • 47' wide to median 	PROPOSED	<ul style="list-style-type: none"> • Widen bike lane on both sides to 6' with painted hatched buffer • Option: Add 7' bike lane without painted hatched buffer
FROM:	Highland Ave.		
TO:	Pacific Ave.		
EXISTING	<ul style="list-style-type: none"> • 6 lanes, on-street parking both sides, center median • 5' bike lane • 50' wide to median 	PROPOSED	<ul style="list-style-type: none"> • Widen bike lane on both sides to 6' with painted hatched buffer • Option: Add 7' bike lane without painted hatched buffer
FROM:	Pacific Ave.		
TO:	Brand Blvd.		
EXISTING	<ul style="list-style-type: none"> • 6 lanes with center-median • 38' to 40' wide to the median • No on-street parking • 13' curb lane eastbound side • 14' curb lane east of Central Ave. 	PROPOSED	<ul style="list-style-type: none"> • Add 6' to 7' bike lane • Eastbound direction between Pacific Ave. and Central Ave. is 33' and will require sharrows • Accommodate bike lanes between Pacific Ave. and Central Ave. with new development • Add multipurpose path on south side of Glenoaks Blvd. along Verdugo Wash from Pacific Ave. to Central Ave.
FROM:	Brand Blvd.		
TO:	Louise St.		
EXISTING	<ul style="list-style-type: none"> • 4 lanes with parking on westbound side only • 56' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with B-type sharrows
FROM:	Louise St.		
TO:	Geneva St.		
EXISTING	<ul style="list-style-type: none"> • 4 lanes with on-street parking both sides • 60' wide 	PROPOSED	<ul style="list-style-type: none"> • Create a road diet with 2 lanes, on-street parking and center-turn lane • Add 6'-wide bike lanes

(10) GLENOAKS BOULEVARD			
FROM:	Geneva St.		
TO:	Ethel St.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking both sides • 36' wide • Used currently by numerous cyclists • Poor pavement conditions 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows
ETHEL STREET			
FROM:	Glenoaks Blvd.		
TO:	Mountain St.		
EXISTING	<ul style="list-style-type: none"> • No existing bikeway designation • 2 lanes with on-street parking both sides • 30' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows
(11) GLENOAKS BOULEVARD			
FROM:	Ethel St.		
TO:	Glendale Ave.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes eastbound with no on-street parking • 1 lane westbound with no parking mid-block • 56' wide • Bridge crossing 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows
FROM:	Glendale Ave.		
TO:	Avonoak Terrace		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with center-turn lane and on-street parking • 56' wide 	PROPOSED	<ul style="list-style-type: none"> • Stripe 7' parking lanes • Add 6' bike lanes

(11) GLENOAKS BOULEVARD

FROM: Avonoak Terrace

TO: Chevy Chase Dr.

EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 45' wide 	PROPOSED	<ul style="list-style-type: none"> • Stripe 7' parking lanes • Add 5' bike lanes • Evaluate grade
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FROM: Chevy Chase Dr.

TO: Mt. Carmel Dr.

EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 46' wide 	PROPOSED	<ul style="list-style-type: none"> • Add 6' bike lanes (7' parking lanes, 10' travel lanes)
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FROM: Mt. Carmel Dr.

TO: Scholl Dr.

EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking and center-turn lane • 46' wide 	PROPOSED	<ul style="list-style-type: none"> • Remove center turn lane • Add 6' bike lanes (7' parking lanes, 10' travel lanes)
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FROM: Scholl Dr.

TO: Scholl Canyon Park Entrance

EXISTING	<ul style="list-style-type: none"> • 40' wide west of Scholl Canyon Park entrance • 2 lanes with on street parking • Narrow 4' painted median 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows • Remove 4' painted median
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FROM: Scholl Canyon Park Entrance

TO: End of road at Scholl Tennis Courts

EXISTING	<ul style="list-style-type: none"> • 2 lanes with parking only from 6 a.m. to 10:30 p.m. • 6' painted lines, no bike lane stencil • 40' wide 	PROPOSED	<ul style="list-style-type: none"> • Add stencil and sign to existing stripes to create bike lane
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(12) FLOWER STREET			
FROM:	Allen Ave.		
TO:	Western Ave.		
EXISTING	<ul style="list-style-type: none"> • 4 lanes with center-turn lane • 56' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows
FROM:	Western Ave.		
TO:	San Fernando Rd.		
EXISTING	<ul style="list-style-type: none"> • Majority 4 lanes with on-street parking • 56' to 65' wide • From Ruberta Ave. to Western Ave., 100' wide with 2 lanes westbound, 3 lanes eastbound, and center turn lane • LA River Access at Flower St. curve near Dreamworks Animation • Northbound bicyclists are forced right onto San Fernando Rd. 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows

(13) LAKE STREET			
FROM:	Western City Limit		
TO:	Sonora Ave.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with parking • 41' wide • Connects to proposed bike lane in Burbank 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows
FROM:	Sonora Ave.		
TO:	Davis Ave.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with parking on northbound side only • 28' to 40' wide • Tunnel underneath I-5 that connects to Flower St. via Hazel St./Cosmic Way 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows • Clean and maintain tunnel
DAVIS AVENUE			
FROM:	Lake St.		
TO:	Garden St.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows
GARDEN STREET			
FROM:	Sonora Ave.		
TO:	LA River		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 25' wide paved with an additional 10' unpaved to fence for total of 35' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows if northern side of LA river bike path is built

(14) PIONEER DRIVE			
FROM:	Columbus Ave.		
TO:	Central Ave.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 40' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows
DORAN STREET			
FROM:	Central Ave.		
TO:	Orange St.		
EXISTING	<ul style="list-style-type: none"> • 4 lanes 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows
(15) FAIRMONT AVENUE FLYOVER			
FROM:	Flower St.		
TO:	Concord St.		
EXISTING	<ul style="list-style-type: none"> • 4 lanes with shoulder • Bicycles and autos only 	PROPOSED	<ul style="list-style-type: none"> • Add B-type sharrows

(16) DORAN STREET			
FROM: San Fernando Rd.			
TO: Chester St.			
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking and center-turn lane east of CA-134 on-ramp • 4 lanes with center-turn and no on-street parking west of CA-134 on-ramp • 64' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows from San Fernando Rd. to mid-block San Fernando Rd. / Commercial St; and from Concord St. to Chester St. • Add colored bike lane from mid-block San Fernando Rd. / Commercial St. to Concord St. • From mid-block San Fernando Rd. / Commercial St to CA-134 on- and off-ramps, add bike lanes in eastbound direction between right turn only and through lane at freeway on-ramp light • Potential access to the river west of San Fernando at the end of Doran St.
FROM: Chester St.			
TO: Columbus Ave.			
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 39' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows

LEXINGTON DRIVE			
FROM:	Kenilworth Ave.		
TO:	Pacific Ave.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • No center marking • 30' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows • Add traffic calming treatment • Replace some stop-controlled intersections with mini-circles
FROM:	Pacific Ave.		
TO:	Central Ave.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 40' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows • Add traffic calming treatment • Replace some stop-controlled intersections with mini-circles
FROM:	Central Ave.		
TO:	Orange St.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 37' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows • Add traffic calming treatment • Replace some stop-controlled intersections with mini-circles
FROM:	Orange St.		
TO:	Maryland Ave.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • No parking westbound from Orange St. to Maryland Ave. • No parking eastbound from Orange to Brand Blvd. • 40' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows • Add traffic calming treatment • Replace some stop-controlled intersections with mini-circles
FROM:	Maryland Ave.		
TO:	Verdugo Rd.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 36' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows • Add traffic calming treatment • Replace some stop-controlled intersections with mini-circles

(17) CALIFORNIA AVENUE			
FROM:	Louise St.		
TO:	Cedar St.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 42' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows

(18) BROADWAY			
FROM:	San Fernando Rd.		
TO:	Harvey Dr.		
EXISTING	<ul style="list-style-type: none"> • 4 lanes with on-street parking • 56' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with B-type sharrows • Make priority street for roundabouts for traffic signals
FROM:	Harvey Dr.		
TO:	Eastern City Limit		
EXISTING	<ul style="list-style-type: none"> • 4 lanes with center-turn lane and on-street parking 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with B-type sharrows

HARVEY DRIVE			
FROM:	Chevy Chase Dr.		
TO:	Holly Dr.		
EXISTING	<ul style="list-style-type: none"> 4 lanes with on-street parking on southbound side only 64' wide 	PROPOSED	<ul style="list-style-type: none"> Add bike route with sharrows
FROM:	Holly Dr.		
TO:	Wilson Terrace.		
EXISTING	<ul style="list-style-type: none"> 6 lanes with no parking 64' wide Left-hand turn pockets 	PROPOSED	<ul style="list-style-type: none"> Add bike route with sharrows
FROM:	Wilson Terrace		
TO:	CA-134 W on-ramps		
EXISTING	<ul style="list-style-type: none"> 4 lanes with no parking Left-hand turn pocket northbound Right-hand turn pocket southbound 64' wide 	PROPOSED	<ul style="list-style-type: none"> Add bike route with sharrows
FROM:	CA-134 W on-ramps		
TO:	CA-134 E on-ramps		
EXISTING	<ul style="list-style-type: none"> 4 lanes with no parking Center turn pockets 65' wide 	PROPOSED	<ul style="list-style-type: none"> Add bike route with sharrows
FROM:	CA-134 E on-ramps		
TO:	Wilson Ave.		
EXISTING	<ul style="list-style-type: none"> 6 lanes with no on-street parking Includes left-hand turn lane southbound; 2 right-turn lanes northbound 64' wide 	PROPOSED	<ul style="list-style-type: none"> Add bike route with sharrows

(19) HARVARD STREET			
FROM: Central Ave.			
TO: Louise St.			
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking and center-turn lane • Dead-ends at Americana • Traffic signal at Brand Blvd., Maryland Ave. 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows • Add traffic calming treatment • Replace some stop-controlled intersections with mini-circles
FROM: Louise St.			
TO: Glendale Ave.			
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 49' wide • Traffic signal at Louise St. 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows • Add traffic calming treatment • Replace some stop-controlled intersections with mini-circles
FROM: Glendale Ave.			
TO: Verdugo Rd.			
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 36' wide • Dead ends at Glendale High School • Traffic signal at Glendale Ave., Chevy Chase Dr., Verdugo Rd. 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows • Add traffic calming treatment • Replace some stop-controlled intersections with mini-circles

(20) RIVERDALE DRIVE			
FROM:	San Fernando Rd.		
TO:	Central Ave.		
EXISTING	<ul style="list-style-type: none"> Existing bike lane striped Very narrow bike lane (only 4' wide within painted stripes) 2 lanes with on-street parking, some parking diagonal head-in Park, library, school, and community center access Road dead-ends at San Fernando Road dead-ends at Central Avenue with no signalized intersection to turn left 48' wide 	PROPOSED	<ul style="list-style-type: none"> Change diagonal head-in parking to reverse-in parking Widen bike lanes to 6' where there is no angled parking Replace bike lane with sharrows where there is angled parking Remove stop signs at traffic circle at Columbus Ave.

(21) CHEVY CHASE DRIVE

FROM: Alger St. (Los Angeles)

TO: San Fernando Rd.

EXISTING	<ul style="list-style-type: none"> • 4 lanes with on-street parking • 54' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with B-type sharrows
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FROM: San Fernando Rd.

TO: Central Ave.

EXISTING	<ul style="list-style-type: none"> • 4 lanes with on-street parking • 54' wide • No parking on north side 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with B-type sharrows
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FROM: Central Ave.

TO: Acacia Ave.

EXISTING	<ul style="list-style-type: none"> • 4 lanes with on-street parking • 56' to 64' wide • Center turn lane from Acacia Ave. to Garfield Ave. 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with B-type sharrows
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E. ACACIA AVE.

FROM: E. Chevy Chase Dr.

TO: S. Verdugo Rd.

EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 40' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows
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(22) LOS FELIZ BOULEVARD / ROAD			
FROM:	City of LA Limit		
TO:	San Fernando Rd.		
EXISTING	<ul style="list-style-type: none"> • 4 lanes • Intermittent left-hand turn pockets • On-street parking on westbound side only • 76' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with B-type sharrows
FROM:	San Fernando Rd.		
TO:	Glendale Ave.		
EXISTING	<ul style="list-style-type: none"> • 4 lanes with center-turn lane and on-street parking • 77' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with B-type sharrows

(23) CERRITOS AVENUE			
FROM:	Larry Zarian Transportation Center		
TO:	Glendale Ave.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 64' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows

NORTH-SOUTH ROUTES

(1) RAMSDELL AVENUE			
FROM:	Montrose Ave.		
TO:	Honolulu Ave.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 43' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows
(2) LA CRESCENTA AVENUE			
FROM:	Montrose Ave.		
TO:	Honolulu Ave.		
EXISTING	<ul style="list-style-type: none"> • 4 lanes with on-street parking • 64' wide 	PROPOSED	<ul style="list-style-type: none"> • Study corridor for road diet • Reduce to 2 lanes with center-turn lane, on-street parking, and 6'-wide bike lanes
FROM:	Honolulu Ave		
TO:	N. Verdugo Rd.		
EXISTING	<ul style="list-style-type: none"> • 5'-wide bike lane, southbound only • Bike route with signage northbound, north of Las Palmas Ave • 4 lanes • On-street parking both sides from Honolulu Ave to Sycamore Ave; parking northbound only from Sycamore Ave to N. Verdugo Rd. • 56' to 62' wide 	PROPOSED	<ul style="list-style-type: none"> • Study corridor for road diet • Reduce to 2 lanes with center-turn lane, on-street parking, and 6'-wide bike lanes

(3) ROSELAWN AVENUE / ROSEMONT AVENUE			
FROM:	Honolulu Ave.		
TO:	La Crescenta Ave.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 40' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows

(4) LAS PALMAS AVENUE			
FROM:	Honolulu Ave.		
TO:	La Crescenta Ave.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 36' to 37' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows

(5) OCEAN VIEW BOULEVARD			
FROM:	Northern City Limit		
TO:	Verdugo Rd.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 47' wide 	PROPOSED	<ul style="list-style-type: none"> • Add 6'-wide bike lanes

(6) OAKMONT VIEW DRIVE			
FROM:		La Crescenta Ave.	
TO:		County Club Dr.	
EXISTING	<ul style="list-style-type: none"> • 2 lanes • 28' to 32' wide • Narrow 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with “watch for cyclists” signs and directional signage
COUNTRY CLUB DRIVE			
FROM:		Oakmont View Dr.	
TO:		Hermosita Dr.	
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 36' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with “watch for cyclists” signs and directional signage • Allow bicyclists to make right-turns onto Hermosita Dr. from Country Club Dr.
HERMOSITA DRIVE			
FROM:		Country Club Dr.	
TO:		Opechee Way	
EXISTING	<ul style="list-style-type: none"> • 2 lanes, no center marking with some on-street parking • 24' to 30' wide • Narrow 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with “watch for cyclists” signs and directional signage
OPECHEE WAY			
FROM:		Hermosita Dr.	
TO:		Bonita Dr.	
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 36' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with “watch for cyclists” signs and directional signage

BONITA DRIVE			
FROM:	Opechee Way		
TO:	Hillside Dr.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 36' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with “watch for cyclists” signs and directional signage
HILLSIDE DRIVE			
FROM:	Bonita Dr.		
TO:	Niodrara Dr.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 36' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with “watch for cyclists” signs and directional signage
NIODRARA DRIVE			
FROM:	Hillside Dr.		
TO:	Colina Dr.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 30' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with “watch for cyclists” signs and directional signage
COLINA DRIVE			
FROM:	Niodrara Dr.		
TO:	Verdugo Park		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 40' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with “watch for cyclists” signs and directional signage

VERDUGO PARK			
FROM:	Colina Dr.		
TO:	Glendale Community College (GCC) Parking Lot and Bridge		
EXISTING	<ul style="list-style-type: none"> Road through park with existing ped / bike bridge over the Verdugo Wash with GCC access 	PROPOSED	<ul style="list-style-type: none"> Designate a bicycle path through the park leading to the ped/bike bridge Create a perimeter bike path for recreational riding Option: Add bike route with sharrows along Verdugo Park Roadway that leads to Verdugo Park parking lot. Add new 2-way bike bridge to GCC lot on west side of Cañada Blvd.
GLENDALE COMMUNITY COLLEGE PARKING LOT			
FROM:	North end of GCC Lot		
TO:	South end of GCC Lot		
EXISTING	<ul style="list-style-type: none"> 2-way circulation aisle for parking 	PROPOSED	<ul style="list-style-type: none"> Add bike path through parking lot
CIVIC AUDITORIUM			
FROM:	Glendale Community College Parking Lot and Bridge		
TO:	City Parking Lot		
EXISTING	<ul style="list-style-type: none"> 12' wide, one lane roadway behind Civic Auditorium 	PROPOSED	<ul style="list-style-type: none"> Restrict road to bicyclists and maintenance vehicles only
CITY PARKING LOT			
FROM:	Mountain St.		
TO:	Verdugo Rd. Frontage Road		
EXISTING	<ul style="list-style-type: none"> City parking lot 	PROPOSED	<ul style="list-style-type: none"> Add bike path at rear of parking lot and route to frontage road

VERDUGO FRONTAGE ROAD			
FROM:	City Parking Lot		
TO:	Glendale Avenue		
EXISTING	<ul style="list-style-type: none"> • Frontage road along Verdugo Rd. / Glendale Ave. that ends north of Glenoaks Blvd. 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows • Add bicycle activated signal at the intersection of the frontage road and Glendale Ave., just north of Glenoaks Blvd, to enable northbound cyclists to enter frontage road

(7) VERDUGO ROAD			
FROM:	Honolulu Ave.		
TO:	La Crescenta Ave.		
EXISTING	<ul style="list-style-type: none"> • 6 lanes with center turn lane and on-street parking • 95' wide • Center median from Broadview Dr. to La Crescenta Ave. • 40' wide to center median 	PROPOSED	<ul style="list-style-type: none"> • Remove one travel lane in each direction • Add 6' colored bike lanes with painted hatched buffer • Option: Add 7' colored bike lane instead of painted hatched buffer
FROM:	La Crescenta Ave.		
TO:	Cañada Blvd. (north)		
EXISTING	<ul style="list-style-type: none"> • 5' bike lane southbound only • 6 lanes with center median • On-street parking northbound only • 45' wide to center median 	PROPOSED	<ul style="list-style-type: none"> • Study corridor for road diet; remove one travel lane in each direction • Add 6' colored bike lane northbound with painted, hatched buffer • Widen southbound bike lane to 6'-wide and add color • Need special transition treatments at La Crescenta Ave. and Cañada Blvd. splits • Option: Add 7' colored bike lanes instead of painted hatched buffers

(7) VERDUGO ROAD			
FROM:	Cañada Blvd. (north)		
TO:	Cañada Blvd. split (south)		
EXISTING	<ul style="list-style-type: none"> • 4 lanes with on-street parking • 56' to 60' wide • Intermittent sidewalk with no buffer 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with B-type sharrows • Subject to study corridor evaluation
FROM:	Cañada Blvd. split (south)		
TO:	Mountain St.		
EXISTING	<ul style="list-style-type: none"> • 52' wide to median on northbound side • 45' to median on southbound side • 4 lanes northbound • 3 lanes and on-street parking southbound • Center median 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with B-type sharrows • Subject to study corridor evaluation

(7) VERDUGO ROAD			
FROM:	Mountain St.		
TO:	Glendale Ave.		
EXISTING	<ul style="list-style-type: none"> 6 lanes with center-median On-street parking northbound side only Just south of Mountain St., southbound right-most lane merges, and Verdugo Rd. becomes a two-lane street at Glendale Ave. At Mountain St., no center median At Calle Vaquero, center-turn lane with protected median to turn onto Calle Vaquero 105' wide at Mountain St. 46' wide northbound to median; 16'-wide center turn lane (between medians), 39' wide southbound to median at Calle Vaquero 46' wide northbound to median; 37' wide southbound to median at Glendale Ave. 	PROPOSED	<ul style="list-style-type: none"> Add bike route with B-type sharrows Subject to study corridor evaluation
FROM:	Glendale Ave.		
TO:	Monterey Rd.		
EXISTING	<ul style="list-style-type: none"> 4 lanes with on-street parking 56' wide 	PROPOSED	<ul style="list-style-type: none"> Add bike route with B-type sharrows Subject to study corridor evaluation

(7) VERDUGO ROAD			
FROM:	Monterey Rd.		
TO:	Hilda Ave.		
EXISTING	<ul style="list-style-type: none"> • 4 lanes with center turn lane • 56' wide • Intermittent on-street parking on both sides from Dixon St. to Acacia Ave. • S. of Hilda Ave. is City of Los Angeles 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with B-type sharrows • Subject to study corridor evaluation

(8) CAÑADA BOULEVARD			
FROM:	N. Verdugo Rd.		
TO:	Verdugo Wash Bridge (Campus way)		
EXISTING	<ul style="list-style-type: none"> • 4 lanes with on-street parking • 58' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with B-type sharrows
FROM:	Verdugo Wash Bridge (Campus Way)		
TO:	N. Verdugo Rd. / Cañada Blvd. split		
EXISTING	<ul style="list-style-type: none"> • 4 lanes with on-street parking, center median • 37' wide to center median 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with B-type sharrows

(9) MOUNTAIN STREET			
FROM:	Alameda Ave.		
TO:	Grandview Ave.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • No center marking • 31' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows
GRANDVIEW AVENUE			
FROM:	Mountain St.		
TO:	Glenoaks Blvd.		
EXISTING	<ul style="list-style-type: none"> • Existing sharrows from Mountain St. to Olmsted Dr. • Sharrow markings placed too close to curb • 2 lanes with on-street parking from Mountain St. to Glenoaks Blvd. • 28' to 40' wide 	PROPOSED	<ul style="list-style-type: none"> • Put sharrow markings farther into street away from curb • Add bike route signage and directional signage • Add sharrows from Olmsted Dr. to Glenoaks Blvd.
FROM:	Glenoaks Blvd.		
TO:	San Fernando Rd.		
EXISTING	<ul style="list-style-type: none"> • 4 lanes with on-street parking • 56' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with B-type sharrows
FROM:	San Fernando Rd.		
TO:	Flower St.		
EXISTING	<ul style="list-style-type: none"> • 4 lanes with on-street parking • 65" wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with B-type sharrows

(10) ALAMEDA AVENUE			
FROM:	Mountain St.		
TO:	Glenoaks Blvd.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 36' wide • Access to Western Channel in Burbank and connects to proposed Burbank bikeway 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows
BEL AIRE DRIVE			
FROM:	Alameda Ave. (west)		
TO:	Alameda Ave. (east)		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking 	PROPOSED	<ul style="list-style-type: none"> • Between Mountain St. and Kenneth Rd., Alameda Ave. jogs at Bel Aire Dr. • Add bike route with directional signage
ALAMEDA AVENUE			
FROM:	Bel Aire Dr.		
TO:	Glenoaks Blvd.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 36' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows

(11) WESTERN AVENUE			
FROM:	Mountain St.		
TO:	Glenoaks Blvd.		
EXISTING	<ul style="list-style-type: none"> 2 lanes with on-street parking North of Glenoaks Blvd. (31' wide) 	PROPOSED	<ul style="list-style-type: none"> Add bike route with sharrows
FROM:	Glenoaks Blvd.		
TO:	Flower St.		
EXISTING	<ul style="list-style-type: none"> 4 lanes with on-street parking between Glenoaks Blvd. and Flower St. (53' to 65' wide) 	PROPOSED	<ul style="list-style-type: none"> Add bike route with sharrows
FROM:	Flower St.		
TO:	Lake St.		
EXISTING	<ul style="list-style-type: none"> 2 lanes with center turn and on-street parking south of Lake St. (50' wide) Freeway on-ramps between Flower St. and Lake St. require special treatment (41' wide to median) 	PROPOSED	<ul style="list-style-type: none"> Treatment at I-5 and CA-134 freeway on- and off-ramps between Flower St. and Lake St. includes colored bike lanes that go straight through Pylons immediately preceding and at off-ramp so cars are forced to go straight and slow down for some feet before merging over and noticing bike lane
FROM:	Lake St.		
TO:	Rancho Ave.		
EXISTING	<ul style="list-style-type: none"> 2 lanes with center turn and on-street parking south of Lake St. (50' wide) Southern access to Brand Park and access to part of Western Channel 	PROPOSED	<ul style="list-style-type: none"> Add bike route with sharrows

(12) ALLEN AVENUE			
FROM:	Mountain St.		
TO:	Railroad Tracks (south of San Fernando St)		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 36' wide • Dead ends at railroad track – no existing crossing here 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows • Connect to potential right-of-way at railroad
ALLEN AVENUE			
FROM:	Victory Blvd.		
TO:	Flower St.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows

(13) JUSTIN AVENUE			
FROM:	Kenneth Rd.		
TO:	Railroad Tracks		
EXISTING	<ul style="list-style-type: none"> 2 lanes with on-street parking 	PROPOSED	<ul style="list-style-type: none"> Add bike route with sharrows Add gap through median at Glenoaks Blvd. for bicycles to pass through
FROM:	Railroad Tracks		
TO:	Flower St.		
EXISTING	<ul style="list-style-type: none"> No crossing through 	PROPOSED	<ul style="list-style-type: none"> Condition new development to include bikeway between Railroad and Flower St.
FROM:	Flower St.		
TO:	Victory Blvd.		
EXISTING	<ul style="list-style-type: none"> 2 lanes with on-street parking Tunnel exists under the I-5 that connects both sides of Justin Ave. 	PROPOSED	<ul style="list-style-type: none"> Add bike route with sharrows Add I-5 tunnel improvements including lighting, painting, etc.
FROM:	Victory Blvd.		
TO:	Riverside Dr.		
EXISTING	<ul style="list-style-type: none"> 2 lanes with on-street parking 	PROPOSED	<ul style="list-style-type: none"> Add bike signal at Victory Blvd. and Justin Ave. to enable bicyclists to navigate jog Add bike route with sharrows

(14) SONORA AVENUE			
FROM: Grandview Ave.			
TO: Glenoaks Blvd.			
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • No center marking from Grandview Ave. to Glenoaks Blvd. • 30' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows
FROM: Glenoaks Blvd.			
TO: San Fernando Rd.			
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 46' wide 	PROPOSED	<ul style="list-style-type: none"> • Add 6' colored bike lanes
FROM: San Fernando Rd.			
TO: Air Way			
EXISTING	<ul style="list-style-type: none"> • 4 lanes • 56' to 64' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with B-type sharrows
FROM: Air Way			
TO: Riverside Dr./Victory Blvd.			
EXISTING	<ul style="list-style-type: none"> • 4 lanes with on-street parking • 65' wide 	PROPOSED	<ul style="list-style-type: none"> • Add 5'-wide colored bike lanes • Re-stripe 7'-wide parking lanes and 10'-wide-travel lanes
RIVERSIDE DRIVE			
FROM: Sonora Ave. / Victory Blvd.			
TO: Western City Limit			
EXISTING	<ul style="list-style-type: none"> • Existing 5' bike lane • 4 lanes with on-street parking • 66' wide 	PROPOSED	<ul style="list-style-type: none"> • Widen bike lane to 6' • Add painted hatched buffer (optional)

(15) HAZEL STREET			
FROM:	Cosmic Way		
TO:	Flower St.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • Bridge underneath I-5 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows

(16) HIGHLAND AVENUE			
FROM:	Cumberland Rd.		
TO:	Glenwood Rd.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 30' north of Glenwood Rd. 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows
FROM:	Glenwood Rd.		
TO:	Glenoaks Blvd.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 45' wide 	PROPOSED	<ul style="list-style-type: none"> • Add 5' bike lanes
FROM:	Glenoaks Blvd.		
TO:	Arden Ave.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking and center-turn lane • 50' wide 	PROPOSED	<ul style="list-style-type: none"> • Remove the center-turn lane • Add 6' bike lanes
FROM:	Arden Ave.		
TO:	San Fernando Rd.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking and center-turn lane • 56' wide 	PROPOSED	<ul style="list-style-type: none"> • Add 6' bike lanes

(17) CONCORD STREET			
FROM:	Stocker St.		
TO:	South St.		
EXISTING	<ul style="list-style-type: none"> 36' wide, two lanes going one-way southbound, drop-off lane on west side, on-street parking on east side only 	PROPOSED	<ul style="list-style-type: none"> Remove parking Add 6'-wide, northbound contraflow bike lane with 2'-wide buffer Add bike route with sharrows southbound Separate contraflow lane with double yellow lines or chevroned buffer, and consider pylons
FROM:	South St.		
TO:	Broadway		
EXISTING	<ul style="list-style-type: none"> 2 lanes with on-street parking 40' wide Busy street south of Glenoaks Blvd. because of freeway access to CA-134 	PROPOSED	<ul style="list-style-type: none"> Add bike route with sharrows Lane treatment under CA-134: Remove one of the two turn lanes. Include 5' colored bike lanes between Fairmont Ave. and Doran St. in conflict zone.

