Culver CITY BICYCLE & PEDESTRIAN MASTER PLAN

alta PLANNING + DESIGN

Prepared for:
City of Culver City
Prepared by:
Alta Planning + Design

Adopted by City Council - November 8, 2010
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Culver City Bicycle Pedestrian Master Plan

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Executive Summary

The Culver City Bicycle & Pedestrian Master Plan (BPMP) is the City's first ever comprehensive plan for bicycling and walking. Created through a partnership between Culver City and the Policies for Livable, Active Communities and Environments (PLACE) Program of the Los Angeles County Department of Public Health, the BPMP seeks to articulate a new paradigm for transportation planning in the City that embraces the concept of "Complete Streets." The BPMP also provides a guide for the future development of bicycle and pedestrian facilities, as well as education, enforcement, and encouragement programs for Culver City. In so doing, the BPMP will encourage walking and biking and lead to a host of associated benefits, including reduced congestion; lower greenhouse gas emissions; a thriving, walkable business environment; and the promotion of healthier lifestyles and improved quality of life in the City and adjacent communities.

While articulating a new paradigm for transportation planning and goals for the City are critically important parts of the Plan, they are not sufficient on their own. The Plan must also provide a practical roadmap to help guide bicycle and pedestrian improvements in the City. With this in mind, the Plan inventories and evaluates the City's current bicycle network, addresses opportunities and constraints, and recommends specific policy changes to encourage bicycling and walking. The Plan's Bicycle and Pedestrian Design Guide **(Appendix 1)** also provides guidance for implementing high quality facilities, including shared-use paths, bike lanes, bike routes, bicycle parking, and newer treatments such as Bicycle Friendly Streets and sharrows that conform to current standards and best practices. The Plan prioritizes bicycle and pedestrian facilities and—because grant funding is necessary to implement the proposed projects and programs—the Plan establishes funding and implementation priorities for the upcoming years.

As the City's first Bicycle and Pedestrian Plan, this document is critically important in advancing bicycle and pedestrian issues in the City. Yet it is important to acknowledge that, despite its strengths, this Plan is also just the first step in a long journey. The City must update the Plan regularly as conditions change and the City progresses towards its bicycle and pedestrian goals. In addition, just as public input greatly enriched this first Plan, continued civic participation from neighborhoods, advocacy organizations, the business community, and others is essential as the City implements and updates this Plan in future years.

Vision

In creating its first ever Bicycle and Pedestrian Master Plan (BPMP), the City of Culver City is embracing a new vision of transportation planning, recognizing that it is essential to enhance the quality of life for not only residents and visitors, but also the broader community and world. To this end, the City is adopting the concept of Complete Streets, which emphasizes a balanced transportation system that considers all users of the road while planning development and transportation projects - whether cyclists, pedestrians, transit riders, or vehicles.

Culver City is embracing a new vision of transportation planning

The City is also articulating its principal goal:

> *To transform the City into a place with an extensive bicycle and pedestrian network that allows travelers of all levels and abilities to feel comfortable walking and biking to their destinations. In so doing, encourage more people to forgo car trips, when possible, in favor of alternative forms of transportation and become truly bicycle and pedestrian friendly.*

Project Process

The BPMP, including the focus on the concept of Complete Streets and the principal goal presented above, was developed as a result of a community-based process that included five public workshops and extensive participation from a City Council-appointed Public Advisory Committee (PAC). The PAC consisted of bicycle and pedestrian advocates, representatives from neighborhood organizations, and representatives from the business community. Culver City also convened a Technical Advisory Committee (TAC) composed of City staff from Departments with a stake in overseeing and implementing the Plan. The TAC provided input throughout the BPMP's development.

Existing Conditions

The BPMP reviews elements of the current Culver City General Plan that relate to bicycling and walking, specifically the Circulation Element, Open Space Element, and Land Use Element. The Circulation Element calls for a comprehensive bikeway plan and identifies Ballona Creek as the backbone of Culver City's bikeway network. The Open Space Element dictates human-scale design that caters to pedestrians; it designates bike paths as active recreation areas and calls for new bike paths along National Boulevard and better on-street connections between Downtown and the Ballona Creek Bike Path. The Land Use Element of the Culver City General Plan establishes walkability as a guiding principle for Culver City's development.

The BPMP then reviews walking- and bicycling-related Municipal Codes. It covers Ballona Creek Resolution No. 2004-R044, which promotes active use of the Creek while mitigating the potential negative effects on residents who live alongside it. The BPMP also examines design guidelines for Downtown Culver City that foster walking.

Finally, the BPMP catalogues existing bicycle and pedestrian facilities. The existing bikeways in Culver City are the Ballona Creek Bike Path, Culver Boulevard Bike Path, and the Venice Boulevard Bike Lane. The Plan lists existing pedestrian areas, including Downtown Culver City; major employment and commercial centers; parks and open space; retail centers; commercial corridors; schools; and residential areas. The BPMP also reviews the bicycle parking in Culver City.

Needs Analysis

To identify the needs of bicyclists and pedestrians in Culver City, the project team (City Staff, Alta Planning + Design and the Los Angeles County Bike Coalition), working with the PAC and community volunteers, conducted an online survey, bicycle and pedestrian counts, bike and walk audits, and public workshops. The team also analyzed collision statistics involving bicyclists and pedestrians in Culver City.

The online survey solicited information about purposes, frequency, and trip characteristics of walking and bicycling. It also asked for respondents' favorite areas to bike and walk as well as areas needing improvement.

The survey helped to ensure public involvement throughout the development of the BPMP. Key conclusions of the survey include:

- Most utilitarian bike trips are less than 6 miles
- Bicyclists' top concern is safety, especially as it relates to car speeds
- Many pedestrians walk for exercise and health
- Pedestrians want pleasant walking conditions on major arterials

The bicycle and pedestrian counts indicate where people in Culver City are currently bicycling and walking, and how bicyclists in Culver City behave, particularly concerning rates of sidewalk riding, wrong way riding, and helmet use. Trained volunteers counted over 1,800 bicyclists and over 4,500 pedestrians at 18 intersections throughout the City. Key results of the counts include:

- Male bicyclists outnumbered female bicyclists 4:1
- Many people bicycle on Washington Boulevard, which had the highest volumes of bicyclists after the Ballona Creek Bike Path, the Culver Boulevard Bike Path, and the Venice Boulevard Bike Lane
- Over 42% of all pedestrians counted were at the intersection of Culver Boulevard and Cardiff Avenue in Downtown Culver City, reflecting Downtown's attraction for pedestrians

The bike and walk audits of six geographically diverse, strategically selected locations around the City provided an on-the-ground evaluation of the City's walking and bicycling conditions, and gave PAC members and volunteers an opportunity to learn about how and where physical improvements might be installed in Culver City. Audits identified:

- Sidewalk obstructions
- Crossing problems
- Lack of shade
- Discomfort due to high motor vehicle speeds
- Rough road conditions for bicyclists

At public workshops, attendees had the opportunity to comment on existing bicycle and pedestrian facilities in Culver City, and to suggest improvements and programs. The BPMP summarizes the public comments. Particular concerns included:

- Safety on the Ballona Creek Bike Path
- Difficult and potentially hazardous intersections and roads for biking and walking
- Enhancing multi-modal connections and bike parking

Collision statistics over the past five years indicate the relative safety of bicycling and walking throughout the City. The BPMP includes maps of all bicycle and pedestrian collisions of the past five years. Bicycle collision rates remained constant over the past five years, while pedestrian collisions rose slightly in the past two years.

All of the elements of the needs analysis informed the selection and prioritization of the recommended bicycle and pedestrian network.

Bicycle and Pedestrian Network

In addition to the existing 4.22 miles of bikeway in the City (Ballona Creek, Bike Path, Culver Boulevard Bike Path, and Venice Boulevard Bike Lane), the BPMP proposes to add an additional 37.58 miles of bikeways to the bicycle network, including: 0.42 miles of bike (multi-use) paths, 6.9 miles of bike lanes, 10.28 miles of sharrows (technically named "Shared Roadway Bicycle Marking" and also referred to as a "Shared Lane Marking"), 5.91 miles of bike routes, and 14.07 miles of potential Bicycle Friendly Streets. On major roadway segments that are not wide enough to accommodate a bicycle lane without roadway reconfiguration and meet the State required guidelines, the BPMP recommends sharrows and bicycle route signage. Also, the BPMP identifies streets that have potential for designation as "Bicycle Friendly Streets" after further analysis and, if needed, improvements. Bicycle Friendly Streets is a bikeway designation referring to enhanced routes on residential streets with low traffic volumes. Prior to a Bicycle Friendly Street designation, they will receive bicycle route signage at a minimum, and may receive custom signage, sharrows, and, if needed, traffic calming measures.

The BPMP also identifies Pedestrian Improvement Zones and Corridors based on public input and fieldwork. Pedestrian Improvement Zones are areas with high pedestrian demand and potential and their designation gives them priority for pedestrian improvements. Pedestrian Improvement Corridors are linear segments of roadway identified as significant to pedestrian travel in Culver City.

To prioritize the bikeway and pedestrian networks, the BPMP scores and ranks them according to six criteria identified by the PAC and TAC. In priority order, these criteria are:

1. Closes system gaps and creates connectivity to existing facilities
2. Creates connections to activity centers
3. Proximity to transit hubs
4. Proximity to schools

5/6. Reduces collisions & accounts for public input (tie)

Each project in the proposed bikeway and pedestrian networks receives a weighted score according to these criteria and the priority ranking above. The BPMP presents the resulting project priorities in **Tables 6-2** and **6-3**.

The BPMP includes a detailed presentation of the most critical project, as well as the five high-priority bicycle projects and the five high-priority pedestrian projects. The project sheets include a description of the project area and issues, a listing of the specific potential improvements, a cost estimate, an overview map of the project area, and conceptual designs of each of the bicycle/pedestrian potential improvements.

Enforcement, Education, and Awareness

Creating a city that supports and encourages its residents to bicycle and walk involves more than just infrastructure improvements. The BPMP proposes ongoing enforcement, education, and awareness programs and identifies City agencies and community populations that should participate in these programs. These include:

- Targeted enforcement
- Bicycle patrol units, speed limit enforcement
- Ballona Creek Bike Path Volunteer Program
- Adult cycling skills education, motorist education
- School-based education
- Creation of a safety handbook

To increase awareness and encourage bicycling and walking, the BPMP proposes a Safe Routes to School Program, a Share the Road education campaign, a bike light campaign, a bike-to-health campaign, bicycle parking at events, community bikeway and walkway adoption, a multi-modal access guide, Ciclovias, a bicycle and pedestrian signage program, and a Ballona Creek Bike Path Volunteer Program.

Funding

The BPMP catalogues available funding sources for network improvements as well as enforcement, education, and awareness programs. The Plan sorts these funding sources by level of government, either federal, State of California, County of Los Angeles, or local. It describes the purpose of each funding source and the types of projects and programs that are eligible for funding by that source, as well as the selection process and the criteria used to select grantees.

Evaluation and Implementation Responsibility

Evaluation is a critical to ensuring that the Plan meets its goals and contributes to a truly bicycle- and pedestrian-friendly City. The BPMP includes a discussion of an evaluation program to serve this purpose. Additionally, this chapter designates the Public Work Department's Administration Division as the agency in the City charged with implementing and evaluating the BPMP.

Goal, Objectives, Policies, and Actions

The document concludes with a reiteration of the principal goal of the Plan and an identification of objectives, polices and actions to help meet this goal. This goal and its associated objectives, policies and actions relate to all the issues addressed in the BPMP, from vision, to policy changes informed by the existing conditions, to expanding the City's network of facilities and creating non-infrastructure programs to encourage cycling and walking. The objectives presented in the Plan include:

- Objective 1 – Implement the 2010 Bicycle and Pedestrian Master Plan (BPMP) by initiating funded projects and programs and pursuing grant funding for unfunded projects and programs over the next 5 years.
- Objective 2 – Implement a "Complete Streets" Program by evaluating the needs of and/or the potential impacts on cyclists and pedestrians, including persons with special mobility needs, during planning/review of proposed public and private development and capital improvement projects.
- Objective 3 – Create a Mobility Coordinator position.
- Objective 4 – Reduce the number of bicyclists and pedestrians involved in traffic crashes.
- Objective 5 – Over the next five (5) year planning period, double the percentage of total trips made by bicycling and walking in the City as observed from the City's 2009 bicycle and pedestrian counts.
- Objective 6 – Amend and update the bicycle and walking related sections of the Municipal Code.
- Objective 7 – Annually evaluate the outcomes of the BPMP implementation.

Appendices

The document contains two appendices; **Appendix 1** is the Bicycle and Pedestrian Design Guide and **Appendix 2** includes all the comments received on the draft of this Plan, which was released to the public, along with responses. **Appendix 3** is a collection of technical memorandums that provide initial concept designs and cost estimates for implementing the BPMP.

1 Introduction

Historically, transportation planning focused primarily on the car, often at the expense of other modes of transportation. The result of this emphasis is clear: a car-dominated environment that fills roads to the point of intense congestion, uses vast amounts of fossil fuel, and harms human health by discouraging walking and biking and by sending harmful pollutants into the air. Gradually, this mentality is changing. Cities across the state and nation are beginning to recognize that walking and biking are a viable means of transportation and that creating accessibility for all modes of travel is not only essential, but inevitable in order to accommodate future travel demand and address our environmental and health challenges.

In creating its first ever Bicycle and Pedestrian Master Plan (BPMP), the City of Culver City is embracing this new vision of transportation planning, recognizing that it is essential to enhancing the quality of life for not only residents and visitors, but also the broader community and world. To this end and as part of this Plan, the City is adopting the concept of Complete Streets, which emphasizes a balanced transportation system that considers all users of the road while planning transportation projects, whether cyclists, pedestrians, transit riders, or vehicles.

The City is also adopting the goal of transforming itself into a place with an extensive bicycle and pedestrian network that allows travelers of all levels and abilities to feel comfortable walking and biking to their destinations. In so doing, Culver City hopes to encourage more people to forgo car trips in favor of alternative forms of transportation and to become truly bicycle and pedestrian friendly.

While articulating a new paradigm for transportation planning and goals for the City are critically important parts of the Plan, they are not sufficient on their own. The Plan must also provide a practical roadmap to help guide bicycle and pedestrian improvements in the City. With this in mind, the Plan inventories and evaluates the City's current bicycle network, addresses opportunities and constraints, and recommends specific policy changes to encourage bicycling and walking. The Plan's Bicycle and Pedestrian Design Guide (**Appendix 1**) also provides guidance for implementing high quality facilities, including shared-use paths, bike lanes, bike routes, bicycle parking, and newer treatments such as Bicycle Friendly Streets and sharrows that conform to current standards and best practices. The Plan prioritizes bicycle and pedestrian facilities and—because grant funding is necessary to implement the proposed projects and programs—the Plan establishes funding and implementation priorities for the upcoming years.

As the City's first Bicycle and Pedestrian Plan, this document is critically important in advancing bicycle and pedestrian issues in the City. Yet it is important to acknowledge that despite its strengths, this Plan is also just the first step in a long journey. The City must update the Plan regularly (every five years) as conditions change and the City progresses towards its bicycle and pedestrian goals. In addition, just as public input greatly enriched this first Plan, continued civic participation from neighborhoods, advocacy organizations, the business community, and others is essential as the City implements and updates the Plan in future years.

Special thanks to everyone who participated in the process of creating this document, including the Public Advisory Committee (PAC) and the Technical Advisory Committee (TAC). Also, many thanks to the Los Angeles County Department of Public Health's Policies for Livable, Active Communities and Environments (PLACE) program for the funding and support they provided, without which this document would not exist.

The following details how the City developed the BPMP, including its vision and the principal goal that guides the Plan.

2 Project Process

2.1 Draft Plan Process

The BPMP is the product of significant public outreach, input, and work from City staff, staff of the Los Angeles County Department of Public Health, volunteers, advocates, and the project team.

The project team conducted five public meetings while producing this plan.

- The first public workshop occurred in April 2009. This meeting asked workshop participants to report on existing bicycle and pedestrian conditions in Culver City.
- The second public workshop occurred in July 2009. This workshop asked participants to provide feedback on the areas planned for new facilities or the existing conditions that need improvement, as well as provide input on project goals.
- The third public workshop occurred in October 2009. This meeting provided a rough draft of the pedestrian and bicycle network as well as an introduction to the bicycle/pedestrian connector between East Culver City/Expo Light Rail Station and Downtown.
- The fourth public workshop occurred in January 2010. This presentation focused on the locations of specific bicycle and pedestrian facilities in Culver City. Participants provided feedback on the network recommendations.
- The fifth public workshop occurred in June 2010. This workshop oriented the public to the organization of Culver City's draft Bicycle and Pedestrian Master Plan.

2.2 Public Advisory Committee and Technical Advisory Committee

Culver City's City Council approved and appointed members to a Public Advisory Committee (PAC) in order to guide the BPMP planning process. The PAC's primary role was to ensure that the BPMP considered and represented public input. The PAC also served in an advisory role for recommendations incorporated in the Plan. PAC members selected included individuals from neighborhood organizations, the business community, bicycle/pedestrian advocates, and others from a variety of professional and personal backgrounds. The City also formed a Technical Advisory Committee (TAC) comprised of representatives from city agencies that will have a stake in overseeing and implementing the Plan, such as Public Works, Transportation, Community Development, and Police (CCPD). The TAC consulted with the project team throughout the development of the Plan, and participated in the needs analysis.

2.3 Public Advisory Committee Goal Exercise

The PAC convened in August 2009 to discuss the results of the second public workshop, which focused specifically on identifying primary and secondary project goals for the BPMP. During this second workshop, participants voted for their top priorities pertaining to bicycle and pedestrian policies, as well as bicycle and pedestrian areas in need of improvement in Culver City. The PAC discussed the most common responses, which dealt with shifting the focus from motor vehicle use toward more bicycling, walking, and transit use. Based on the outcome of the public ranking exercise, the PAC identified the following six areas as the highest

priority policies and areas in need of being addressed and articulated the six goals into primary, secondary, and tertiary goals:

- Bicycle & Pedestrian Network Improvements
- Programs
- Support Facilities
- Pedestrian Improvement Corridors
- Bikeway Corridors
- Intersection Improvements

Members of the PAC participate in a public workshop

The City used these six areas and the public workshop process to develop the vision for the document and principal, overarching goal and associated objectives, policies, and actions, which are presented in Chapter 10 of the Plan. The principal goal is as follows:

> *To transform the City into a place with an extensive bicycle and pedestrian network that allows travelers of all levels and abilities to feel comfortable walking and biking to their destinations. In so doing, encourage more people to forgo car trips, when possible, in favor of alternative forms of transportation and become truly bicycle and pedestrian friendly.*

Table 2-1 presents more detailed descriptions of primary, secondary, and tertiary goals within each of the six highest priority policies and areas.

Table 2-1 Project Goals

Bicycle and Pedestrian Network		
Primary Goal	Secondary Goal	Tertiary Goal
Adopt a "complete streets" policy requiring bicycle and pedestrian improvements in all transportation and development (private or public) projects subject to discretionary review (discussed in Section 2.4).	Improve bicycling conditions and connectivity on primary and secondary arterials. Provide more bicycle parking and support facilities at destinations on private development and public property. Add pedestrian facilities in areas with high pedestrian activity (where appropriate), especially Downtown, in commercial areas and schools. Widen and/or add amenities to existing sidewalks.	
Programs		
Primary Goal	Secondary Goal	Tertiary Goal
Develop and citywide educational program for all users of roadways and bicycle facilities.	Collaborate with businesses and business organizations to promote bicycle ridership as part of a Transportation Demand Management (TDM) strategy to reduce or redistribute automobile use.	
Support Facilities		
Primary Goal	Secondary Goal	Tertiary Goal
Enhance transit stations and bus stops to facilitate multi-modal trips by adding facilities/amenities where appropriate.	Improve safety and amenities along existing bike paths.	
Corridors in Need of Bikeway Improvements		
Primary Corridor	Secondary Corridor	Tertiary Corridor
Washington Boulevard	Overland Avenue	Jefferson Boulevard
Areas in Need of Pedestrian Improvements		
Primary Area	**Secondary Area**	**Tertiary Area**
Schools	Major shopping centers, including Downtown, *Costco*, and the *Target / Bed Bath & Beyond / Pavilions* area.	Washington Boulevard (west of Overland Avenue)
Intersection Improvements		
Primary Intersection	Secondary Intersection	Tertiary Intersection
Jefferson Boulevard at Overland Avenue	Washington Boulevard at Ince Avenue	Culver Boulevard at Overland Avenue

2.4 Complete Streets in Culver City

As stated previously, the PAC emphasized the importance of "Complete Streets," a movement to design roadways for all modes of transportation, including pedestrian, bike, transit and motor vehicle. This movement stems from difficulties bicyclists, pedestrians, the elderly and others may have when using streets primarily designed for motor vehicle use.

Bicyclists have legal access to all city streets. While the BPMP identifies a specific subset of streets as existing or potential official Bikeways or Pedestrian Corridors, most bicyclists and pedestrians will need to use other streets beyond those officially recognized in this Plan in order to reach their destinations. Therefore, it is important that all roadways, to the extent possible, have features that accommodate all users of the road. The California Complete Streets Act (CCSA) of 2008 (AB 1358) mandates that cities plan for all users of roadways.

> *Commencing January 1, 2011, upon any substantive revision of the circulation element, the legislative body shall modify the circulation element to plan for a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel in a manner that is suitable to the rural, suburban, or urban context of the general plan....*
>
> *For purposes of this paragraph, "users of streets, roads, and highways" means bicyclists, children, persons with disabilities, motorists, movers of commercial goods, pedestrians, users of public transportation, and seniors.*
>
> - California Complete Streets Act of 2008

The CCSA lays out the minimum provisions for meeting bicyclists and pedestrian requirements. Having a "balanced" transportation network is a lofty goal because networks historically favor motor vehicle movement. The BPMP goes beyond the CCSA stipulations and recommends prioritizing efforts to create policies, programs and infrastructure for bicyclists and pedestrians in order to help develop a balance between the movement of people using all modes of transportation.