(18) KENILWORTH AVENUE			
FROM:	Stocker St.		
TO:	Lexington Dr.		
EXISTING	<ul style="list-style-type: none"> 2 lanes with on-street parking Tunnel underneath CA-134 	PROPOSED	<ul style="list-style-type: none"> Add bike route with sharrows

(19) PACIFIC AVENUE			
FROM:	Kenneth Rd.		
TO:	Glenwood Rd.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 42' to 46' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows
FROM:	Glenwood Rd.		
TO:	Glenoaks Blvd.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with center-turn lane and on-street parking • 46' to 56' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows
FROM:	Glenoaks Blvd.		
TO:	Burchett St.		
EXISTING	<ul style="list-style-type: none"> • 4 lanes with center-turn lane • 56' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with "Share the Road" signs
BURCHETT STREET			
FROM:	Kenilworth Ave.		
TO:	Columbus Ave.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 36' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows

(20) COLUMBUS AVENUE

FROM:	Arden Ave.		
TO:	Broadway		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 40' wide • Numerous stop-controlled intersections on Columbus Ave. • 8' wide pedestrian bridge crosses CA-134 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows • Replace some stop-controlled intersections with mini-circles • Long-term plan to improve pedestrian bridge to standard bike path width
FROM:	Broadway		
TO:	Colorado St.		
EXISTING	<ul style="list-style-type: none"> • 4 lanes with center turn lane • No on-street parking • Access to mall parking structure • 61' wide • Signal at Broadway 	PROPOSED	<ul style="list-style-type: none"> • Replace some stop-controlled intersections with mini-circles • Add bike route with sharrows
FROM:	Colorado St.		
TO:	Chevy Chase Dr.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking and an intermittent center turn lane • With turn lane, 48' to 52' wide • Without turn lane, 31' to 41' wide • Street widens and narrows frequently • Numerous all-way stops • Signal at Colorado St. 	PROPOSED	<ul style="list-style-type: none"> • Replace some stop-controlled intersections with mini-circles • Add bike route with sharrows

(21) CENTRAL AVENUE			
FROM:	Pioneer Dr.		
TO:	Wilson Ave.		
EXISTING	<ul style="list-style-type: none"> • 4 to 6 lanes • On-street parking and center-turn lanes in some places • 68' to 78' wide 	PROPOSED	<ul style="list-style-type: none"> • Widen Central Ave. by 4' on each side from Wilson Ave. to Lexington Dr. • Widen Central Ave. by 2' on each side from Lexington Dr. to Doran St. • Widen Central Ave. by 2' on westside from Doran St. to Pioneer Dr. • Add 5' bike lanes southbound from Pioneer Dr. to Wilson Ave. • Add 5' bike lanes northbound from Doran St. to Wilson Ave.
FROM:	Wilson Ave.		
TO:	San Fernando Rd.		
EXISTING	<ul style="list-style-type: none"> • Mix of 4 to 6 lanes • On-street parking and center-turn lanes in some places • 68' to 76' wide 	PROPOSED	<ul style="list-style-type: none"> • Add B-type sharrows
(22) ORANGE STREET			
FROM:	Doran St.		
TO:	Broadway		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with center-turn lane and on-street parking • 36' to 50' wide 	PROPOSED	<ul style="list-style-type: none"> • Remove center-turn lane or on-street parking • Add 5' bike lanes

(23) BRAND BOULEVARD

FROM:	Mountain St.		
TO:	Glenoaks Blvd.		
EXISTING	<ul style="list-style-type: none"> 4 lanes with diagonal, head in, on-street parking and center-turn lane 100' wide 	PROPOSED	<ul style="list-style-type: none"> Study corridor
			<ul style="list-style-type: none"> Change diagonal, head-in parking to reverse-in parking Add 6'-wide colored bike lanes Stripe parking lane at 16' from curb

GLENDALE BOULEVARD

FROM:	San Fernando Rd.		
TO:	City Limit		
EXISTING	<ul style="list-style-type: none"> 6 lanes with center-median Connection to City of LA 	PROPOSED	<ul style="list-style-type: none"> Add wide colored bike lanes

(24) LOUISE STREET

FROM:	Mountain St.		
TO:	Glenoaks Blvd.		
EXISTING	<ul style="list-style-type: none"> No bikeway designation 2 lanes with on-street parking both sides 40' wide Signal at Doran St. 	PROPOSED	<ul style="list-style-type: none"> Add bike route with sharrows
			<ul style="list-style-type: none"> Replace stop signs with mini-circles
FROM:	Glenoaks Blvd.		
TO:	Maple St.		
EXISTING	<ul style="list-style-type: none"> 2 lanes with on-street parking 36' wide 	PROPOSED	<ul style="list-style-type: none"> Add bike route with sharrows
			<ul style="list-style-type: none"> Replace stop signs with mini-circles

(25) GENEVA STREET			
FROM:	Mountain St.		
TO:	Doran St.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 42' wide • Jog at Doran St. • R.D. White Elementary is on corner of Doran St. and Geneva St. 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows • Add directional signage at Doran St. to direct cyclists to continuation of Geneva St.
FROM:	Doran St.		
TO:	California Ave.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 36' wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows

(26) GLENDALE AVENUE			
FROM:	Verdugo Rd.		
TO:	San Fernando Rd.		
EXISTING	<ul style="list-style-type: none"> • 4 to 6 lanes • On-street parking and center-turn lane intermittent • 60' to 78' wide 	PROPOSED	<ul style="list-style-type: none"> • No bikeway designation • Widen curb lane to 13' to 14' wide where possible

(27) CEDAR STREET			
FROM:	California Ave.		
TO:	Colorado St.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows

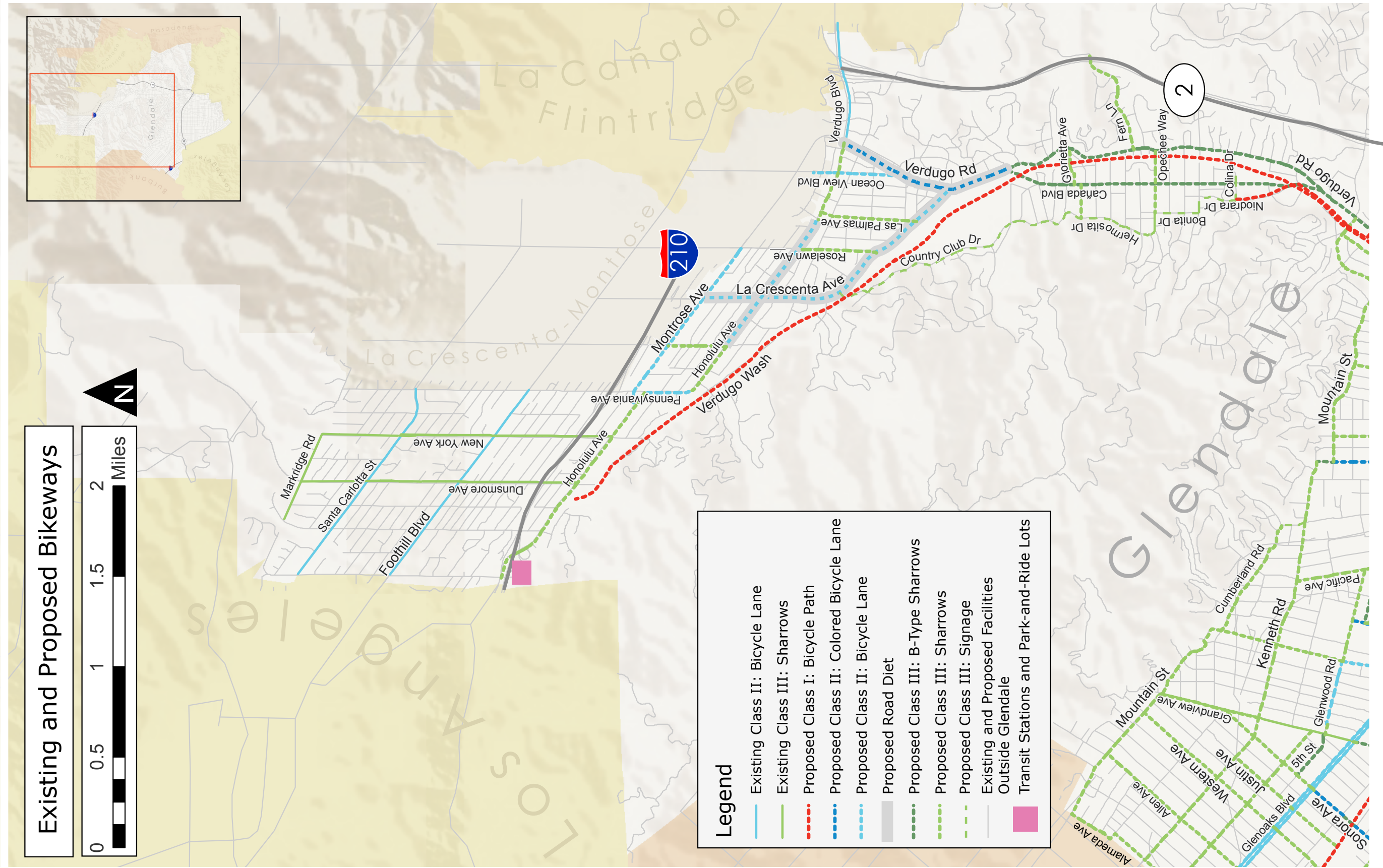
(28) MONTEREY ROAD			
FROM:	Louise St.		
TO:	Verdugo Rd.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • Width varies 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows • Open pedestrian bridge at Galer Pl. to cross CA-134 • Add “walk bicycles” signage on bridge • Make bridge improvements, including widening, in the long-term
DORAN STREET			
FROM:	Adams St.		
TO:	Naranja Dr.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 36’ to 37’ wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows • Open pedestrian bridge at Naranja Dr. and Doran St. and add “walk bicycles” signage
ADAMS STREET			
FROM:	Doran St.		
TO:	Chevy Chase Dr.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 36’ wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows
FROM:	Chevy Chase Dr.		
TO:	Palmer Ave.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 43’ wide 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows
FROM:	Palmer Ave.		
TO:	Vincent Way		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 38’ wide • 8’ parking lane striped 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows

(29) CHEVY CHASE DRIVE			
FROM:	Acacia Ave.		
TO:	Verdugo Rd.		
EXISTING	<ul style="list-style-type: none"> 4 lanes with on-street parking 56' to 64' wide Center-turn lane from Acacia Ave. to Garfield Ave. Existing sharrows from Acacia Ave. to Wilson Ave. 	PROPOSED	<ul style="list-style-type: none"> Phase 1: Add bike route with B-type sharrows Phase 2: Road diet with 2 lanes, center-turn lane, and bike lanes
FROM:	Verdugo Rd.		
TO:	La Loma Rd.		
EXISTING	<ul style="list-style-type: none"> 4 lanes with on-street parking 71' wide (underneath CA-134) Left and right hand turn pockets in center lane 	PROPOSED	<ul style="list-style-type: none"> Phase 1: Add bike route with B-type sharrows Phase 2: Road diet with 2 lanes, center-turn lane, and bike lanes
FROM:	La Loma Rd.		
TO:	Glenoaks Blvd.		
EXISTING	<ul style="list-style-type: none"> 4 lanes with on-street parking 56' to 58' wide 	PROPOSED	<ul style="list-style-type: none"> Phase 1: Add bike route with B-type sharrows Phase 2: Road diet with 2 lanes, center-turn lane, and bike lanes
FROM:	Glenoaks Blvd.		
TO:	Harvey Dr.		
EXISTING	<ul style="list-style-type: none"> 2 lanes with on-street parking 40' wide 	PROPOSED	<ul style="list-style-type: none"> Add bike route with sharrows
FROM:	Harvey Dr.		
TO:	Lilac Ln.		
EXISTING	<ul style="list-style-type: none"> 2 lanes with on-street parking 54' wide Passes under the CA-2 	PROPOSED	<ul style="list-style-type: none"> Add bike route with sharrows

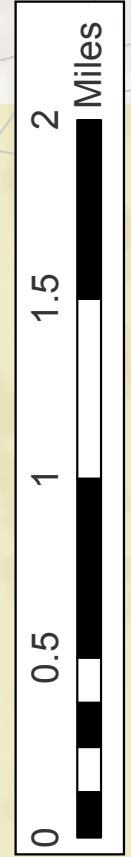
(29) CHEVY CHASE DRIVE			
FROM:	Lilac Ln.		
TO:	Linda Vista Rd.		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 40' wide • Parking lane striped east of Chevy Oaks Circle 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows
FROM:	Linda Vista Rd.		
TO:	Northern City Limit		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with sharrows
LINDA VISTA ROAD / LIDA STREET			
FROM:	Chevy Chase Dr.		
TO:	Western City Border (Pasadena)		
EXISTING	<ul style="list-style-type: none"> • 2 lanes with on-street parking • 28' to 30' wide • Too narrow for bike lanes • 25 mph speed limit 	PROPOSED	<ul style="list-style-type: none"> • Add bike route with "share the road" signage

The following maps show these detailed planned bikeways.

MAP 6-2: DETAILED EXISTING AND PROPOSED BIKEWAYS, CLASS DESIGNATIONS, VIEW 1



Existing and Proposed Bikeways

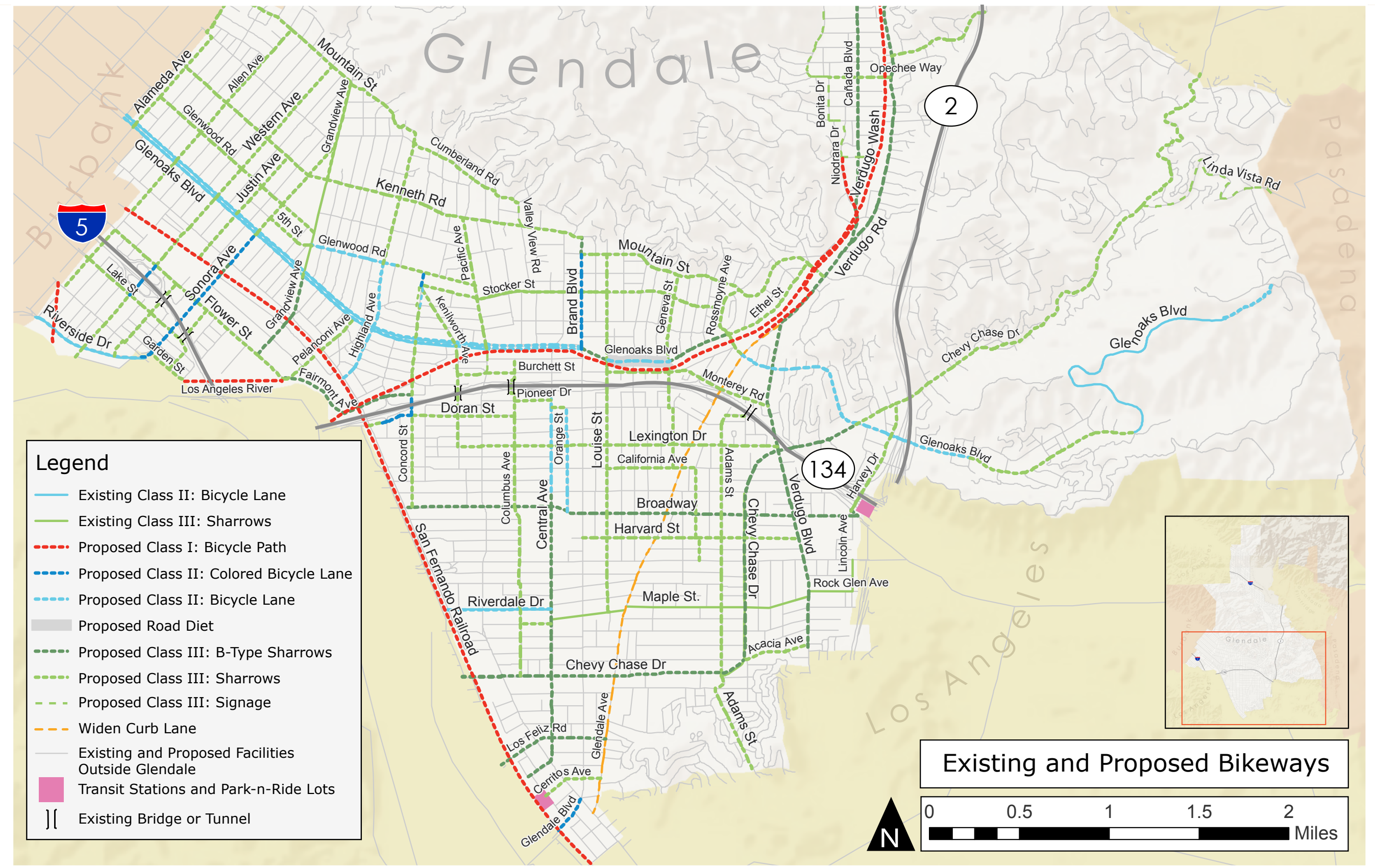


Legend

- Existing Class II: Bicycle Lane
- Existing Class III: Sharrow
- - - Proposed Class I: Bicycle Path
- - - Proposed Class II: Colored Bicycle Lane
- - - Proposed Class II: Bicycle Lane
- Proposed Road Diet
- - - Proposed Class III: B-Type Sharrow
- - - Proposed Class III: Sharrow
- - - Proposed Class III: Signage
- Existing and Proposed Facilities Outside Glendale
- Transit Stations and Park-and-Ride Lots

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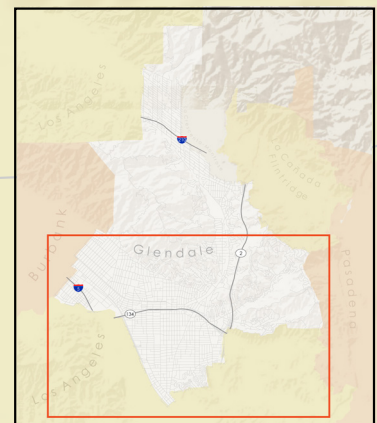
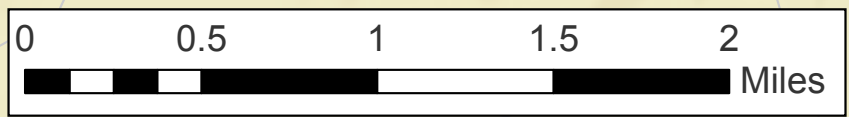
MAP 6-3: DETAILED EXISTING AND PROPOSED BIKEWAYS, CLASS DESIGNATIONS, VIEW 2



Legend

- Existing Class II: Bicycle Lane
- Existing Class III: Sharrows
- Proposed Class I: Bicycle Path
- Proposed Class II: Colored Bicycle Lane
- Proposed Class II: Bicycle Lane
- Proposed Road Diet
- Proposed Class III: B-Type Sharrows
- Proposed Class III: Sharrows
- Proposed Class III: Signage
- Widen Curb Lane
- Existing and Proposed Facilities Outside Glendale
- Transit Stations and Park-n-Ride Lots
- Existing Bridge or Tunnel

Existing and Proposed Bikeways



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DESIGNATED STUDY CORRIDORS

Several key corridors will be designated as special study corridors to further evaluate the best way to accommodate bicyclists. Several of the more aggressive measures to create bikeways, such as road diets and reverse-in angled parking, will require public notification and council approval. Study corridors are described below.

Brand Boulevard

Brand Boulevard, south of Glenoaks Boulevard, is the heart of Downtown. The City recognizes the importance of this street to pedestrians, bicyclists, and drivers alike. Due to the narrow width of the street and front-in angled parking, this street has been designated as a study corridor. Several options will be explored for this stretch of street including changing the parking to parallel or reverse-in angled parking, creating cycle tracks, or adding bicycle lanes in the center median.



Downtown Brand Boulevard

Honolulu Avenue

City Council approved a test road diet on Honolulu Avenue between Ramsdell Avenue and Orangedale Avenue. The pilot road diet will be carefully monitored, and will serve as a test case for other road diet re-stripings.

Honolulu Avenue between La Crescenta Avenue and Verdugo Road currently has front-in angled parking. The City plans to experiment with reverse-in-angle parking due to the low-traffic volumes this street experiences.

Verdugo Road

Verdugo Road currently experiences very high traffic volumes during peak periods. The City may test a road diet from 6 to 4 lanes from Verdugo Boulevard to La Crescenta Avenue, and from La Crescenta Avenue to the southern city limits with B-type sharrows.

Concord Street

The City plans a northbound contraflow bike lane on Concord Street between Glenwood Road and Stocker Street. There are three schools, including a middle school, in this area. The contraflow bike lanes will allow students to bicycle to school more easily. The bike lanes will require either a physical or painted buffer, and will require experimentation and careful design.

Chevy Chase Drive

During a second phase, and dependent upon previous experimentation with road diet results, the City plans to evaluate B-type sharrows or a road diet with bike lanes between Acacia Avenue and Glenoaks Boulevard.

La Crescenta Avenue

The City may install a road diet with bike lanes from Montrose Avenue to Verdugo Road.

Verdugo Wash Bicycle Path

The proposed path along the Verdugo Wash is a cutting-edge design that has not been widely tested in the United States. Feasibility analysis, preliminary engineering, and coordination with other jurisdictions and entities will be required. This project is long term, and the City will look for opportunities to plan and build the path.

San Fernando Railroad (Metrolink Valley Subdivision Rail) Bicycle Path

The proposed path along the Metrolink Valley Subdivision rail right-of-way (along San Fernando Road) will require coordination with the Southern California Regional Rail Authority as well as the Los Angeles County Metropolitan Transportation Authority. Given proposed high-speed rail and Metrolink improvements, the availability of rights-of-way for the bicycle path are currently unclear. The City will work with other jurisdictions and entities to fulfill the long-term vision of a bicycle path along the rail line.

Bicycle Parking

The City will continue to seek funds for an ongoing bicycle parking program so it can add parking as needed. This will fund planned parking, request parking, or parking in places with demonstrated need, such as where bicycles are regularly seen locked to trees, parking meters, or other fixtures. The City can also replace old racks as needed.

The City will continue to maintain all existing bicycle parking as identified by Map 5-2: Existing Bicycle Parking and Intermodal Links. The City will work to expand parking Downtown, and will work with merchants to expand parking in shopping and commercial areas. Inverted U-racks are appropriate for short-term destinations, such as shopping and commercial areas. Gated inverted U-rack parking may work for schools and Glendale Community College. The City can also install custom bicycle racks that support the bicycle well (similar to the inverted U-rack); examples currently exist at Glendale City Hall and on Broadway. A combination of bike lockers and U-racks will work best at City Hall for use by employees and visitors. This includes bicycle parking in the public right-of-way and buildings including:

- Sidewalks near post offices and libraries
- Glendale Transportation Center
- City parks

The City will need an estimated 164 inverted U-racks to place in parks and other public facilities.

Glendale will continue to work with the Glendale Unified School District and private schools to ensure that there is secure bicycle parking available to all students in K-12 schools, with a special focus on those in middle and high schools. The City will also work with Glendale Community College to increase the amount of bicycle parking as necessary. High schools and middle schools should have parking for at least 30 bicycles; elementary schools should have parking for at least 20 bicycles. The City will need an estimated 290 inverted-U racks for schools. GCC should have parking for at least 5% of the student population.

Glendale will continue to work with merchants and owners of private developments to provide bicycle parking at the various shopping centers and areas of interest throughout Glendale. These include:

- Supermarkets such as Whole Foods, Trader Joe's, and Ralph's
- Glendale Galleria
- Americana Shopping Center
- Montrose Shopping District
- Adams Square Shopping Village
- Hospitals

More frequent placement of inverted U-racks is needed in the commercial areas such as along:

- Downtown Brand Boulevard
- Colorado Street
- Central Avenue
- Honolulu Avenue
- Broadway
- Foothill Boulevard
- Pacific Avenue
- Glenoaks Boulevard
- San Fernando Road



Bicycle racks in front of Glendale City Hall

The City should have an estimated 400 inverted-U racks on demand for requested parking and increased parking in commercial corridors. The City should also set aside \$15,000 to build bicycle corrals, which cost approximately \$1,500 per rack.

The City will work with owners of large apartment buildings and housing complexes to provide secure bicycle parking for residents. This may involve retrofitting an existing room or space on site (see Design Guidelines).

The City currently allows businesses that fall under the Downtown Specific Plan area to substitute bicycle parking for auto parking. The City should consider expanding this allowance to more land uses outside of the Downtown Area Specific Plan. New development of work sites and schools should be required to provide parking for commuters. Some new sites should also have parking provided for visitors and shoppers.

The 2010 California Green Building Standards Code, adopted by the City, requires the following:

- **Short-term bicycle parking.** If the project is anticipated to generate visitor traffic, it must provide permanently anchored bicycle racks within 100 feet of the visitors' entrance, readily visible to passers-by, for 5% of visitor motorized vehicle parking capacity, with a minimum of one two-bike capacity rack.
- **Long-term bicycle parking.** Buildings with over 10 tenant-occupants must provide secure bicycle parking for 5% of motorized vehicle parking capacity, with a minimum of one space. Public schools and community colleges must provide secure bicycle parking for 15% of occupants (students, teachers and staff). Acceptable parking facilities shall be convenient from the street and may include:
 - 1. Covered, lockable enclosures with permanently anchored racks for bicycles;
 - 2. Lockable bicycle rooms with permanently anchored racks; and
 - 3. Lockable, permanently anchored bicycle lockers.

Additional information on recommended bicycle accommodations may be obtained from Sacramento Area Bicycle Advocates. The Association of Pedestrian and Bicycle Professionals also recently released a guide to bicycle parking.

The City should follow the most up-to-date guidelines for green buildings when considering adopting a new ordinance.

The City should consider passing a “bicycles in buildings” ordinance, such as New York’s 2009 “Bicycle Access to Office Buildings” law (Local Law No. 52 for 2009). Bicycling is a great way to get to work, but often barriers exist at the workplace, including the lack of a safe, secure place to store bicycles or private prohibitions on bikes in buildings. When commuters are allowed to bring bicycles into the workplace, they may be more likely to bicycle to work. The City should determine appropriate parameters for Glendale.

Map 6-4 and Map 6-5 show existing and proposed bicycle parking.

Bicycle Amenities

As mentioned in Chapter 3, the City currently does not require bicycle amenities in its municipal code. In order to encourage more bicycling and bicycle commuting, the City will consider an ordinance or developer mandate to require showers and clothing lockers in new work sites and retail establishments of significant size. The 2010 California Green Building Standards Code recommends the following:

- Changing rooms.** For buildings with over 10 tenant-occupants, provide changing/shower facilities for tenant-occupants only in accordance with Table 6-1 or document arrangements with nearby changing/shower facilities. For public schools and community colleges, provide changing/shower facilities for the “number of administrative/ teaching staff” equal to the “number of tenant occupants” shown in Table 6-1.

TABLE 6-1: CHANGING ROOM REQUIREMENTS

Number of Tenant-Occupants	Shower/Changing Facilities Required	2-Tier (12" x 15" x 72") Personal Effects Lockers ^{1,2} Required
0-10	0	0
11-50	1 unisex shower	2
51-100	1 unisex shower	3
101-200	1 shower stall per gender	4
Over 200	1 shower stall per gender for each 200 additional tenant-occupants	One 2-tier locker for each 50 additional tenant-occupants

¹ One 2-tier locker serves two people. Lockers shall be lockable with either padlock or combination lock.
² Tenant spaces housing more than 10 tenant-occupants within buildings sharing common toilet facilities need not comply; however, such common shower facilities shall accommodate the total number of tenant-occupants served by the toilets and include a minimum of one unisex shower and two 2-tier lockers.

The City will work with organizations such as Bikestation to provide showers, clothing lockers, and changing facilities near the Larry Zarian Transportation Center and at the confluence of many rapid bus lines at Los Feliz Boulevard and San Fernando Road. The City will also work to provide self-service bicycle repair stations at all of the park-and-rides, at Zarian Transportation Center, and at Glendale Community College. The stations can include a bike stand and basic tools such as air pumps, wrenches, and tire levers. Maps 6-4 and 6-5 show existing and proposed bicycle amenities.








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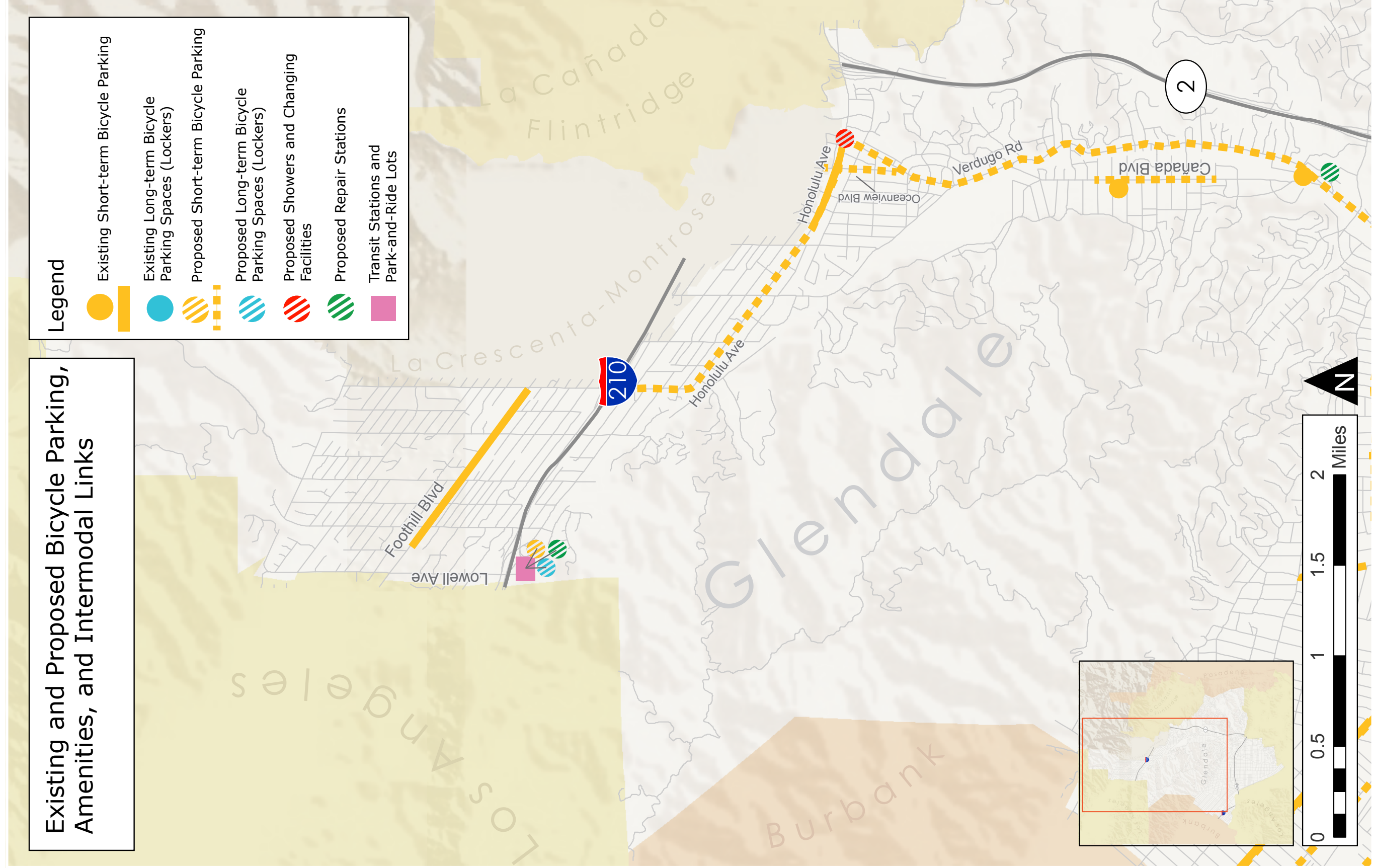
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MAP 6-4: EXISTING AND PROPOSED BICYCLE PARKING, AMENITIES AND INTERMODAL LINKS, VIEW 1

Existing and Proposed Bicycle Parking, Amenities, and Intermodal Links

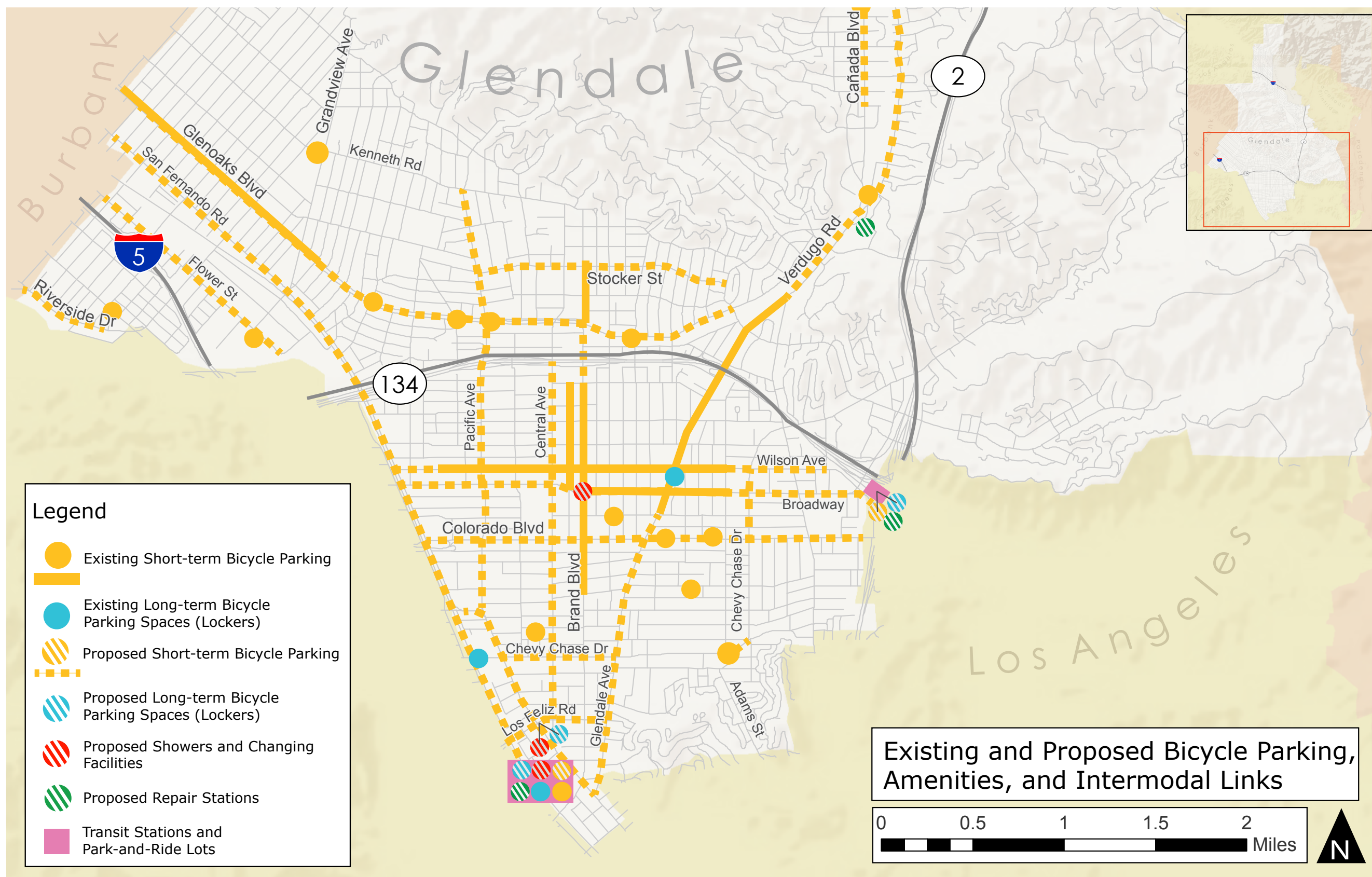
Legend

-  Existing Short-term Bicycle Parking
-  Existing Long-term Bicycle Parking Spaces (Lockers)
-  Proposed Short-term Bicycle Parking
-  Proposed Long-term Bicycle Parking Spaces (Lockers)
-  Proposed Showers and Changing Facilities
-  Proposed Repair Stations
-  Transit Stations and Park-and-Ride Lots



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MAP 6-5: EXISTING AND PROPOSED BICYCLE PARKING, AMENITIES AND INTERMODAL LINKS, VIEW 2



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Links to Other Transportation Modes

The City will coordinate with Metrolink to add more bicycle parking at the Glendale Transportation Center. The few racks and lockers presently available may not suffice with increased demand for bicycle parking at the station. The station will have a combination of bike racks for occasional users, and higher-security parking for every day users. This higher-security parking may consist of bicycle lockers or automated parking.

Glendale will continue to ensure that Beeline buses maintain two bicycle racks per bus. Glendale should work with Metro to ensure buses have at least two bicycle racks per bus. The City will continue to monitor the use of these racks and consider installing three bicycle racks per bus when necessary. Maps 6-4 and 6-5 show existing and proposed links to other transportation modes.

Programs and Promotions

The City will work with local advocates to establish a citywide Bicycle Task Force (BTF). The BTF can be a subset of or join the existing safety committee. The BTF will be instrumental to ensure the following programs and promotions are implemented. Many members of the BAC may also be candidates for the BTF.

EDUCATION

As part of the citywide implementation of this Plan, the City will establish a bicycle education program. The City has already provided education to many elementary school students through the Safe Routes to School program.

The City will continue to fund and seek additional funding to institute a bicycle safety education program to teach bicycle safety to children, adults, and other groups that encounter bicyclists. The curriculum for cyclists will focus on teaching safe riding behavior, such as how to ride in traffic, how to make left turns, where to ride in the lane, and so forth.

The City will continue its existing educational programs, and expand with the availability of funds programs for the following groups:

- **Children.** All children in public schools should go through a bicycle safety program before they graduate. This will start at the second- or third-grade level. Children will receive age-appropriate safety education program that trains them to ride in city streets as they get older.
- **Adults.** A bicycle safety education component should also be available to adults at employment sites, and on selected weekends for the general public. The City will work with local organizations to offer cycling skills workshops.
- **Employers.** The City will work with Rideshare Coordinators at major employers to offer educational programs. The City should provide contacts for curriculum, as well as safety brochures. The City should encourage employers to offer programming such as the “bike buddy” system where experienced cyclists can pair with less experienced cyclists to ride to work. The City should advertise and promote these programs on its website.
- **Motorists.** The safety curriculum should educate motorists on how to interact with bicyclists. The City will work with the Glendale Police Department to ensure motorists that violate bicyclists’ rights are informed correctly. The City will make the information available on the City’s webpage, as well as the Police Department’s webpage. The City should launch a public awareness campaign to educate motorists on cyclists’ rights.
- **Other groups.** Safety education should be taught to others who come in contact with bicyclists, such as Beeline bus drivers and the Glendale Police.

- **City staff.** Bicycle safety education can be incorporated into existing training and orientations. There can be a special training about bicycling, and how bicycling is incorporated into many staffers' everyday jobs during an event on "bike-to-work" day.
- **Bike shops.** The City should work with local bike shops to sponsor fairs and clinics to teach safe cycling. These activities can take place during the City's bicycle month.
- **Bike Skills Park / Pump Track.** The City should work with local community organizations to start a skills course and explore further educational opportunities.
- **Safe Routes to School.** The City will continue to support and seek funding for educational programs through Safe Routes to School.

ENCOURAGEMENT

The City should continue promotional campaigns through the following:

- **Bicycle webpage.** The City will update a designated webpage as a clearinghouse for all bicycle-related information including upcoming events, safety brochures, flyers, and news.
- **Bike map.** The City will create and publish an attractive and user-friendly bike map. The map will include key destinations (schools, parks, shopping centers, City Hall, Glendale Transportation Center, among others), designated bikeways, and pertinent phone numbers and City contact information. The map will be available on the City's webpage, with a limited number of hard copies at City Hall. The City will post the map at key kiosk locations around Glendale, such as the Larry Zarian Transportation Center.
- **Ciclovia.** The City will consider initiating a "ciclovia" where streets are closed to cars for bicycles and pedestrians during set times. This event has been very popular in Los Angeles and serves as a time for users of all ages and abilities to experience bicycling and walking in the street. Skills courses can also be taught during a ciclovia.
- **System identification.** The City will develop its own identifying logo and name that is shown on bikeway and parking signs throughout the City. Directional signage (i.e., downtown, City Hall) placed at strategic locations will help first time users in the area find their destinations.
- **Equipment.** The City should work with outside organizations and agencies to provide free helmets and lights to students and low-income cyclists. The City will work with the Glendale Police Department to identify abandoned bicycles and donate them to community organizations or bike shops to fix and give away to cyclists in need.
- **Employer incentives.** Through its Transportation Demand Management program, Glendale will work with major employers to encourage bicycle commuting by their employees by coordinating promotional events and encouraging the provision of bicycle lockers and access to shower facilities. The City will work with employers to offer incentives, such as prizes, financial incentives, or giving regular commuters new

bicycles. Bike-to-Work Day and Bike Month will be advertised and promoted to employees around Glendale through the rideshare coordinators. The goal is to start people bicycling to work regularly after participating in this annual event.

- **Safe Routes to School.** The City will continue to support and fund International Walk-to-School Day and will create a Bike-to-School day. The City will purchase prizes and other incentive items to give to students who bicycle to school regularly.
- **Bicycle Sharing.** A bicycle sharing program is a service in which bicycles have been purchased by the city or in partnership with an outside organization to provide bicycles at certain locations for shared use by the community. Many cities throughout the United States and internationally have had extreme success with bicycle sharing programs. These programs are especially useful when there may be a large tourist population, or for use in the central business district. The number, location, and type of bicycle, and the payment system, is essential for the program's success. Glendale will study bicycle sharing and create a pilot program.

ENFORCEMENT

The City will coordinate with the Glendale Police Department to ensure a mutual understanding of laws that affect bicycles. The Glendale Police Department will continue to enforce the helmet law for minors, prevent wrong-way riding, monitor motorists' yield rate to bicycles at intersections and in bicycle lanes, and to otherwise enforce the law as it pertains to bicycles.

Glendale Police Officers will go through continuing education programs and training on how to ride a bicycle, especially targeted toward police officers on bicycles. The program will emphasize how to conduct police work on a bicycle, how to ride safely, and what motorist and bicyclist behavior to enforce.

The City will also coordinate with the Police Department to remove the bicycle registration ordinance.

EVALUATION

The City should continue bicyclist and pedestrian counts annually or biannually, with the assistance of outside organizations and agencies. The City should also analyze crash data to see whether programs and new infrastructure help decrease crashes per mile ridden.

Estimated Number of Existing Bike Commuters and Estimated Increase

The U.S. Census Bureau 2005 to 2009 Census American Community Survey (ACS) 5-year estimates show 526 out of 91,892 Glendale workers age 16 and over commute by bicycle, which is approximately 0.5%.

According to the 2010 American Community Survey, in Glendale, 0.8% (653 of 85,650) workers age 16 and over commuted by bicycle. In Los Angeles, 0.9% (16,101 of 1,706,116) of workers commuted by bicycle. Approximately 0.8% of workers commute by bicycle in Burbank (395 of 51,182). Pasadena has approximately 4.8% of workers commuting by bicycle (3,031 of 63,674); this is much higher than other cities in the region. Glendale has approximately the same percentage of workers commuting by bicycles as other surrounding cities (except for Pasadena).

Given the recent push by the City to encourage and promote bicycling by installing bike lanes, bike parking, and holding bicycle promotional events, it is likely that Glendale has more workers commuting by bicycle now than reflected in 2005-2009 Census estimates.

The City sets a goal of 5% of all commute trips to be made by bicycle when this plan is fully implemented 20 years from now. Glendale's plan is ambitious; however, other cities that have become bicycle-friendly, and have supported bicycles through policy, engineering, encouragement, enforcement, education, and evaluation campaigns, have seen roughly this level of increase.

7. FUNDING AND IMPLEMENTATION

This section of the Plan describes the variety of federal, state, and local sources that can fund the implementation of this Bicycle Transportation Plan. The City currently pursues several sources of federal and state grant funding aggressively. The City could apply for further funds in often under-utilized programs. The implementation guide provides a ranked project-phasing that will aid the City in deciding which projects to build first.

Funding

A variety of potential funding sources, including local, state, regional, and federal funding programs, may be used to construct the proposed bicycle improvements. Most of the Federal and State programs are competitive, and involve the completion of extensive applications with clear documentation of the project need, costs, and benefits. Local funding for projects can come from sources within jurisdictions that compete only with other projects in each jurisdiction's budget.

A detailed program-by-program explanation of available funding along with the latest relevant information follows.

FEDERAL FUNDING PROGRAMS

SAFETEA-LU

The Safe Accountable Flexible Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) sets the framework for spending federal transportation revenue. SAFETEA-LU expired with the federal fiscal year in 2009; however, Congress has extended its provisions until a new bill can be passed. Many of the programs described in this section may remain in the new transportation bill.

SAFETEA-LU currently contains four major programs that fund bikeway, pedestrian, and trails projects: Surface Transportation Program (STP), Highway Safety Improvement Program (HSIP), Transportation Enhancement Activities (TE), and Congestion Mitigation and Air Quality Improvement (CMAQ), along with other programs such as the National Recreational Trails Fund, Section 402 (Safety) funds, Scenic Byways funds, Transportation, Community, and System Preservation Program (TCSP), and Federal Lands Highway funds.

Depending on the program, SAFETEA-LU funding is administered through either the California Department of Transportation (Caltrans) or the Los Angeles County Metropolitan Transportation Authority (Metro).

Each of the four main programs' funding processes are outlined in detail below. Generally, Caltrans distributes funding through each district's Local Assistance Program. Los Angeles County Metro is responsible for allocating all discretionary federal, state, and local transportation funds to improve all modes of transportation for Los Angeles County. Metro does so primarily through the Call for Projects (CFP) program. The CFP is a competitive process by which these discretionary funds are distributed to regionally significant projects every other year. There are seven categories in which projects are competitively ranked, including categories for bikeways improvements and pedestrian improvements. The CFP process is part of the larger Los Angeles County Transportation Improvement Program.

Surface Transportation Program (STP)

The federal government apportions STP funding to each state based upon total lane miles of Federal-aid highways, vehicle miles traveled on Federal-aid highways, and highway users' tax payments within that state. Each state has its own method for distributing these funds to each jurisdiction. In California, 10% of funds is set aside in California's Surface Transportation Improvement Program as TE funding. Of the remaining funds, 27.5% goes to Caltrans for discretionary use (Caltrans programs this) and 62.5% is divided among each region by population for the Regional Surface Transportation Programs (RSTPs).

As mentioned above, TE funds come from the set aside in the STP funding. The TE program is a reimbursable capital-improvement program, where eligible projects must impact the surface transportation system. California typically has about \$75 million per year in TE funds. Caltrans divides the TE funding, allocating three-quarters to the Regional Transportation Planning Agencies (in Los Angeles County, this is Metro), and the rest to each of the twelve Caltrans districts. Metro allocates the share of Los Angeles County's TE funds through the CFP and other Metro Board actions. The Caltrans share is used for statewide TE projects. These projects can involve local agencies and are administered by Caltrans.

State statutes established the Regional Surface Transportation Program to program the 62.5% leftover STP funding after TE and Caltrans set asides. Caltrans apportions approximately \$320 million annually to each region, and about 76% of these RSTP funds must be spent within the 11 urbanized areas in California with populations of 200,000 or more. Regional projects such as roadway construction, rehabilitation, bicycle and pedestrian walkways, among others, are eligible for this type of funding. Metro programs the Los Angeles County share of the RSTP. Metro first allocates \$30.7 million per year of RSTP funds on a per capita basis to the County and each jurisdiction in the County for discretionary use. Metro allocates the rest of the funding to itself and to other agencies through the CFP.

Congestion Mitigation and Air Quality (CMAQ)

The CMAQ program funds transportation projects or programs that will contribute to the attainment or maintenance of air quality standards for ozone and carbon monoxide. Federal funds are apportioned to each State according to the severity of these problems. Caltrans apportions funds to the various Metropolitan Planning Organizations (MPOs). SCAG, the MPO for Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial Counties, then apportions these funds to the various County Transportation Boards (CTB). The CTB then determines how funds are allocated. Los Angeles County typically receives around \$137 million. Metro programs these funds to itself and other agencies or jurisdictions through the Call for Projects or other Metro board actions.