The Culver City BPMP will also be compliant with the California Streets and Highway codes, specifically section 891.4, which relates to bicycle transportation plans.

Before **After**

Commonwealth Avenue is a major connector to Boston University. In 1998, the public noticed the lack of bicycle facilities in plans for improving the corridor. Through the partnership of advocates, the public, and city, the revised plans added bicycle lanes. In addition to bicycle facilities, the project enhanced pedestrian and transit amenities. The Commonwealth Avenue project removed a double turn lane and replaced it with widened sidewalks, additional street trees and planter boxes, high visibility crosswalks, and a landscape median to shorten the crossing distance between transit access and the sidewalk. This example shows how a complete street can transform an auto-centric street into a street for all mode-types and users. However, complete streets can take many forms and may not

Figure 2-1 Complete Streets Case Study, Commonwealth Avenue, Boston Massachusetts

2.5 Bicycle Transportation Account Compliance

The Bicycle Transportation Account (BTA) is the most common source of bicycle facility funding in the State of California. BTA funds can fund City projects that improve safety and convenience for bicycle commuters. In order for Culver City to qualify for BTA funds, its Master Plan must contain specific elements. **Table 2-2** displays the requisite BTA components and their location within this plan. The table includes "Approved" and "Notes/Comments" columns for the convenience of the Caltrans official responsible for reviewing compliance.

Table 2-2 BTA Requirement Checklist

Approved	Requirement	Page(s)	Policy/Action (p. 125-131)
	a) Existing and future bicycle commuters	25-26	2a1, 2a4
	b) Land-use map/population density	28	____
	c) Existing and proposed bikeways	4, 16-18, 29-34, 67-75, 89-110	1c2, 1c3, 1c4, 1d1
	d) Existing and proposed bicycle parking facilities	30-31, 37, 58, 111, A-3	5b5, 5b6
	e) Existing and proposed multi-modal connections	37-38, 58, 111	5a1
	f) Existing and proposed facilities for changing and storage	37	5b1-5b4
	g) Bicycle safety and education programs	112-119	4a1, 4a4, 4b1, 4c1, 4c2, 4e1, 4e2
	h) Citizen and community involvement	10-12, 40-55, 56-63	____
	i) Consistency with transportation, air quality, and energy plans	19-25	____
	j) Project descriptions / priority listings	78-87, 89-110	1c2, 1c3, 1c4, 1d1
	k) Past expenditures and future financial needs	88, 90-95, 128	1c3, 1d1

3 Existing Conditions

This chapter describes existing conditions for bicycling and walking in Culver City. It includes a review of plans, ordinances, and programs related to bicycling and walking; a summary of the existing bikeways and pedestrian facilities; and an analysis of data detailing bicycle and pedestrian collisions.

3.1 Existing Bikeways

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

Figure 3-1 illustrates the three types of bikeways.

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

Culver City contains approximately 4.22 miles of bikeways. This includes 3.22 miles of off-street bicycle paths and one mile of bike lanes.

Map 3-1 identifies the corridors listed in Table 3-1 and Table 3-2, as well as existing pedestrian facilities. Each of these bikeway facilities connects to a similar facility in the City of Los Angeles, which in turn provides access to the regional bikeway network.

Table 3-1 Culver City Existing Class I Bike Paths

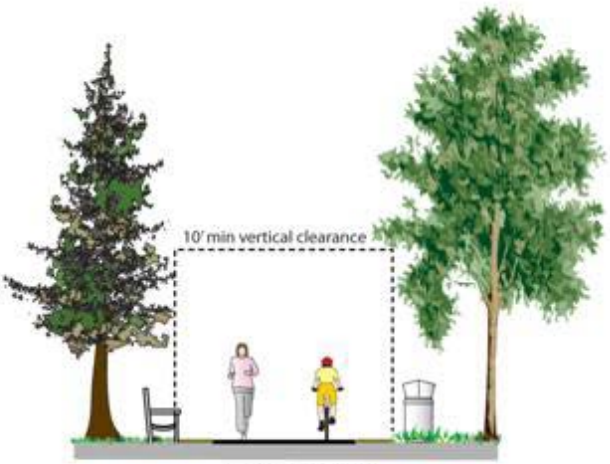
Class	Name	Start	Finish	Miles
I	Culver Boulevard Bike Path	Elenda Street	Culver City Limit	0.72
I	Ballona Creek Bike Path	National Boulevard	Culver City Limit	2.50
			TOTAL	**3.22**

Table 3-2 Culver City Existing Class II Bike Lanes

Class	Name	Start	Finish	Miles
II	Venice Boulevard	Overland Avenue	Bledsoe Avenue	1.00
			TOTAL	**1.00**

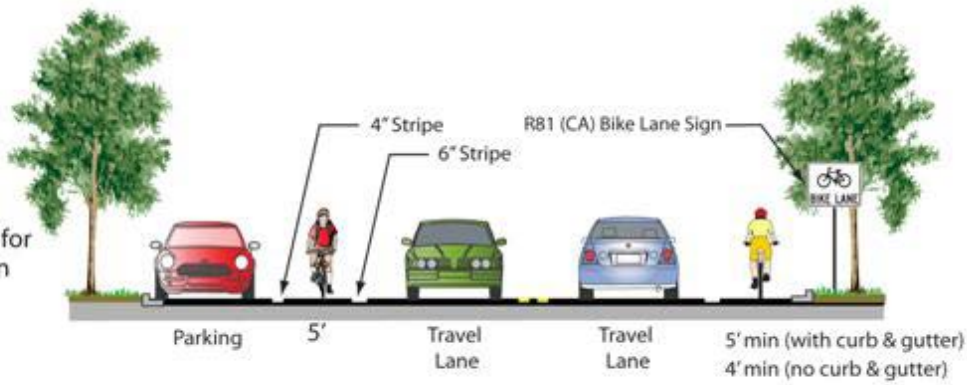
Class I

Provides completely separated right-of-way for exclusive use by bicycles and pedestrians with cross-flow minimized



Class II

Provides striped lane for one way bike travel on a street or highway



Class III

Provides for shared use with pedestrians or motor vehicles, typically on lower volume roadways

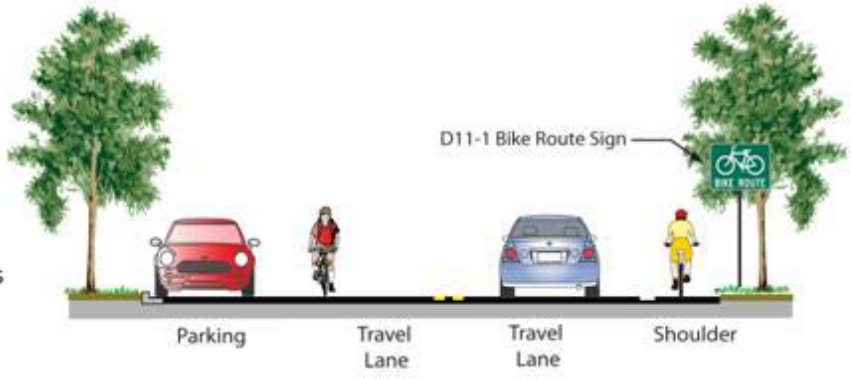
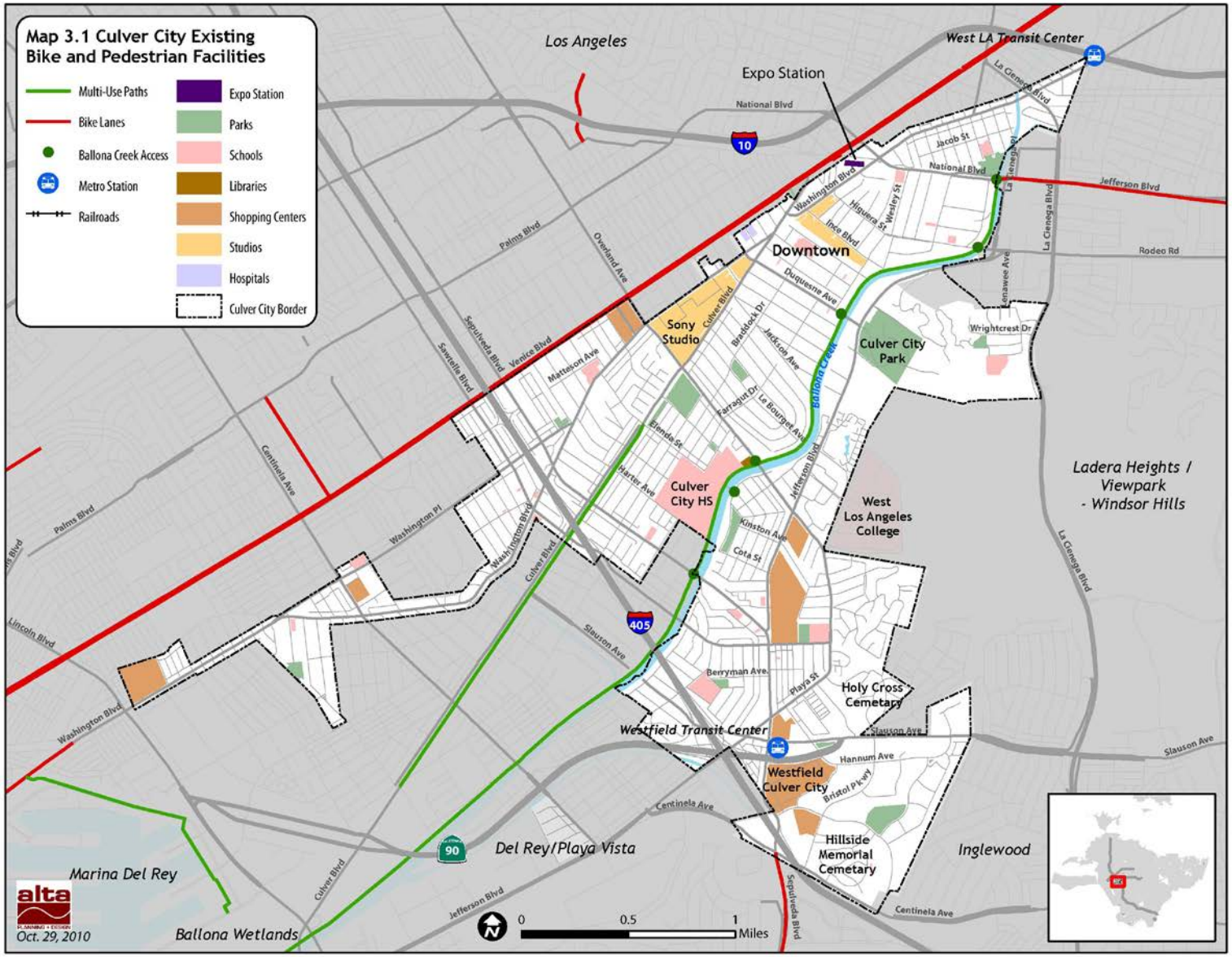


Figure 3-1 Caltrans Bikeway Classifications



Map 3-1 Culver City Existing Bike and Pedestrian Facilities

3.2 Policy Review

This section reviews relevant existing policies, documents, and ordinances to the BPMP. These documents provide the political framework for bicycle and pedestrian conditions in Culver City.

3.2.1 Culver City General Plan: Circulation Element

The 1996 Circulation Element (CE) of the General Plan addresses the challenges of increasing accessibility to, from, and within Culver City while protecting its "small town qualities." One part of the solution is to establish a "comprehensive bikeway plan," a primary objective within the CE.

A bicycle plan creates a system of policies that make cycling a viable means of transportation within the City. In order to maximize the bikeway network's impact on congestion relief, the network must connect bicyclists of varied skill levels to the places they want to go.

The CE identifies the Ballona Creek Bike Path as the "backbone" of the City's bikeway network. While many view it as solely a recreational facility, increasing bikeway connectivity to it expands its ability to meet the transportation needs of Culver City bicyclists. Additionally, the CE identifies most of the City's primary and secondary arterials and neighborhood feeders as proposed bikeways.

Connectivity is also an important issue for pedestrians. The Circulation Element seeks to increase pedestrian connectivity to transit stations and improve the pedestrian environment throughout the City.

3.2.2 Culver City General Plan: Open Space Element

The Culver City Council approved the Open Space Element (OSE) in 1996. It addresses several issues that pertain to bicyclists and pedestrians, including Active Recreation Areas, Urban Forests, and Streetscape Designs. This Element discusses the concept of the "Pedestrian-Oriented Emphasis." This approach dictates human-scale design, including transparent storefronts, benches, street lighting closer to the sidewalk, and other designs that cater to pedestrians.

Culver City parks are an important component of the pedestrian network

The OSE includes Bike Paths in the definition of Active Recreation Areas. The City must face the challenge of promoting and upgrading the Ballona Creek Bike Path facility without adversely affecting its adjacent neighborhoods.

The OSE includes references to policies that address bicycle and pedestrian issues, the most relevant of which the report discusses below.

Bicycle Policy

Policy 2D of the Open Space Element proposes bikeway connectivity to Downtown from the Ballona Creek Bike Path. Duquesne Avenue and National Boulevard currently serve as access points to the Ballona Creek Bike Path and Downtown bound bicycle traffic. The Expo line bikeway enables bicycle access to Ballona Creek, Downtown Culver City, and the Expo Light Rail station. Higuera Street crosses over the Ballona Creek

Bike Path, but does not provide path access. Funding for the Higuera Street project is under study. Currently, Duquesne Avenue, National Boulevard, and Higuera Street (arterials) are not designated as bikeways within Culver City.

Policy 2E discusses Overland Avenue and Culver Boulevard. Overland Avenue is a major component of Culver City's transportation system, connecting to:

- Ballona Creek Bike Path
- Venice Boulevard Bike Lanes
- Employment (Sony)
- Civic/public life (Veteran's Center, Senior Citizen Center)
- Recreation (Ballona Creek Bike Path, Veteran's Park)
- Commercial Centers (Culver Center, *Ralphs*, *Best Buy*, *Bally Fitness*)
- West Los Angeles College
- Residential neighborhoods

A segment of Culver Boulevard currently features a bike path. **Section 3.4.1** discusses the Culver Boulevard Bike Path in more detail.

Policy 2F calls for the development of a bike path along National Boulevard and pre-dates the Exposition Light Rail Transit Project (Expo) plans. As part of the Expo project, there are plans for a Class I facility in Culver City that parallels the Expo right-of-way.

Policy 2G encourages expanding active recreation opportunities along the Ballona Creek Bike Path. The Ballona Creek Focused Special Study prepared and developed planning proposals in response to this policy. Refer to further discussion on the Ballona Creek Bike Path in **Section 3.5.**

Policy 2H discusses Syd Kronenthal Park and its connectivity to the Ballona Creek Bike Path. Syd Kronenthal Park is on the north side of National Boulevard and is directly west of the Ballona Creek Bike Path. The park needs a paved pathway to better connect to the Ballona Creek Bike Path and the surrounding communities.

Policy 3C discusses the concept of "Parkettes." Parkettes are small-scale parks, taking advantage of under-utilized parcels of property. The installation of Parkettes will contribute to a pedestrian friendly Culver City. Parkettes can provide additional seating and eating areas that are valuable community amenities, and provide incentives for people to walk and rest. An important element of Policy 3C is to identify potential "highly visible" areas for future projects.

3.2.3 Culver City General Plan: Land Use Element

This document provides the guidance for all land use planning in Culver City. A major theme within the Land Use Element is walkability. The Plan seeks to guide development in a pedestrian friendly pattern that connects residential, recreational, and commercial land uses together.

Of particular interest to Culver City is maintaining growth that is "human-scale." In addition to calling for the creation of a citywide bicycle master plan, the Land Use Element calls for a pedestrian oriented Downtown

that separates users from busy arterials. The Land Use Element also addresses bikeway connectivity by focusing on the use of bicycle facilities that link to Ballona Creek, Downtown and other activity centers.

3.2.4 Bicycling-Related Sections of the Municipal Code

Bicycle Parking

There are several sections of the Culver City Municipal Code (CCMC) that relate to the provision and design of bicycle parking.

CCMC §17.320.045 states that bicycle parking is to be provided at most multi-family and non-residential uses. Generally, bicycle parking is required at rates that vary between 5-10% of the motor vehicle parking provided at the respective facility. This section dictates bicycle parking design by requiring that facilities be stationary, installed at a minimum distance of five feet from vehicle parking, and conveniently located.

Bicycle parking in Downtown Culver City

CCMC §7.05.015 (Transportation Demand and Trip Reduction Measures) imposes additional requirements for bicycle parking. It requires all new non-residential developments that equal or exceed 50,000 gross square feet provide bicycles racks or other secure bicycle parking as a way to encourage biking as an alternative mode of transportation and reduce the use of automobiles.

The Municipal Code also mentions the use of in-lieu fees to pay for bicycle parking (§17.320.025). In-lieu fees allow non-complying parties to pay fees deposited to a central funding source for additional parking. Furthermore, the CCMC expressly prohibits using parking meters as bicycle parking (§7.03.535) and provides additional guidance on where bicycles can park legally (§7.04.240).

Bicycle Riding

The CCMC also contains provisions that relate to bicycle riding. Many of these code sections simply repeat or paraphrase the California Vehicle Code (CVC), or they are actually in conflict with the CVC. For example, CCMC §7.04.220 contains language regarding a bicyclist's position on the road. CVC §21202 provides superior language with detailed exceptions that benefit the safety of bicyclists. CCMC §7.04.245 precludes bicyclists from riding on a street where a bicycle path is provided, which is inconsistent with the CVC. If enforced, this code would prohibit bicyclists from riding on Culver Boulevard wherever the Culver Boulevard Bike Path is present.

Other sections of note relating to bicycle riding include CCMC §7.04.250 relating to riding on sidewalks, CCMC §7.04.235 prohibiting bicyclists from carrying items while riding a bike in a manner that prevents them from placing both hands on the handlebars, and CCMC §7.04.250 relating to the purchase of new bicycle lights and the requirements of lights and reflectors. Finally, CCMC §7.04.215 refers to limits and restrictions on group riding, specifically prohibiting multiple individuals from riding on a standard bicycle. This law most likely intends to affect youths who frequently give each other rides on their bicycle. Often times these riders travel at slow speeds, on sidewalks, or on residential streets.

3.2.5 Walking Related Sections of the Municipal Code

The CCMC not only provides guidance on bicycle parking and riding, but also on various pedestrian-related topics.

CCMC §9.08.035 authorizes the administrative licensing of outdoor dining areas where they will promote commercial revitalization and business opportunities in a manner that is consistent with public welfare and safety. Because of this provision and the popularity of these outdoor dining areas that accent the vibrant pedestrian friendly Downtown area (which places many individuals on the sidewalk at any given time), the regulation and oversight of sidewalks is an area to examine in the BPMP.

CCMC §7.05.015 (Transportation Demand and Trip Reduction Measures) requires all new non-residential developments that equal or exceed 100,000 gross square feet to provide direct and safe pedestrian access to/from vehicle and bicycle parking and transit facilities.

3.2.6 Ballona Creek and Trail: Focused Special Study and Ballona Creek Related City Council Resolution No. 2004-R044

The Focused Special Study discussed the state of—and a proposed vision for—Ballona Creek and its surrounding neighborhoods. In the document, the term "trail" refers to a paved Bike Path. One of the key goals of the Focused Special Study was to "promote the development of a pedestrian and bicycle path system that will be safe, secure and meet ADA accessibility requirements."

The Ballona Creek is one of the most popular facilities for pedestrians and bicyclists in Culver City

The study recognized the use of the Path for both commuting and recreational purposes. Accessibility to and the safety of the Path for pedestrians, bicyclists, and others with impaired mobility was a primary concern.

The study promoted active use of Ballona Creek while mitigating the potential impacts on the adjacent residential areas. The Council received and filed the study in January 2004. The City Council Resolution No. 2004-R044 amends the Land Use, Open Space and Circulation Elements of the Culver City General Plan as they pertain to Ballona Creek. The Ballona Creek and Trail Focused Special Study also provides guiding principles for improvements that will connect the Ballona Creek Bike Path with the rest of the City Bicycle Network. Major themes of the Resolution include:

- Protecting the surrounding neighborhoods from externalities of trail access and use
- Establishing guidelines that direct future improvements/additions to the trail
- Safety, maintenance, and crime prevention
- Including surrounding communities in the improvement process
- Installing Class II bike lanes along major arterials to facilitate bicycle travel to/from the Ballona Creek Bike Path

Table 3-3 Ballona Creek and Trail Focused Special Study Design and Planning Principles

Final Design and Planning Principles

Table 5-A

Flood Control

1. Maintain or improve the ability of Ballona Creek to convey floodwaters.

2. Take no actions that would interfere with or impair the ability to maintain Ballona Creek for the purpose of carrying floodwaters.

Quality Of Life

1. Limit new access to trails from existing residential neighborhoods to discourage trail users from parking in those neighborhoods to access the trail.

2. Provide for vertical separation and buffer between the elevation of the bike trail and adjacent residential yards.

3. Provide additional landscaping and fencing to buffer public use areas from residential yards.

4. Encourage landscaping techniques that maximize noise absorption and minimize noise echoes.

5. Design paths that would encourage users to move through the trail system.

6. Develop enforceable design guidelines for creek-side development including standards for noise and lighting (i.e. low level and low emitting lighting, shielding of light glare/spill).

7. Control the hours of operation of public use areas.

8. Enforce existing municipal, County, and Federal codes along the bike path and adjacent properties.

9. Enhance Ballona Creek as an amenity for people who already use, live, or work near the bike path.

Public Safety and Maintenance

1. Develop a maintenance and safety program to assure the health and safety of Ballona Creek and Trail users and adjacent residents.