Caltrans distributes Highway Safety Improvement Program funds through the Local Assistance program; more details follow in the HSIP section below.

More information can be found at:

<http://www.dot.ca.gov/fedliaison/safetealu.shtml>

<http://safety.fhwa.dot.gov/safetealu/>

http://www.metro.net/projects/call_projects/

http://www.bikeleague.org/resources/reports/pdfs/lab_cmaq.pdf

http://www.bikeleague.org/resources/reports/pdfs/section_402.pdf

Highway Safety Improvement Program (HSIP)

The Highway Safety Improvement Program (HSIP), a SAFETEA-LU program, aims to achieve a significant reduction in traffic fatalities and serious accidents through the implementation of infrastructure-related highway safety improvements. These improvements may be on any public road or publicly owned bicycle and pedestrian pathway or trail, and can include the use of devices such as traffic signals, curb extensions, and crosswalks, among others. In 2009, \$1.296 billion in funds was available nationwide.

For the state portion, SAFETEA-LU allows each state to use HSIP funds for education and enforcement activities, as long as those activities are consistent with the state's Strategic Highway Safety Plan (SHSP). California completed its SHSP in September 2006, and created an Implementation Plan in April 2008.

Applications are submitted electronically, and must demonstrate that the proposed engineering improvements will increase the safety of the proposed project area. These are calculated in the application program using Crash Reduction Factors with accompanying financial values. Project areas which have a prior history of injuries or fatalities are more likely to be funded.

Caltrans is distributing approximately \$70 million to local jurisdictions in FY 2010/11.

More information can be found at:

<http://www.dot.ca.gov/hq/LocalPrograms/hsip.htm>

http://safety.fhwa.dot.gov/safetealu/fact_sheets/ftsht1401.cfm

http://www.bikeleague.org/resources/reports/pdfs/highway_safety_improvement_program.pdf



Verdugo Wash

Recreational Trails Program

The California State Parks and Recreation Department administers Recreational Trails Program (RTP) funds. RTP annually funds recreational trails, including bicycle and pedestrian paths. Cities, counties, districts, state agencies, federal agencies and non-profit organizations may apply. A 12% match is required. Federal, state, local, and private funds may be used to match the grant. There is no limit to the grant request; however, there are different requirements within the grant application depending on whether the project requires more or fewer than \$100,000.

More information can be found at:

Tel. (916) 653-7423

localservices@parks.ca.gov

http://www.parks.ca.gov/?Page_id=24324

<http://www.fhwa.dot.gov/environment/rectrails/>

Transportation, Community, and System Preservation Program (TCSP)

TCSP is another SAFETEA-LU program that provides federal funding for projects that improve the efficiency of the transportation system, reduce the impact on the environment, and generally investigate the relationships between transportation, community, and system preservation. Eligible projects include improving conditions for bicycling and walking, better and safer operations of existing roads, new signals, and development of new programs. States, MPOs and local jurisdictions are eligible to apply for the discretionary grants. Grantees must annually report on the status of the project and the degree to which the project is attaining the stated goals. The report must include quantitative and qualitative assessments. The Federal Highway Administration administers the program, and distributed approximately \$60 million nationwide in FY 2010. The FHWA solicits a call for grant applications annually.

More information can be found at:

<http://www.fhwa.dot.gov/tcsp/index.html>

Safe Routes to School (SRTS)

As of 2006, the federal Safe Routes to School program offers grants to local agencies and others for facilities and programs. Non-traditional agencies, such as school districts, COGs, health departments, non-profit organizations, education departments, and hospitals may apply. Federally-recognized Native American tribes may apply but must partner with a City/County/Metropolitan Planning Organization/Regional Transportation Planning Organization that serves as the responsible agency. Bikeways, sidewalks, intersection improvements, traffic calming, and other projects that enhance bicycle and pedestrian safety to elementary and middle schools are eligible. Safety education, enforcement, and promotional programs are also eligible.

Caltrans administers this grant and releases the funds in multi-year cycles through its district offices. Approximately \$66 million was spent statewide in 2011 SRTS-funded projects. The funds are distributed to each Caltrans district according to school enrollment. Local jurisdictions, school districts, and other agencies compete for these funds. This program will have to be reauthorized with the upcoming federal transportation bill.

More information can be found at:

<http://www.dot.ca.gov/hq/LocalPrograms/saferoutes/saferoutes.htm>



Walk to School Day at R.D. White Elementary School, October 2011

Land and Water Conservation Fund (LWCF)

States receive individual allocations of LWCF grant funds based upon a national formula, with state population being the most influential factor. States initiate a statewide competition for the amount available annually. The State then receives, scores, and ranks applications according to certain project selection criteria so that only the top-ranked projects (up to the total amount available that year) are chosen for funding. Chosen applications are then forwarded to the National Park Service for formal approval and obligation of federal grant monies. Bike paths and recreational trails are eligible uses of this money. Cities, counties, recreation and park districts, and any other entity that has the authority to develop or maintain a public park is eligible to apply. This program is a reimbursement program, and the applicant is expected to initially finance the entire project. In California, \$1.74 million is available this year, but the amount of funds varies based on the total amount apportioned to the state annually. A one for one match is required, and federal funds cannot be used as a match, except Community Development Block Grants. The California State Parks Department administers the funds.

More information can be found at:

http://www.parks.ca.gov/?Page_id=21360

Community Development Block Grants (CDBG)

The CDBG entitlement program allocates annual grants to larger cities and urban counties to develop viable communities by providing decent housing, a suitable living environment, and opportunities to expand economic opportunities, principally for low- and moderate-income persons. Every year the local governments receive federal money for a wide variety of community improvements in the form of CDBG funds. Bicycle and pedestrian facilities are eligible uses of these funds. CDBG funds only pay for projects in areas of economic need. No match is required.

More information can be found at:

<http://www.hud.gov/offices/cpd/communitydevelopment/programs/>

Rivers, Trails, and Conservation Assistance Program (RTCA)

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

More information can be found at:

<http://www.nps.gov/ncrc/programs/rtca/index.htm>

http://www.nps.gov/ncrc/programs/rtca/contactus/cu_apply.html

STATE FUNDING PROGRAMS

Transportation Development Act (TDA) Article 3 (SB 821)

TDA Article 3 funds—also known as the Local Transportation Fund (LTF)—are used by cities within Los Angeles County for single-time planning, and annual construction of bicycle and pedestrian facilities. Each city in Los Angeles County receives TDA Article 3 funds from Metro according to population.

TDA Article 3 funds may be used for the following 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 facilities to comply with the Americans with Disabilities Act (ADA)
- Route improvements, such as signal controls for cyclists, bicycle loop detectors, rubberized rail crossings, and bicycle-friendly drainage grates
- Purchase and installation of bicycle facilities, such as improved intersections, secure bicycle parking, benches, drinking fountains, changing rooms, rest rooms, and showers adjacent to bicycle trails, employment centers, park-and-ride lots, and/or transit terminals accessible to the general public

Bicycle Transportation Account (BTA)

The State Bicycle Transportation Account (BTA) is an annual statewide discretionary program that is available through the Caltrans Bicycle Facilities Unit for funding bicycle projects. Available as grants to local jurisdictions, the BTA emphasizes projects that benefit bicycling for commuting purposes. Agencies may apply for these funds through the Caltrans Office of Bicycle Facilities. Applicant cities and counties are required to have an approved bicycle plan that conforms to Streets and Highways Code 891.2 to qualify and compete for funding on a project-by-project basis. Cities may apply for these funds through the Caltrans Office of Bicycle Facilities. A local match of 10% is required for all awarded funds. Every year \$7.2 million is allocated for bicycle projects statewide. The Non-motorized Transportation Plan establishes a regional network from which local plans can build upon for local-serving bicycle and pedestrian routes. Once a jurisdiction has an approved bicycle plan that meets the requirements of the Street and Highways Code 891.2, they may apply for the Caltrans grant.

More information can be found at:

<http://www.dot.ca.gov/hq/MassTrans/State-TDA.html>

<http://www.dot.ca.gov/hq/LocalPrograms/bta/btawebPage.htm>

Safe Routes to School (SR2S)

The Safe Routes to School (SR2S) program is separate from the federal Safe Routes to School Program. This program, initiated in 2000, is meant to improve school commute routes by improving safety to bicycle and pedestrian travel through bikeways, sidewalks, intersection improvements, traffic calming, and ongoing programs. This program funds improvements for elementary, middle, and high schools. A local match of 10% is required for this competitive program, which allocates approximately \$24.25 million annually, or \$40 million to \$50 million in two-year cycles. Each year the state legislature decides whether to allocate funds to the program. Caltrans administers SR2S funds through its district offices.

More information can be found at:

<http://www.dot.ca.gov/hq/LocalPrograms/saferoutes/saferoutes.htm>

Office of Traffic Safety (OTS)

The California Office of Traffic Safety (OTS) seeks to reduce motor vehicle fatalities and injuries through a national highway safety program. Priority areas include police traffic services, alcohol and other drugs, occupant protection, pedestrian and bicycle safety, emergency medical services, traffic records, roadway safety, and community-based organizations. The OTS provides grants for one to two years. The California Vehicle Code (Sections 2908 and 2909) authorizes the apportionment of federal highway safety funds to the OTS program. Bicycle safety programs are eligible programs for OTS start-up funds. City and county agencies are eligible to apply, as are councils of governments. There is no set maximum for grants, and no match is required; however, contributions of other funds may make projects more competitive.

More information can be found at:

http://www.ots.ca.gov/Grants/Apply/Proposals_2011.asp

<http://www.dot.ca.gov/hq/traffops/saferesr/>

Environmental Enhancement and Mitigation Program (EEMP)

EEM Program funds are allocated to projects that offset environmental impacts of modified or new public transportation facilities, including streets, mass transit guideways, park-n-ride facilities, transit stations, tree planting to mitigate the effects of vehicular emissions, off-road trails, and the acquisition or development of roadside recreational facilities. Every year \$10 million dollars is available, with individual grants limited to \$350,000. Cities, counties, Councils of governments, state agencies, and non-profit organizations may apply. No match is required; however, additional points will be given for matching funds. The State Resources Agency administers the funds.

More information can be found at:

<http://www.resources.ca.gov/eem/>

AB 2766 Subvention Program

AB 2766 Clean Air Funds are generated by a surcharge on automobile registration. The South Coast Air Quality Management District (AQMD) allocates 40% of these funds to cities according to their proportion of the South Coast's population for projects that improve air quality. The projects are up to the discretion of the city and may be used for bicycle or pedestrian projects that could encourage people to bicycle or walk in lieu of driving. The other 60% is allocated through a competitive grant program that has specific guidelines for projects that improve air quality. The guidelines vary and funds are often eligible for a variety of bicycle and pedestrian projects. The Mobile Source Review Committee administers the discretionary funds.

More information can be found at:

<http://www.aqmd.gov/localgovt/AB2766.htm>

<http://www.aqmd.gov/trans/ab2766.html>

Per Capita Grant Program

The Per Capita Grant Program is intended to maintain a high quality of life for California's growing population by providing a continuing investment in parks and recreational facilities. Specifically, these funds are for the acquisition and development of neighborhood, community, and regional parks and recreation lands and facilities in urban and rural areas.

Eligible projects include acquisition, development, improvement, rehabilitation, restoration, and enhancement projects, and the development of interpretive facilities for local parks and recreational lands and facilities. Per Capita grant funds can only be used for capital outlay. They may be used for bike paths and trails. This grant is given to local governments based on their population. Some cities have used up their full allocation, while others have not. Regional parks and open space districts also receive these funds. The California State Parks Department administers the grant funds.

More information can be found at:

http://www.parks.ca.gov/?page_id=22333

Roberti-Z'berg-Harris (RZH) Grant Program - Proposition 40

Funds from the Roberti-Z'berg-Harris Urban Open Space and Recreational Grant Program are to be used for:

- High priority projects that satisfy the most urgent park and recreation needs, with emphasis on unmet needs in the most heavily populated and most economically disadvantaged areas within each jurisdiction
- Projects for which funding supplements rather than supplants local expenditures for park and recreation facilities and does not diminish a local jurisdiction's efforts to provide park and recreation services
- Block grants allocated on the basis of population and location in urbanized areas
- Need-basis grants to be awarded competitively to eligible entities in urbanized areas and in non-urbanized areas

Eligible projects include:

- Acquisition of park and recreation lands and facilities
- Development/rehabilitation of park and recreation lands and facilities
- Special Major Maintenance of park and recreation lands and facilities
- Innovative Recreation Programs

Bike paths and recreational trails are eligible. Cities, counties, and recreation and parks districts may apply for these funds. The maximum grant request is \$250,000 per project, and no match is required. The California State Parks Department administers the funds.

More information can be found at:

http://www.parks.ca.gov/default.asp?page_id=22329

Proposition 84 - Statewide Park Program

The Statewide Park Act awards grants on a competitive basis to the most critically underserved communities across California for the creation of new parks and new recreational facilities. Altogether, \$368 million will be given in two funding cycles. The first funding cycle in 2009 awarded \$184 million. Grants range from \$100,000 to \$5 million. No match is required. Bikeways and trails can be funded with this program, and they need not be in a park.

The creation of new parks in neighborhoods where none currently exist will be given priority. These new parks will meet the recreational, cultural, social, educational, and environmental needs of families, youth, senior citizens, and other population groups.

Cities, counties, districts with a park and recreation director, councils of governments, joint power authorities, or nonprofit organizations are eligible to apply for these funds. The California State Parks Department administers the Statewide Park Program funds.

More information can be found at:

http://www.parks.ca.gov/?Page_id=26025

Proposition 84 – Urban Greening Project Grants

In 2006 California voters passed Proposition 84 to expand recreational facilities and to fund environmental quality projects. Of this, \$70 million was set aside to fund urban greening projects that reduce energy consumption, conserve water, improve air and water quality, and reduce global warming gases. This money will be dispersed in three funding cycles. The first cycle ended in April 2010. Cities, counties, and nonprofit organizations are eligible to apply for these funds. No matching funds are required, but they are encouraged. Bike paths and recreational trails are eligible uses of this money. The State of California Strategic Growth Council administers this program.

More information can be found at:

http://www.resources.ca.gov/bonds_prop84_urbangreening.html

http://sgc.ca.gov/urban_greening_grants.html

Wildlife Conservation Board Public Access Program

The Wildlife Conservation Board (WCB) provides grants for the development of facilities for public access to hunting, fishing, or other wildlife-oriented recreation. These monies can be used for trail head development and boardwalks, among others. Support facilities such as restrooms and parking areas are also eligible for funding. A 50% match is the preferred amount for the funds. The program typically has \$1 million for local assistance grants available annually.

More information can be found at:

<http://www.wcb.ca.gov/Access/index.html>

Transportation Planning Grant Program

The Transportation Planning Grant Program has two grant programs which can aide the planning and development of bicycle and pedestrian facilities. The Environmental Justice: Context Sensitive Planning (EJ CTP) Grant is to promote the involvement of low-income and minority groups in the planning of transportation projects. The program requires a local match of 10% with a 5% in-kind contribution maximum. The Community Based Transportation Planning (CBTP) program funds coordinated transportation and land use planning projects that encourage community involvement and partnerships. These projects must support livable and sustainable community concepts. The Office of Community Planning, part of Caltrans's Division of Transportation Planning, is responsible for managing the program and receives approximately \$3 million annually for each program. Grants are available up to \$300,000 for the Community Based Transportation Planning grant, and \$250,000 for the Environmental Justice Context Sensitive Planning Grant. MPOs, Regional Transportation Planning Agencies, cities, counties, and transit agencies are all eligible to apply for funding.

More information can be found at:

<http://www.dot.ca.gov/hq/tpp/grants.html>

For EJ CTS - Tel. (916) 651-6889

For CBTP - Tel. (916) 651-6886

LOCAL FUNDING

Proposition C Local Return

Proposition C, the Los Angeles County 1/2 cent sales tax, returns 20% of revenue to the cities according to population. The money may be spent on a variety of transportation projects, including bicycle projects. The City is eligible for bicycle facilities, but currently all local funds are allocated for transit services. Some of the Proposition C funding is programmed through the Metro Call for Projects (see SAFETEA-LU section above). In Glendale, many of these funds have been already programmed or set aside for transit improvements.

Measure R Local Return

A portion of this Los Angeles County 1/2 cent sales tax revenue returns to the cities according to population. The money may be spent on a variety of transportation projects, including bicycle projects. Of the \$40 billion which will be collected over the 30 years from Measure R's passage in 2008, \$5.91 billion (approximately 15%) will be returned to local jurisdictions for improvements such as street resurfacing, rehabilitation and reconstructions, bikeways, pedestrian improvements, and streetscapes. Cities may spend this money as they choose from these categories. The distribution of funds varies by year. In Glendale, many of these funds have been already programmed or set aside for transit improvements.

More information can be found at:

<http://www.metro.net/projects/measurer/>

Resurfacing and Repaving

Local jurisdictions should take advantage of opportunities to add bicycle lanes and other markings upon resurfacing and repaving of streets. While other lanes are restriped, the bike facilities can be painted as well. This requires close coordination with the Planning or Community Services Department and Public Works so that low cost bicycle upgrades are not left out of street maintenance projects.

New Construction

Future road widening and construction projects are one means of providing bike lanes, pedestrian improvements, and trails. To ensure that roadway construction projects provide appropriate measures where needed, it is important that an effective review process or ordinance is in place to ensure that new roads meet the standards and guidelines presented in this Plan. Developers may also be required to dedicate land toward the widening of roadways in order to provide for enhanced bicycle mobility.

Impact Fees and Developer Mitigation

Impact fees may be assessed on new development to pay for transportation projects, typically tied to vehicle trip generation rates and traffic impacts generated by a proposed project. A developer may reduce the number of trips (and hence impacts and cost) by paying for on- or off-site bikeway improvements that will encourage residents to bicycle rather than drive. In-lieu parking fees may also be used to contribute to the construction of new or improved bicycle parking facilities. Establishing a clear nexus or connection between the impact fee and the project's impacts is critical in avoiding a potential lawsuit. Local jurisdictions have the option to create their own impact fee and mitigation requirements.

Benefit Assessment Districts

Bike paths, bicycle lanes, bicycle parking, and related facilities can be funded as part of a local benefit assessment district. However, defining the boundaries of the benefit district may be difficult since the bikeways will have citywide or regional benefit. Sidewalks, trails, intersection crossings, and other pedestrian improvements can also be funded through benefit assessments.

Property Taxes and Bonds

Cities and counties can sell bonds to pay for bikeways and pedestrian facilities, as well as any amenities related to these facilities. A super-majority of two-thirds of voters in that jurisdiction must vote to levy property taxes to repay the bonds.

Business Improvement Districts

Bicycle and pedestrian improvements can often be included as part of larger efforts of business improvement and retail district beautification. Similar to benefit assessments, Business Improvement Districts (BIDs) collect levies on businesses in order to fund area-wide improvements that benefit businesses and improve access for customers. These districts may include provisions for bicycle improvements such as bicycle parking or shower and clothing locker amenities, sidewalk improvements, and pedestrian crossing enhancements.

User Fees

Bicycle lockers and automated bicycle parking can be paid for with a user fee. Since the amount of revenue this fee would generate is difficult to predict, this funding source would require an alternative backup source.

Parking Meter Revenues

Cities can fund various improvements through parking meter revenues. The ordinance that governs the use of the revenues would specify eligible uses. Cities have the option to pass ordinances that specify bicycle or pedestrian facilities as eligible expenditures.

Adopt-a-Path Program

Maintenance of bicycle paths and recreational trails could be paid for from private funds in exchange for recognition, such as signs along the path saying “Maintained by (name)”. In order for this funding source to be sustainable, a special account can be set up for donors to pay into.

General Funds

Cities and counties may spend general funds as they see fit. Any bicycle, pedestrian, or trails project can be funded completely through general funds, or general funds can be used as a local match for grant funds.

Implementation

PAST EXPENDITURES

The following table summarizes past expenditures on bicycle facilities by source.

TABLE 7-1: PAST EXPENDITURES ON BICYCLE FACILITIES

Source / City Bikeway Expenditures	TDA Article 3	Measure R	SR2S/SRTS	ARRA	STPL	Local Return Prop. C	Year
Bike Parking							
355 Bike racks on major streets and destination centers, including Civic Center, Larry Zarian Transportation Center, Maintenance Facility Center	\$200,000						2005-2011
Bike Lockers							
28 Bike Lockers installed at various locations including: Larry Zarian Transportation Center, Public Service Yard, Waste Management Center	\$50,000						2005-2011
Other							
Bicycle Master Plan	\$150,000						2010-2011
Shower Facility at Civic Center	\$45,000						2004-2005
Bike Lanes	\$90,000						2009-2011
Class II and Sharrows Glenoaks Blvd. and Foothill Blvd.					\$300,000		2008-2011
Bicycle Loop Detectors at 18 Intersections				\$54,000			2010-11
Road Improvements in the Vicinity of Schools for Biking and Walking			\$670,000				2011-2012
Bike Racks at Schools			\$45,000				
Citywide Bicycle Improvements, including Colored Bike lanes and B-Type Sharrows		\$400,000					2011-2014
Glendale Beeline Transit-Bike Racks						\$30,000	2005-2011
Total by Source	\$535,000	\$400,000	\$715,000	\$54,000	\$300,000	\$30,000	
Grand Total	\$2,034,000						

FUTURE FINANCIAL NEEDS

The following tables show the approximate capital financial needs to implement the proposed bikeway projects. Table 7-2 excludes high-cost projects that will require grade separation and other more complex engineering treatments. The table includes estimated costs for implementation only.

TABLE 7-2: CAPITAL FINANCIAL NEEDS EXCLUDING HIGH-COST PROJECTS

Major Cost Item	Cost
Bikeways	\$5,357,000
Bicycle Parking	\$451,000
TOTAL CAPITAL COST	\$5,808,000

The City also has ongoing costs for planning, engineering, and other miscellaneous functions. Glendale will also continue the bicycle education, encouragement, and enforcement programs, and would like to allocate \$125,000 per year for such projects.

The following table summarizes two of the high-cost projects proposed. The Verdugo Wash Bike Path will require considerable engineering and grading of the Wash. The San Fernando Railroad Bike Path will require significant engineering and coordination among various jurisdictions and other entities.

TABLE 7-3: CAPITAL FINANCIAL NEEDS - HIGH-COST PROJECTS

Bikeway	Cost
Verdugo Wash	\$7,796,000
San Fernando Railroad	\$4,468,000
TOTAL	\$12,264,000

In addition to all of the above costs, the City will need to set aside a budget for maintenance of new facilities. Facilities must be maintained in order to stay effective. Treatments such as colored bicycle lanes and b-type sharrows will require more initial cost and/or maintenance than the typical bike lane or sharrow treatment. The City will ensure that a maintenance budget is set aside prior to implementing these types of bikeways.

PROJECT PRIORITIES

This Plan will be implemented as funds become available to the City. Projects are prioritized into three categories: short-term, medium-term, and long-term, according to the following criteria:

- Preferences expressed by local cyclists at public workshops and through comments received
- Preferences expressed by the Bicycle Advisory Committee
- Priorities established in the Glendale Bicyclist Survey (See Appendix)
- City staff preferences
- Destinations served
- Completion of a network
- History of bicycle-involved crashes
- Improvement of program that serves an immediate safety need
- Current availability and/or suitability of right-of-way
- Likelihood of attracting large numbers of users
- Connectivity with the regional bikeway system
- Links to other transportation modes
- Cost effectiveness
- Bicycle counts

The City will also seek to implement bikeways based on opportunity, such as when streets are resurfaced, or other street projects are taking place. The projects reflected in the priority tables are “phase 1” projects. Projects that have a “phase 2” designation as described in Chapter 6 will be implemented in the long-term.

The following tables (7-4, 7-5, and 7-6) identify all the projects grouped according to their priority category. The projects are not ranked within each priority category. The final table (7-7) identifies the high-cost projects. In addition, those streets that have a scheduled re-pavement or resurfacing through 2014 are identified. Projects that are listed in long or medium-term but have a scheduled re-pavement will be implemented in the short-term if possible.

TABLE 7-4: SHORT-TERM BIKEWAYS

Bikeway	Cost
Brand Blvd. ³	\$61,000
Broadway - Harvey Dr. ²	\$74,000
Cañada Blvd. ¹	\$43,000
Cerritos Ave.	\$6,400
Chevy Chase Dr.-Acacia Ave. ^{1,2}	\$47,000
Doran St.-Lexington Dr.	\$62,000
Glenoaks Blvd. ¹	\$221,000
Glenoaks Blvd.-Ethel St.	\$199,000
Honolulu Ave.-Verdugo Blvd. ¹	\$188,000
Kenneth Rd.-Brand Blvd.-Mountain St. ³	\$93,000
Louise St.	\$39,000
Montrose Ave. - Honolulu Pl.	\$48,000
Oakmont View Dr. - Verdugo Park - Civic Auditorium ²	\$1,498,000
Sonora Ave. - Riverside Dr.	\$106,000
Verdugo Rd. ¹	\$179,000
TOTAL	\$2,864,000

TABLE 7-5: MEDIUM-TERM BIKEWAYS

Bikeway	Cost
Central Ave. ²	\$96,000
Chevy Chase Dr. - Linda Vista Rd. - Lida St.	\$118,000
Columbus Ave.	\$33,000
Concord St.	\$48,000
Fairmont Ave Flyover	\$19,000
Flower St.	\$28,000
Glendale Narrows Riverwalk	\$527,000
Glenwood Rd. - Fifth St. - Concord St. - Stocker St. - Rossmoyne Ave.	\$84,000
Glorietta Ave.	\$7,600
Harvard St.	\$23,000
La Crescenta Ave. ¹	\$157,000
Los Feliz Blvd.	\$13,000
Monterey Rd. - Doran St. - Adams St.	\$132,000
Mountain St. - Grandview Ave. ²	\$43,000
Ocean View Blvd.	\$23,000
Opechee Way	\$8,600
Orange St.	\$37,000

Bikeway	Cost
Pacific Ave.-Burchett St.	\$23,000
Western Ave.	\$52,000
TOTAL	\$1,472,000

TABLE 7-6: LONG-TERM BIKEWAYS

Bikeway	Cost
Alameda Ave. ³	\$23,000
Allen Ave.	\$34,000
California Ave. ²	\$9,400
Cedar St.	\$10,000
Fern Ln.	\$12,000
Geneva St.	\$21,000
Glendale Ave. ²	\$145,000
Glenwood Rd.	\$24,000
Hazel St.	\$3,000
Highland Ave. ²	\$47,000
Justin Ave.	\$225,000
Kenilworth Ave.	\$16,000
Lake St.-Garden St.	\$22,000
Las Palmas Ave.	\$10,000
Mountain St. - Highland Ave. - Cumberland Rd. - Valley View Rd. ^{2,3}	\$33,000
Pioneer Dr.	\$5,300
Ramsdell Ave.	\$6,200
Riverdale Dr. ¹	\$28,000
Roselawn Ave. - Rosemont Ave.	\$8,400
Western Channel	\$337,000
TOTAL	\$1,021,000

TABLE 7-7: HIGH-COST LONG-TERM BIKEWAYS

Bikeway	Cost
San Fernando Railroad	\$4,468,000
Verdugo Wash	\$7,796,000
TOTAL	\$12,264,000

¹ A portion or all of this street will be resurfaced or repaved in 2012

² A portion or all of this street will be resurfaced or repaved in 2013

³ A portion or all of this street will be resurfaced or repaved in 2014

MONITORING

The City will monitor implementation progress. One of the best ways to do this is by conducting regular counts of bicyclists. The Safe and Healthy Streets team established a methodology for counts, and baseline data for both 2009 and 2010. This methodology should be continued and expanded upon into the future.

The following provides general guidance to the City to conduct counts.

Results of counts should be made available to the public. In order to gain meaningful information from bicycle counts, it will be important to conduct the counts:

- At numerous locations that represent overall travel behavior
- On both weekdays and weekends
- All hours of the days when cyclists are likely to ride
- At least two times per year
- At the same points in the calendar year
- At the same places every year
- With the same methodology every year
- On representative normal days; not holidays, etc.

Locations

Bicycle counts should be conducted at a variety of locations. Counting at intersections is often preferred because it minimizes the number of volunteers needed, and bicyclist volumes on two streets are captured. It will be most useful to conduct counts at a number of locations that present a different picture. Some should be at the intersection of two bikeways to see if the bikeway network is working, or if bikeways are on the proper streets. Others may be conducted at future bikeways so that the impact of the bikeway can be assessed over time. It will also be useful to know about travel on very busy streets that are not bikeways, as well as on quiet streets that are not bikeways. The following are suggested count locations based on the Safe and Healthy Streets count methodology (see 2009 and 2010 Glendale Bicyclist and Pedestrian Count Reports). The highest-volume intersections are bold in the list below.

- Brand Boulevard and Broadway
- Brand Boulevard and Chevy Chase Drive
- Broadview Drive and Oceanview Boulevard (2009 count only)
- **Cañada Boulevard and Verdugo Road**
- Central Avenue and Americana Way (2010 count only)
- Central Avenue and Stocker Street

- Colorado Street and Lincoln Avenue
- Columbus Avenue and Riverdale Drive
- Concord Street and Doran Street
- Concord Street and Glenwood Road (Hoover High School)
- **Flower Street and Sonora Avenue**
- Foothill Boulevard and Pennsylvania Avenue
- Glendale Avenue and Maple Street
- Glendale Avenue and Wilson Avenue
- Glenoaks Boulevard and Chevy Chase Drive
- **Glenoaks Boulevard and Grandview Avenue**
- Glenoaks Boulevard and Louise Street
- Honolulu Avenue and La Crescenta Avenue
- Honolulu Avenue and Oceanview Boulevard
- Honolulu Avenue and Verdugo Road
- Jackson Street and California Avenue
- Kenneth Road and Sonora Avenue
- Louise Street and Wilson Avenue
- Maple Street and Chevy Chase Drive
- **San Fernando Road and Los Feliz Road**
- Verdugo Road and Harvard Street (Glendale High School)
- **Verdugo Road and Mountain Street**

The number of count locations can be determined in many ways, but is typically based on the current population. Glendale should continue to monitor these established locations. The highest volume intersections should be included in subsequent counts. The City should also prioritize improvements along these streets.

Prior to the building of large new developments, new bikeways, and other improvements, the City should consider adding appropriate count locations to further understand the impact of infrastructure improvements and development on bicycling.

In addition, counts may be conducted on small streets without bikeways to investigate how many people cycle on streets with few cars.

Full counts should be conducted at these specified locations. The City should recruit and encourage volunteers to participate in the count.

Times

Cyclists should be counted at all times when they are likely to be present. This may be 7:30 am to 7:30 pm, or extended hours. The counts should be broken into time intervals of 15, 30, or 60 minutes. To capture the greatest number of commuting cyclists, counts should be conducted during the am and pm peak hours, similar to vehicle peak-period counts.

Days of the Week

Counts should be conducted on typical days. One weekday, Tuesday through Thursday, should represent typical weekday behavior. They should also be done on at least one weekend day. Saturdays may even differ from Sundays. The most accurate methodology will count on both days, but selecting one should be sufficient. Counts should be conducted on representative days, where the weather is typical for Glendale (no rain), and there are no unusual events. Counts to show the typical number of cyclists should not be done during Bike Month because the event may skew the numbers. If the City wants to see how effective Bike Month is, it could add this time for additional counts.

Times of the Year

Cyclists often ride more during summer than other months. Selecting one month to conduct counts in the summer, then one another time of year should yield representative results. June may be a representative summer month because fewer people travel in June than July or August. Another count in the fall, winter, or spring could represent typical non-summer months.

Regular Counts

Bicycle counts should be done regularly. Ideally, they will be done during the same weeks every year, or comparable weeks. They should use the same count sheets and overall methodology. It will be best to use the same weekend days as well. In other words, if one is done on a Saturday in June, the next time the counts are done in June they should be on a Saturday.

Tallying

Those conducting the manual counts should have tally sheets that enable them to record and compile all the desired information easily. Tally sheets should come with instructions. The picture on the next page shows a typical tally form.

Figure A-1
Glendale 2009 Bicycle and Pedestrian Count Form

GLENDALE BICYCLE AND PEDESTRIAN COUNT FORM

Name: _____ Location: _____

Date: _____ Start Time: _____ End Time: _____ Weather: _____

Count all bicyclists and pedestrians crossing through the intersection in the road and on the sidewalk under the appropriate categories. Use one intersection graphic per 15-minute interval for a two-hour period.

Glendale 2009 Bicycle and Pedestrian Count Form

Motor Vehicle Counts

For additional information, motor vehicle counts could be conducted at, or about, the same time as the bicycle counts at the bicycle count locations. This would enable the City to determine the percentage of vehicles that are bicycles at those locations. They could also be averaged to approximate a citywide percentage.

8. DESIGN GUIDELINES

This chapter describes general design guidelines for the facilities identified in this plan. The City will need to follow standard manuals such as the California Manual on Uniform Traffic Control Devices, Highway Design Manual, American Association of State Highway and Transportation Officials' "A Policy on Geometric Design of Highways and Streets," National Association of City Transportation Officials' Urban Bikeway Design Guide, and others. The City may have to amend its own street design guidelines in order to implement certain facilities. Glendale should take precaution and research the newest bikeway design guidelines and engineering treatments prior to constructing a facility.

Bikeways Guidelines

DEFINITIONS

Bicycle

The American Association of State Highway and Transportation Officials' (AASHTO) (1999) definition of a bicycle is "every vehicle propelled solely by human power which any person may ride, having two tandem wheels, except scooters and similar devices. The term 'bicycle' also includes three- and four-wheeled human-powered vehicles, but not tricycles for children."

Class I



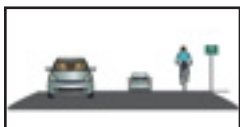
Referred to as a bike path, shared-use path, or multi-purpose trail. Provides for bicycle travel on a paved right-of-way completely separated from any street or highway. Other users may also be found on this type of facility.

Class II



Referred to as a bike lane. Provides a striped lane for one-way bicycle travel on a street or highway.

Class III



Referred to as a bike route. Provides for shared use with pedestrian or motor vehicle traffic.

DESIGN

The following guidelines present the recommended minimum design standards and other recommended ancillary support items for shared use paths, bike lanes, and bike routes. Where possible, it may be desirable to exceed the minimum standards for shared use paths or bike lane widths, signage, lighting, and traffic signal detectors. These guidelines cover basic concepts. The Caltrans Highway Design Manual Chapter 1000 and the AASHTO Guide for the Development of Bicycle Facilities contain more detailed standards and guidance and should be followed.

Class I Bike Path Facilities Design Recommendations

1. All Class I bike paths should conform to the design guidelines set forth by Caltrans.
2. Class I bike paths should generally be designed as separated facilities away from parallel streets. They are commonly planned along rights-of-way such as waterways, utility corridors, railroads, and the like that offer continuous separated riding opportunities.
3. Both AASHTO and Caltrans recommend against using most sidewalks for bike paths. This is due to conflicts with driveways and intersections. Where sidewalks are used as bike paths, they should be placed in locations with few driveways and intersections, be properly separated from the roadway, and have carefully designed intersection crossings.
4. Bike paths should have a minimum of eight feet of pavement, with at least two feet of unpaved shoulders for pedestrians/runners, or a separate tread way where feasible. A pavement width of 12 feet is preferred.
5. Multi-use trails and unpaved facilities that are not funded with federal transportation dollars and that are not designated as Class I bike paths do not need to be designed to Caltrans standards.
6. Class I bike path crossings of roadways should be carefully engineered to accommodate safe and visible crossing for users. The design needs to consider the width of the roadway, whether it has a median, and the roadway's average daily and peak-hour traffic volumes. Crossings of low-volume streets may require simple stop signs. Crossings of streets with Average Daily Traffic (ADT) of approximately 15,000 should be assessed for signalized crossing, flashing LED beacons, crossing islands, or other devices. Roundabouts can be a desirable treatment for a bike path intersecting with roadways where the bike path is not next to a parallel street.
7. Landscaping should generally consist of native vegetation that consumes little water and produces little debris.
8. Lighting should be provided where commuters will likely use the bike path in the late evening.

9. Barriers at pathway entrances should be clearly marked with reflectors and be ADA accessible (minimum five feet clearance). See Figure 8-1.

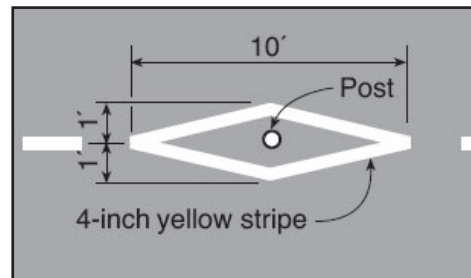


Figure 8-1: Bike Path Barrier Post Treatment

10. Bike path construction should take into account vertical requirements and the impacts of maintenance and emergency vehicles on shoulders.

Class II Bike Lane Facilities Design Recommendations

The following guidelines should be used when designing Class II bikeway facilities. These guidelines are provided by the Caltrans Highway Design Manual Chapter 1000, the American Association of State Highway and Transportation Officials (AASHTO), the Manual on Uniform Traffic Control Devices (MUTCD), and the Caltrans Traffic Manual.

1. Class II Bike Lane facilities should conform to the minimum design standard of 5 feet in width in the direction of vehicle travel adjacent to the curb lane. Where space is available, a width of 6 to 8 feet is preferred, especially on busy arterial streets, on grades, and adjacent to parallel parking.
2. Under certain circumstances, bike lanes may be 4 feet in width. Situations where this is permitted include the following.
 - Bike lanes located between through traffic lanes and right turn pockets at intersection approaches (see Figure 8-4)
 - Where there is no parking, the gutter pan is no more than 12" wide, and the pavement is smooth and flush with the gutter pan
 - Where there is no curb and the pavement is smooth to the edge
3. "Bike Lane" signage, as shown in Figure 8-2, shall be posted after every significant intersection along the route of the bike lane facility. Directional signage may also accompany this sign to guide bicyclists along the route. If a bike lane exists where parking is prohibited, "no parking" signage may accompany bike lane signage.



Figure 8-2: Bike Lane Sign (Caltrans)

4. Bike lanes should be striped with a solid white stripe of width at least 6 inches and may be dashed up to 200 feet before the approach to an intersection. This design of a dashed bike lane allows for its dual use as a right-turn pocket for motor vehicles.
5. Stencils shall also be used within the lane on the pavement that read “bike lane” and include a stencil of a bicycle with an arrow showing the direction of travel (see Figure 8-3).



Figure 8-3: Bike Lane Striping and Stencil

6. Bike lanes with two stripes are more visible than those with one and are preferred. The second stripe would differentiate the bike lane from the parking lane where appropriate.
7. Where space permits, intersection treatments should include bike lane ‘pockets’ as shown in Figure 8-4.

8. Loop detectors that detect bicycles should be installed near the stop bar in the bike lane at all signalized intersections where bicycles are not reasonably accommodated. Signal timing and phasing should be set to accommodate bicycle acceleration speeds.

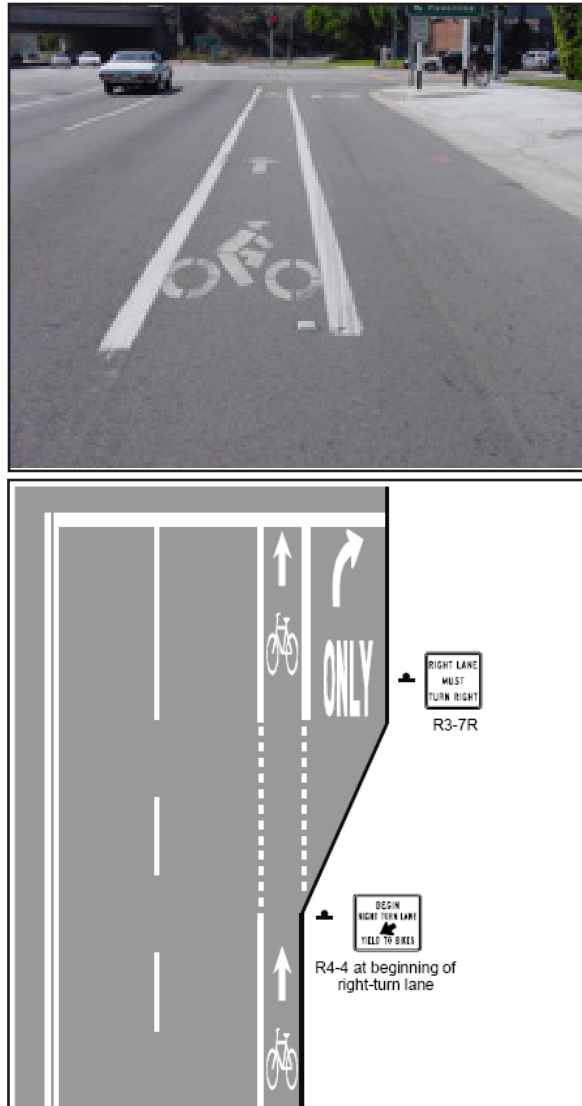


Figure 8-4: Bike Lane Treatment at Intersection (MUTCD, AASHTO)

Colored Bicycle Lanes

Green bicycle lanes are short lanes that are used where right-turn pockets direct motorists through a bicycle lane to turn right. The green lane makes it obvious to motorists that they are crossing the bicycle lane and makes them more likely to be cautious and to look for bicycles.



Figure 8-5: Green Bicycle Lanes

Green bicycle lanes can be used as continuous treatment as well (Figure 8-5), not only in conflict zones. The treatment has been approved on an interim basis by the Federal Highway Administration and the California Traffic Control Device Committee. Glendale would need to notify the state if it chooses to use this treatment.

Buffered Bike Lanes

Buffered bike lanes provide a painted divider between the bike lane and the travel lanes. This additional space can improve the comfort of cyclists as they don't have to ride as close to motor vehicles. Buffered bike lanes can also be used to narrow travel lanes, which slows traffic. An additional buffer may be used between parked cars and bike lanes to direct cyclists to ride outside of the door zone of the parked cars. Buffered bike lanes are most appropriate on wide, busy streets. They can be used on streets where physically separating the bike lanes with cycle tracks is undesirable for cost, operational, or maintenance reasons.

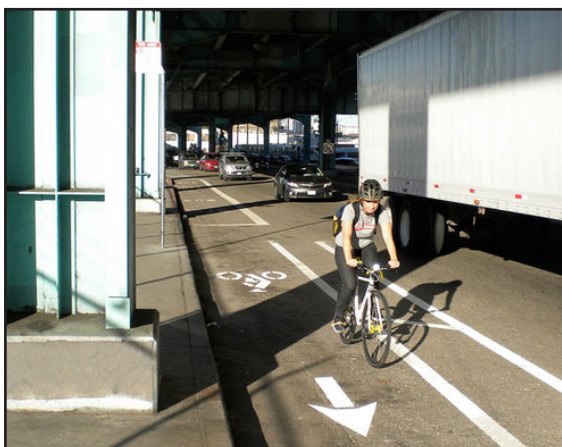


Figure 8-6: Buffered Bike Lanes

Class III Bike Route Facilities Design Recommendations

Bike routes have typically been designated as simple signed routes along street corridors, usually local streets and collectors. With proper route signage, design, and maintenance, bike routes can be effective in guiding bicyclists along a route suited for bicycling without having enough roadway space to provide a dedicated Class II bike lane. Class III Bike Routes can be designed in a manner that encourages bicycle usage, convenience, and safety. There are a variety of other improvements that can enhance the safety and attraction of streets for bicyclists. Bike routes can become more useful when coupled with such techniques as the following:

- Route, directional, and distance signage
- Wide curb lanes
- Sharrow stencils painted in the traffic lane along the appropriate path of where a bicyclist would ride in the lane
- Accelerated pavement maintenance schedules
- Traffic signals timed and coordinated for cyclists (where appropriate)
- Traffic calming measures

The following design guidelines should be used with the implementation of new Class III Bike Route facilities:

Proper “Bike Route” signage, as shown in Figure 8-7, should be posted after every intersection along the route of the bikeway. This will inform bicyclists that the bikeway facility continues and will alert motorists to the presence of bicyclists along the route. Directional signage may accompany this sign as well to guide bicyclists along the route.



Figure 8-7: Bike Route Sign

This Plan recommends using the sharrow stencil (Figure 8-8) as a way to enhance the visibility and safety of new Class III Bike Route facilities. The stencil should be placed outside of on-street vehicle parking to encourage cyclists to ride away from parked cars' open doors. Stencils should also be placed at one or two locations on every block or more frequently on long blocks.

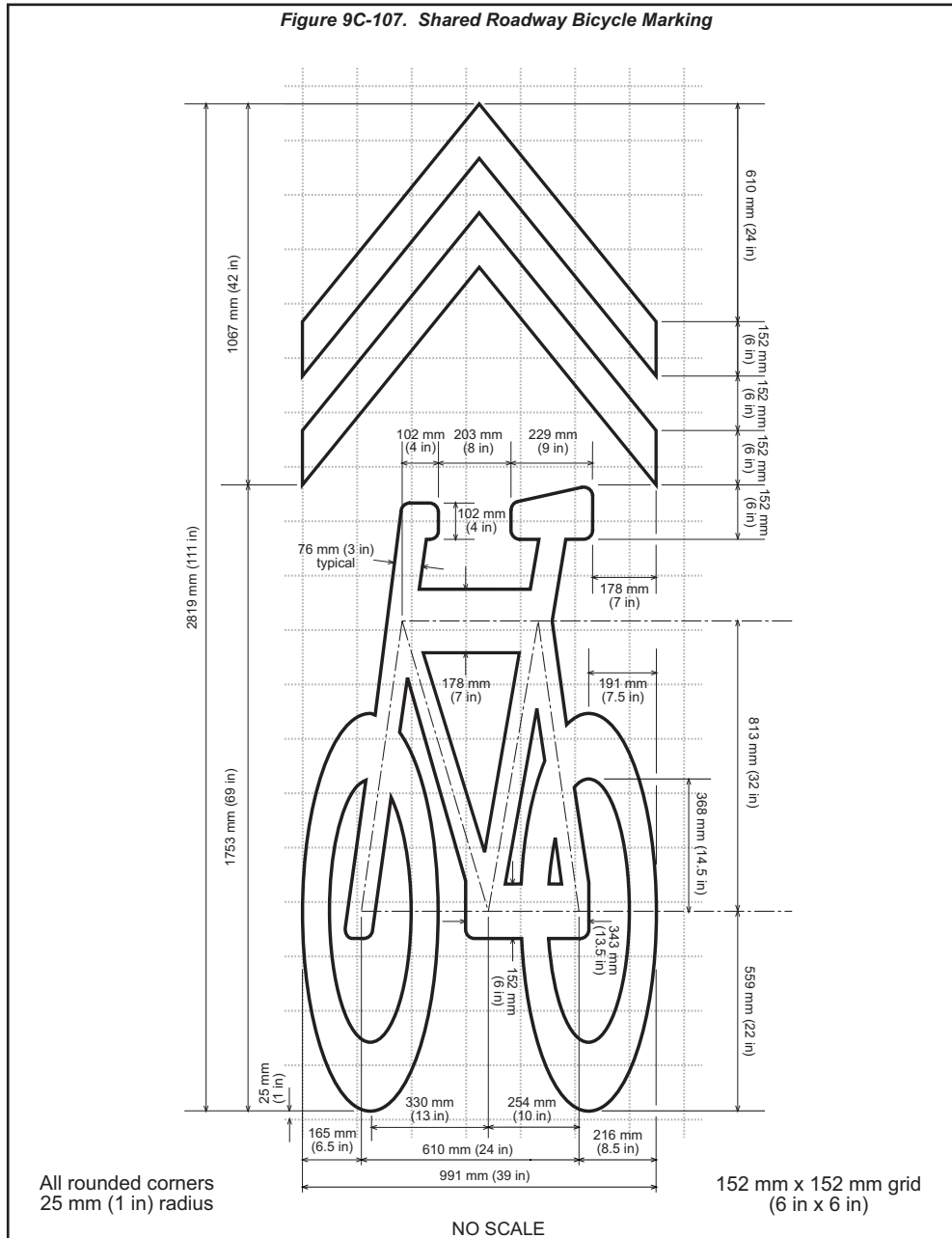


Figure 8-8: Sharrow Stencil

Based on California MUTCD, Section 9C.103(CA) Shared Roadway Bicycle Markings, the standard states: “The shared roadway bicycle marking shall only be used on a roadway (Class III Bikeway (Bike Route) or Shared Roadway (No Bikeway Designation)) which has on-street parallel parking. If used, shared roadway bicycle markings shall be placed so that the centers of the markings are a minimum of 3.3 meters (11 feet) from the curb face or edge of paved shoulder.”

On two lane roadways, this minimum 11-foot distance will allow vehicles to pass bicyclists on the left within the same lane without encroaching in the opposite lane of traffic. On multi-lane roadways, installing the sharrows marking more than 11 feet from the curb will move the bicyclist farther from the “door zone.”

Sharrow markings should be placed in straight lines to allow the bicyclist to travel in a straight line. This often means the sharrow markings are in the center of the lane, greater than the minimum guide of 11 feet from the curb. Sharrow markings should be placed outside the “door zone.”

Placing the sharrows between tire tracks, as shown in Figure 8-9, increases the life of the markings and decreases long-term maintenance costs.



Figure 8-9: Sharrow Placement

B-Type Sharrows

The City of Long Beach is presently experimenting with green coloring of travel lanes (see Figure 8-10) with sharrows. The wide green stripe sends a strong signal to cyclists as to where they should ride, and communicates to motorists that bicyclists are legitimate users of the entire travel lane. Although no standards are established, multi-lane streets with narrow curb lanes are likely the most appropriate to apply this treatment. This treatment has not yet been approved as part of the California Manual on Uniform Traffic Control Devices (CA MUTCD). Until it is approved, the City would have to use this treatment under a sanctioned experimental process.



Figure 8-10: Long Beach Green Sharrow Lane

Brookline, Massachusetts uses large sharrows placed close together with an additional outer marking.



Figure 8-11: Brookline, MA Sharrow Markings

Signage and Markings

Bikeway signage should conform to the signage standards identified in the Manual on Uniform Traffic Control Devices (MUTCD, 2009) and the California MUTCD 2010. These documents give specific information on the type and location of signage for the primary bikeway system. The table below provides guidance on some of the most important signs.

TABLE 8-1: RECOMMENDED BIKEWAY SIGNAGE AND MARKINGS

Signage	Location	Color	CA MUTCD Designation	MUTCD Designation
Bicycle Crossing	For motorists at a bikeway crossing	B on Y	N/A	W11-15 with W11-15P (optional)
Bike Lane	At the far side of significant arterial intersections	B on W	R81	R3-17
STOP Ahead	Where a STOP sign is obscured	B,R on Y	W3-1	W3-1
Signal Ahead	Where signal is obscured	B,R,G	W3-3	W3-3
Pedestrian Crossing	Where a pedestrian walkway crosses a bikeway	B on Y	W11-2	W11-2
Directional Signs	At intersections where access to major destinations is available	W on G	G7 G8	D1-1b, D1-2b, D1-3b, D1-1c, D1-2c, D1-3c
Right Lane Must Turn Right; Begin Right Turn Here, Yield to Bikes	Where a bike lane ends before an intersection	B on W	N/A R4-4	R3-7 R4-4
Share the Road	Where there is need to warn motorists to watch for bicyclists along the highway	B on Y	W16-1 with W11-1	W16-1P with W11-1
Bicycles May Use Full Lane	Where travel lanes are too narrow for bicyclists and motor vehicles to travel side by side	B on W	R4-11	R4-11

A numbered bike route network may be devised as a convenient way for bicyclists to navigate through the City, analogous to the way in which the numbered highway system guides motorists efficiently through the roadway network. This could be used on all classes of bikeways. An example of a numbered bikeway sign is shown in Figure 8-12.