2. Coordinate and correct fragmentation of jurisdictional responsibility such as policing, graffiti control, homelessness, and maintenance.

Aesthetics and Environment

1. Create environments that will enhance both the scenic beauty of Ballona Creek and the property values of nearby residents and businesses.

2. Spur the low impact revitalization of creek-side commercial and industrial properties and residential improvements towards beautification.

3. Improve the general condition and appearance of Ballona Creek and trail by eliminating dilapidated conditions and devising consistent standards for creek-side fencing, safety lighting, way-finding, landscaping, and guard rails.

4. Provide suitable landscaping (i.e. native plants for certain areas, drought tolerant, or low maintenance) along the bike path and both sides of the channel.

5. Improve water quality in Ballona Creek.

6. Provide attractive signage for the Ballona Creek and Trail denoting Coastal Access.

Recreation and Use Potential

1. Provide a linkage and land-bridge connection to the Baldwin Hills Park area.

2. Provide a system of way-finding to better and more safely connect with various open space areas and parks such as Syd Kronenthal Park, Lindberg Park, Slauson Park, etc. via the trail system.

3. Seek to link the Ballona Creek bike path to other bikeway circulation systems in Culver City such as Culver Boulevard, MTA Exposition right of way and Downtown Culver City.

4. Provide trails that are ADA accessible.

Financial Resources

1. Devise a cohesive operations and maintenance strategy for Ballona Creek that does not cost the City of Culver City any more than it does today.

2. Ensure that improvements made to Ballona Creek and the trail system are funded through outside grants sources with minimal or no matching grants.

Study Process

1. Ensure that the plans for Ballona Creek are in the best interests of Culver City and its citizens.

Source: Table 5-A, Ballona Creek and Trail Focused Special Study

3.2.7 Downtown Culver City: Design Guidelines

The Culver City Redevelopment Agency prepared the Downtown Design Guidelines to influence design of future development in Downtown. This document intends to "encourage and enhance a pedestrian friendly" Downtown by favoring businesses that support pedestrian use above others that may create an uncomfortable atmosphere for pedestrians. The Guidelines give preference to business types that typically do not result in higher levels of crime.

This document details pedestrian access to businesses and parking, including City oversight to ensure access for persons with limited mobility. Downtown Culver City fosters pedestrian travel because of the sidewalk environment. Sidewalks are wide and have rest areas with storefronts that are attractive and inviting.

Culver Boulevard & Cardiff Ave crosswalk

According to the Downtown Plan, Culver Boulevard is to be the "Pedestrian Street" with human-scale features including tree canopies, gardens, benches, kiosks, artwork, widened sidewalks, etc. These amenities contrast to Washington Boulevard, which has a designation as an auto corridor and favors motor vehicle use.

3.2.8 Outdoor Dining Standards and Procedures on the Public Right-of-Way

Outdoor dining areas contribute to a dynamic pedestrian environment

Downtown Culver City and Sepulveda Boulevard south of Culver Boulevard are popular destinations for shopping and dining. Culver City updated its Outdoor Dining Standards in 2009 in conjunction with the development of the Downtown Culver City Design Guidelines (**Section 3.2.7**.). Many of the Downtown restaurants offer outdoor seating. The popularity and the demand for expansion of restaurants' outdoor seating have the potential to encroach into the public right-of-way. In order to prevent this conflict, the City created Outdoor Dining Standards. The following standards are not a comprehensive list of the Design Guidelines, but instead include only the most pertinent to the BPMP.

ADA Compliance

Outdoor Dining Standards (ODSs) require that seating and dining areas leave an ADA compliant passageway at least four feet wide. These standards protect the rights of pedestrians while allowing for outdoor seating to contribute to the vibrancy of the pedestrian environment.

Barriers

Barriers clearly define eating areas and distinguish boundaries. Barrier height is regulated and barriers cannot be draped or connected with materials that prevent pedestrians from seeing into the areas. Visual permeability is a key component to an inviting environment for pedestrians.

Landscaping

The ODSs closely regulate the use of landscaping. The ODSs encourage the use of landscaping as a barrier – greatly contributing to the attractiveness of the pedestrian environment. The ODSs also prevent landscaping from infringing on the public right-of-way by imposing similar height and other restrictions to landcaping as to other types of barriers.

Standards of Operation

The ODSs outline the Standards of Operation, which put the responsibility of sidewalk upkeep on the restaurants. The constant maintenance provided by restaurants enhances the pedestrian environment by providing a clean, attractive sidewalk.

3.3 Existing and Potential Bicycle Commuters

This section presents an estimate for the current and potential number of bicycle commuters in Culver City. 2000 Census data, in combination with national commuting statistics from the 2001 National Household Travel Survey (NHTS) and EPA estimates of standard emissions rates for motor vehicles, give a rough projection of potential future bicycle ridership in Culver City, along with trip reduction and air quality benefits (**Table 3-5**).

Calculations are included in this Plan to meet Caltrans Bicycle Transportation Account (BTA) requirements to provide "the estimated number of existing bicycle commuters in the Plan area and the estimated increase in the number of bicycle commuters resulting from implementation of the Plan." BTA compliance is important to Culver City's bicycle plan in order to grant proposed projects eligibility for funding from the State of California's BTA (approximately $7.2M, annually).

According to the NHTS, the average work commute time in Culver City has remained close to 20 minutes since 1983. Averaging all modes, the commute time in 2001 was 23 minutes. Assuming an average speed of 10 miles per hour, a cyclist traveling for 23 minutes covers approximately four miles, which would be equivalent to a 9-minute motor vehicle trip (traveling at about 30 mph).

Table 3-4, which uses US Census data, shows that 1,544 Culver City residents (about 8%) had a commute time of 9 minutes or less in 2000. Subtracting those residents that already walk or bike to work (819), we find that 725 Culver City residents could potentially convert their short (9-minute or less) commute trip from a vehicle trip into a bicycle trip.

Table 3-4 Journey to Work Data

Current Commute of 9 min or Less	Already Walk or Bike to Work	Potential Bicycle Commuters
1,544	819	725

Source: U.S. Census 2000

This number represents the minimum number of people who could already change to bicycling for their commute. With the completion of the Exposition Light Rail Transit Project and supplemental bicycling facilities and programs, the number could potentially be much higher. Additionally, Census figures only represent the commuter behavior of Culver City residents. The estimate does not include commuters into, or through, Culver City by people who live elsewhere.

The following pages (Table 3-5 and Map 3-2) provide valuable information about the benefits of bicycle commuting on the environment and land use in Culver City. Their inclusion in this Plan is one component of State BTA compliance.

Table 3-5 Culver City Trip Reduction and Air Quality Benefits

AIR QUALITY BENEFITS MODEL - BICYCLE

Existing Communting Statistics

Variable	Figure	Source
Existing study area population	38816.00	2000 Census, STF3, P1.
Existing employed population	19835.00	2000 Census, STF3, P30.
Existing bike-to-work mode share	0.01	2000 Census, STF3, P30.
Existing number of bike-to-work commuters	119.01	Employed persons multiplied by walk-to-work mode share
Existing work-at-home mode share	0.04	2000 Census, STF3, P30.
Existing number of work-at-home bike commuters	436.37	Assumes 50% of population working at home makes at least one daily bicycle trip
Existing school children, ages 6-14 (grades K-8)	4504.00	2000 Census, STF3, P8.
Existing school children bicycling mode share	0.02	National Safe Routes to School surveys, 2003.
Existing school children bike commuters	90.08	School children population multiplied by school children bike mode share
Existing number of college students in study area	2865.00	Full-time undergradate and graduate student population in study area
Existing estimated college bicycling mode share	0.10	Review of bicycle commute share in seven unversity communities (source: National Bicycling & Walking Study, FHWA, Case Study No. 1, 1995).
Existing college bike commuters	286.50	College student population multiplied by college student bicycling mode share
Existing total number of bike commuters	931.96	Total bike-to-work, school, college and utilitarian bike trips. Does not include recreation.
Total daily walking trips	1863.92	Total bicycle commuters x 2 (for round trips)

Existing Vehicle Trips and Miles Reduction

Reduced Vehicle Trips per Weekday	662.31	Assumes 73% of bicycle trips replace vehicle trips for adults/college students and 53% for school children
Reduced Vehicle Trips per Year	172864.16	Reduced number of weekday vehicle trips multiplied by 261 (weekdays in a year)
Reduced Vehicle Miles per Weekday	4964.32	Assumes average round trip travel length of 8 miles for adults/college students and 1 mile for schoolchildren
Reduced Vehicle Miles per Year	1295687.94	Reduced number of weekday vehicle miles multiplied by 261 (weekdays in a year)

Existing Air Quality Benefits

Reduced PM10 (tons/weekday)	91.34	Daily mileage reduction multiplied by 0.0184 tons per reduced mile
Reduced NOX (tons/weekday)	2476.20	Daily mileage reduction multiplied by 0.4988 tons per reduced mile
Reduced ROG (tons/weekday)	360.41	Daily mileage reduction multiplied by 0.0726 tons per reduced mile
Reduced PM10 (tons/year)	23840.66	Yearly mileage reduction multiplied by 0.0184 tons per reduced mile
Reduced NOX (tons/year)	646289.14	Yearly mileage reduction multiplied by 0.4988 tons per reduced mile
Reduced ROG (tons/year)	94066.94	Yearly mileage reduction multiplied by 0.0726 tons per reduced mile

Future Communting Statistics

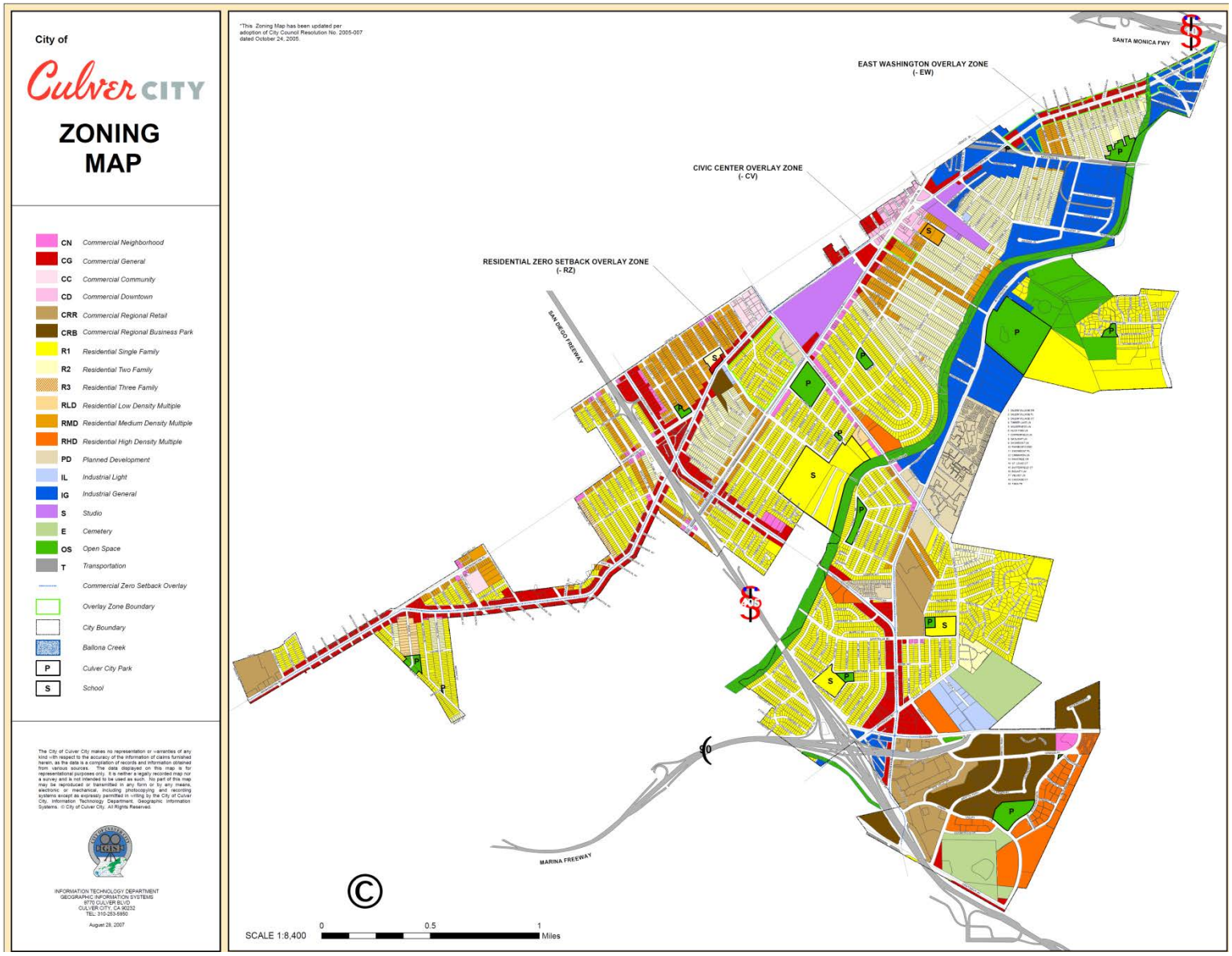
Variable	Figure	Source
Future study area population	39994.00	Estimate this number based on historic population growth (or decline) trends
Future employed population	20133.00	Estimate this number based on historic employment growth (or decline) trends
Future bike-to-work mode share	0.02	Make a logical estimate of the potential mode share increase associated with planned/proposed bikeway system improvements
Future number of bike-to-work commuters	302.00	Employed persons multiplied by bike-to-work mode share
Future work-at-home mode share	0.04	Estimate this number based on historic work-at-home population growth (or decline) trends
Future number of work-at-home bike commuters	442.93	Assumes 50% of population working at home makes at least one daily bicycle trip. Change the formula in this cell if the percentage is expected to increase or decrease
Future school children, ages 6-14 (grades K-8)	4572.00	Estimate this number based on historic population growth (or decline) trends
Future school children bicycling mode share	0.02	Make a logical estimate of the potential mode share increase associated with planned/proposed bikeway system improvements
Future school children bike commuters	91.44	School children population multiplied by school children bicycling mode share
Future number of college students in study area	2908.00	Estimate this number based on historic college student population growth (or decline) trends. Universities may also have enrollment projections
Future estimated college bicycling mode share	0.10	Make a logical estimate of the potential mode share increase associated with planned/proposed bikeway system improvements
Future college bike commuters	290.80	College student population multiplied by college student bicycling mode share
Future total number of bicycle commuters	1127.16	Total bike-to-work, school, college and utilitarian walking trips. Does not include recreation.
Future total daily walking trips	2254.32	Total walk commuters x 2 (for round trips)

Future Vehicle Trips and Miles Reduction

Reduced Vehicle Trips per Weekday	804.54	Assumes 73% of walking trips replace vehicle trips for adults/college students and 53% for school children
Reduced Vehicle Trips per Year	209984.82	Reduced number of weekday vehicle trips multiplied by 261 (weekdays in a year)
Reduced Vehicle Miles per Weekday	931.52	Assumes average round trip travel length of 1.2 miles for adults/college students and 0.5 mile for schoolchildren
Reduced Vehicle Miles per Year	243127.55	Reduced number of weekday vehicle miles multiplied by 261 (weekdays in a year)

Future Air Quality Benefits

Reduced PM10 (tons/weekday)	17.14	Daily mileage reduction multiplied by 0.0184 tons per reduced mile
Reduced NOX (tons/weekday)	464.64	Daily mileage reduction multiplied by 0.4988 tons per reduced mile
Reduced ROG (tons/weekday)	67.63	Daily mileage reduction multiplied by 0.0726 tons per reduced mile



Map 3-2 Culver City Land Use

3.4 Bicycle Facilities

This section describes the facilities available to bicyclists in Culver City, primarily the Culver Boulevard Bike Path and the Venice Boulevard Bike Lane. A separate portion of in this section specifically discusses the Ballona Creek Bike Path.

3.4.1 Culver Boulevard Bike Path

The Culver Boulevard Bike Path passes through both Culver City and Los Angeles. In Culver City, it runs from the Culver City border at Sawtelle Boulevard to Elenda Street (approximately 0.7 miles).

The Culver Boulevard Bike Path is different from other Class I facilities in that it runs on the raised median of a major arterial road (Culver Boulevard). It is elevated 2 to 3 feet above street level but drops down to grade level when crossing intersections.

Design & Layout

The Culver Boulevard Bike Path is a popular facility in Culver City. Part of its popularity comes from its ability to serve a variety of users. In addition to being a bike path, it also features an adjacent non-paved trail for walking, attractive landscaping, public art, benches, and other amenities that invite and encourage usage.

Culver Boulevard Bike Path (Example of incorrect pavement marking by Caltrans)

Intersections

Unlike the Ballona Creek Bike Path, the Culver Boulevard Bike Path requires bicyclists and pedestrians to yield to traffic signals at intersections. The Culver Boulevard Bike Path crosses heavily used arterials including Sepulveda Boulevard, Sawtelle Boulevard and on-ramps to the San Diego I-405 Freeway.

As noted previously, CCMC §7.04.245 precludes bicyclists from riding on a street that provides an adjacent bicycle path. As it applies to the Culver Boulevard Bike Path, the code makes riding a bicycle illegal both north or south on Culver Boulevard where the Bike Path is present if not on the Path itself. This makes access to the residential and commercial corridors difficult for bicyclists who are not boarding or departing the Path at one of its entrances or exits (usually at intersections).

3.4.2 Venice Boulevard Bike Lane

The Venice Boulevard Class II Bike Lane is a critical component of the regional bicycle network. As Los Angeles County's longest bike lane, the Venice Boulevard Bike Lane provides extensive access to bicyclists coming to and from Culver City. The lane itself runs continuously for over nine miles from Crenshaw Boulevard, east to Venice Way. The one-mile segment of the Venice Boulevard Bike Lane within Culver City boundaries runs east from Bledsoe Avenue to Overland Avenue. Within these limits, only the eastbound section of the lane is in Culver City.

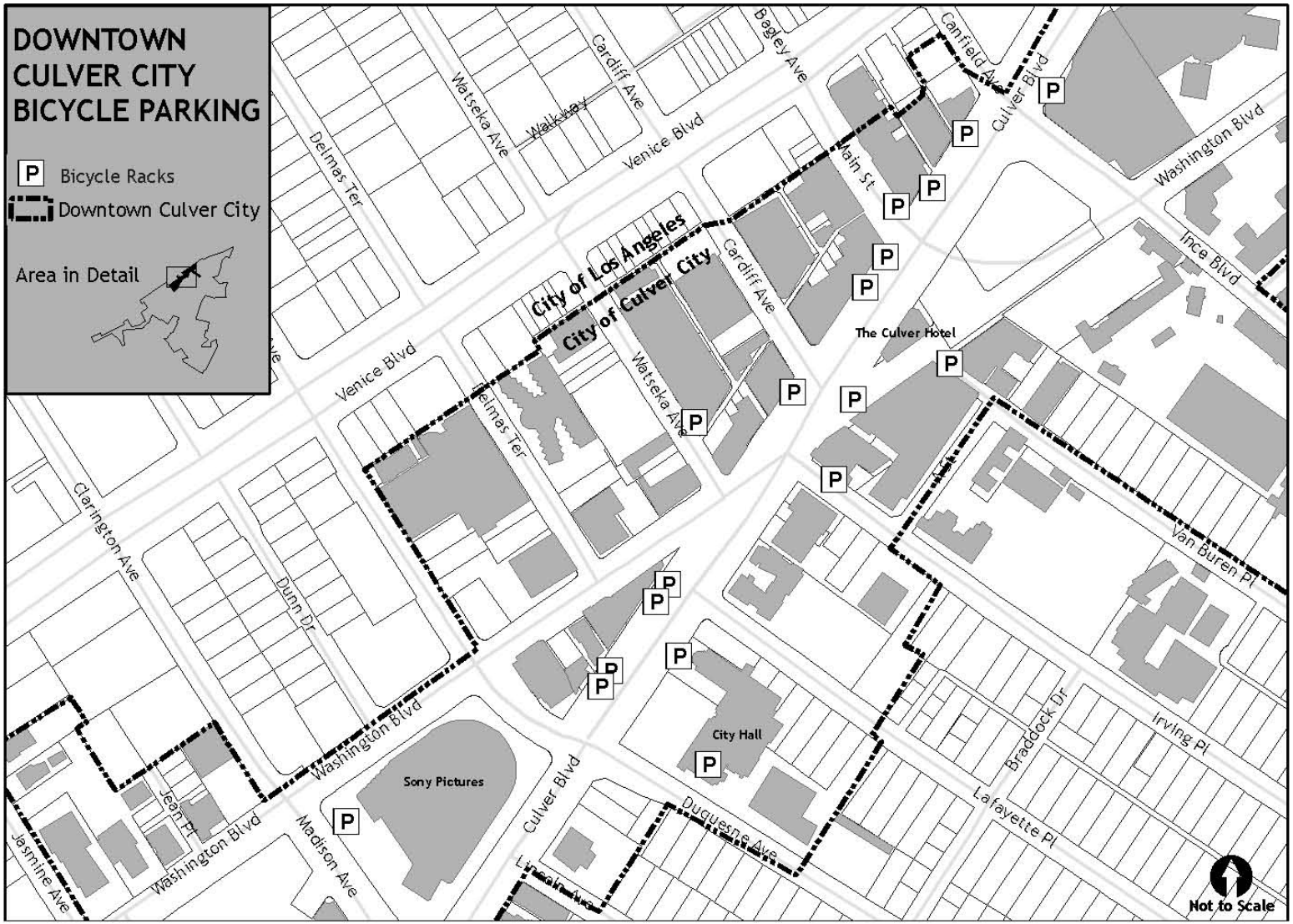
In many cases, the bike lane runs adjacent to street parking. Bicyclists attempting to avoid being "doored" (when a motor vehicle door opens immediately in front of a bicyclist) opt to ride on the left side of the lane, closer to motor vehicle traffic. Because Venice Boulevard features a significant amount of commercial activity, bicyclists must be constantly aware of motor vehicles pulling out of cross-streets, driveways, and from between parked motor vehicles, as well as individuals exiting parallel parking spaces.