Figure 8-12: Numbered Bikeway Sign (MUTCD)

Figure 8-13 below shows an example of a “Share the Road” sign.



Figure 8-13: Share the Road Sign

The City of Glendale has launched a wayfinding system to guide bicyclists to their destinations. Signs will be typically placed at decision points along routes within the City’s bicycle network, which may include the intersection of two or more bikeways and at key locations leading to and along bikeways. Distinctively branded bicycle wayfinding signs have been installed along Riverdale Avenue, Maple Street, Rock Glen Avenue and Lincoln Avenue with the intention of installing bicycle wayfinding signs along existing and proposed bikeways citywide.



Figure 8-14: Glendale Wayfinding Sign

Vancouver, British Columbia, marks street signs with bicycles if they are a bicycle route as shown below in Figure 8-15.



Figure 8-15: Vancouver Street Signs

Directional Signage

It is important to provide information to cyclists where bike routes turn, or where bikeways intersect. This can be done with both signs and pavement markings as shown below. Glendale can enhance typical Class III routes with directional signage and pavement markings. These markings allow the cyclist to understand how the route continues, especially if it is one which may be less direct.

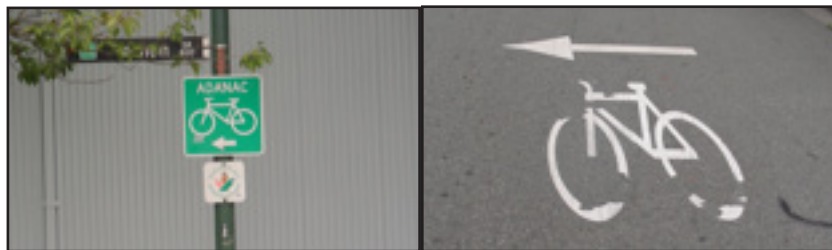


Figure 8-16: Bicycle Signage and Pavement Markings



Figure 8-17: Bicycle Route with Directional Signage

Bicycle Parking

Bicycle parking is a critical component of the network and facilitates bicycle travel, especially for commuting and utilitarian purposes. The provision of bicycle parking at every destination ensures that bicyclists have a place to safely secure their mode of travel. Elements of proper bicycle parking accommodation are outlined below.

1. Bike racks provide short-term parking. Bicycle racks should offer adequate support for the bicycles and should be easy to lock to. Figure 8-18 displays a common inverted-U design that does this. Figure 8-19 shows typical U-racks currently installed by the City of Glendale, which clearly show with the bike symbol that the rack is for bicycle parking, and which have multiple loops to provide more locking areas. Figure 8-20 depicts a multi-bicycle rack that works well. Figure 8-21 shows an innovative concept in which the bike rack itself looks like a bicycle.



Figure 8-18: "Inverted-U" Bicycle Rack



Figure 8-19: Glendale Style of "Inverted U" Bicycle Rack



Figure 8-20: Multi-Bicycle Parking Rack



Figure 8-21: "Bike" Bike Rack

2. Inverted-U racks placed next to each other (as shown in the right-hand photo of Figure 8-18) should be placed at least 36 inches apart (48 inches is recommended), so bicycles can be loaded on both sides of the rack.
3. Long-term parking should be provided for those needing all day storage or enhanced safety. Bicycle lockers offer good long-term storage, as shown in Figure 8-22. Bicycle lockers should be approximately 6' x 2' x 4', and should consider the needs of folding and recumbent bicycles. Attendant and automated parking also serves long-term uses as shown in Figure 8-23.



Figure 8-22: Bicycle Lockers



Figure 8-23: Automated Bicycle Parking

4. Bicycle parking should be clearly identified by signage, such as that shown in Figure 8-24. Signage shall also identify the location of racks and lockers at the entrance to shopping centers, buildings, and other establishments where parking is not provided in an obvious location, such as near a front door.



Figure 8-24: Bicycle Parking Sign (Caltrans)

5. Bicycle parking should be located close to the front door of buildings and retail establishments in order to provide for the convenience, visibility, and safety of those who park their bicycles. The City should consider the “wheels to heels” transition. Every bicyclist must become a pedestrian when entering a building; the City should place bicycle parking in locations that facilitate this process, and discourage sidewalk riding in pedestrian-oriented districts.

6. At transit stations and in dense housing complexes, two-tier racks can be used. These racks allow bicycles to be loaded on the top or bottom, with a lever that swings to the ground to allow for top rack loading. Individual racks are also staggered in height such that bicycle handlebars will not hit each other. The racks are placed very closely together (approximately 16" apart).



Figure 8-25: Berkeley Bike Station (two-tier racks)

7. Staggered wall-mounted bicycle racks can be used inside in small offices, commercial areas, and apartment complexes. Extra precaution should be taken for security including locked entry to the storage area, as well as locks on the rack itself. If staggered in height, bicycles can be placed every 16" apart. The figure below does not include a locking mechanism, which is recommended.



Figure 8-26: Wall-mounted Bicycle Rack (without lock)

8. Bicycle lockers should have informational signage, placards, or stickers placed on or immediately adjacent to them identifying the procedure for how to use a locker. This information at a minimum should include the following:
 - Contact information to obtain a locker at City Hall or other administrating establishment
 - Cost (if any) for locker use
 - Terms of use
 - Emergency contact information
9. Bicycle lockers should be labeled explicitly as such and shall not be used for other types of storage.
10. Bicycle racks and storage lockers should be bolted tightly to the ground in a manner that prevents tampering.
11. Bike corrals are created when a local jurisdiction replaces on-street auto-parking spaces with rows of bicycle racks. They should be used where bicycle parking is in high demand.



Figure 8-27: Bicycle Corral

Additional Treatments and Considerations

ROAD DIET

A “road diet” describes the reallocation of pavement space by removing one or more lanes of travel to add other types of facilities. Typical road diets change streets with four lanes (two lanes of travel in each direction) to two lanes with a center two-way-left-turn lane and bicycle lanes. Some road diets may be necessary to create a specified on-street bicycle facility. Road diets can be implemented during street re-pavings or re-surfacings. Not only do they allow for the installation of bicycle lanes, but they often present an opportunity to improve the pedestrian environment as well. They also provide a traffic calming effect. The City will need to conduct outreach and notification for any suggested road diets. Road diets will also require council approval. A typical road diet is shown below in Figure 8-28.



Figure 8-28: Before and After Road Diet

WIDENED CURB LANE

Where there is not enough space for bike lanes, this Plan recommends re-striping the street to add as much room to the curb lane as possible. This will allow cyclists to more comfortably share the road with cars. This is not a designated bikeway, but rather a street enhancement that will benefit cyclists.

DRAINAGE GRATES

Care must be taken to ensure that drainage grates are bicycle-safe. If not, a bicycle wheel may fall into the slots of the grate, causing the cyclist to tumble. Replacing existing grates or welding thin metal straps across the grate perpendicular to the direction of travel is required to make them bicycle safe. These should be checked periodically to ensure that the straps remain in place. Grates with bars perpendicular to the roadway must not be placed at curb cuts, because wheelchairs could also get caught in the slot. Figure 8-29 shows the appropriate types of drainage grates that should be used.

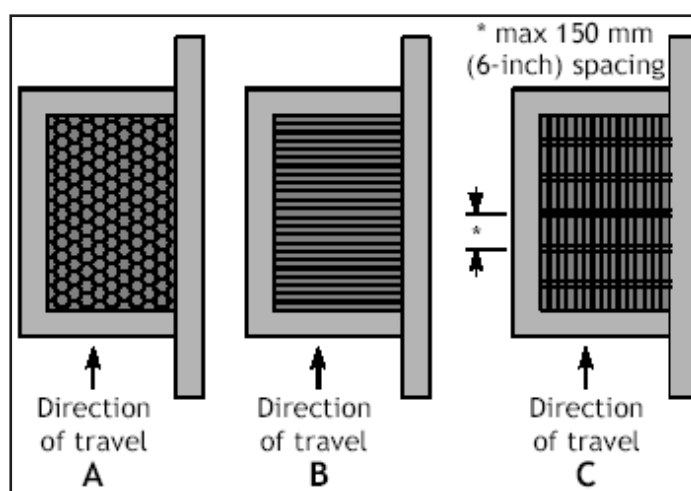


Figure 8-29: Proper Drainage Grate Design

LOOP DETECTORS



Figure 8-30: Bicycle Loop Detector Marking

Loop detectors at signalized intersections should be designed to detect when a bicycle rides or stops over them. Loop detectors at the signalized intersections of minor streets (minor arterials or collectors) should have priority when retrofitting existing detectors where the minor approaches do not call a green phase during every signal cycle. In the long run, all signalized intersections should provide loops or other detection device to detect cyclists to provide for enhanced seamless travel. The State of California passed a new law that became effective in 2009 requiring local jurisdictions to add bicycle-sensitive loop detectors to

all new signals and those that are replaced. The general specifications are that a detection area of 6' by 6' be created behind the limit line, and that bicyclists be given enough time to travel through the intersection with the clearance time calculated using a speed of 14.7 feet per second plus 6 seconds for start-up. Painting the loop detectors and adding a bicycle stencil can help to notify cyclists as to where they need to be to trip the detectors.

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9. APPENDICES

1. Cost Estimates

The following cost estimates should serve as a guide to the City when building proposed bikeways and adding bicycle parking.

BICYCLE PARKING

TABLE 9-1: BICYCLE PARKING COST ESTIMATES

Location	Number	Number of Spaces	Total Spaces	Total Racks	Funds needed
High Schools	3	30	90	45	\$20,000
Middle Schools	3	30	90	45	\$20,000
Elementary Schools	20	20	400	200	\$100,000
Parks	41	8	328	164	\$65,600
On-demand Racks				400	\$180,000
Bicycle Corral Fund					\$15,000
Bicycle Locker Fund					\$50,000
TOTAL					\$450,600

BIKEWAYS

Approximate costs for proposed projects are listed on the following pages. Unit costs for bikeway types and bikeway codes used in detailed tables are listed below. The implementation costs listed below include the cost to stripe both sides of the street, as most proposed projects have the same designated bikeway in both directions. In situations where this is not the case, the detailed cost estimate will reflect implementation on only one side of the street. Many treatments such as bike lanes or signage will require little maintenance per year. The City will need to evaluate maintenance costs per unit of bikeway for each treatment prior to implementation.

TABLE 9-2: BIKEWAY CODES AND UNIT COSTS

Type	Symbol	Implementation Cost (per mile or per unit)
Bike Lanes	BL	\$50,000
Bike Route	BR	\$10,000
Bike Route with B-type Sharrows	BRBS	\$25,000
Bike Route with Directional Signage	BRD	\$15,000
Bridge improvements	Bridge improvements	\$50,000
Bridge signage	Bridge signage	\$5,000
Bike Route with Sharrows	BRS	\$20,000
Bike Route with Sharrows and Directional Signage	BRSD	\$25,000
Colored Bike Lanes	CBL	\$75,000
Grade-separated crossing	Grade-separated crossing	\$4,000,000
Median Gap	Median Gap	\$2,000
Path	P	\$1,000,000
Protected Bike Lanes	PBL	\$75,000
Perimeter Path	Perimeter P	\$1,000,000
Road Diet with Bike Lanes	RDBL	\$100,000
Road Diet with Colored Bike Lanes	RDCBL	\$125,000
User-activated bike signal	User-activated bike signal	\$200,000
Widen curb lane	Widen curb lane	\$50,000

Orientation	#	Priority	Bikeway Name	Street	From	To	Class	Type	Mileage (linear miles)	Additional Treatment	Total Cost
Path	1	HC	Verdugo Wash	N/A	N/A	N/A	1	P	7.80		\$7,796,220
Path	2	L	Western Channel	N/A	N/A	N/A	1	P	0.34		\$336,711
Path	3	HC	San Fernando Railroad	N/A	N/A	N/A	1	P	4.47		\$4,467,720
Path	4	M	Glendale Narrows Riverwalk	N/A	N/A	N/A	1	P	0.53		\$526,813
East - West	1	S	Honolulu Ave.- Verdugo Blvd.	Honolulu Ave.	Lowell Ave.	Pennsylvania Ave.	3	BRS	1.30		\$26,000
East - West	1	S	Honolulu Ave.- Verdugo Blvd.	Pennsylvania Ave.	Montrose Ave.	Honolulu Ave.	2	BL	0.32		\$15,798
East - West	1	S	Honolulu Ave.- Verdugo Blvd.	Honolulu Ave.	Pennsylvania Ave.	Ramsdell Ave.	3	BRS	0.29		\$5,800
East - West	1	S	Honolulu Ave.- Verdugo Blvd.	Honolulu Ave.	Ramsdell Ave.	Orangedale Ave.	2	RDBL	0.84		\$84,000
East - West	1	S	Honolulu Ave.- Verdugo Blvd.	Honolulu Ave.	Orangedale Ave.	Verdugo Rd.	3	BRS	0.44		\$8,800
East - West	1	S	Honolulu Ave.- Verdugo Blvd.	Verdugo Blvd.	Verdugo Rd.	Eastern City Limit	2	BL	0.96		\$47,808
East - West	2	S	Montrose Ave. / Honolulu Pl.	Montrose Ave.	Honolulu Ave.	Rosemont Ave.	2	BL	0.96		\$48,158
East - West	3	M	Glorietta Ave.	Glorietta Ave.	Hermosita Dr.	Verdugo Rd.	3	BRS	0.38		\$7,600
East - West	4	L	Fern Ln.	Fern Ln.	Verdugo Blvd.	Glendale Sports Complex	3	BRS	0.61		\$12,235
East - West	5	M	Opechee Way	Opechee Way	Hermosita Dr.	Verdugo Rd.	3	BRS	0.43		\$8,600

Orientation	#	Priority	Bikeway Name	Street	From	To	Class	Type	Mileage (linear miles)	Additional Treatment	Total Cost
East - West	6	L	Mountain St.- Highland Ave.- Cumberland Rd.- Valley View Rd.	Mountain St.	Grandview Ave.	Highland Ave.	3	BRS	0.50		\$10,000
East - West	6	L	Mountain St.- Highland Ave.- Cumberland Rd.- Valley View Rd.	Highland Ave.	Mountain St.	Cumberland Rd.	3	BRS	0.37		\$7,326
East - West	6	L	Mountain St.- Highland Ave.- Cumberland Rd.- Valley View Rd.	Cumberland Rd.	Highland Ave.	Valley View Rd.	3	BRS	0.67		\$13,340
East - West	6	L	Mountain St.- Highland Ave.- Cumberland Rd.- Valley View Rd.	Valley View Rd.	Cumberland Rd.	Kenneth Rd.	3	BRD	0.13		\$1,924
East - West	7	S	Kenneth Rd.-Brand Blvd.-Mountain St.	Kenneth Rd.	Alameda Ave.	Brand Blvd.	3	BRSD	2.41		\$60,213
East - West	7	S	Kenneth Rd.-Brand Blvd.-Mountain St.	Brand Blvd.	Kenneth Rd.	Mountain St.	3	BRSD	0.09		\$2,250
East - West	7	S	Kenneth Rd.-Brand Blvd.-Mountain St.	Mountain St.	Brand Blvd.	Verdugo Blvd.	3	BRS	1.55		\$30,907
East - West	8	L	Glenwood Rd.	Glenwood Rd.	Alameda Ave.	Grandview Ave.	3	BRS	1.19		\$23,817
East - West	9	M	Glenwood Rd. / Fifth St.-Concord St.-Stocker St.- Rossmoyne Ave.	Glenwood Rd. / Fifth St.	Sonora Ave.	Grandview Ave.	3	BRS	0.27		\$5,496

Orientation	#	Priority	Bikeway Name	Street	From	To	Class	Type	Mileage (linear miles)	Additional Treatment	Total Cost
East - West	9	M	Glenwood Rd. / Fifth St.-Concord St.-Stocker St.- Rossmoyne Ave.	Glenwood Rd. / Fifth St.	Grandview Ave.	Virginia Ave.	2	BL	0.35		\$17,551
East - West	9	M	Glenwood Rd. / Fifth St.-Concord St.-Stocker St.- Rossmoyne Ave.	Glenwood Rd. / Fifth St.	Virginia Ave.	Pacific Ave.	3	BRS	0.42		\$8,400
East - West	9	M	Glenwood Rd. / Fifth St.-Concord St.-Stocker St.- Rossmoyne Ave.	Concord St.	Glenwood Rd.	Stocker St.	2	PBL	0.18		\$13,472
East - West	9	M	Glenwood Rd. / Fifth St.-Concord St.-Stocker St.- Rossmoyne Ave.	Stocker St.	Concord St.	Rossmoyne Ave.	3	BRS	1.66		\$33,220
East - West	9	M	Glenwood Rd. / Fifth St.-Concord St.-Stocker St.- Rossmoyne Ave.	Rossmoyne Ave.	Mountain St.	Glenoaks Blvd.	3	BRS	0.31		\$6,140
East - West	10	S	Glenoaks Blvd.- Ethel St.	Glenoaks Blvd.	Alameda Ave.	Pacific Ave.	2	BL	2.30		\$115,000
East - West	10	S	Glenoaks Blvd.- Ethel St.	Glenoaks Blvd.	Pacific Ave.	Brand Blvd.	2	BL	0.50		\$25,000
East - West	10	S	Glenoaks Blvd.- Ethel St.	Glenoaks Blvd.	Brand Blvd.	Louise St.	3	BRBS	0.20		\$5,000
East - West	10	S	Glenoaks Blvd.- Ethel St.	Glenoaks Blvd.	Louise St.	Geneva St.	2	RDBL	0.34		\$33,598
East - West	10	S	Glenoaks Blvd.- Ethel St.	Glenoaks Blvd.	Geneva St.	Ethel St.	3	BRS	0.40		\$8,000

Orientation	#	Priority	Bikeway Name	Street	From	To	Class	Type	Mileage (linear miles)	Additional Treatment	Total Cost
East - West	10	S	Glenoaks Blvd.- Ethel St.	Ethel St.	Glenoaks Blvd.	Mountain St.	3	BRS	0.60		\$11,906
East - West	11	S	Glenoaks Blvd.	Glenoaks Blvd.	Ethel St.	Glendale Ave.	3	BRS	0.10		\$2,000
East - West	11	S	Glenoaks Blvd.	Glenoaks Blvd.	Glendale Ave.	Scholl Dr.	2	BL	1.50		\$75,000
East - West	11	S	Glenoaks Blvd.	Glenoaks Blvd.	Scholl Dr.	Scholl Canyon Park Entrance	3	BRS	0.91		\$18,224
East - West	11	S	Glenoaks Blvd.	Glenoaks Blvd.	Scholl Canyon Park Entrance	End of road at Scholl Tennis Courts	2	BL	2.52		\$125,835
East - West	12	M	Flower St.	Flower St.	Allen Ave.	San Fernando Rd.	3	BRS	1.42		\$28,488
East - West	13	L	Lake St.-Garden St.	Lake St.	Western City Limit	Davis Ave.	3	BRS	0.76		\$15,148
East - West	13	L	Lake St.-Garden St.	Davis Ave.	Lake St.	Garden St.	3	BRS	0.12		\$2,400
East - West	13	L	Lake St.-Garden St.	Garden St.	Sonora Ave.	LA River	3	BRS	0.22		\$4,386
East - West	14	L	Pioneer Dr.	Pioneer Dr.	Columbus Ave.	Central Ave.	3	BRS	0.20		\$3,942
East - West	14	L	Pioneer Dr.	Doran St.	Central Ave.	Orange St.	3	BRS	0.07		\$1,400
East - West	15	M	Fairmont Ave. Flyover	Fairmont Ave. Flyover	Flower St.	Concord St.	3	BRBS	0.77		\$19,364
East - West	16	S	Doran St.-Chester St.-Lexington Dr.	Doran St.	San Fernando Rd.	mid- block San Fernando Rd. / Commercial St.	3	BRS	0.10		\$2,000

Orientation	#	Priority	Bikeway Name	Street	From	To	Class	Type	Mileage (linear miles)	Additional Treatment	Total Cost
East - West	16	S	Doran St.-Chester St.-Lexington Dr.	Doran St.	mid-block San Fernando Rd. / Commercial St.	Concord St.	2	CBL	0.18		\$13,328
East - West	16	S	Doran St.-Chester St.-Lexington Dr.	Doran St.	Concord St.	Columbus Ave.	3	BRS	0.62		\$12,373
East - West	16	S	Doran St.-Chester St.-Lexington Dr.	Lexington Dr.	Kenilworth Ave.	Verdugo Rd.	3	BRS	1.73		\$34,619
East - West	17	L	California Ave.	California Ave.	Cedar St.	Louise St.	3	BRS	0.47		\$9,400
East - West	18	S	Broadway-Harvey Dr.	Broadway	San Fernando Rd.	Eastern City Limit	3	BRBS	2.46		\$61,515
East - West	18	S	Broadway-Harvey Dr.	Harvey Dr.	Chevy Chase Dr.	Wilson Ave.	3	BRS	0.65		\$12,935
East - West	19	M	Harvard St.	Harvard St.	Brand Blvd.	Verdugo Rd.	3	BRS	1.17		\$23,460
East - West	20	L	Riverdale Dr.	Riverdale Dr.	San Fernando Rd.	Central Ave.	2	BL	0.56		\$28,002
East - West	21	M	Chevy Chase Dr.-Acacia Ave.	Chevy Chase Dr.	City Limit	Acacia Ave.	3	BRBS	1.60		\$39,885
East - West	21	M	Chevy Chase Dr.-Acacia Ave.	E. Acacia Ave.	Chevy Chase Dr.	Verdugo Rd.	3	BRS	0.36		\$7,254
East - West	22	M	Los Feliz Blvd.	Los Feliz Blvd.	City Limit	Glendale Ave.	3	BRBS	0.54		\$13,425
East - West	23	S	Cerritos Ave.	Cerritos Ave.	Glendale Transportation Center	Glendale Ave.	3	BRS	0.32		\$6,412
North - South	1	L	Ramsdell Ave.	Ramsdell Ave.	Montrose Ave.	Honolulu Ave.	3	BRS	0.31		\$6,235
North - South	2	M	La Crescenta Ave.	La Crescenta Ave.	Montrose Ave.	Verdugo Rd.	2	RDBL	1.57		\$157,127

Orientation	#	Priority	Bikeway Name	Street	From	To	Class	Type	Mileage (linear miles)	Additional Treatment	Total Cost
North - South	3	L	Roselawn Ave. / Rosemont Ave.	Roselawn Ave. / Rosemont Ave.	Honolulu Ave.	La Crescenta Ave.	3	BRS	0.42		\$8,394
North - South	4	L	Las Palmas Ave.	Las Palmas Ave.	Honolulu Ave.	La Crescenta Ave.	3	BRS	0.52		\$10,421
North - South	5	M	Ocean View Blvd.	Ocean View Blvd.	City Limit	Verdugo Rd.	2	BL	0.46		\$23,184
North - South	6	S	Oakmont View Dr. - Verdugo Park - Civic Auditorium	Oakmont View Dr.	La Crescenta Ave.	Country Club Dr.	3	BRD	0.18		\$2,629
North - South	6	S	Oakmont View Dr. - Verdugo Park - Civic Auditorium	Country Club Dr.	Oakmont View Dr.	Hermosita Dr.	3	BRD	0.95		\$14,242
North - South	6	S	Oakmont View Dr. - Verdugo Park - Civic Auditorium	Hermosita Dr.	Country Club Dr.	Opechee Way	3	BRD	0.82		\$12,291
North - South	6	S	Oakmont View Dr. - Verdugo Park - Civic Auditorium	Opechee Way	Hermosita Dr.	Bonita Dr.	3	BRD	0.09		\$1,379
North - South	6	S	Oakmont View Dr. - Verdugo Park - Civic Auditorium	Bonita Dr.	Opechee Way	Hillside Dr.	3	BRD	0.24		\$3,559
North - South	6	S	Oakmont View Dr. - Verdugo Park - Civic Auditorium	Hillside Dr.	Bonita Dr.	Niodrara Dr.	3	BRD	0.09		\$1,299
North - South	6	S	Oakmont View Dr. - Verdugo Park - Civic Auditorium	Niodrara Dr.	Hillside Dr.	Colina Dr.	3	BRD	0.20		\$3,028

Orientation	#	Priority	Bikeway Name	Street	From	To	Class	Type	Mileage (linear miles)	Additional Treatment	Total Cost
North - South	6	S	Oakmont View Dr. - Verdugo Park - Civic Auditorium	Colina Dr.	Niodrara Dr.	Verdugo Park	3	BRD	0.16		\$2,411
North - South	6	S	Oakmont View Dr. - Verdugo Park - Civic Auditorium	Verdugo Park	Colina Dr.	GCC	1	P	0.44		\$440,845
North - South	6	S	Oakmont View Dr. - Verdugo Park - Civic Auditorium	Verdugo Park			1	P	0.17		\$168,288
North - South	6	S	Oakmont View Dr. - Verdugo Park - Civic Auditorium	GCC	North End Parking	South End Parking	1	P	0.25		\$251,496
North - South	6	S	Oakmont View Dr. - Verdugo Park - Civic Auditorium	City Parking Lot	Mountain St.	Verdugo Rd. Frontage Rd.	1	P	0.39		\$388,248
North - South	6	S	Oakmont View Dr. - Verdugo Park - Civic Auditorium	Verdugo Frontage Road	City Parking Lot	Glendale Ave.	3	BRS	0.40		\$8,000
North - South	6	S	Oakmont View Dr. - Verdugo Park - Civic Auditorium	Verdugo Frontage Road	Glendale Ave.	Glenoaks Blvd.	n/a	User-activated bike signal		1	\$200,000
North - South	7	S	Verdugo Rd.	Verdugo Rd.	Honolulu Ave.	Canada Blvd. (north)	2	RDCBL	0.96		\$119,520
North - South	7	S	Verdugo Rd.	Verdugo Rd.	Canada Blvd. (north)	Hilda Ave.	3	BRBS	2.38		\$59,562
North - South	8	S	Cañada Blvd.	Canada Blvd.	N. Verdugo Rd.	N. Verdugo Rd. / Canada Blvd. split	3	BRBS	1.72		\$43,061