Despite the issues that face the Venice Boulevard Bike Lane, it remains a valuable part of the region's and Culver City's bicycle infrastructure.

3.4.3 Existing Bicycle Parking Facilities (Downtown)

Culver City has bicycle parking facilities available throughout the City. Downtown is one of Culver City's most popular attractions and trip generators. As such, its quality and stock of bicycle parking is important to analyze in supporting future bicycle trips. The following map displays the location of bicycle parking available in Downtown Culver City.

Venice Boulevard Bike Lane



Map 3-3 Downtown Culver City Bicycle Parking Locations

Source: Culver City Redevelopment Agency

3.5 Ballona Creek Bike Path

The Ballona Creek Bike Path is the backbone of Culver City's bicycle infrastructure. Spanning approximately 2.5 miles, its western terminus makes the prime connection between Culver City and communities to the west, including Venice, Marina del Rey, Playa del Rey, and the Marvin Braude Beach Path. Its original purpose was as a bike path, but it now serves as a multi-modal path.

Ballona Creek Path at Sepulveda Boulevard

Ballona Creek Bike Path is the primary off-street path in the City facilitating utilitarian (e.g. commuting or errand-running) as well as non-utilitarian (e.g. exercising or recreational) trips. Students use the Path for school, and joggers and bicyclists use the Path for all purposes. The Path also provides regional access to the beach and other Los Angeles bicycle facilities.

3.5.1 Access

The access points to the Ballona Creek Bike Path within Culver City are:

- National Boulevard (eastern end)
- Duquesne Avenue
- Overland Avenue
- Sepulveda Boulevard

Ballona Creek Path at Overland Boulevard

Access to/from the Ballona Creek Bike Path has been a sensitive point of discussion between the Path's users and the adjacent residential community.

Path users see increased access as a safety improvement and a crime deterrent because it may increase pathway use and keep more eyes on the area. Residents see reduced access as a crime deterrent because it will prevent access to neighborhoods.

Public comments frequently request increasing access to the Ballona Creek Bike Path. While there are no recommendations to increase residential access to the Ballona Creek Bike Path at this time, Higuera Street is a recommended new access point. A study is also exploring access improvements in the tri-school area (Culver City High School, Culver City Middle School, and Farragut Elementary School) to encourage more children to access school by walking or bicycling. Both of these access points will require additional study and individual plans before funding is secured and projects are brought to fruition.

3.5.2 Design

The location and design of the Ballona Creek Bike Path make it a popular facility, but also reveal some limitations and areas in need of improvement. The Ballona Creek Bike Path enables uninterrupted travel between the eastern edge of Culver City at National Boulevard and the beach. All crossings are grade-separated so cyclists do not have to stop at intersections. However, some concerns regarding criminal activity have arisen as a result of individuals loitering beneath poorly lit underpasses. Underpasses may also present visibility problems to those using the Path. Additional lighting would improve visibility for bicyclists, joggers, pedestrians, etc. and discourage individuals from loitering beneath the underpasses.

3.5.3 Signage

Signage is an often over-looked, but important component of a complete bike path. Signage serves to orient users on the path, and to alert individuals to path rules, restrictions, and neighboring amenities. Much like highway signage, path signs are helpful for instructing individuals on access points for reaching popular destinations within the City, and towards other bicycle facilities in the network. The City is working with other agencies to complete various striping and signage projects along the Ballona Creek Bike Path in the upcoming months (2010/2011). Culver City will be developing a citywide signage plan that includes special signage for use on the Path. The City will install stencils that will alert users on Path etiquette and methods to share this valuable public resource.

3.5.4 Maintenance

Maintenance of the Ballona Creek Bike Path plays a considerable role in the usefulness and enjoyment of its users. Maintenance concerns for the Ballona Creek Bike Path include:

- Landscaping/grooming
- Clearing obstructions
- Fence/rail repair
- Pavement repair
- Trash collection
- Graffiti

Maintenance concerns along the Ballona Creek Bike Path: A fallen tree in the City of Los Angeles

The photo at right displays a portion of the Ballona Creek Bike Path that is outside of Culver City boundaries, but is included to show the types of maintenance issues found along the Path. Proper/timely maintenance ensures optimal safety and encourages high levels of use. When maintenance is less timely, it discourages people from using the Path and can lead to a less inviting environment.

3.5.5 Personal Safety

Many participants in the BPMP process expressed concern about safety along the Ballona Creek Bike Path. Reports of assaults on bicyclists using the Path have influenced the bicycling community's perception of the Path. Many people feel that the Path is neglected and unsafe. One way to enhance the impression of safety is

through regular patrols and adequate lighting. For specific recommendations on lighting, refer to the Design Guide, **Appendix 1**.

Other recommendations to enhance the user experience and safety of the Ballona Creek Bike Path are mileage markers, overcrossing signage, and entrance street signage. Mileage markers and street identification can be a combination of pavement markings and sign posts to indicate Path users' distance travelled while on the Path and location. This can be helpful in the event of an emergency for directing first-responders to accurate locations along the Path.

3.5.6 Improvement Zone

The Ballona Creek Bike Path is undergoing study for potential improvements to pedestrian and bicycling conditions. Study is also underway for a separate walking path along the south side of the creek between Higuera Street and Overland Avenue.

3.6 Existing Pedestrian Areas

This section details existing pedestrian areas in Culver City. While this section focuses primarily on pedestrian access and movement, it is important to note that bicycle access to these areas is important as well. Major arterial roads with high traffic volumes typically serve commercial areas. Existing conditions make pedestrian areas difficult to access by bicycle, making the need to implement an extensive bicycle network an important issue for both pedestrians and bicycles.

3.6.1 Downtown

Downtown Culver City has developed into a major regional destination, complete with fine dining, a Cineplex, live theater, and music venues. Small business façade improvement grants assisted in the area's renovation and created an aesthetically pleasing setting with wide promenade sidewalks, public art, and an abundance of street furniture (including planters and benches).

Overall, as the political and cultural hub of Culver City, Downtown sets the City standards for pedestrian friendly design.

Downtown Culver City

Future projects will continue to enhance the pedestrian friendliness of Downtown. For example, the pedestrian plaza at the intersection of Main Street, Washington Boulevard, and Culver Boulevard promises to contribute greatly to pedestrian mobility.

As the Expo Line stop brings rail transit to Culver City, planners must take careful consideration to ensure that there is pedestrian connectivity between the station, and commercial areas Downtown, Hayden Tract, and the Helms Bakery district.

3.6.2 Major Employment and Commercial Centers

Some major employers in Culver City include Sony Studios, the Culver Studios, and Brotman Medical Center. According to the 2000 census, over 21,000 of Culver City's population aged 16 and older have a job. Culver City's over-16 population at the time was approximately 31,000. Census results report that nearly 75% of this same population drive to work alone.

Studio lots tend to be large and employees typically walk around the lots. Providing bicycle and pedestrian connections could help to encourage non-motorized trips that connect into the City. Sony Studios uses a fleet of bicycles for travel in the back lot and between facilities.

3.6.3 Parks and Open Space

Culver City has a number of parks and open spaces, including a skate park and a dog park. These areas are popular places for walking and bicycle trips. The following are City parks:

- Blair Hills Park
- Blanco Park
- The Boneyard (Dog Park)
- Carlson Park
- Coombs Park
- Culver City Park
- Culver City Skate Park
- Culver West Alexander Park El Marino Park
- Fox Hills Park
- Syd Kronenthal Park
- Lindberg Park
- Tellefson Park
- Veteran's Park

Culver City's neighborhood parks are frequently visited by pedestrians and bicyclists

3.6.4 Retail Centers

Major retail centers in Culver City include:

- Downtown
- *Ross*
- *Target*
- *Costco*
- Studio Village Shopping Center
- Westfield Culver City
- Culver Center

Each of these areas features vast parking lots, encouraging motor vehicle-trips rather than bicycle and pedestrian trips. While driving can facilitate carrying larger loads, improved bicycle and pedestrian access can increase accessibility for service-oriented trips that do not require heavy-duty hauling, thus increasing frequency of such trips.

Pedestrian-oriented retail centers vary greatly from motor vehicle oriented retail centers. At pedestrian-oriented retail centers, motor vehicle parking is often less convenient and further from the desired destination. Pedestrian-oriented areas (like Downtown) have benches, trees, and street furniture that encourage active use. They allow individuals to park in one place, and then travel easily from one destination to the next on foot. Auto-oriented retail centers (e.g. *Costco*, *Target/Bed Bath & Beyond*, and *Ross* on Jefferson Boulevard, etc.) provide ample room for motor vehicle parking at the expense of pedestrian convenience.

3.6.5 Commercial Corridors

Bicycle and pedestrian connectivity to Culver City's commercial corridors has great potential to reduce motor vehicle trips. Culver City's commercial corridors often have access to adjacent residential areas. Corridors such as Sepulveda Boulevard, Washington Boulevard and Culver Boulevard feature active commercial stretches along the main thoroughfare with residential properties one block away. Depending on the amenities, commercial corridors can meet the shopping, entertainment, and business needs of its immediate neighbors. Sidewalk and road quality, safe, well-lit crossing facilities at major intersections, and adequate bicycle parking encourage local residents to walk or bike to local corridors in lieu of making motor vehicle trips.

3.6.6 Schools

Schools are major pedestrian areas. Culver City has one public high school, one public middle school, five public elementary schools, several other private schools, and Antioch College. Additionally, while West Los Angeles College is not within Culver City, affiliated faculty, staff and students must access the college using Culver City streets.

Bicycle and pedestrian improvements should provide students with safe options to walk or bike to school and nearby support facilities, such as libraries and athletic fields, from their homes. Improvements should seek to insulate bicyclists and pedestrians from common road hazards, but not isolate them from the surrounding environment.

Providing schools with non-motorized transportation alternatives is also important in developing good habits with children so that they regard walking and bicycling as viable means of transportation, which can lead to lower rates of obesity-related health problems.

Farragut Drive Pedestrian Pathway

3.6.7 Residential Areas

Culver City has an extensive network of residential roads that provide a comfortable environment for bicycling and walking. The residential network, though not a perfect grid, provides key connections to both local commercial districts and citywide destinations.

Public comment points to the Farragut Drive Pedestrian Pathway as one of Culver City's more challenging facilities. The City recently updated the pathway by removing two poles at the access gate between Jackson Avenue and Jasmine Avenue. The pedestrian pathway (located on Farragut) now allows both pedestrian and bicycle traffic to continue along Farragut between Jackson and Jasmine, but could benefit from further access improvements. Traffic bollards could provide the same restrictive qualities while expanding pedestrian access (see Bicycle Project 3: Farragut Drive/Franklin Avenue: Duquesne Avenue to Elenda Street). Pedestrian improvements in the residential areas of Culver City could provide greater connectivity to transit and schools, while providing leisure and recreational opportunities.

3.6.8 Existing Support Facilities and Programs

Much of the existing bicycle parking in Culver City does not meet current best standards of bike rack design. Some racks do not support the frame of the bicycle because they only allow one wheel to connect to the rack; bicyclists commonly refer to these single-point of support racks as "wheel bender" racks. This lack of frame support allows unattended bicycles to knock over easily, leading to damage to the bicycle.

In addition to poorly supporting bicycles, single-point of support racks also do not allow the user to properly secure their bicycle. Because the design only allows one wheel to connect to the rack, the rest of the bicycle is susceptible to theft. The Design Guide **(Appendix 1)** contains a more detailed discussion of bicycle rack standards.

Several bicycle U-racks installed at Culver City City Hall allow greater bicycle security. The U-racks have a compact design that provides a safer structure for bicyclists. These bicycle racks are also more space efficient than the single-point of support bicycle racks by providing equal or greater bicycle storage capacity while taking up significantly less space when vacant.

U-racks at Culver City City Hall

3.6.9 Multi-modal Transportation Options

Culver City's own bus line serves as the City's primary public transit service. The City has supplemental service provided by Metro and the City of Santa Monica's Big Blue Bus services. Culver City Bus, Metro and Big Blue Bus all have two-bike capacity racks on the front of their buses. For bicyclists to use the racks on the buses, they must be able to mount/dismount their bike from the racks without assistance from the bus operator. The racks on buses are frequently full. In this event, patrons must wait for the next available bus

with an open rack. Culver City Bus does not allow bicycles aboard the bus itself. Metro buses have a slightly more flexible policy when it comes to allowing bicycles on board the bus. Metro policy concerning bicycles on board states that:

> "Operators may allow a customer to bring a bicycle on board the last bus on a route, if the headway is one hour, if the bike rack is full or defective, or if the bus is not equipped with a bike rack. The bicycle must not block the doors or the aisle. In the event that the bus is at full customer capacity and bringing the bicycle aboard is not reasonably safe, contact Bus Operations Control Center (BOC) immediately."

Aside from buses, Culver City residents will have a new form of mass transit upon completion of Metro's Expo rail line. The Expo Line will serve Culver City, connecting to Downtown Los Angeles. Plans for the line also include a western extension terminating in Santa Monica. Metro allows bicycles on board rail cars within specially designated sections of the car.

Most Metro stations have bicycle racks and lockers for parking bicycles. Metro is considering bicyclist/pedestrian connectivity and facilities as it develops detailed plans for the Expo Station.

Westfield Mall Transit Center

There are presently plans for a Clean Mobility Center at the Culver City Station. The Clean Mobility Center may provide basic support facilities to individuals bicycling or commuting by mass transit. The center may have bicycle racks, changing facilities and other amenities like showers, a bicycle shop, and overnight storage.

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4 Needs Analysis

This chapter is the product of general, non-motorized planning experience and various methods of local data collection. It describes the needs of pedestrians and bicyclists in Culver City through the following tasks.

Collision Statistics & Analysis

This report analyzed the relative safety of bicyclists and pedestrians in Culver City using bicycle and pedestrian collision data. The clustering of collisions at specific points in Culver City influenced count location selection.

Culver City Bicycle and Pedestrian Initiative Survey

The Culver City Bicycle and Pedestrian Initiative website (ccwalkbike.org) featured an online survey that asked questions about general patterns of bicycling and walking behavior. The survey also asked respondents to list their favorite areas to walk and bicycle in Culver City, as well as areas that need improvement. The survey data brings suggestions from the public to the BPMP and helps ensure greater public support during the process.

Bicycle & Pedestrian Counts

The project team and community volunteers conducted bicycle and pedestrian counts. These counts serve as the baseline estimate for non-motorized transportation levels in Culver City. The collected count data answer the question, "where and when do people walk/bike?" The pedestrian counts did not determine if pedestrians arrived at the survey point by driving or bicycling. The count data will also serve as a benchmark for activity before the implementation of programs and infrastructure.

Bicycle & Pedestrian Audits

Project staff and volunteers conducted bicycle and pedestrian audits at various locations around Culver City. The audits serve two functions:

1. To examine the present conditions facing Culver City bicyclists and pedestrians.
2. To educate the PAC and volunteers on different physical improvements and how they apply to specific areas of Culver City.

4.1 Bicyclist Types

Often the most outspoken bicyclists during the planning process are the most experienced. It is important to consider bicyclists of all skill levels in creating a bicycle plan. The skill level of the bicyclist greatly influences expected speeds and behavior. There are several systems of classification currently in use within the bicycle planning and engineering professions. These classifications can be helpful in understanding the characteristics and infrastructure preferences of different bicyclists. However, these classifications may change in type or proportion over time as infrastructure and culture evolve. Often times an instructional course can rapidly change a less confident bicyclist to one that comfortably and safely shares the roadway with vehicular traffic. Bicycle infrastructure should have plans and designs that accommodate as many user types as possible, with decisions for separate or parallel facilities based on providing a comfortable experience for the greatest number of bicyclists.

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

> *"Although their physical dimensions may be relatively consistent, the skills, confidence and preferences of bicyclists vary dramatically. Some riders are confident riding anywhere they are legally allowed to operate and can negotiate busy and high speed roads that have few, if any, special accommodations for bicyclists. Most adult riders are less confident and prefer to use roadways with a more comfortable amount of operating space, perhaps with designated space for bicyclists, or shared-use paths that are away from motor vehicle traffic. Children may be confident riders and have excellent bicycle handling skills, but have yet to develop the traffic sense and experience of an everyday adult rider. All categories of rider require smooth riding surfaces with bicycle-compatible highway appurtenances, such as bicycle-safe drainage inlet grates.*
>
> *A 1994 report by the Federal Highway Administration used the following general categories of bicycle user types (A, B and C) to assist highway designers in determining the impact of different facility types and roadway conditions on bicyclists:*
>
> *Advanced or experienced riders are generally using their bicycles as they would a motor vehicle. They are riding for convenience and speed and want direct access to destinations with a minimum of detour or delay. They are typically comfortable riding with motor vehicle traffic; however, they need sufficient operating space on the traveled way or shoulder to eliminate the need for either themselves or a passing motor vehicle to shift position.*
>
> *Basic or less confident adult riders may also be using their bicycles for transportation purposes, e.g., to get to the store or to visit friends, but prefer to avoid roads with fast and busy motor vehicle traffic unless there is ample roadway width to allow easy overtaking by faster motor vehicles. Thus, basic riders are comfortable riding on neighborhood streets and shared-use paths and prefer designated facilities such as bicycle lanes or wide shoulder lanes on busier streets.*
>
> *Children, riding on their own or with their parents, may not travel as fast as their adult counterparts but still require access to key destinations in their community, such as schools, convenience stores and recreational facilities. Residential streets with low motor vehicle speeds, linked with shared-use paths and busier streets with well defined pavement markings between bicycles and motor vehicles can accommodate children without encouraging them to ride in the travel lane of major arterials."*

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

Supported by data collected nationally since 2006, planners developed alternative categories to address the Americans' 'varying attitudes' towards bicycling. According to this recent data, less than two percent of Americans comprise a group of bicyclists who are '**Strong and Fearless**'. These bicyclists typically ride anywhere on any roadway regardless of roadway conditions or weather. These bicyclists can ride faster than other user types, prefer direct routes and will typically choose roadway connections – even if shared with vehicles – over separate bicycle facilities such as bicycle paths. Approximately seven percent fall under the category of '**Enthused & Confident**' bicyclists who are confident and mostly comfortable riding on all types of bicycle facilities but will usually prefer low traffic streets or multi-use pathways when available. These bicyclists may deviate from a more direct route in favor of a preferred facility type. This group includes all kinds of bicyclists including commuters, recreationalists, racers, and utilitarian bicyclists.

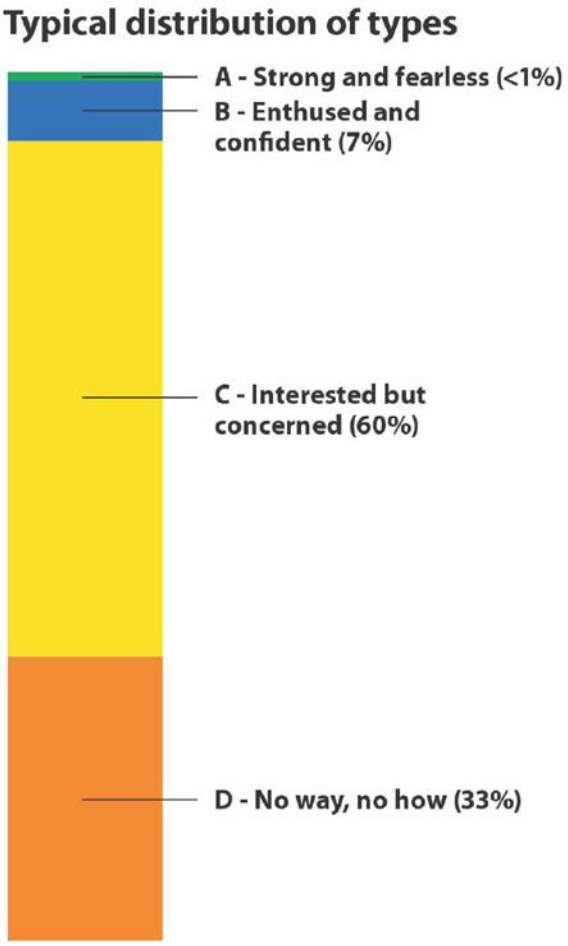


Figure 4-1 Bicyclist Types

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

Approximately a third of Americans are not bicyclists, and perceive severe safety issues with riding in traffic. Some people in this group may eventually consider bicycling and may progress to one of the user types above. A significant portion of these people will never ride a bicycle under any circumstances.

4.2 Pedestrian Types

Like bicyclists, pedestrians vary greatly in habits, mobility, and skill. The BPMP addresses the needs of all types of pedestrians by providing amenities and designs that cater to pedestrians of all types. Pedestrians with different habits/needs include:

- The elderly
- Individuals with limited/impaired mobility
- Recreational pedestrians
- Children
- Persons using mobility enhancing devices (Segways, scooters, etc.)

Most individuals, at the very least, require a flat walking surface. Cracks in sidewalks, curbs with no ramps, and narrow or obstructed sidewalks all present serious limits to many of the individuals above. Ensuring American's with Disability Act (ADA) compliance on all sidewalks is a priority of this Plan.

In some cases, ADA compliance represents the minimal effort in ensuring mobility for all pedestrians. Pedestrian needs often go beyond curb ramps and a striped crosswalk. Crosswalks with extended crossing times/countdowns can greatly benefit pedestrians of all types. The BPMP uses a catalogue of improvements and recommendations to ensure that all Culver City residents can navigate their city on foot and at their leisure.

4.3 General Survey Analysis

4.3.1.1 Survey Results

The Culver City Bicycle and Pedestrian Initiative website (ccwalkbike.org) received over 170 responses to the survey advertised by City staff, PAC members, and public workshops.

4.3.1.2 Pedestrian Feedback

The survey asked respondents to list all purposes for which they choose walking as a mode of transportation. Respondents checked off all applicable activities. Figure **4-2** presents the results.

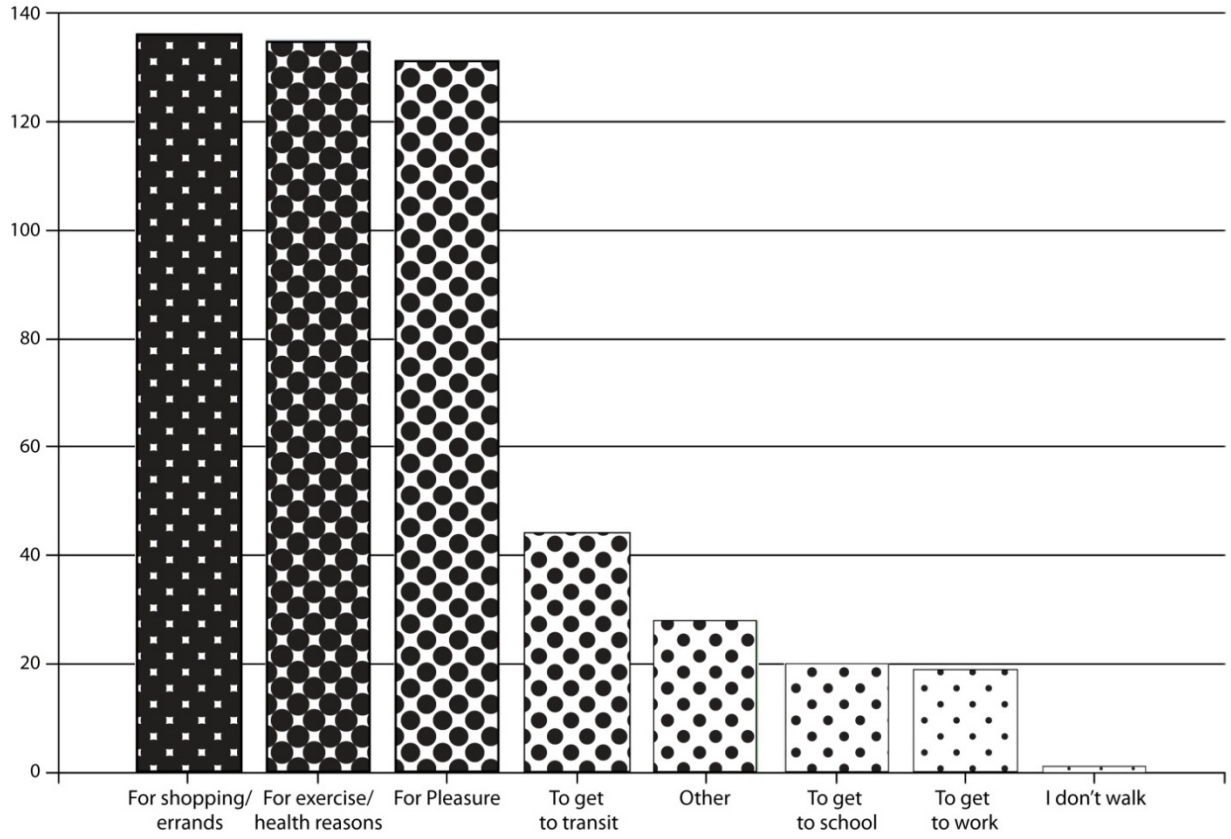


Figure 4-2 User Survey: Reasons for Walking

In regards to work and school, the survey asked respondents about the frequency by which they commute via walking:

- 6% reported that they "always" commute by walking
- 13% reported that they "often" walk to work
- 12% state that they "seldom" walk for their commute

The remainder of respondents did not commute by walking.

Furthermore, the survey asked people to list their favorite places to walk in Culver City.

- 50% indicated Downtown Culver City
- Other popular places included Carlson Park, Helms Bakery, Baldwin Hills, Ballona Creek, Westfield Culver City, *Target*, and local neighborhoods

The survey also asked respondents to name places where walking conditions could improve. The following are those ranked responses:

1. Downtown
2. Ballona Creek

3. Commercial Areas - Jefferson Boulevard, Culver Boulevard, Overland Avenue, Washington Boulevard, and Sepulveda Boulevard
4. Westfield Culver City

Many of the areas listed as needing improvements were also the most popular places to walk. Of the popular streets listed, many are major arterials. The survey shows that there is a demand for pedestrian accommodations along streets designed to be automobile friendly (often at the expense of pedestrian use).

4.3.1.3 Bicyclist Feedback

The survey asked respondents to mark how often they rode a bicycle in the last six months.

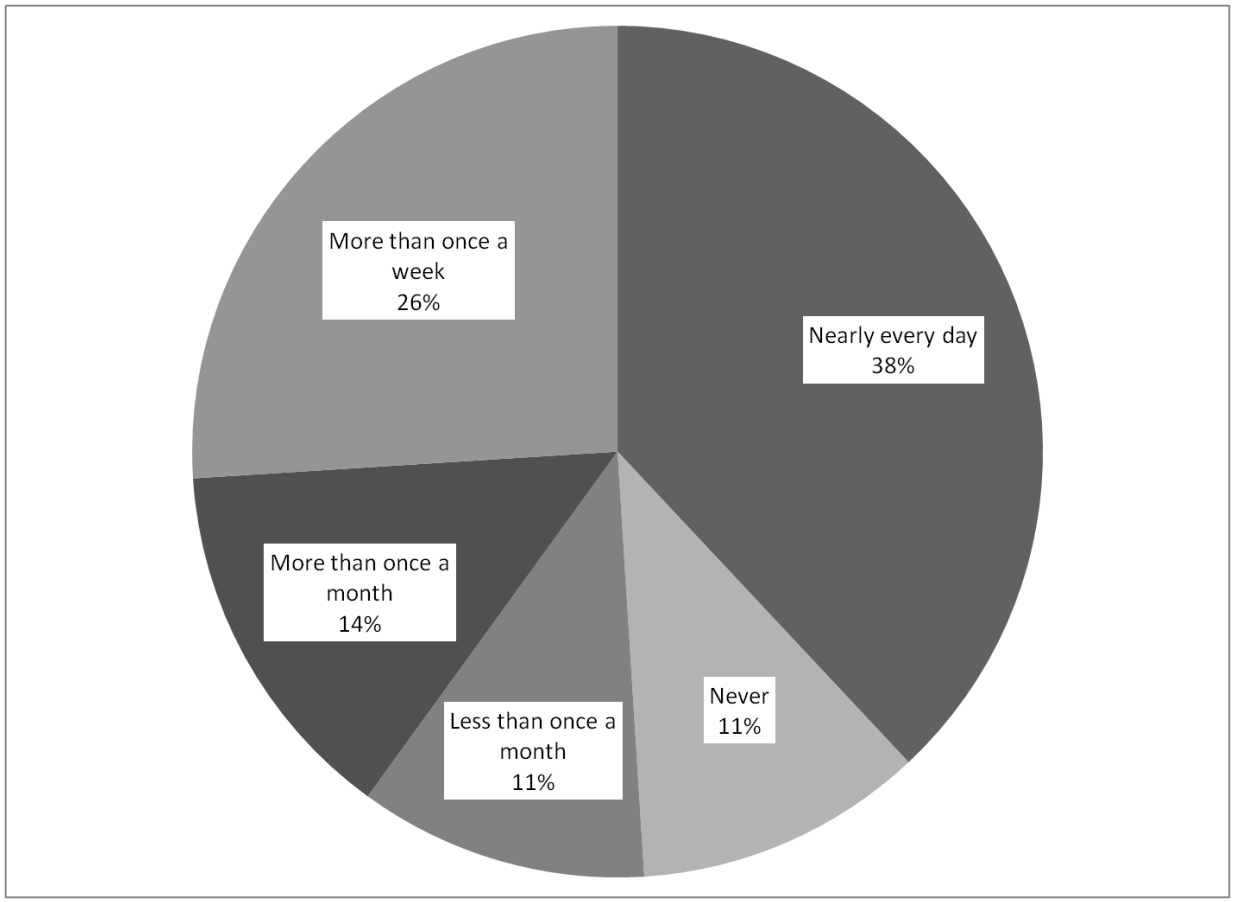


Figure 4-3 User Survey: Bicycle Riding Frequency

These data shows us that survey respondents tend to ride fairly regularly, with over 64% of respondents riding their bicycle at least once a week.

The survey asked respondents to rate their level of comfort when bicycling.

- 60% are extremely comfortable, biking on any street necessary to reach their destination
- 23% are moderately comfortable, preferring neighborhood streets and bike lanes

- 17% consider themselves "extremely cautious" (riding on sidewalks or bike paths)

There are various levels of proficiency and experience amongst bicyclists in a city. While it appears from the survey that most bicyclists are regular riders, the results are probably not representative because public involvement for bicycle and pedestrian planning tends to attract the "strong and fearless" category of bicyclist.

The survey asked respondents to list the reasons they bicycle. Beyond recreational riding, the survey shows high levels of utilitarian bicycling.

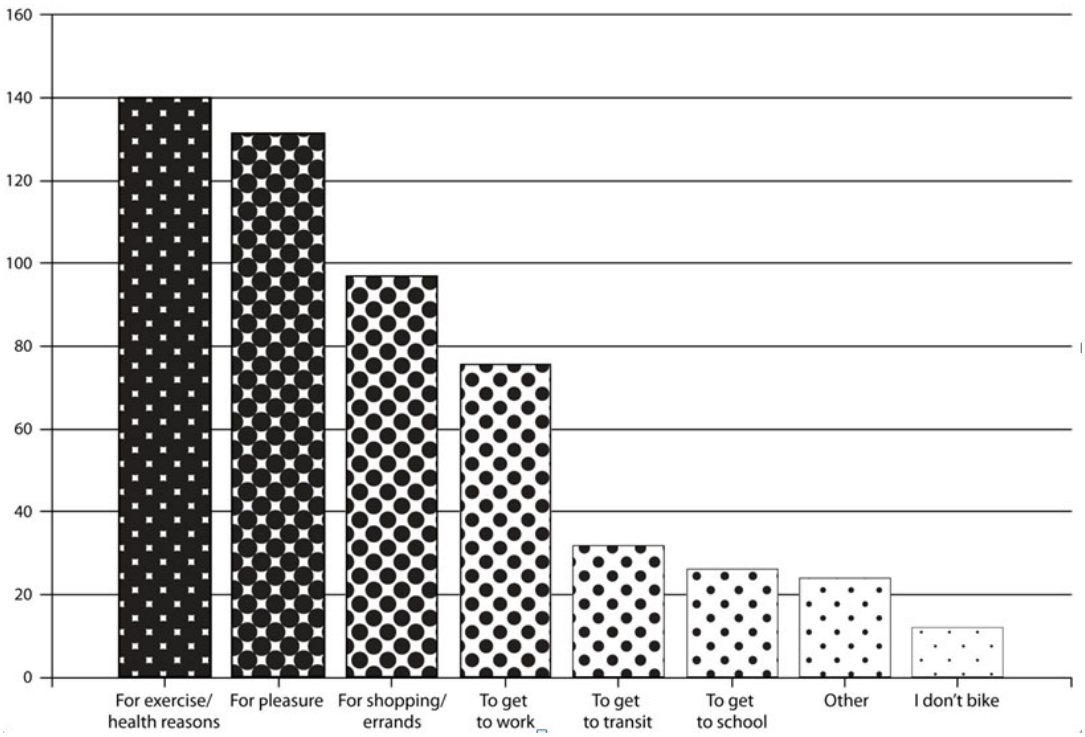


Figure 4-4 User Survey: Reasons for Bicycling

The survey asked people to rate the distance of their trip based on the purpose of the trip. The results show that people are likely to bicycle for errands at distances under two miles. The data also shows that trips six miles and up tend to be recreational in nature. This data is helpful when considering bicycle facilities aimed at various types of bicycle trips.

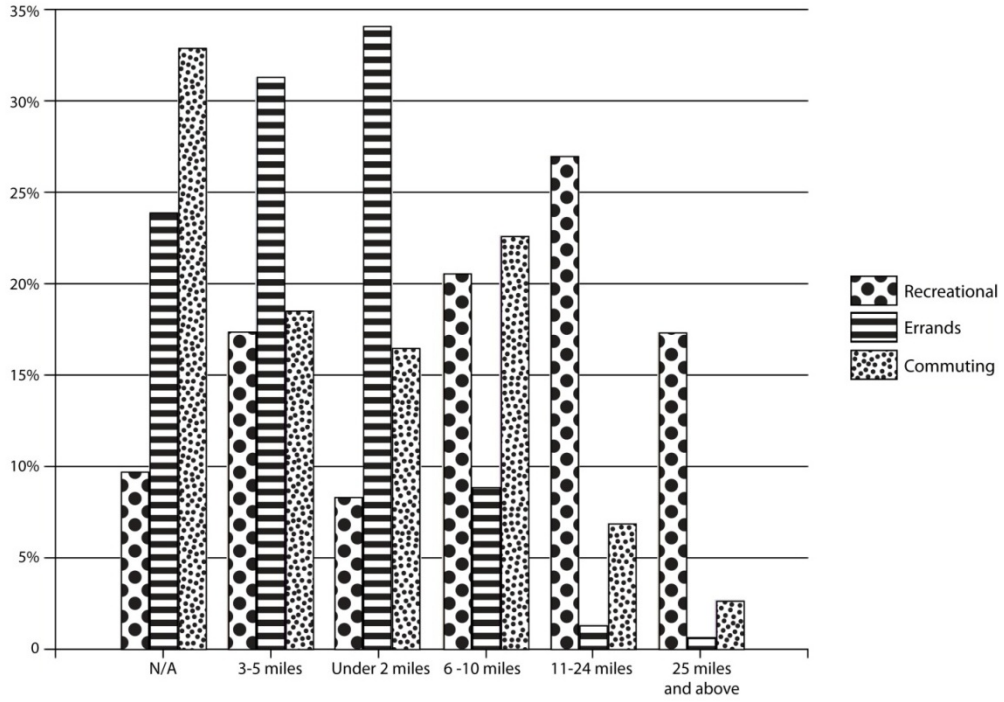


Figure 4-5 User Survey: Distance of Bicycle Trip vs. Purpose

Some individuals identified certain barriers that need removal for bicycling to be a more accessible transportation option. The top three listed obstacles that prevent bicyclists from riding more often were:

- There are inadequate paths, lanes, or routes
- Too many motor vehicles drive too fast
- Drivers do not share the road

Because a top concern among bicyclists was safety as it relates to motor vehicle speeds, the Plan recommends considering traffic calming on certain streets after they undergo traffic engineering analysis. To address other concerns mentioned in the survey, the Plan also identifies opportunities to install bicycle paths, lanes, routes, and other bicycle facilities to support greater levels of bicycling.

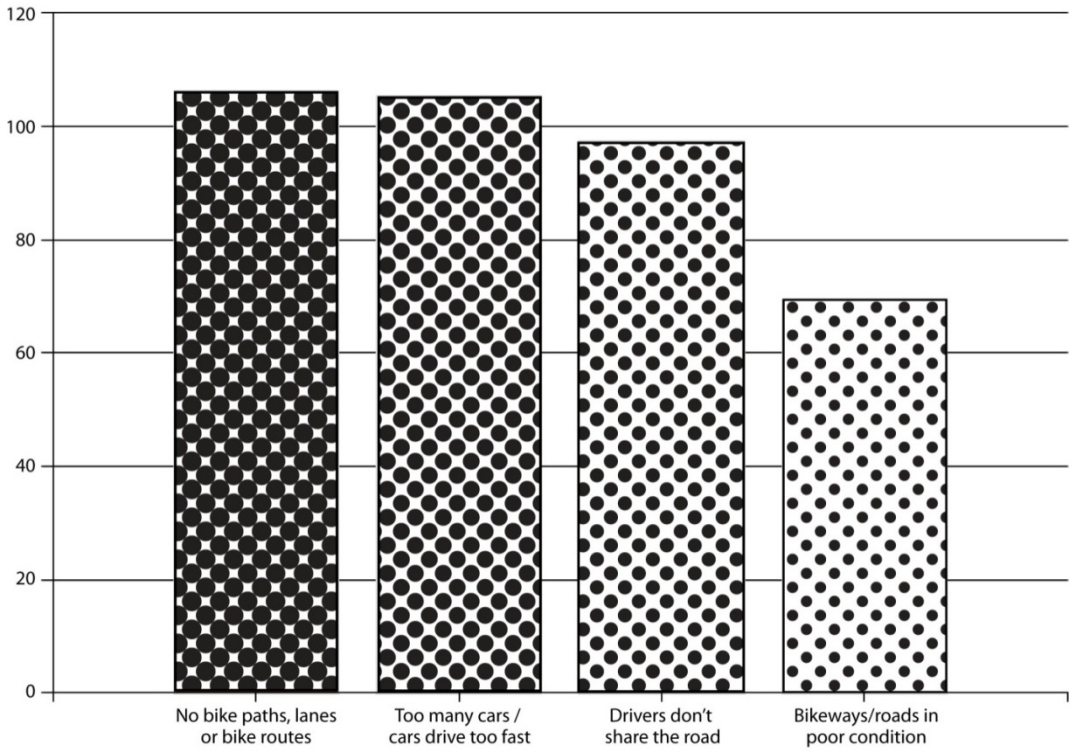


Figure 4-6 User Survey: Obstacles to Bicycling

The survey asked bicyclists where they wanted to see improvements for bicycling in Culver City. The top five locations were:

1. Downtown
2. Culver Center Shopping Plaza
3. Westfield Culver City
4. Grocery Stores (*Ralphs*, *Trader Joe*'s, etc.)
5. Sepulveda Boulevard

Other popular areas included parks, schools, and the Helms Bakery area. Many of the destinations identified in the survey are where people go to work, shop, or conduct errands. These trip types often occur using motor vehicles. For residents who live within a comfortable distance to these destinations, improving bicycle facility access and increasing the number of facilities will help individuals replace motor vehicle trips with bicycle trips.

4.3.1.4 Other Survey Information

Generally, respondents favored installing bicycle paths and lanes over installing routes. Respondents also stated that demand for rack space on buses often limits bicycle access to transit. Many Culver City bicyclists expressed a desire for increased access to the Ballona Creek Bike Path.

4.4 Bicycle & Pedestrian Counts

Count data provides a baseline estimate for existing bicycle and pedestrian activity in Culver City. The City will also perform new counts after the completion of the Plan and implementation of Plan policies to assess the bicycle/pedestrian activity along specific streets or areas. This section provides a brief summary of the primary count methodology and findings.

4.4.1 Methodology

Volunteers conducted the counts at 18 locations throughout Culver City. Count locations accounted for geographic diversity and intended to capture areas with anticipated high levels of bicycle and pedestrian activity. Volunteers counted bicyclist and pedestrians during peak hour travel during weekdays from 7-9 am and 4-6 pm, and on weekends from 12-2 pm.

The City required count volunteers to attend a training meeting to ensure uniformity in recording results. Volunteers took "screenline" counts – counting only pedestrians and bicyclists that passed through an imaginary line on the street.

Screenline count image

Volunteers received maps that instructed them to count at screenline locations. For purposes of age distinction, the counts classified as children individuals that appeared 16 years and younger. The count totals combine three periods of observations, two peak-hour weekday counts and a weekend midday count.

Table 4-1 Total Bicyclist/Pedestrian Counts (May 2009)

Location	Bike	Walk	Male (adult)		Female (adult)		Child	
	Total	Total	Bike	Walk	Bike	Walk	Bike	Walk
Ballona at Duquesne	158	43	114	20	35	23	9	0
Ballona at Overland	285	81	224	40	48	30	13	11
Braddock at Elenda	49	310	30	134	16	165	3	11
Culver at Cardiff	120	1371	92	633	26	647	2	91
Culver at Sepulveda	79	108	53	64	25	40	1	4
Irving Pl (Lucerne adjacent)	35	316	16	62	12	158	7	96
Lucerne Ave (Ince adjacent)	74	83	57	19	11	45	6	19
Overland at Culver	150	299	114	162	34	121	2	16
Overland at Jefferson	59	212	34	94	16	97	9	21
Overland at Sawtelle	22	79	20	26	2	41	0	12
Sawtelle at Washington	45	85	38	52	4	33	3	0
Sepulveda at Playa	52	144	44	78	7	54	1	12
Venice at Overland	304	749	262	409	38	295	4	45
Washington at Glencoe	91	119	74	74	15	45	2	0
Washington at La Cienega	114	173	91	112	14	60	9	1
Washington at National	92	163	69	88	20	70	3	5
Washington at Tilden	58	130	47	76	6	21	5	33
Wesley St (Higuera adjacent)	16	44	11	19	2	17	3	8
Total	**1803**	**4509**	**1390**	**2162**	**331**	**1962**	**82**	**385**

4.5 Bicyclist Observations

Conducting the bicycle counts allows general conclusions about bicyclists' characteristics. The following section is a summary of the count findings.

Gender

Overall, the count data reflects active levels of bicycling and walking in Culver City. Bicycle count results indicate that male bicyclists outnumbered female bicyclists 4:1. The most popular location for female bicyclists was the Ballona Creek Bike Path. However, the Culver Boulevard Bike Path on Saturday was the only count location where female bicyclists outnumbered male bicyclists.

Levels of Use

The counts recorded the highest concentration of bicyclists along the Venice Boulevard Bike Lane. The Ballona Creek Bike Path had the second highest bicycle count totals. The count data shows high use along existing facilities and makes the case for the installation of future bicycle facilities in Culver City.

Count data shows that the Ballona Creek Bike Path experiences heavier use in the afternoon and during the weekend. The count data also shows that the Ballona Creek Bike Path caters to commuters as well as recreational bicyclists. Figure 4-7 differentiates bicycle counts by time and location.