Orientation	#	Priority	Bikeway Name	Street	From	To	Class	Type	Mileage (linear miles)	Additional Treatment	Total Cost
North - South	9	M	Mountain St-Grandview Ave.	Mountain St.	Alameda Ave.	Grandview Ave.	3	BRS	0.80		\$16,000
North - South	9	M	Mountain St-Grandview Ave.	Grandview Ave.	Mountain St.	Glenoaks Blvd.	3	BRSD	0.56		\$13,968
North - South	9	M	Mountain St-Grandview Ave.	Grandview Ave.	Glenoaks Blvd.	Flower St.	3	BRBS	0.50		\$12,599
North - South	10	L	Alameda Ave.	Alameda Ave.	Mountain St.	Glenoaks Blvd.	3	BRSD	0.90		\$22,438
North - South	10	L	Alameda Ave.	Bel Aire Dr.	Alameda Ave.	Alameda Ave.	3	BRD	0.04		\$600
North - South	11	M	Western Ave.	Western Ave.	Mountain St.	Flower St.	3	BRS	1.43		\$28,532
North - South	11	M	Western Ave.	Western Ave.	Flower St.	Lake St.	2	CBL	0.21		\$15,874
North - South	11	M	Western Ave.	Western Ave.	Lake St.	Rancho Ave.	3	BRS	0.40		\$8,000
North - South	12	L	Allen Ave.	Allen Ave.	Mountain St.	Railroad Tracks	3	BRS	1.31		\$26,167
North - South	12	L	Allen Ave.	Allen Ave.	Victory Blvd.	Flower St.	3	BRS	0.40		\$8,000
North - South	13	L	Justin Ave.	Justin Ave.	Kenneth Rd.	Railroad Tracks	3	BRS	0.70		\$14,000
North - South	13	L	Justin Ave.	Justin Ave.	Kenneth Rd.	Railroad Tracks	n/a	Median Gap		1	\$2,000
North - South	13	L	Justin Ave.	Justin Ave.	Flower St.	Riverside Dr.	3	BRS	0.46		\$9,118
North - South	13	L	Justin Ave.	Justin Ave.	Victory Blvd.	Riverside Dr.	n/a	User-activated bike signal		1	\$200,000
North - South	14	S	Sonora Ave.-Riverside Dr.	Sonora Ave.	Grandview Ave.	Glenoaks Blvd.	3	BRS	0.65		\$12,901
North - South	14	S	Sonora Ave.-Riverside Dr.	Sonora Ave.	Glenoaks Blvd.	San Fernando Rd.	2	CBL	0.27		\$20,132

Orientation	#	Priority	Bikeway Name	Street	From	To	Class	Type	Mileage (linear miles)	Additional Treatment	Total Cost
North - South	14	S	Sonora Ave.-Riverside Dr.	Sonora Ave.	San Fernando Rd.	Air Way	3	BRBS	0.10		\$2,494
North - South	14	S	Sonora Ave.-Riverside Dr.	Sonora Ave.	Air Way	Riverside Dr.	2	CBL	0.54		\$40,841
North - South	14	S	Sonora Ave.-Riverside Dr.	Riverside Dr.	Sonora Ave.	Western City Limit	2	BL	0.60		\$30,000
North - South	15	L	Hazel St.	Hazel St.	Cosmic Way.	Flower St.	3	BRS	0.15		\$3,000
North - South	16	L	Highland Ave.	Highland Ave.	Cumberland Rd.	Glenwood Rd.	3	BRS	0.67		\$13,400
North - South	16	L	Highland Ave.	Highland Ave.	Glenwood Rd.	San Fernando Rd.	2	BL	0.68		\$34,027
North - South	17	M	Concord St.	Concord St.	Stocker St.	South St.	2	PBL	0.18		\$13,472
North - South	17	M	Concord St.	Concord St.	Stocker St.	South St.	3	BRS	0.22		\$4,487
North - South	17	M	Concord St.	Concord St.	South St.	Wilson Ave.	3	BRBS	0.89		\$22,140
North - South	17	M	Concord St.	Concord St.	Fairmont Ave.	Doran St.	2	CBL	0.11		\$8,250
North - South	18	L	Kenilworth Ave.	Kenilworth Ave.	Stocker St.	Lexington Dr.	3	BRS	0.79		\$15,770
North - South	19	M	Pacific Ave.-Burchett St.	Pacific Ave.	Kenneth Rd.	Glenoaks Blvd.	3	BRS	0.72		\$14,436
North - South	19	M	Pacific Ave.-Burchett St.	Pacific Ave.	Glenoaks Blvd.	Burchett St.	3	BR	0.12		\$1,226
North - South	19	M	Pacific Ave.-Burchett St.	Burchett St.	Kenilworth Ave.	Columbus Ave.	3	BRS	0.35		\$7,000
North - South	20	M	Columbus Ave.	Columbus Ave.	Arden Ave.	Chevy Chase Dr.	3	BRS	1.66		\$33,167
North - South	21	M	Central Ave.	Central Ave.	Pioneer Dr.	Wilson Ave.	2	BL	1.11		\$55,432
North - South	21	M	Central Ave.	Central Ave.	Wilson Ave.	San Fernando Rd.	3	BRBS	1.61		\$40,357

Orientation	#	Priority	Bikeway Name	Street	From	To	Class	Type	Mileage (linear miles)	Additional Treatment	Total Cost
North - South	22	M	Orange St.	Orange St.	Doran St.	Broadway	2	BL	0.74		\$37,180
North - South	23	S	Brand Blvd.	Brand Blvd.	Mountain St.	Glenoaks Blvd.	2	CBL	0.61		\$45,516
North - South	23	S	Brand Blvd.	Glendale Blvd.	San Fernando Rd.	City Limit	2	CBL	0.21		\$15,623
North - South	24	S	Louise St.	Louise St.	Mountain St.	Maple St.	3	BRS	1.94		\$38,791
North - South	25	L	Geneva St.	Geneva St.	Mountain St.	California Ave.	3	BRS	1.05		\$21,005
North - South	26	L	Glendale Ave.	Glendale Ave.	Verdugo Rd.	San Fernando Rd.		Widen curb lane	2.90		\$145,000
North - South	27	L	Cedar St.	Cedar St.	California Ave.	Colorado St.	3	BRS	0.50		\$10,000
North - South	28	M	Monterey Rd.- Doran St.-Adams St.	Monterey Rd.	Verdugo Rd.	Louise St.	3	BRS	0.91		\$18,294
North - South	28	M	Monterey Rd.- Doran St.-Adams St.	Monterey Rd.	Verdugo Rd.	Louise St.	n/a	Bridge signage		1	\$5,000
North - South	28	M	Monterey Rd.- Doran St.-Adams St.	Monterey Rd.	Verdugo Rd.	Louise St.	n/a	Bridge improvements		1	\$50,000
North - South	28	M	Monterey Rd.- Doran St.-Adams St.	Doran St.	Adams St.	Naranja Dr.	3	BRS	0.72		\$14,373
North - South	28	M	Monterey Rd.- Doran St.-Adams St.	Doran St.	Adams St.	Naranja Dr.	n/a	Bridge signage		1	\$5,000
North - South	28	M	Monterey Rd.- Doran St.-Adams St.	Adams St.	Doran St.	Vincent Way	3	BRS	1.98		\$39,654

Orientation	#	Priority	Bikeway Name	Street	From	To	Class	Type	Mileage (linear miles)	Additional Treatment	Total Cost
North - South	29	M	Chevy Chase Dr- Linda Vista Rd. / Lida St.	Chevy Chase Dr.	Acacia Ave.	Harvey Dr.	3	BRBS	1.60		\$39,885
North - South	29	M	Chevy Chase Dr- Linda Vista Rd. / Lida St.	Chevy Chase Dr.	Harvey Dr.	Northern City Limit	3	BRS	3.07		\$61,318
North - South	29	M	Chevy Chase Dr- Linda Vista Rd. / Lida St.	Linda Vista Rd. / Lida St.	Chevy Chase Dr.	Western City Limit	3	BRD	1.11		\$16,630
TOTAL									102.38		\$17,623,935



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2. Glendale Bicyclist Survey

The Los Angeles County Bicycle Coalition worked with the City of Glendale to provide a bicyclist and pedestrian survey to the public on the Internet as part of the Glendale Safe and Healthy Streets initiative. The survey was available from February through August 2010, and 294 community members responded. The consultant team analyzed the relevant bicycle questions to further understand what the needs of the bicycling community are and how cycling in Glendale can be improved.

The survey inquired regarding the following:

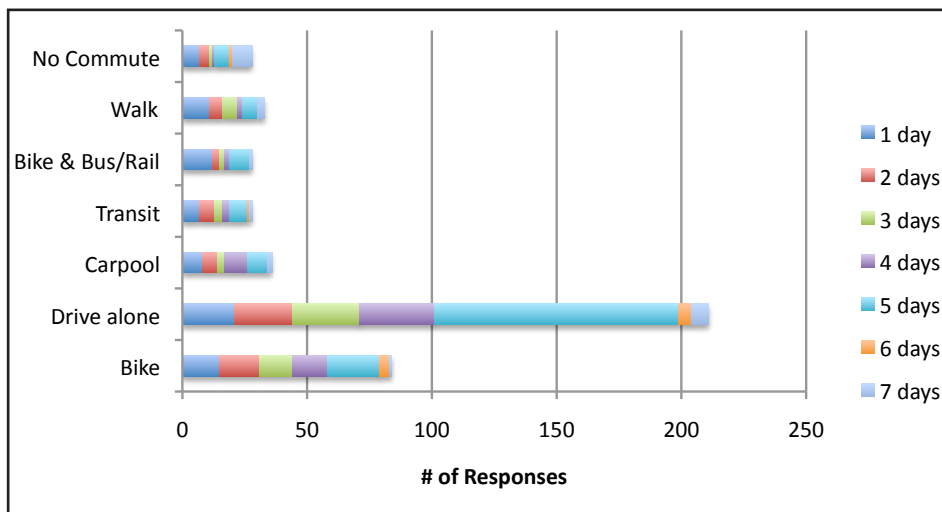
- Why the respondent rides a bicycle
- How often he / she rides
- His / her favorite places to ride
- His / her bicycling comfort / skill level
- Whether he / she uses any transit operators used in conjunction with bicycling
- What areas are in need of improvement
- What areas are in need of parking

The following discussion summarizes and analyzes the results of the bicyclist portion of the survey.

QUESTION 1: WHAT MODES OF TRANSPORTATION DO YOU TYPICALLY USE FOR YOUR WORK OR SCHOOL COMMUTE AND HOW OFTEN?

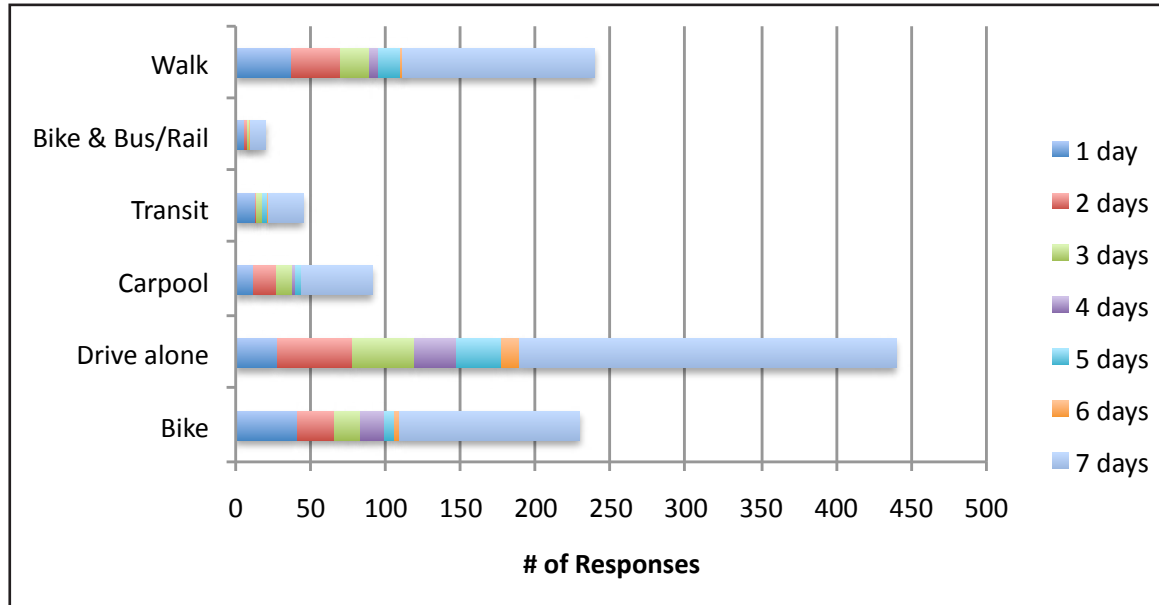
As shown in Chart 2-1, survey respondents most frequently drive to work or school most days of the week. Of the respondents, 21 ride their bike five days a week, whereas 98 people drive five days a week.

CHART 9-1: MODE OF TRANSPORTATION FOR WORK OR SCHOOL



QUESTION 2: WHAT MODES OF TRANSPORTATION DO YOU TYPICALLY USE FOR YOUR NON-WORK/NON-SCHOOL TRIPS AND HOW OFTEN?

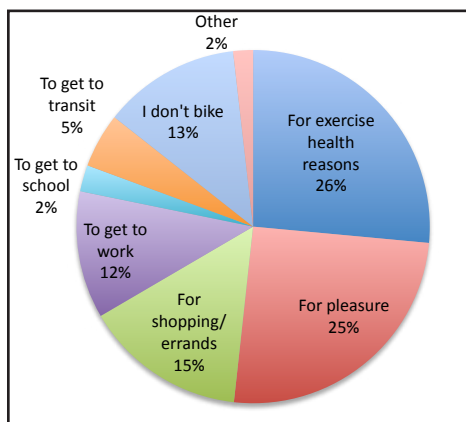
CHART 9-2: MODE OF TRANSPORTATION FOR NON-WORK / NON-SCHOOL



The results are quite different for non-commute trips. A majority of respondents still drive alone. However, more respondents report bicycling and walking for non-work / non-school trips than they do for work / school trips. Altogether, 120 respondents bicycle seven days a week for non-work trips, and 251 drive alone. People who bicycle for non-work trips are strong candidates for becoming bicycle commuters.

QUESTION 3: WHY DO YOU RIDE A BIKE?

CHART 9-3: REASON FOR CYCLING

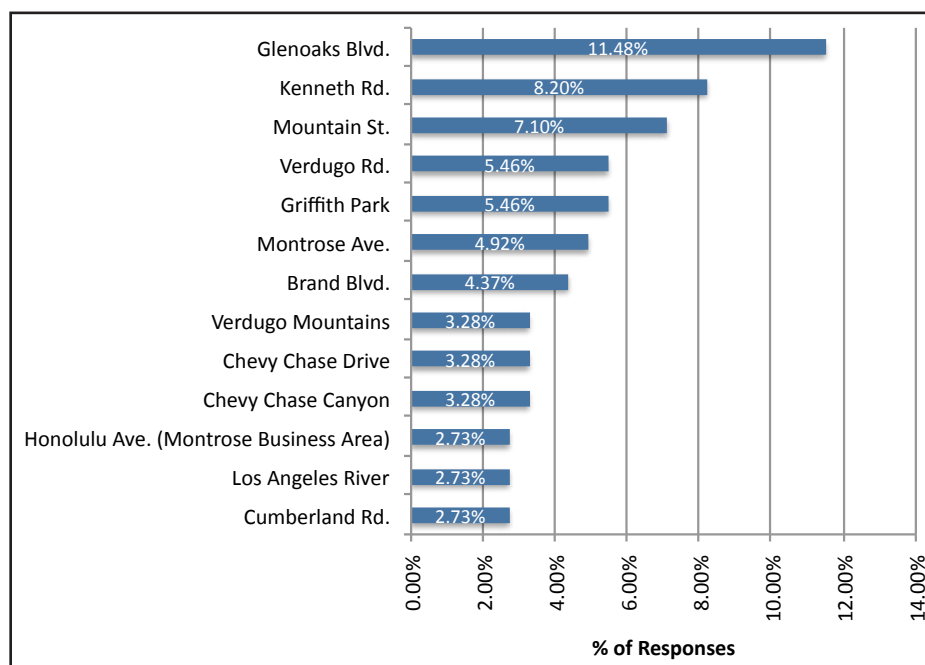


Over 50% of respondents bicycle primarily for pleasure and exercise. Shopping and errand trips capture the next highest portion of bicycle trips.

QUESTION 4: WHAT ARE YOUR THREE FAVORITE PLACES TO RIDE A BICYCLE IN GLENDALE, AND THE REASONS YOU LIKE TO RIDE THERE?

The chart below shows the most popular places cited by survey respondents to ride a bicycle in descending order, with Glenoaks Boulevard, Kenneth Road, and Mountain Street leading the list.

CHART 9-4: FAVORITE PLACES TO BICYCLE



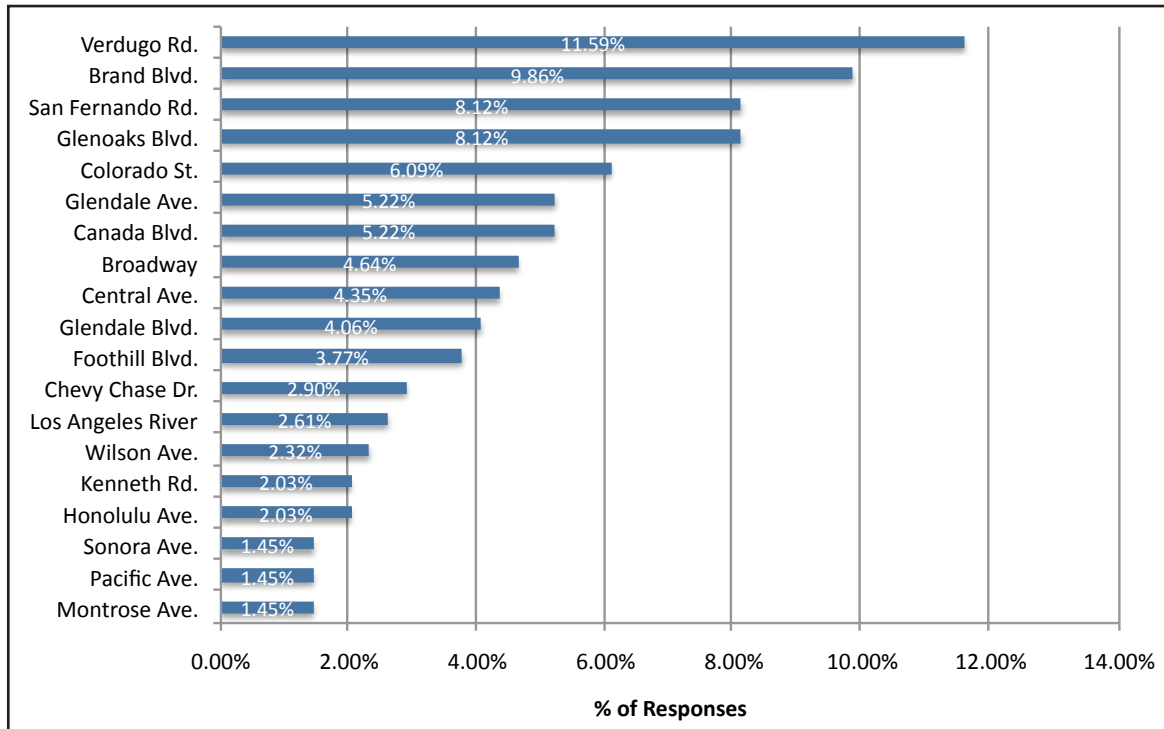
Survey respondents described why they chose these places to ride. The text below displays their answers.

- Glenoaks Blvd. - Bike lane, businesses
- Kenneth Rd. - Nice ride, slow traffic
- Mountain St. - Wide street, slow traffic
- Griffith Park - Mountain biking, nature
- Verdugo Rd. - Moderate grade
- Honolulu Ave. (Montrose Business Area) - Peaceful, quiet, restaurants
- Brand Blvd. - Commute, wide lanes
- Chevy Chase Dr. - Moderate traffic, businesses and residences

QUESTION 5: PLEASE IDENTIFY UP TO FIVE GLENDALE AREAS WHERE YOU THINK BICYCLING CONDITIONS SHOULD BE IMPROVED, ALONG WITH SPECIFIC SUGGESTIONS FOR IMPROVEMENT.

Survey takers suggested numerous areas in Glendale that need improvement. The chart below shows the highest percentages of responses, listed in descending order. Verdugo Road, Brand Boulevard and San Fernando Road stand out as needing the most improvement.

CHART 9-5: AREAS THAT NEED IMPROVEMENT



Survey respondents described the issues with these streets and the improvements they would like to see as follows:

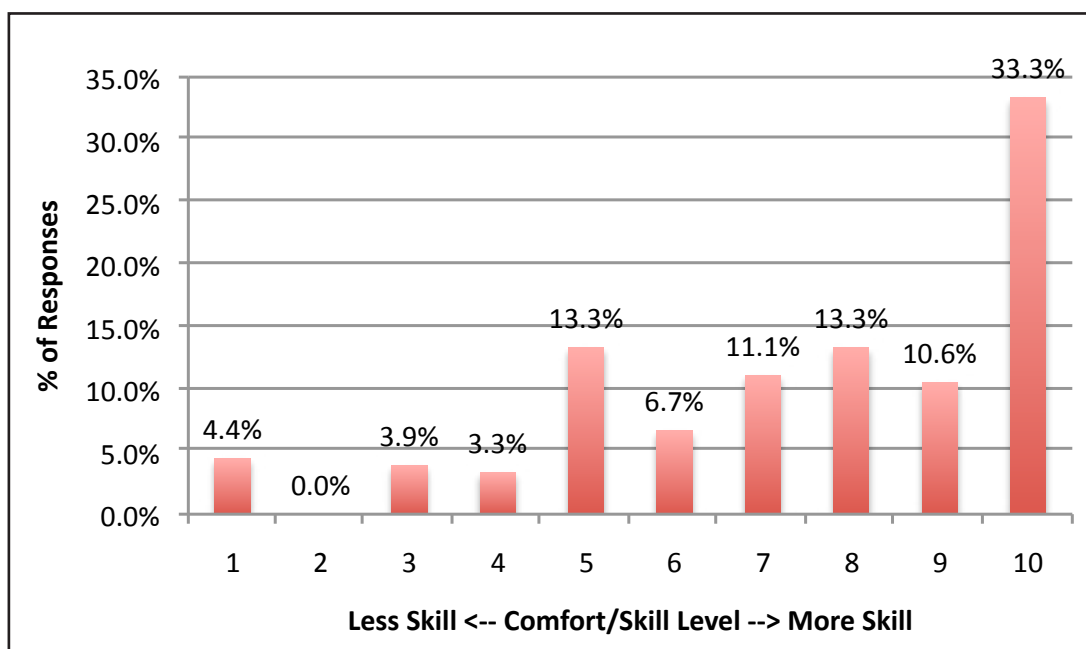
- Verdugo Rd. — Traffic enforcement, resurfacing, road diet
- Brand Blvd. — Diagonal parking is dangerous, bike lanes
- San Fernando Rd. — Resurfacing, bike lanes
- Glenoaks Blvd. — Speeding, traffic enforcement, incomplete bike lane, widen lane
- Colorado St. — Bike lanes, resurfacing, signs and road markings indicating share the road
- Cañada Blvd. — Change grates (gaps are too wide), share the road signs, bikeway
- Glendale Ave. — Sharrows or bike lane, speeds too fast, aggressive drivers
- Broadway — Too narrow, lack of bicycle parking
- Central Ave. — Bike lanes
- Glendale Blvd. — Bike lanes, resurfacing
- Foothill Blvd. — Continue bike lane in Glendale, shade or coverage

- Chevy Chase Dr. — Bike lanes or sharrows
- Los Angeles River — Create better access points, river path
- Honolulu Ave. — Bike lanes or signs
- Kenneth Rd. — Resurfacing, speeding
- Montrose Shopping Area — Bicycle parking

QUESTION 6: PLEASE RATE YOUR BICYCLING COMFORT/SKILL LEVEL ON A SCALE FROM 1 TO 10.

Most survey respondents feel very comfortable riding a bicycle, with over 33% selecting “10” or “Extremely Comfortable.” The majority of respondents express feeling somewhat comfortable to very comfortable. We make several observations in light of this finding. First, despite most respondents feeling very comfortable riding, few bicycle to work or school. Second, the survey might have been answered primarily by existing cyclists, and we may not be capturing those who would like to ride, but currently do not.