Overland Avenue showed an unexpectedly high amount of bicycle use. Overland Avenue is a major arterial within Culver City and connects to some of the City's most popular venues, including Sony Studios, Veteran's Park, Veteran's Center, Culver City Senior Center, Ballona Creek, West Los Angeles College and the *Ralphs/Best Buy/Bally* retail park. The Open Space Element of the Culver City General Plan calls for a bike lane on Overland Avenue and the count data confirms the need for improved bicycle facilities on this street.

Wrong way riding on Jefferson Boulevard

The count data at Overland Avenue and Culver Boulevard reported 150 bicyclists over the observation period, the third-highest count totals in the City following of Venice Boulevard and Ballona Creek.

Map 4-1 shows bicyclist activity recorded during the counts. The arrows depict the direction of bicycle travel counted. The count totals combine three observation periods – two peak-hour weekday counts and a weekend midday count

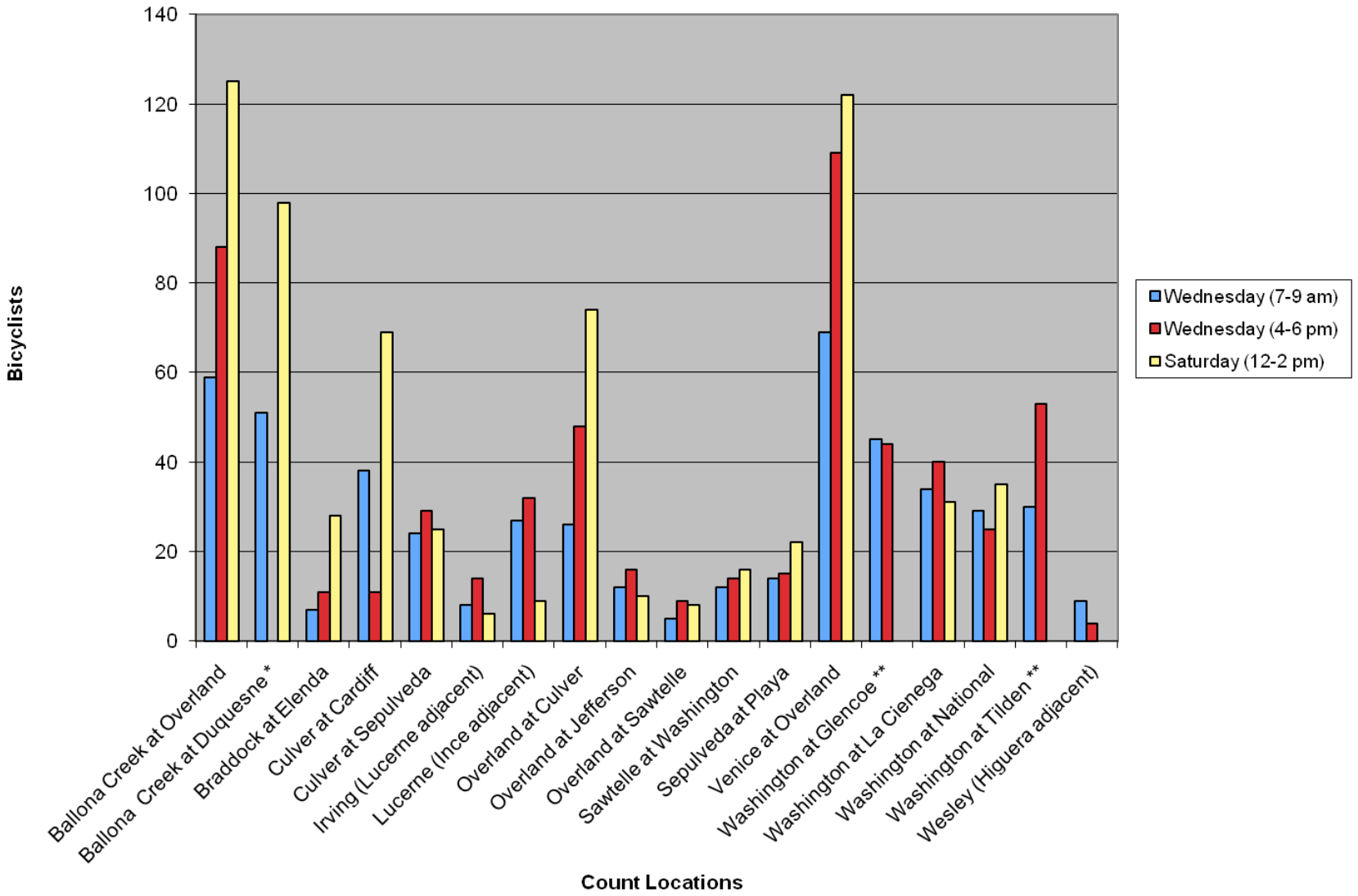
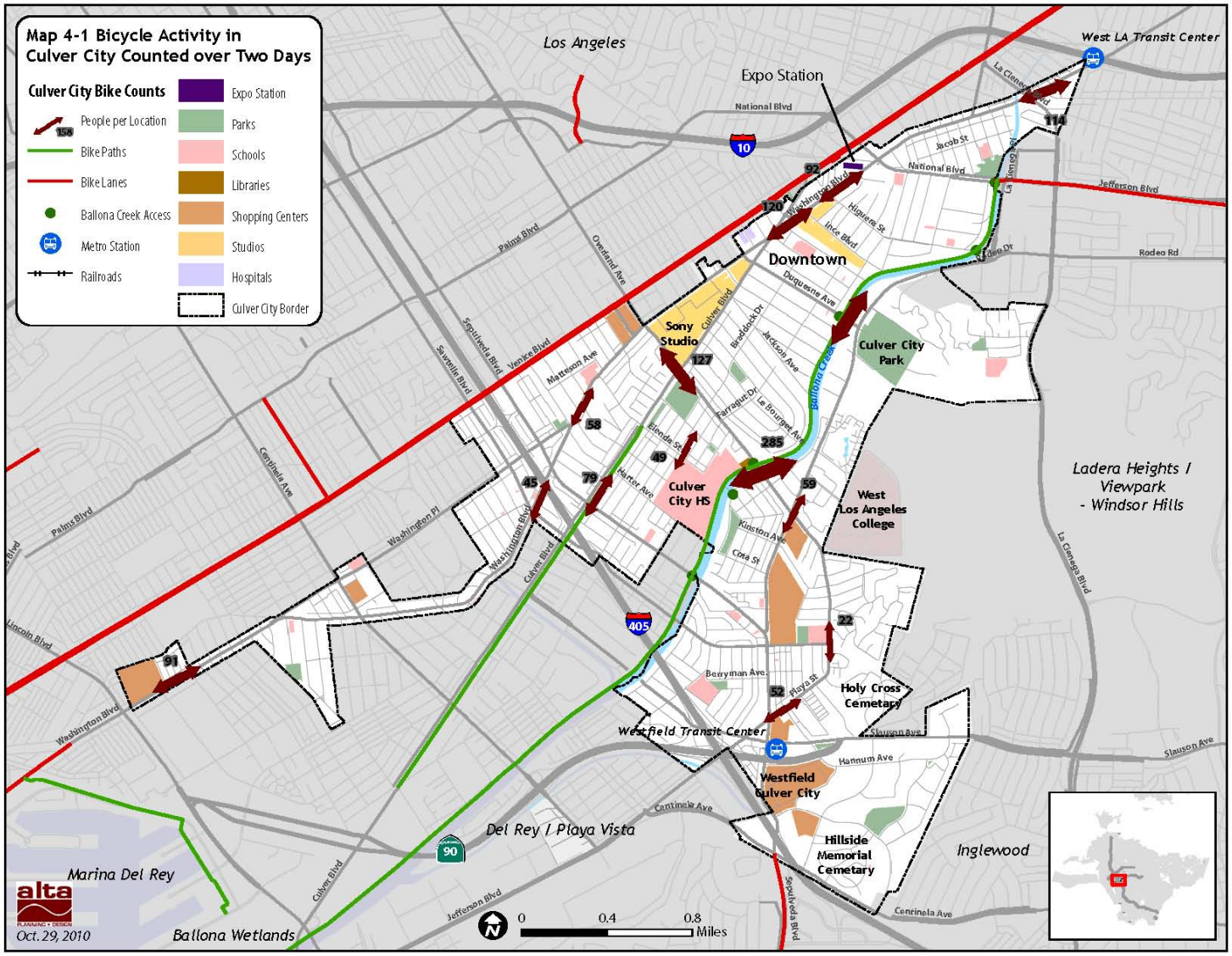


Figure 4-7 Bicyclist Totals by Count Location



Map 4-1 Bicyclist Activity in Culver City Counted over Two Days

Riding Behavior

Count data also provide information on riding behavior in the City, including helmet use, sidewalk riding and wrong-way riding. Forty-one percent of recorded bicyclists did not wear a helmet, twenty-five percent rode on the sidewalk, and nine percent rode in the opposite direction of traffic. **Figure 4-8** disaggregates riding behavior data based on count location. This data also shows the need for educating the public on bicycle safety.

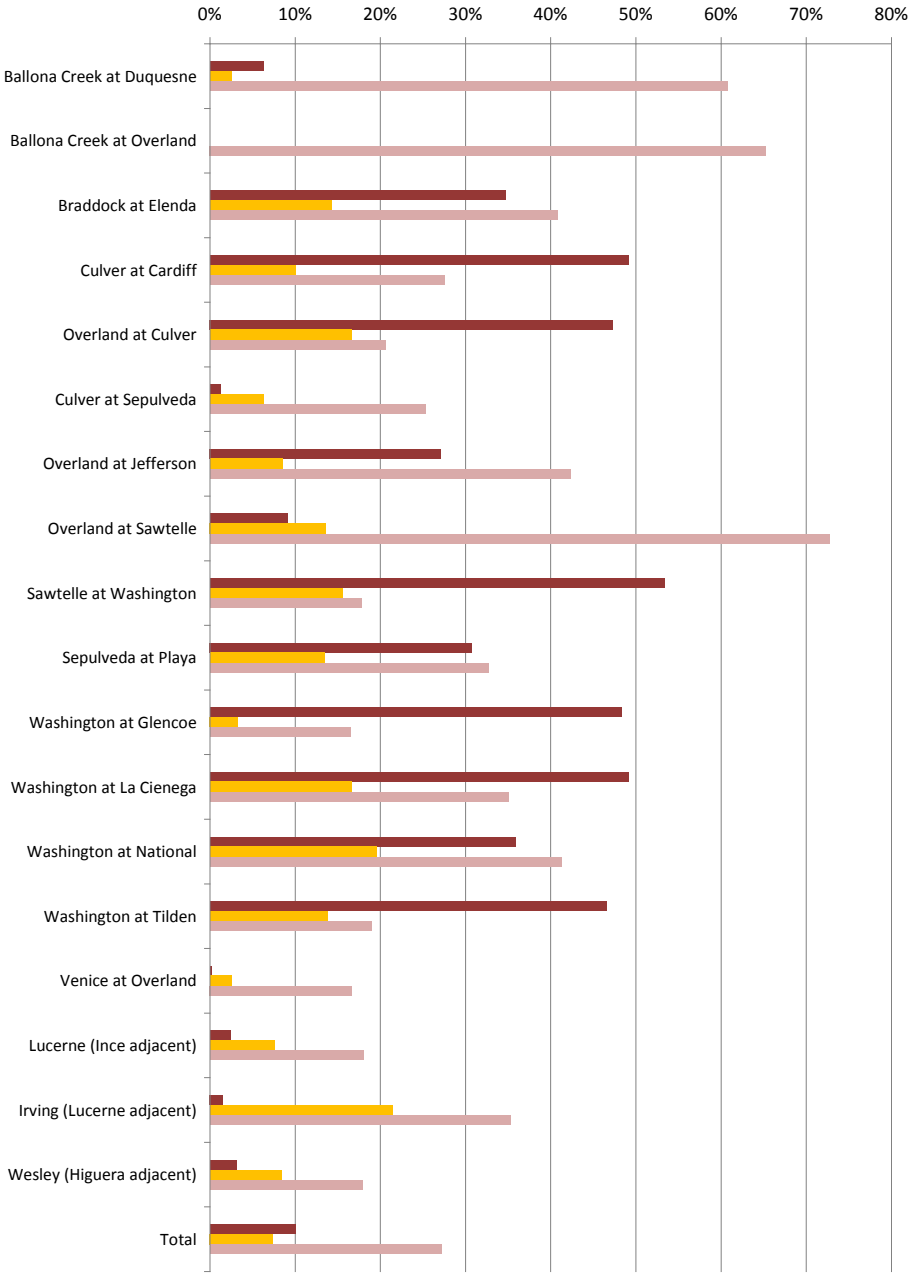


Figure 4-8 Hazardous Riding Behavior by Count Location

4.6 Pedestrian Observations

The following section summarizes the general findings of pedestrian activity in Culver City.

Gender

As opposed to counts showing males making up the greater proportion of bicyclists, the pedestrian counts generally observed an equal gender distribution. Females represented forty-eight percent of pedestrians. Female pedestrians outnumbered male pedestrians at several count locations, including Cardiff Avenue at Culver Boulevard and Braddock Drive at Elenda Street.

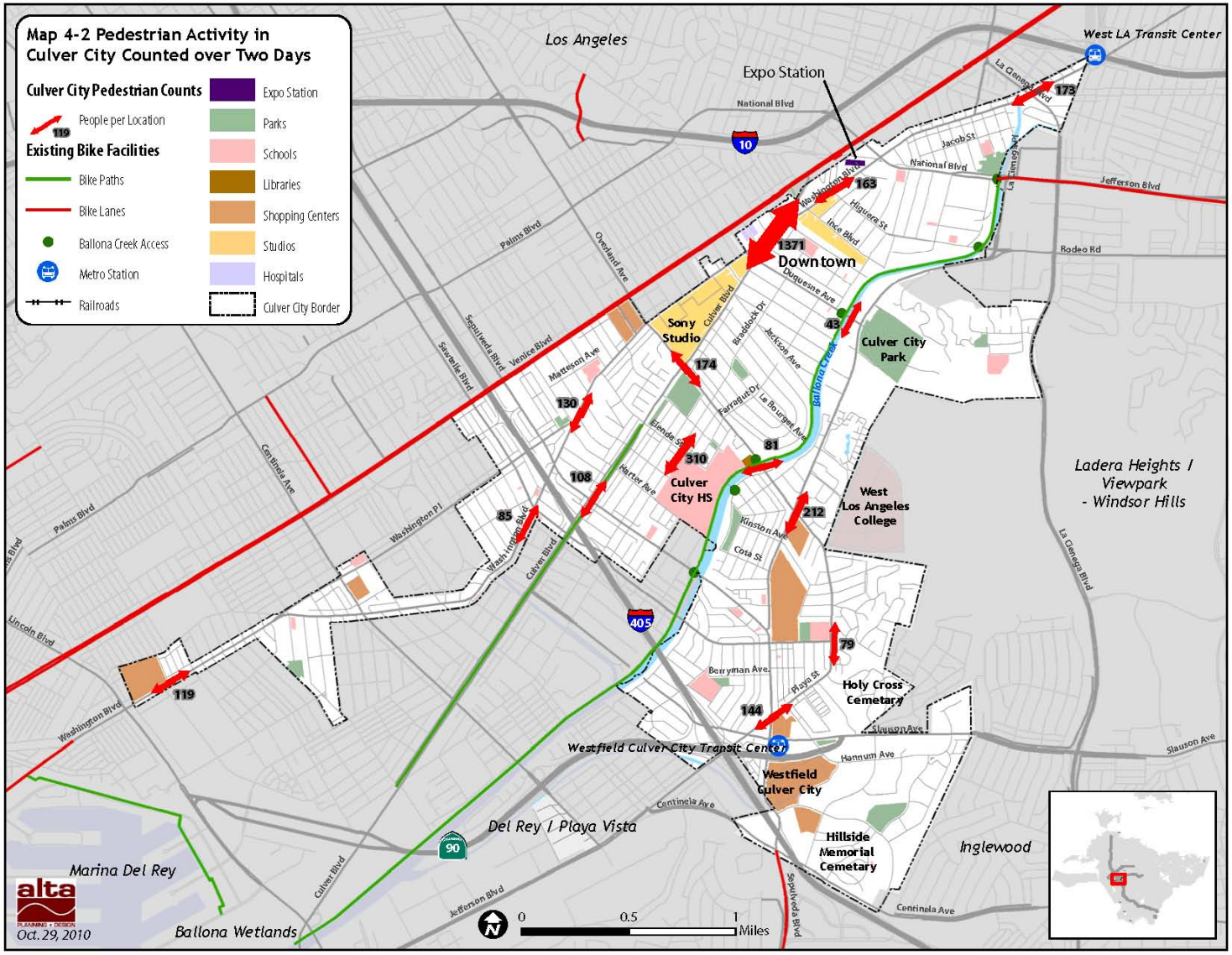
Map 4-2 shows the number of pedestrians observed at each count location.

Levels of Use

The Culver Boulevard and Cardiff Avenue location accounted for over 42 percent of all pedestrians counted. Downtown Culver City has many elements that encourage and facilitate pedestrian travel, including human-scale architecture, outdoor dining, benches and water fountains, retail and entertainment opportunities, and shade.

The second most popular pedestrian count location was the Culver Arts District (located along Washington Boulevard east of National Boulevard). Results for counts taken at La Cienega Avenue and Washington Boulevard indicated high levels of pedestrian activity. The Arts District continues to be a desirable place to visit and affirms that pedestrian oriented retail/design can encourage this active and healthy transportation option.

While many parts of Culver City have designs that accommodate pedestrians, other parts of the City have fewer amenities. Active levels of walking occurred at many locations with few pedestrian amenities (e.g. Washington Boulevard at Glencoe Avenue, Sepulveda Boulevard at Playa Street, etc.) possibly because they connect to popular destinations. Generally, people choose to walk to retail, dining, and other shopping/entertainment options. These streets connect to popular attractions in Culver City, without providing commensurate pedestrian facilities.



Map 4-2 Pedestrian Activity in Culver City Counted over Two Days

4.7 Public Workshops

As mentioned earlier, Bicycle & Pedestrian Initiative held several public workshops. The public workshops typically consisted of two parts. The first part of the public workshop served as an organizational meeting for the PAC. The second part allowed the public to comment on parts of the Plan released for public review. The meetings generally followed the following elements of the Plan:

Public Comment during Workshop

- Existing Bicycle & Pedestrian Facilities in Culver City
- Needs Analysis
- Proposed Network
- Draft Document

The first meeting placed poster boards and maps of the street network of Culver City at three comment stations. The workshop encouraged participants to write comments and stick notes on the boards at each station. Participants interacted with Culver City staff and the project staff.

Project staff summarized the input collected at the conclusion of the workshop open comment period and reported the findings to the group. The final portion of the workshop included PAC sub-committee selection and organization. The following sections summarize the comments submitted under the various topics for each station.

Paths

The Paths topic received the greatest number of comments during the initial public meeting. Comments generally focused on the Ballona Creek Bike Path and the Culver Boulevard Bike Path. Comments regarding the Ballona Creek Bike Path mentioned access, signage, mode-separation, maintenance, safety, lighting and landscaping. The Culver Boulevard Bike Path comments mentioned extending the facility, adding more lighting, and improving crossings of major streets.

Ballona Creek Bike Path

Meeting attendees suggested adding access points along the Ballona Creek Bike Path. Access points can encourage use and provide a safer contiguous network with more connections to on-street facilities. The public also suggested enhancing access points by restricting parking where the Path connects to streets, which allows easier merging into traffic. Attendees also requested improving entryways to allow bicycle trailers to enter onto the Path.

Bicyclist on the Ballona Creek

With respect to signage, attendees suggested more way-finding signage with mileage and directional information to desirable destinations, along with bilingual signage for non-English speaking Path users.

Regarding mode-separation, attendees commented that mixed-use paths could lead to bicycle and pedestrian collisions; they preferred dividing users with striping or separate facilities.

Some attendees commented that path maintenance (both trash debris and pavement repairs) needed closer monitoring.

The Ballona Creek Bike Path received frequent comments about safety concerns. Meeting attendees suggested possible improvements, including better lighting, mileage markers for path orientation, more patrols to monitor unlawful behavior, and emergency call boxes.

Some attendees also suggested improving landscaping using native plants, garden sites, and other path amenities.

Culver Boulevard Bike Path

Workshop participants suggested extending the Culver Boulevard Bike Path to Downtown Culver City. They also expressed a need for better lighting and better crossings at major streets.

Pedestrian Facilities

Comments at the pedestrian facilities topic station focused on locations with poor pedestrian facilities. These included Jefferson Boulevard's lack of sidewalks near Hetzler Road, the "jail-like" pedestrian pathway located at Farragut Drive and Jackson/Jasmine Avenue, the fence in the middle of the parking lot between Target Center and Studio Village Shopping Center, and the poor connection between the Helms Bakery area and Downtown along Washington Boulevard. Comments also requested signs prohibiting sidewalk skateboarding and bicycling in the Downtown area, particularly near the movie theater in front of Town Plaza.

Farragut Drive and Jackson Avenue

Traffic Calming

Under the topic of traffic calming, meeting attendees noted several roads that need improvements. Specific suggestions included speed humps for Braddock Drive and a larger drop-off area at Irving Place near School Street. Other suggestions included a need for general traffic calming measures on Ince Boulevard and Lucerne Avenue.

Crossings

Meeting attendees identified a number of difficult intersection crossings for pedestrians and bicyclists. The primary concern for bicyclists at intersections was a need for traffic signal detectors that respond to the presence of bicycles, rather than simply large motor vehicles. Attendees noted such an example at Berryman Avenue and Washington Boulevard. Participants noted that the pedestrian signal timing of some intersection

crossings was too short—specifically at Ince Boulevard at Washington Boulevard, and Culver Boulevard at Washington Boulevard. Attendees also cited several intersections as generally problematic. These included Duquesne Avenue at the Ballona Creek Bike Path entrance, Washington Boulevard at McLaughlin Avenue, and Mentone Avenue at Braddock Drive.