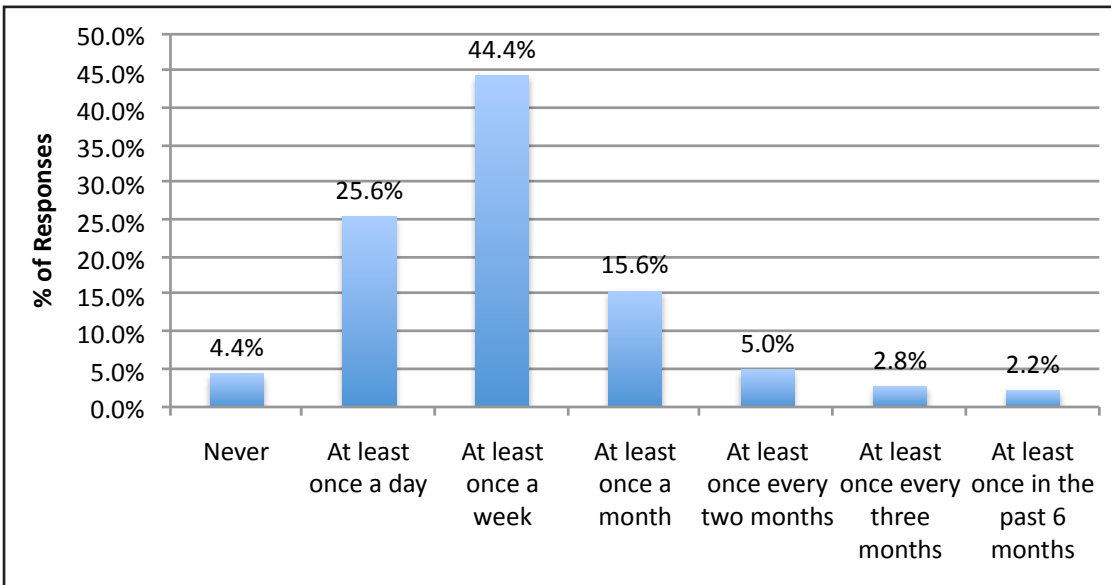
CHART 9-6: BICYCLING COMFORT / SKILL LEVEL



QUESTION 7: HOW OFTEN DID YOU BIKE IN THE LAST SIX MONTHS (FOR COMMUTING, RECREATION, ERRANDS, ETC.)?

44% of respondents ride their bike at least once a week. Given that non-commute trips comprise the largest portion of respondents' bicycle trips, many of those who said they bicycle once a week are likely doing so for non-work / non-school trips.

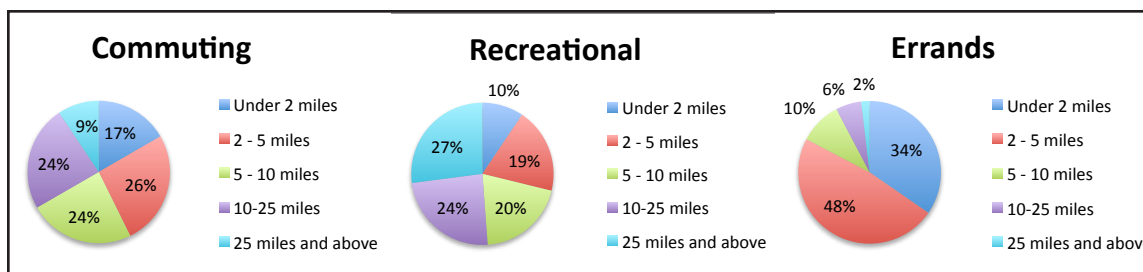
CHART 9-7: BICYCLING FREQUENCY



QUESTION 8: DEPENDING ON THE PURPOSE OF YOUR TRIP, HOW LONG IS YOUR AVERAGE RIDE?

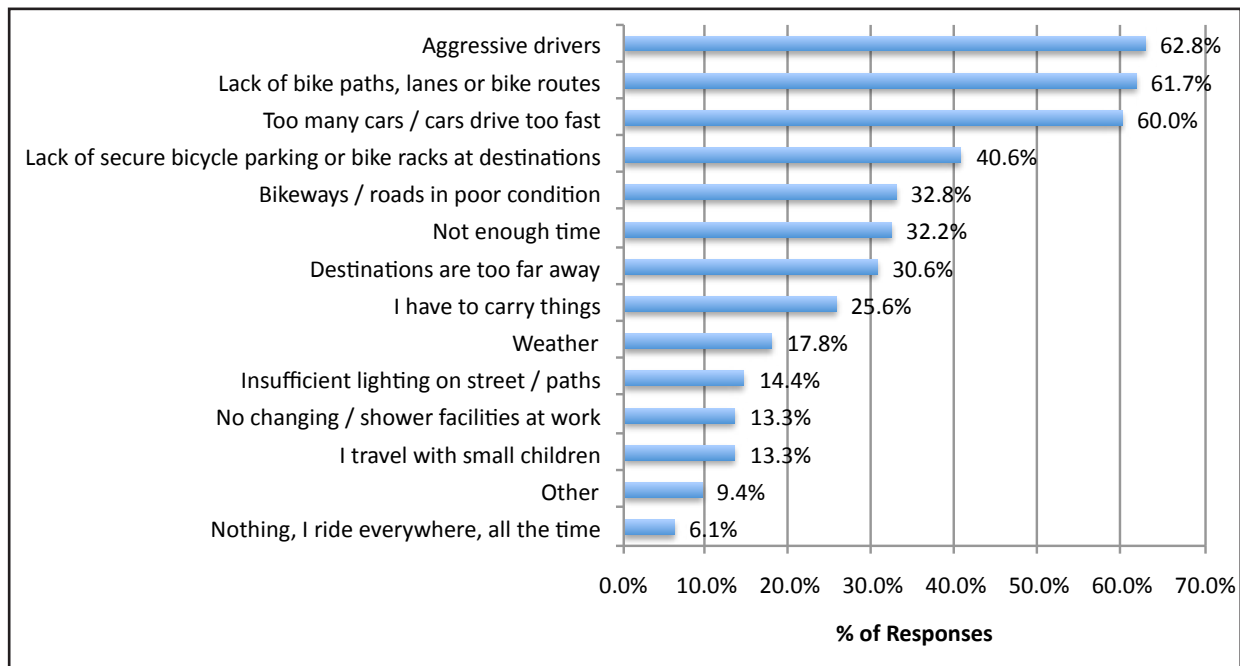
Survey respondents ride with varying trip lengths depending upon trip purpose. Errands completed by bicycle tend to be the shortest, with over 75% of trips being fewer than five miles. Recreational trips comprise the greatest number of long trips, with 27% being 25 miles and above. Commute trip lengths vary the most, with trips of 2 to 5 miles, 5 to 10 miles, and 10 to 25 miles, each capturing about one-quarter of all commute trips.

CHART 9-8: AVERAGE RIDE LENGTH



QUESTION 9: WHAT PREVENTS YOU FROM BIKING MORE OFTEN (CHECK ALL THAT APPLY)?

CHART 9-9: BICYCLING DETERRENTS

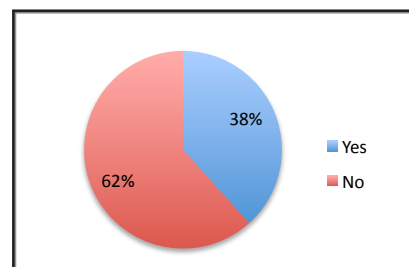


Aggressive drivers, fast cars, and a lack of bikeways discourage survey respondents from bicycling. Respondents listed bikeways / roads in poor condition as the fifth greatest deterrent to cycling. This, together with the top three responses, points out the need for safer and better routes to cycle on. Lack of secure bicycle parking or racks at destinations ranks fourth in the list of issues that discourage people from cycling. The City can address many of these deterrents through implementation of this plan. While the City may not be able to address some of the barriers listed such as lack of time, distance, or weather, as cyclists become more adept, these may become less of a problem.

QUESTION 10: DO YOU EVER USE YOUR BICYCLE WITH TRANSIT (TRAIN/LIGHT RAIL/SUBWAY/BUS)?

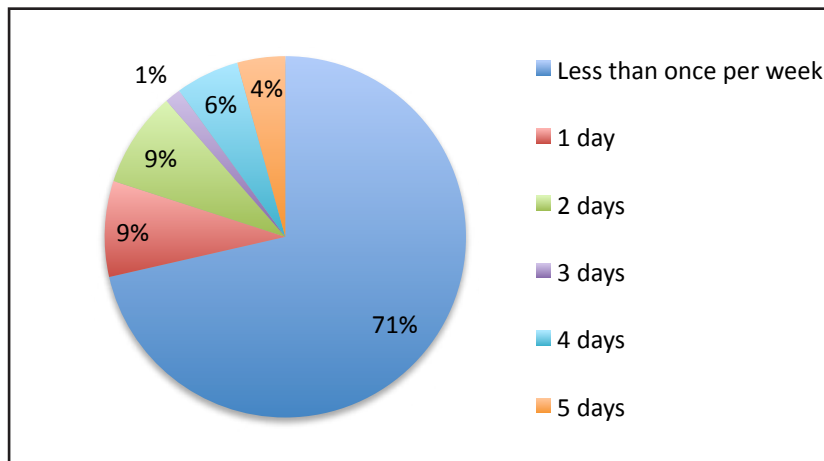
CHART 9-10: BICYCLING AND TRANSIT USE

As shown in Chart 2-10, 38% of the 180 respondents report using their bicycle with transit.



QUESTION 11: IF YOU DO YOU USE YOUR BICYCLE WITH TRANSIT, HOW FREQUENTLY?

CHART 9-11: BICYCLING AND TRANSIT USE FREQUENCY

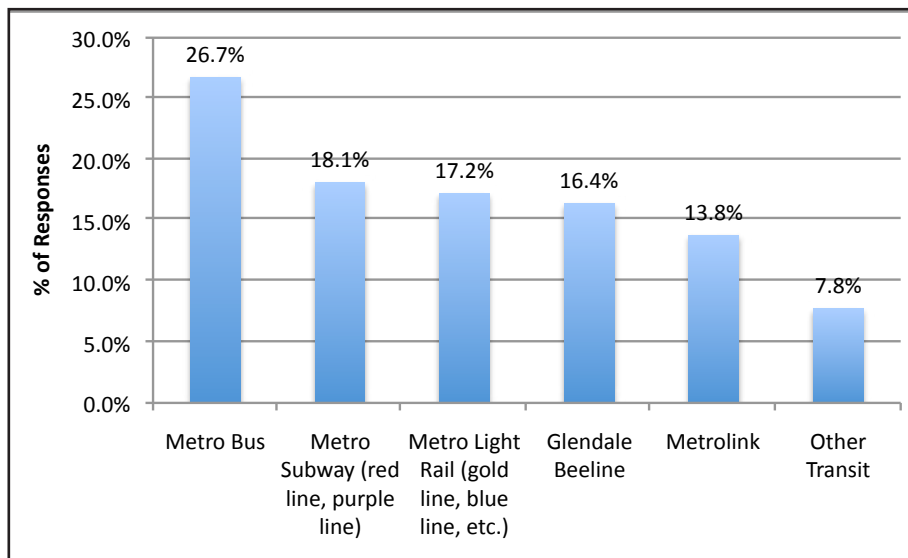


Of those who do use their bicycles in conjunction with transit, 71% do so less than once per week. Only 4% of those who use bicycles with transit do so for the full five-day work week.

QUESTION 12: WHAT TRANSIT OPERATORS DO YOU USE WITH YOUR BICYCLE?

Of respondents who use their bicycle with transit, the majority use the Los Angeles County Metropolitan Transportation Authority (Metro) buses. Cyclists use the Glendale Beeline, Metro Subway and Metro Light Rail roughly the same, followed by Metrolink and others.

CHART 9-12: TRANSIT OPERATORS



QUESTION 13: IF YOU DO NOT USE YOUR BICYCLE WITH TRANSIT, WHAT, IF ANY, ARE THE BARRIERS PREVENTING YOU?

Many factors prevented survey respondents from using their bicycles with transit. Of the 19 respondents, six cited the lack of space on transit buses and trains as the primary reason for not bringing their bicycles on transit. Four respondents cited Metro's policy of not allowing bicycles on certain rail lines during rush hour as a barrier. (As of 2011, this policy has been lifted.) Other respondents listed hours of transit operation, insufficient transit, and distance to transit from home for commuting, as other reasons for not using their bicycles with transit.

QUESTION 14: PLEASE INDICATE UP TO FIVE AREAS WHERE YOU WOULD LIKE TO SEE MORE OR IMPROVED BICYCLE PARKING.

The locations most identified as needing more or improved bicycle parking are shown in the chart below. Respondents most often cited shopping destinations, followed by places where people run errands. The bullet-pointed list below identifies the problem at each location.

- Supermarkets (Whole Foods, Trader Joe's, etc) — lack of parking, poor quality

- Glendale Galleria — lack of parking, safety, accessibility

- Americana — lack of parking

- Post Office — lack of parking

- Glendale High School — lack of parking

- Montrose Shopping Area — lack of parking

- Hospital — lack of parking

- Broadway — lack of parking

- Library — safety

- Parks — lack of parking, safety

- Colorado Blvd. — lack of parking

- Transit Center — more lockers, racks

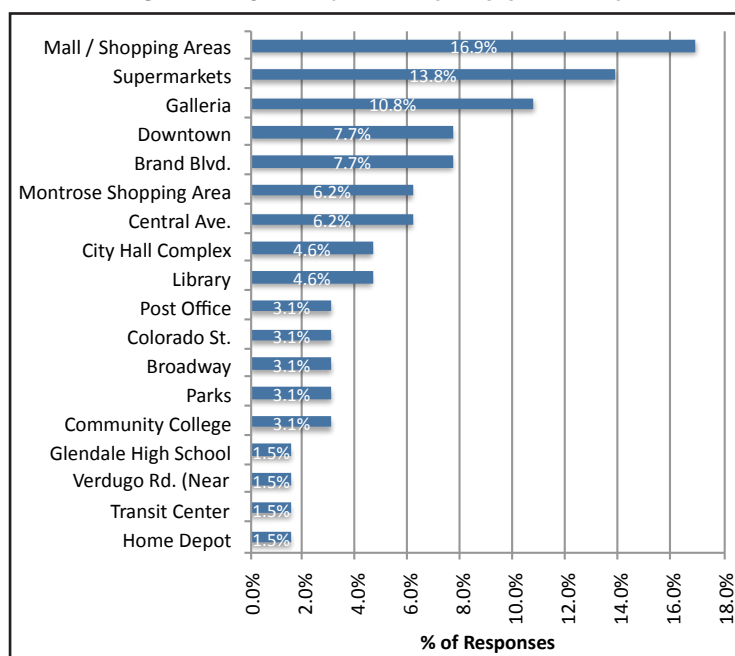
- Brand Blvd. — lack of parking, inaccessible

- Central Ave. — lack of parking

- City Hall Complex — lack of parking, lockers

- Community College — lack of parking, safety

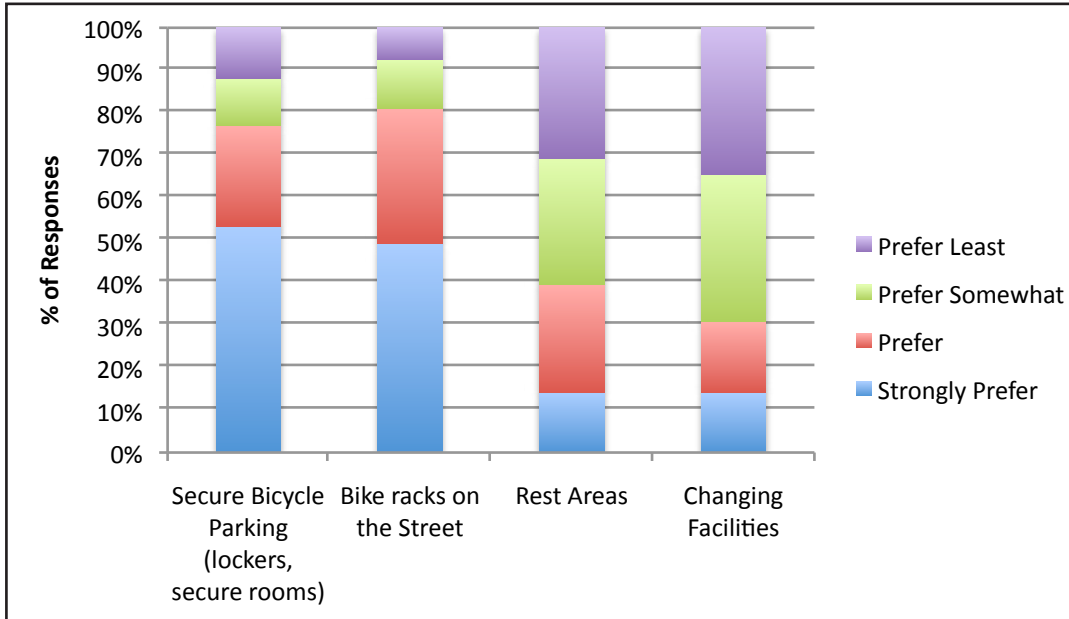
CHART 9-13: AREAS IN NEED OF BICYCLE PARKING



QUESTION 15: WHAT TYPE OF BICYCLING SUPPORT FACILITY DO YOU PREFER ON A SCALE OF 1 TO 4?

As shown below in Chart 2-14, respondents ranked their most preferred bicycling support facilities out of four available facilities. Respondents strongly prefer secure bicycle parking and bicycle racks on the street over other options. They want more rest areas and changing facilities, but less so than bicycle parking.

CHART 9-14: PREFERRED BICYCLING SUPPORT FACILITIES



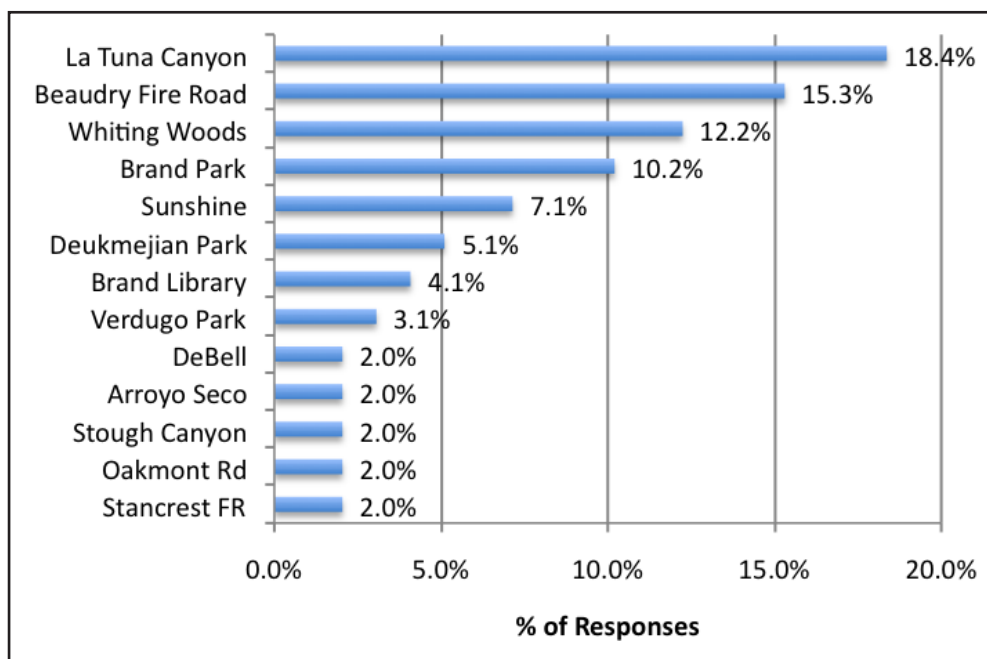
QUESTION 16: DO YOU MOUNTAIN BIKE IN THE VERDUGO HILLS, THE SAN GABRIEL MOUNTAINS, OR OTHER AREAS ABOVE GLENDALE?

Altogether, 34% of respondents mountain bike in the mountains and hills above Glendale.

QUESTION 17: IF YOU DO MOUNTAIN BIKE ABOVE GLENDALE, FROM WHICH TRAILHEAD(S)?

Survey respondents identified numerous places they use to access fire roads and other paths for mountain biking. The chart below lists the most popular places. Fourteen other trailheads were listed by one respondent each. This indicates that mountain bicyclists access fire roads and trails at locations without formal trailheads.

CHART 9-15: TRAILHEADS

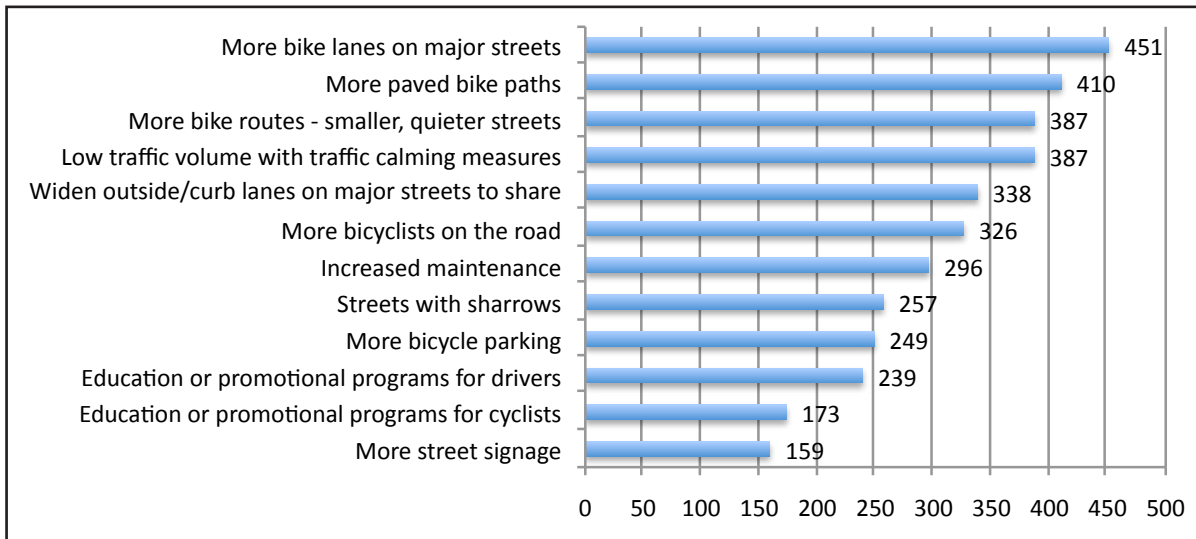


QUESTION 18: WOULD THE FOLLOWING IMPROVEMENTS INFLUENCE YOU TO BIKE MORE OFTEN?

To analyze this question, we took a weighted summation of the various responses. Respondents could mark each potential improvement with “very likely,” “likely,” “somewhat likely,” “not very likely,” “unlikely,” and “not sure.” We gave a numerical value to each of these answers (3, 2, 1, -1, -2, 0) respectively. We then multiplied the number of responses by this value to understand the importance placed on each of these answers. Therefore, the highest numbered response has the greatest importance to respondents.

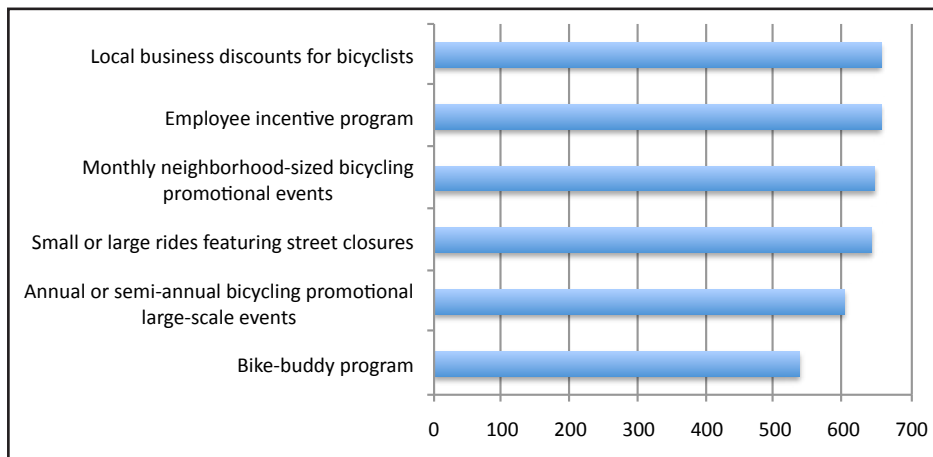
Survey respondents identify bike lanes on major streets as the greatest improvement the City of Glendale can make to improve bicycling and to potentially increase the number of cyclists. Other important improvements include paving more bike paths, bike routes on smaller and quieter streets, and decreasing traffic volumes with traffic calming measures. Several respondents indicated that more bicyclists on the street would encourage them to bicycle more. This confirms our findings from question nine that strongly indicate the need for safer and better routes to bicycle on. The chart below summarizes the findings.

CHART 9-16: IMPROVEMENTS THAT INFLUENCE BICYCLING



QUESTION 19: PLEASE PRIORITIZE THE FOLLOWING ENCOURAGEMENT PROGRAMS (1 BEING MORE IMPORTANT AND 5 BEING LESS IMPORTANT).

CHART 9-17: PREFERRED ENCOURAGEMENT PROGRAMS

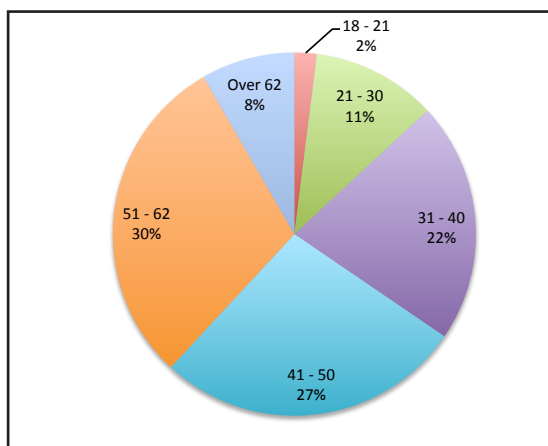


Using a similar methodology to weight responses as question 18, we multiplied the number of responses for each category by a scale from 1 to 5, least preferred to most preferred. The chart above indicates significant parity between preferred encouragement programs. All programs would roughly equally encourage more bicycling.

QUESTION 20: WHAT IS YOUR AGE RANGE?

Nearly two-thirds of the survey takers were over the age of 40. Over 85% of the survey respondents were over the age of 30. Given the likelihood that many cyclists are younger than 30, the survey results may be skewed towards older cyclists.

CHART 9-18: AGE RANGE



QUESTION 21: WHAT IS YOUR GENDER?

Since 127 females responded and 125 males responded, the survey was gender balanced.