Roads

Meeting participants shared a number of comments regarding specific roads, which they felt created difficult conditions for bicycling. Key streets cited as uncomfortable for bicycling included Jefferson Boulevard, Washington Boulevard, Overland Avenue, Braddock Drive, and Culver Boulevard. Participants suggested the use of sharrows or "Share the Road" signs on Washington Boulevard and Duquesne Avenue. Several comments also advocated for better lighting on roads at underpasses for freeways, improved maintenance, and replacing existing gutters with those that have grates running perpendicular to the direction of bicycle traffic.

Bicyclist sharing a narrow travel lane

Meeting participants also expressed some general overall needs within the City's road system. These included calls for more north-south bikeway connections within the City limits, better coordination for connections to bike facilities in neighboring cities and more routes off busy arterial roads.

Multi-Modal Connections & Bike Parking

This station encouraged the public to express their needs for facilities that accommodated connections to different transportation systems. For bicycling connections to walking trips, this included requests for bicycle parking facilities at popular destinations, like the Veterans Memorial Auditorium. For connections to transit, this included short and long-term parking facilities (racks and storage lockers) at bus stops and the future Exposition Light Rail station. One commenter also suggested publishing a map of bicycle parking facilities. Although the general public sentiment encouraged more bicycle racks, participants also expressed a need to replace some existing racks near City Hall and Downtown, which they felt were difficult to use and discouraged some multi-modal trips.

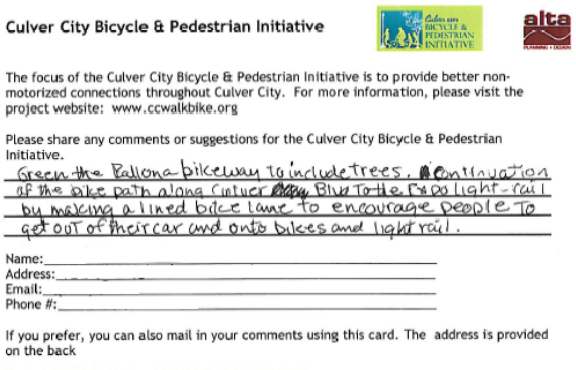
Bike Parking at City Hall

General Comments

A number of comments advocated for better driver and bicyclist education. One comment suggested implementation of Safe Routes to School "walking school bus" or "bike bus" programs. Another suggested implementing the innovative "bike box" treatment at intersections to accommodate bicyclist lane positioning at stoplights. And another suggested implementing the "Idaho stop," which allows bicyclists to simply yield at stop signs with respect to cross traffic (not currently allowed by the California Vehicle Code), instead of requiring a complete stop. Several bicyclists commented on the potential hazards presented to bicyclists from road maintenance and the installation of utility cables. Often workers install utility cables in the same area of the road as bicyclists travel. This practice needs review to determine ways to mitigate its effects on bicyclists where possible.

Focused Survey Summary

The BPMP conducted two types of surveys, general and focused. Workshop attendees took the "focused" surveys, which allowed the City to determine demographics at the workshops and to determine outreach/advertising effectiveness. The results concluded that most individuals heard about the workshop by word of mouth.



Culver City Bicycle & Pedestrian Initiative

The focus of the Culver City Bicycle & Pedestrian Initiative is to provide better non-motorized connections throughout Culver City. For more information, please visit the project website: www.ccwalkbike.org

Please share any comments or suggestions for the Culver City Bicycle & Pedestrian Initiative.

Green the Ballona bikeway to include trees. Continuation of the bike path along Culver Blvd to the Expo light-rail by making a lined bike lane to encourage people to get out of their car and onto bikes and light rail.

Name:
Address:
Email:
Phone #:

If you prefer, you can also mail in your comments using this card. The address is provided on the back

Example Comment Card

4.7.1.1 Additional Comments

Members of the public had several options for providing feedback throughout the planning process. Participants could submit additional comments using comment cards distributed at the public workshops, or by email submission through the Initiative's website at www.ccwalkbike.org.

The comments often focused on increasing the numbers and coverage of bicycle facilities, and improving conditions of existing facilities. Many comments focused on the Ballona Creek Bike Path, Culver Boulevard Bike Path, and the Venice Boulevard Bike Lane. While opportunities for improving these facilities may be limited, improving the connectivity of Culver City bikeways and adjacent areas is a primary focus of the Plan.

4.8 Audits

The following section summarizes the findings from the audits conducted on May 9 and May 16, 2009. Planners selected audit locations based on geographic diversity and their strategic relationship to Culver City. The Initiative website advertised the audits and staff sent direct invitations to the PAC, TAC, and members of the public expressing interest in attending future Initiative events.

Downtown walk audit

The audits had three major periods:

I. Introduction (15 minutes)

a. Explain process
b. Distribute map/materials

II. Active Observation (60 minutes)

a. Walk/bike route
b. Fill out observation sheet

III. Post Audit Discussion (45 Minutes)

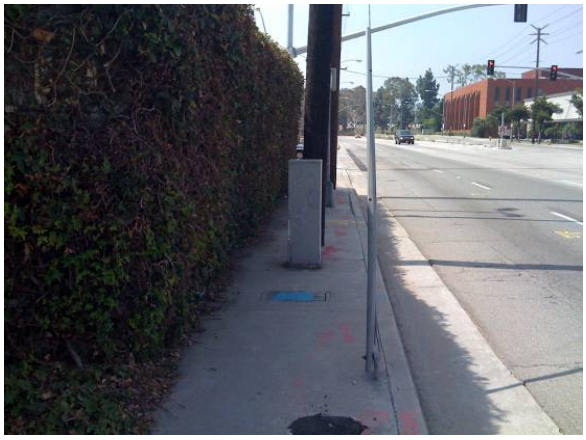
a. Group observations
b. Capture feedback
c. Synthesis into recommendations/report

Westfield Culver City Audit

This audit focused on the connections to the Westfield Culver City Mall Transit Center and the intersection of Sepulveda Boulevard and Slauson Boulevard.

Major Findings included:

- Utility boxes frequently obstruct sidewalk users.
- Intersection signals have short pedestrian crossing times
- Roadways need more prominent crossings



Obstructed sidewalk on Sepulveda Boulevard

Participants noted that short signal countdown times, coupled with a lack of crossing islands, are an issue for those with impaired mobility. Because of Westfield Culver City Mall's proximity to a major transit hub, audit participants felt that focusing improvements on crosswalks would make the area more pedestrian friendly.

Exposition Light Rail Transit (Expo) Audit

This audit focused on the future site of the Expo Light Rail Transit station and addressing increased pedestrian access.

Major Findings included:

- Pedestrians are uncomfortable due to high traffic speed, lack of buffer from the street while on the sidewalk
- The area needs pedestrian connectivity
- The streetscape lacks pedestrian-oriented design or features

A review of completed worksheets from the audit participants revealed high levels of pedestrian discomfort attributed to high traffic speeds. Auditors identified the need for more shade, landscaping and various improvements that would enhance the aesthetics of the area. This area was undergoing redevelopment at the time of the audit, and the City anticipates pedestrian improvements upon completion of the redevelopment projects.

Washington Boulevard Audit

The Washington audit focused primarily on the stretch of Washington Boulevard between McConnell Avenue and Beethoven Street due to its proposed design as a future pedestrian friendly zone.

Major Findings included:

- The crossing at Washington Place at Washington Boulevard needs improvement
- Traffic cameras have a negative effect on pedestrian environment

Washington Boulevard walk audit

Participants noted that the intersection of Washington Boulevard and Washington Place creates an uninviting pedestrian environment. An issue that that arose at this audit was the potential effect of traffic cameras on the pedestrian environment. This stretch of road has traffic cameras installed to catch and enforce motor vehicles running red lights. Participants observed several instances of loud screeching due to harsh braking and near-hit-accidents during the observation period. Audit participants attributed this behavior to motor vehicles suddenly stopping to avoid getting tickets.

Participants also observed that bicycle parking was virtually non-existent, despite the many shops on Washington Boulevard that cater to neighborhood commercial activity.

Sepulveda Boulevard & Culver Boulevard Walk Audit

The Sepulveda Boulevard audit focused on the Culver Boulevard Bicycle and Pedestrian Path, and the neighborhood commercial district south of Culver Boulevard along Sepulveda Boulevard.

Major Findings included:

- The corridor needs additional shade

- The Culver Boulevard Bike Path could benefit from more midblock crossings between Sepulveda Boulevard and Elenda Street

Major findings of this audit focused on enhancing the pedestrian environment along Sepulveda Boulevard. In general, a lack of shade was a major concern, as well the lack of prominent bicycle parking. Auditors approved of the walking environment, especially along the planted median of the Culver Boulevard Bike Path.

Downtown Walk Audit

Because residents and visitors consider Downtown Culver City as the most pedestrian-friendly part of Culver City, this audit examined the positive aspects of Downtown that could be replicated elsewhere in Culver City. Overall, auditors found an adequate supply of shade, rest areas, and bicycle parking. Auditors felt that some aspects of Downtown need improvements.

Major Findings included:

- The intersection between Culver Boulevard and Washington Boulevard (east) needs improvement
- Downtown Culver City "successes" can be replicated elsewhere
- The area has a good supply of bike parking, but needs updated racks

Audit findings focused on the intersection between Culver Boulevard and Washington Boulevard. Pedestrians navigating this intersection felt intimidated by the layout. Direct crossings at this intersection would link the east and west sections of Downtown in a more convenient alignment. Participants also asked for more signage and wayfinding tools.

Downtown – East Culver City Connector Bike Audit

The Downtown – East Culver City Connector is the proposed alignment of several residential streets (Wesley Street, Lucerne Avenue, Irving Place, and Van Buren Place) that will connect the eastside of Culver City and Expo Bike Path with Downtown and the rest of Culver City. The bike audit focused on the Downtown – East Culver City Connector alignment, as well as Culver Boulevard and National Boulevard.

Major Findings included:

- The City needs to create a Citywide route system
- The City needs to facilitate east-west travel
- Schools need to address motor vehicle congestion during student pick up times

Bike audit participants

Auditors generally approved of the road conditions along Wesley Street, Lucerne Avenue, and Irving Place. Irving Place and Van Buren Place have traffic calming features that prohibit two-way traffic at points in the road. Auditors observed bicyclists and pedestrians along the route, and concluded that the Downtown – East Culver City Connector is a convenient route.

Auditors advocated advertising the Downtown – East Culver City Connector as a part of a citywide route system, with signage that could direct bicyclists through the City.

4.9 Collision Analysis

This section examines Culver City bicycle and pedestrian related incident data, collected from the Statewide Integrated Traffic Records System (SWITRS) over a five-year period (2002 – 2007).

4.9.1 Bicycle Collisions

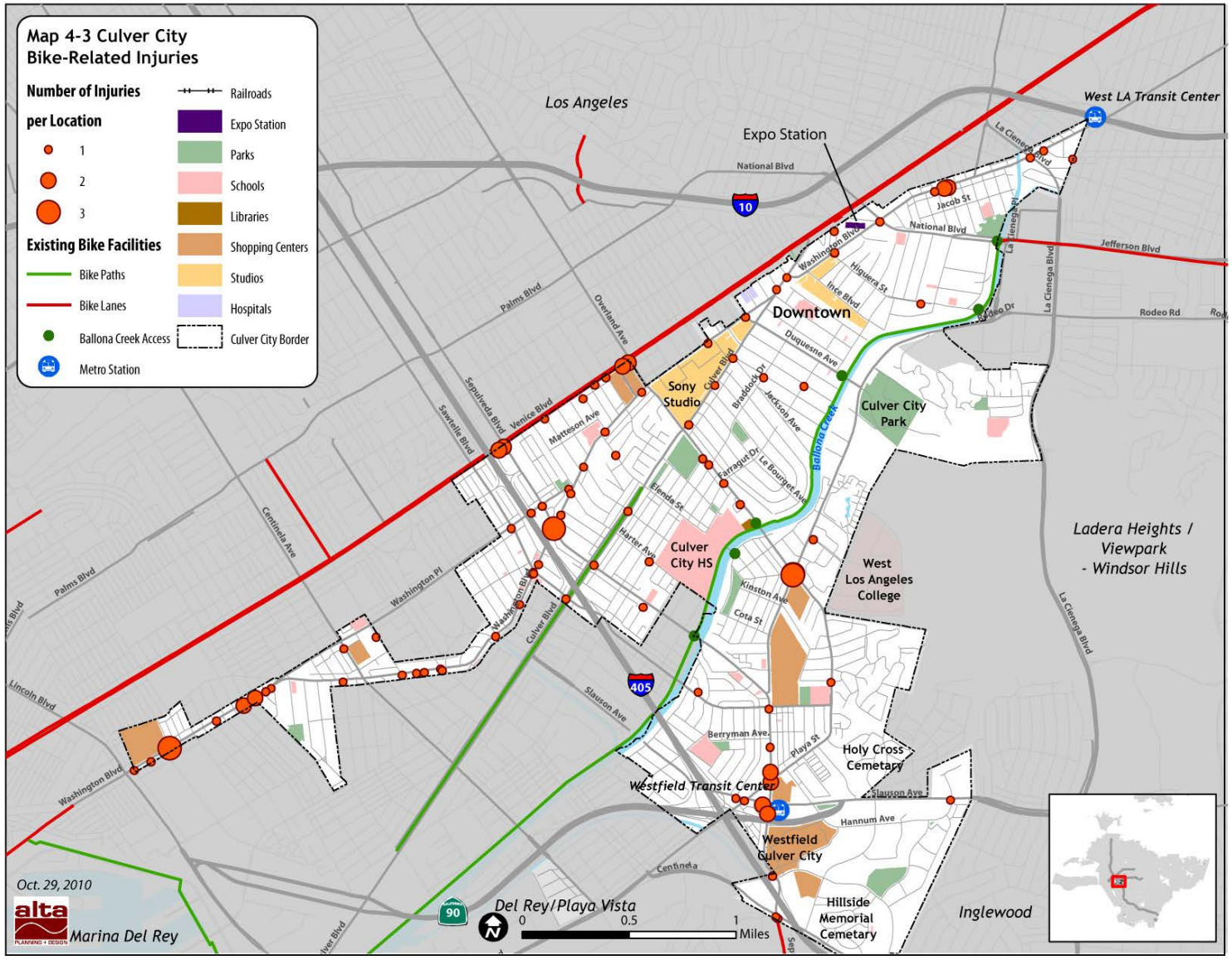
Map 4-3 shows bicycle collisions. Some notable clusters emerge along Washington Boulevard, leading eastward towards the *Costco* area and around the Westfield Culver City Mall Transit Center area.

Culver City had 94 reported bicycle-related incidents in the years between 2002 and 2007, an average 19 incidents per year and roughly .467 incidents per 1,000 persons per year. Culver City's bicycle collision rate is higher than the State average of .327 incidents per 1,000 persons per year. During this five-year period, the frequency of bicycle-related incidents remained relatively static. The Design Guide contained in the BPMP will work towards reducing bicycle-related incidents in the City.

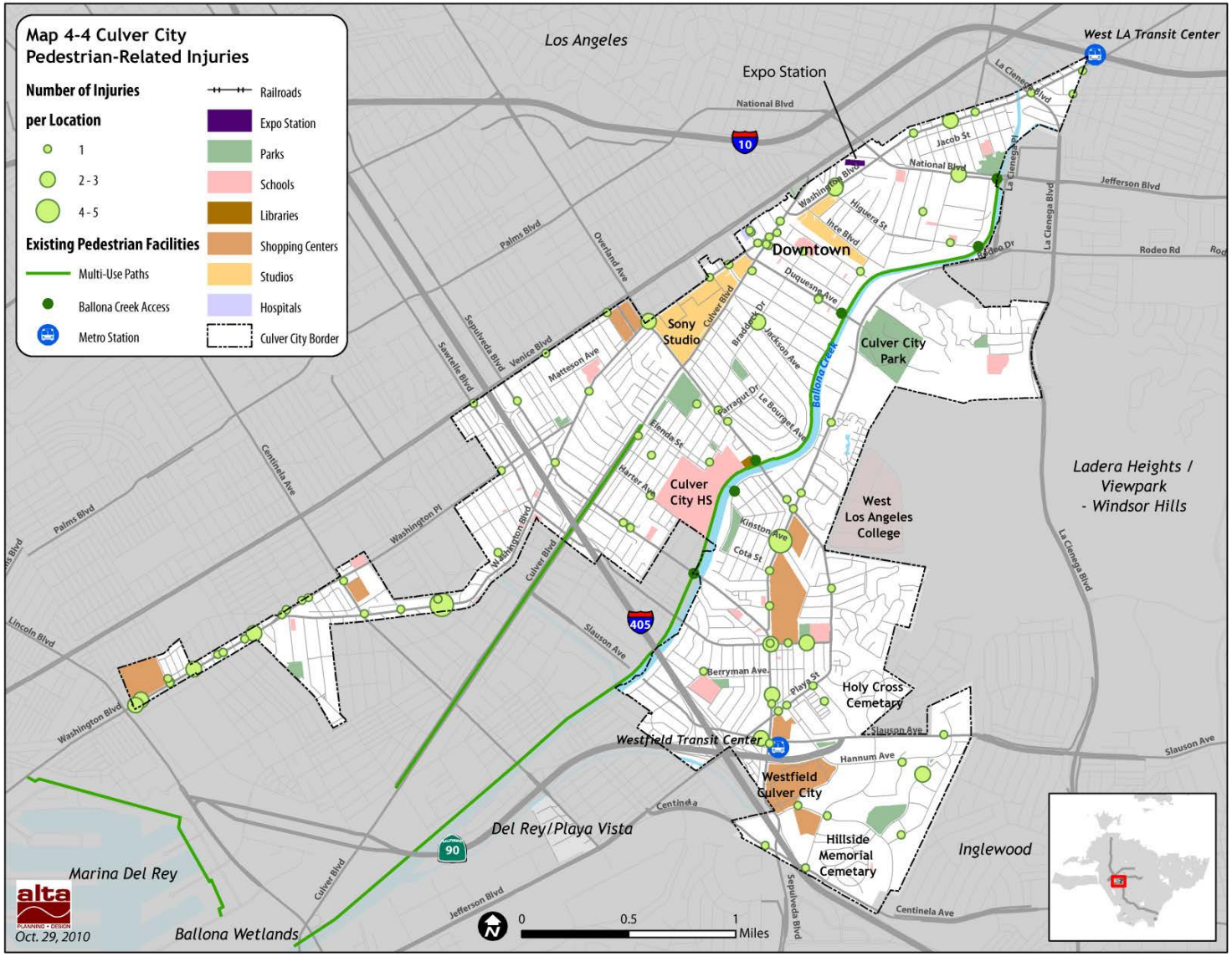
4.9.2 Pedestrian Collisions

Map 4-4 maps pedestrian collisions. Some notable clusters emerge in the Downtown area, around the Westfield Culver City Mall Transit Center and along Washington Boulevard, near the *Costco* area.

Culver City had 126 reported pedestrian-related incidents in the years between 2002 and 2007, an average of 25 incidents per year, and roughly .615 incidents per 1,000 persons per year. Culver City's pedestrian collision rate is above the State average of .499 incidents. The level of pedestrian incidents increased slightly in the past two years. The Design Guide contained in the BPMP will work towards reducing pedestrian-related incidents in the City.



Map 4-3 Culver City Bike-Related Injuries 2002-2007



Map 4-4 Culver City Pedestrian-Related Injuries 2002-2007

5 Bicycle and Pedestrian Network

This section describes the criteria used to develop the proposed bicycle and pedestrian facility maps for Culver City.

The recommended Culver City bicycle and pedestrian network includes the following types of facilities:

1. Bike Paths (Class I)
2. Bike Lanes (Class II)
3. Bike Routes (with Sharrows) (Class III)
4. Bike Routes (Signage only) (Class III)
5. Potential Bicycle Friendly Streets (Bicycle Boulevards) (Class III)
6. Pedestrian Improvement Zones
7. Pedestrian Improvement Corridors

Photo simulation of Washington Boulevard with sharrows

The Plan discusses each facility type's features, and explains how each facility type will function within the bikeway and pedestrian network. The City will construct the network in stages as grant and other funding becomes available, or as roads undergo scheduled resurfacing.

Table 5-1 Existing and Proposed Bikeway Mileage

Existing Bikeway Facilities	
Facility Type	**Mileage**
Bike Paths (Class I)	3.22
Bike Lanes (Class II)	1
Total Mileage (Existing)	4.22
Proposed Bikeway Facilities	
Facility Type	**Mileage**
Bike Paths (Class I)	0.42
Bike Lanes (Class II)	6.9
Sharrows (Class III)	10.28
Bike Routes (Class III)	5.91
Bike Friendly Streets (Class III)	14.07
Total Mileage (Proposed)	37.58
Total Mileage	**41.8**

5.1 Bicycle Facilities

Bike (Multi-Use) Paths (Class I)

There are current plans to build a multiuse path as part of the Metro Exposition Light Rail Transit project. The path will run parallel to National Boulevard, from the Ballona Creek Bike Path to Wesley Street. The Plan assumes a twelve-foot, fully paved path that accommodates cyclists, pedestrians, and other users. Sidewalks on streets intersecting this existing segment of National Boulevard will receive direct access to the new bike path.

Table 5-2 Proposed Bike Path

Street	Limit 1	Limit 2	Length (Miles)
National Blvd	Ballona Creek Bike Path	Wesley St	0.42

Bike Lanes (Class II)

The Plan recommends bike lanes for all major roadways within the City where feasible (i.e. without major alterations to the current roadway configuration). The Plan uses the following lane width assumptions to determine bike lane feasibility:

- 8-foot minimum width for street parking
- 5-foot minimum width for bike lanes
- 11-foot minimum width for travel lanes adjacent to bike lanes

At present, based on these assumptions, sections of Washington Place, Washington Boulevard, and Jefferson Boulevard have sufficient curb-to-curb width to install bike lanes without removing other roadway features. Note that installing bike lanes would require modifying the existing striping for the vehicle lanes. This related striping work increases the total project cost. The widths provided above are guidelines only, and do not prohibit installing facilities with smaller widths based on the Public Works Director/City Engineer's discretion. Geometric design will determine bike lane configurations at intersections.

Table 5-3 Proposed Bike Lanes

Street	Limit 1	Limit 2	Length (Miles)
A St	Irving Pl	Van Buren Pl	0.07
Buckingham Pkwy	Hannum Ave	Green Valley Cir	0.44
Centinela Ave	Hillside Memorial Park	Green Valley Cir	0.27
Green Valley Cir	Centinela Ave	Sepulveda Blvd	0.86
Hannum Ave	SR 90 Underpass	Canterbury Dr	0.6
Jefferson Blvd	Lotts Lane	E City Limit	0.56
National Blvd	N City Limit	Washington	0.09

Table 5-3 Proposed Bike Lanes

Street	Limit 1	Limit 2	Length (Miles)
		Blvd	
Sawtelle Blvd	Culver Blvd	Braddock Dr	0.24
Sawtelle Blvd	Ballona Creek	Sepulveda Blvd	0.75
Washington Blvd	Walnut Ave	Beethoven Ave	0.6
Washington Blvd	Centinela Ave	Sepulveda Blvd	1.25
Washington Blvd	Landmark St	Helms Ave	0.31
Washington Pl	Wade St	Grand View Blvd	0.46
Washington Pl	Albright Ave	Washington Blvd	0.4
Total Miles			**6.9**

Bike Routes with Sharrows (Class III)

This Plan considered installing bike routes on major roadway segments (primary and secondary arterials) within the City where bike lanes may not be feasible in the near term (e.g. bike lanes cannot be installed without removing an existing travel or parking lane). On bike route segments where on-street parking is present and the speed limits are appropriate, this Plan recommends using the California Manual on Uniform Traffic Control Devices (CaMUTCD) "Shared Roadway Bicycle Marking" (commonly referred to as a "Sharrow" or "Shared Lane Marking").

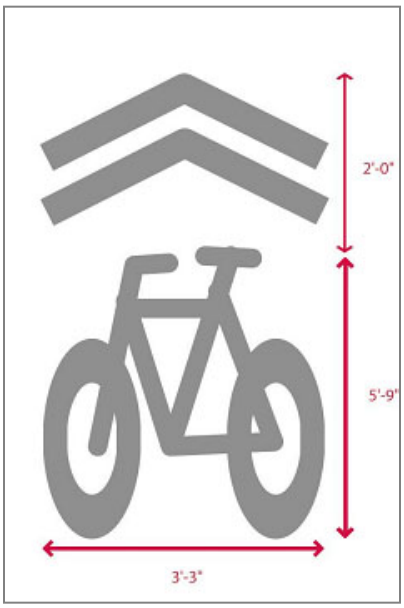


Figure 5-1 Sharrow Marking with Dimensions

Table 5-4 Proposed Sharrow Routes

Street	Limit 1	Limit 2	Length (Miles)
Braddock Dr	Overland Ave	Madison Ave	0.55
Centinela Ave	Washington Pl	Washington Blvd	0.21
Culver Blvd	Overland Ave	Duquesne Ave	0.6
Duquesne Ave	Braddock Dr	Jefferson Blvd	0.42
Jefferson Blvd	Overland Ave	Lotts Lane	1.03
Overland Ave	Playa St	Culver Blvd	1.71
Sawtelle Blvd	Venice Blvd	Culver Blvd	0.81
Sepulveda Blvd	Venice Blvd	Jefferson Blvd	2.14
Washington Blvd	Sepulveda Blvd	Overland Ave	0.8
Washington Blvd	Duquesne Ave	Culver Blvd	0.25
Washington Blvd	170' n/o Ince Blvd	Landmark St	0.3
Washington Blvd	Helms Ave	Fairfax Ave	0.86
Washington Blvd	Beethoven Ave	Centinela Ave	0.6
Total Miles			**10.28**

Bike Routes with Signage Only (Class III)

This Plan recommends the bicycle route designation with signage on major roadway segments where (1) bike lanes are not feasible in the near term, and (2) on-street parking is not present or the speed limit is not appropriate for sharrows. This Plan also considers signs such as the Bicycle Warning signs (W-11) and the Share the Road signs (W-11 + W-16-1) to supplement the standard CaMUTCD "BIKE ROUTE" (D-11) signage. The Design Guide (**Appendix 1**) provides a more comprehensive list of signage options.

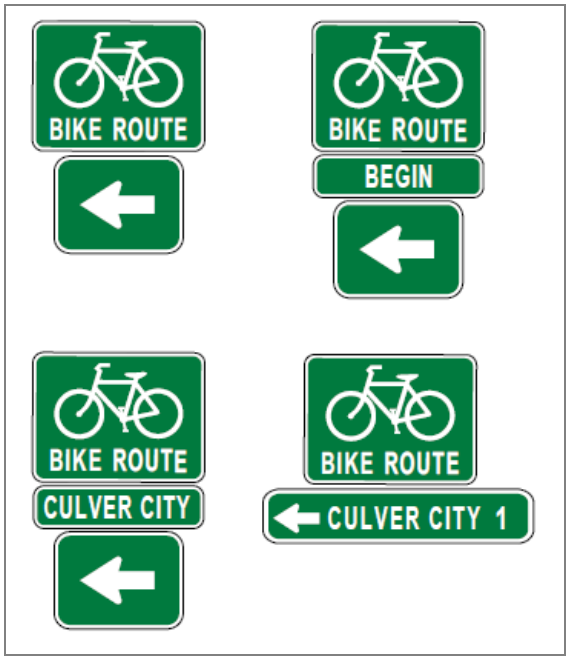


Figure 5-2 Sample Bike Route Signage

Table 5-5 Proposed Bike Routes

Street	Limit 1	Limit 2	Length (Miles)
Adams Blvd	North City Limit	Fairfax Ave	0.2
Bristol Pkwy	Slauson Ave	Centinela Ave	0.75
Centinela Ave.	Mesmer Ave.	Hillside Memorial Park	0.5
Culver Blvd	Duquesne Ave	Venice Blvd	0.5
Culver Blvd	Elenda St	Overland Ave	0.32
Hannum Ave	Playa St	SR 90 Underpass	0.3
Hannum Ave	Buckingham	Slauson Ave	0.9
Jefferson Blvd	Sepulveda Blvd	Overland Ave	0.6
Overland Ave.	Culver Blvd	Venice Blvd	0.4
Playa St	Overland Ave	Slauson Ave	0.5
Sawtelle	Sepulveda Blvd	Overland Ave	0.3
Sepulveda Blvd	Jefferson Blvd	Centinela Ave	0.66
Washington Blvd	Overland Ave	Duquesne Ave	0.57
Washington Blvd	Culver Blvd	170' n/o Ince Blvd	0.14
Washington Pl	Washington Blvd (west end)	Wade St	0.08
Total Miles			**5.91**

Huron Avenue is a Proposed Bicycle Friendly Street and displays the need for improved pavement for more comfortable/safe riding

Bicycle Friendly Streets

Bicycle Friendly Streets (BFS) are also referred to as "Bicycle Boulevards." Due to confusion caused by the term Bicycle Boulevard and the differing levels of treatments associated with this type of facility, we use Bicycle Friendly Street as an alternative term.

The "Proposed Bicycle Friendly Street" designation identifies low-volume streets that can undergo enhanced treatments after traffic engineering analysis. Streets will receive the Bicycle Friendly Streets designation only after the traffic engineering analysis and necessary improvements.

In contrast to the previously described classifications, this Plan recommends the Bicycle Friendly Streets designation only on predominantly residential streets with relatively low traffic volumes. **Table 5-6** provides a complete list of all Proposed Bicycle Friendly Streets. The table is a listing and not a priority ranking. The Plan uses the following criteria to differentiate Proposed Bicycle Friendly Streets from other residential streets within Culver City.

Length (Continuity)

This Plan selected facilities with minimal interruptions/breaks in their continuity. In some cases, the streets selected provide continuity with existing or proposed bikeways in neighboring jurisdictions.

Conditions at Major Roadway Crossings

Crossing major streets at unsignalized intersections can be problematic for bicyclists. Project staff used fieldwork to find streets with existing traffic signals at intersections with arterials. Some routes will require intersection improvements. These improvements may include traffic signals or other crossing improvements, such as "crossing islands" or "median refuges."

Connectivity

Proposed Bicycle Friendly Streets should connect people with neighborhood amenities. Streets received recommendations based on their proximity/connection to the existing bikeway network, schools, community centers, recreation centers, parks, shopping/retail, employment hubs, and other desirable destinations.

The streets designated as Bicycle Friendly Streets will receive—at a minimum—standard bicycle route signage. Bicycle Friendly Streets may also receive custom signage, sharrows, and traffic calming features, where supported by future engineering analysis.

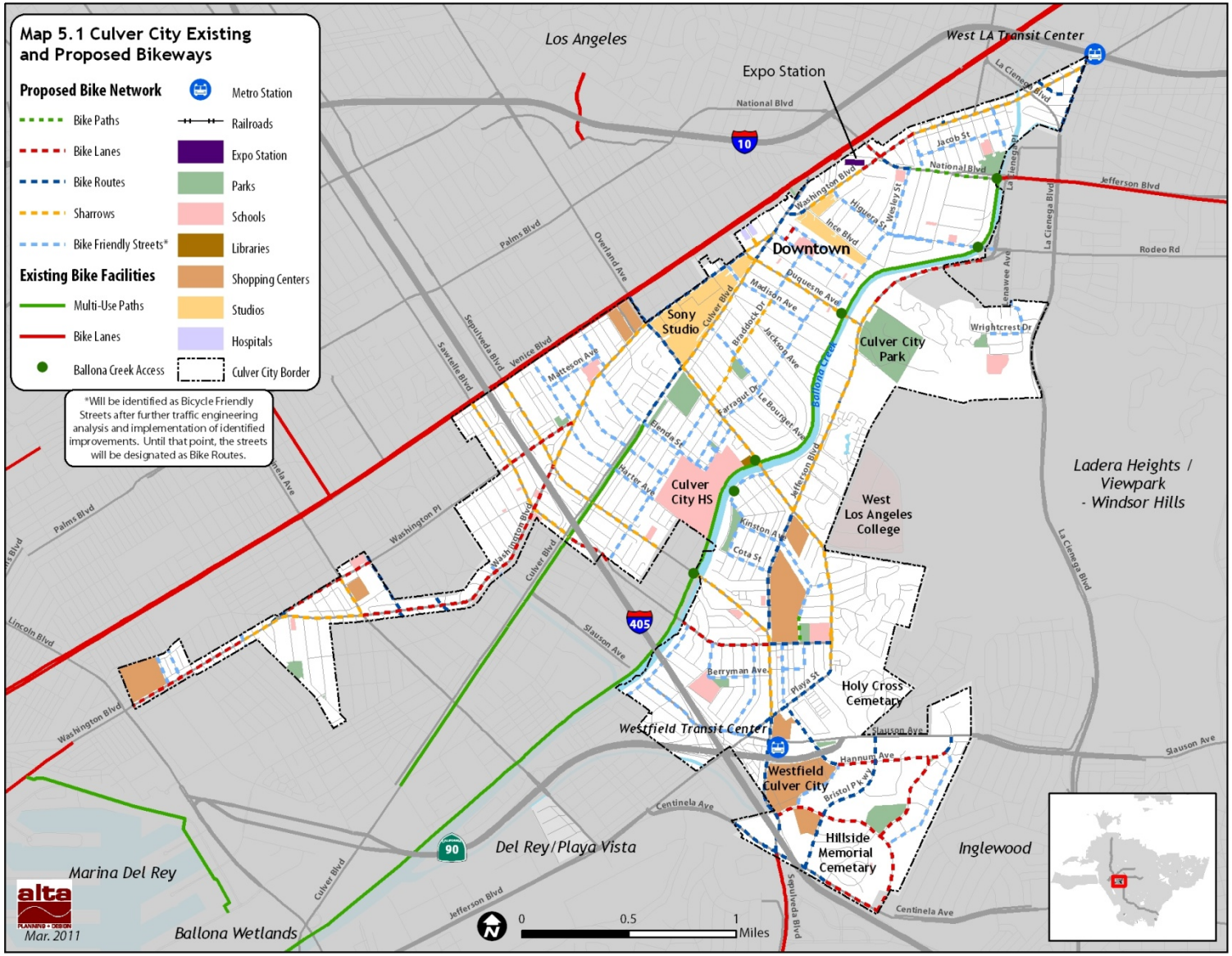
Map 5-1 displays the recommended bicycle network.

Table 5-6 Proposed Bicycle Friendly Streets

Street	Limit 1	Limit 2	Length (Miles)
Beethoven St	308' through Washington Blvd intersection		0.06
Berryman Ave	Segrell Way	Hayter Ave	0.21
Braddock Dr	Sawtelle Blvd	Overland Ave	0.88
Braddock Dr	Madison Ave	Irving Pl	0.27
Bush Way	Malat Way	Hannum Ave	0.1
Canterbury Dr	Hannum Ave	Green Valley Cir	0.55
Cota St	Rhoda Way	Jefferson Blvd	0.2
Elenda St	Washington Blvd	Farragut Dr	0.68
Farragut Dr	Duquesne Ave	Overland Ave	0.74
Farragut Dr	Overland Ave	Elenda St	0.23
Flaxton St	Overland Ave	Kinston Ave	0.1
Fox Hills Dr	Hannum Ave	Green Valley Cir	0.29
Franklin Ave	Overland Ave	Elenda St	0.25
Girard Ave	Venice Blvd	Washington Blvd	0.21
Hannum Ave	Sawtelle Blvd	Playa St	0.3
Harter Ave	S. City Limit	Washington Blvd	0.63
Hayter Ave	Segrell Way	Sawtelle Blvd	0.16
Helms Ave	Washington Blvd	National Blvd	0.17
Higuera St	Washington Blvd	Jefferson Blvd	0.82
Huron Ave	Braddock Dr	Venice Blvd	0.83
Irving Pl	Lucerne Ave	Culver Blvd	0.44

Table 5-6 Proposed Bicycle Friendly Streets

Street	Limit 1	Limit 2	Length (Miles)
Jacob St	Helms Ave	Reid Ave	0.39
Kinston Ave	Rhoda Way	Flaxton St	0.46
Lenawee Ave	Rodeo Rd	Wrightcrest Dr	0.41
Lucerne Ave	Higuera St	Duquesne Ave	0.43
Madison	Washington Blvd	Farragut Dr	0.44
Malat Way	Sawtelle Blvd	Bush Way	0.12
Matteson Ave	Tilden Ave	Girard Ave	0.27
McDonald St	City Limit/Emporia Ave	Sawtelle Blvd	0.43
McLaughlin	N City Limit	S City Limit	0.09
Ocean Dr	Rhoda Way	Overland Ave	0.23
Reid Ave	Washington Blvd	Syd K. Park	0.24
Rhoda Way	Cota	Ocean Dr	0.27
Segrell Way	Sawtelle Blvd	Slauson Ave	0.44
Slauson Ave.	Jefferson Blvd	Mc Donald St.	0.53
Tilden Ave	Washington Blvd	Venice Blvd	0.35
Van Buren Pl	School St	Lucerne Ave	0.37
Wesley St	National Blvd	Higuera St	0.32
Wrightcrest Dr	Lenawee Ave	Blair Hills Park	0.16
Total Miles			**14.07**



Map 5-1 Proposed Bicycle Network

5.2 Pedestrian Network

Pedestrian Improvement Areas

Field reviews and public input identified Pedestrian Improvement Areas as having high existing or potential pedestrian demand. Identifying these zones will assist in prioritizing pedestrian improvements and maintenance. **Table 5-7** lists Pedestrian Improvement Areas in order of priority score.

Table 5-7 Pedestrian Improvement Areas

Project Name	From	To
Expo Light Rail Station	Venice Blvd	Wesley St
Costco shopping area	Walnut Ave	Glencoe Ave
Target/Bed Bath & Beyond (Jefferson / Sepulveda)	Kinston Ave	Playa St
Downtown Culver City	Madison Ave	Main St
Jefferson Blvd & Overland Ave (intersection)	Jefferson Blvd	Overland Ave

Pedestrian Improvement Corridors

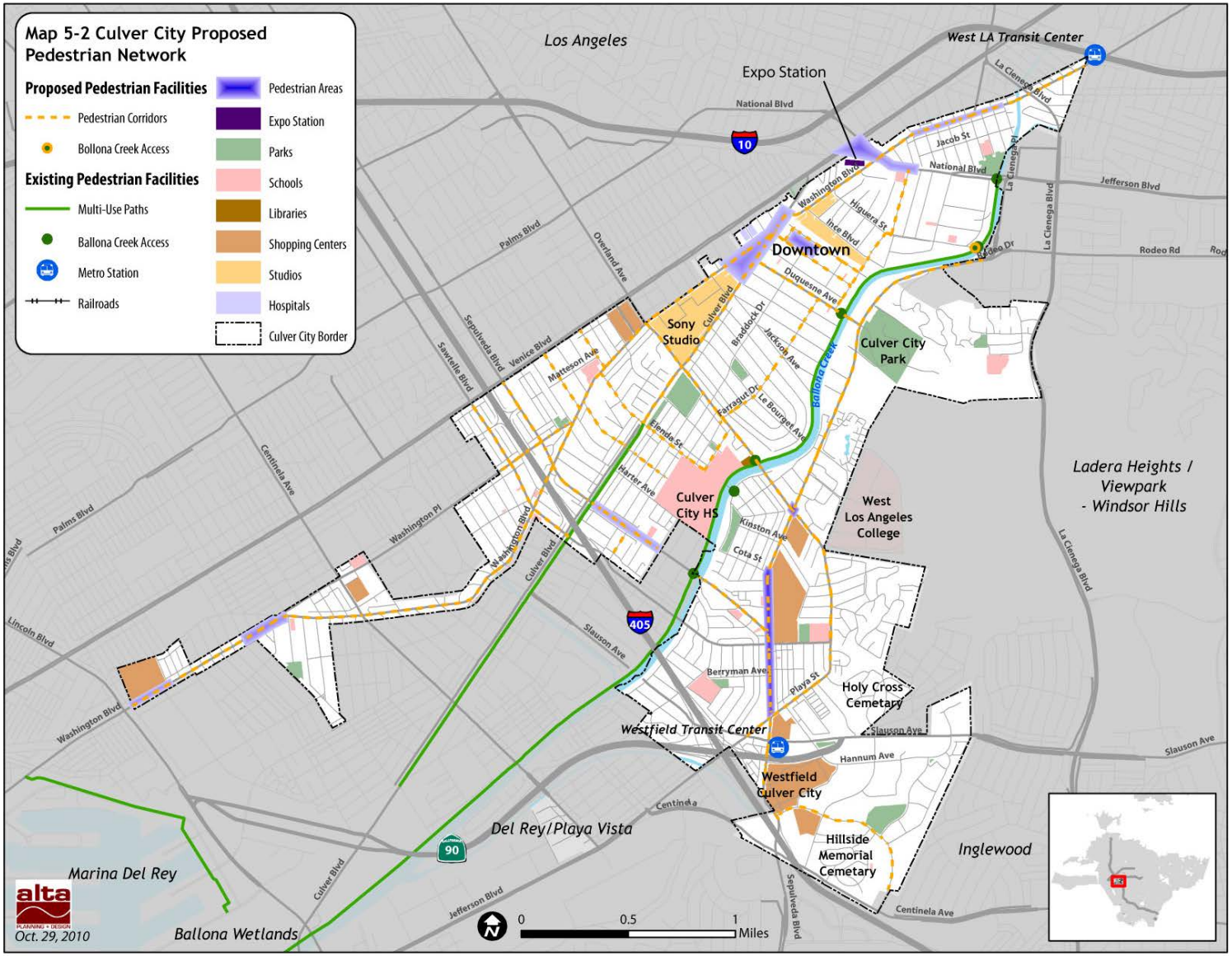
Pedestrian Improvement Corridors are streets in Culver City significant to pedestrian travel. As pedestrian corridors, these streets will receive priority attention with respect to maintenance, amenities and improvements.

Table 5-8 lists the Pedestrian Corridors in order priority order.

Table 5-8 Pedestrian Corridors

Project Name	From	To
Braddock Dr	Sawtelle Blvd	Irving Pl
Overland Ave	Venice Blvd	Playa St
Washington Blvd	Walnut Ave	Fairfax Ave
Culver Blvd	Sawtelle Blvd	Washington Blvd
Elenda St/Girard Ave	Venice Blvd	Farragut Dr
Irving Pl/Van Buren Pl	A Street	Lucerne Ave
Farragut Dr/Franklin Ave	Duquesne Ave	Elenda St
Sepulveda Blvd	Venice Blvd	Jefferson Blvd
Huron Ave	Venice Blvd	Braddock Dr
Sawtelle Blvd	Venice Blvd	Braddock Dr
Washington Place	Albright Ave	Washington Blvd
Wesley St	National Blvd	Higuera St
Lucerne Ave	Higuera St	Duquesne Ave

Map 5-2 displays the recommended pedestrian network.



Map 5-2 Proposed Pedestrian Network

6 Prioritization and Implementation

This chapter provides the methodology for the prioritization of bicycle and pedestrian projects in Culver City. The improvements called out in this chapter are for on street facilities. Improving the bicycle and pedestrian infrastructure in Culver City will allow residents and visitors to use motor vehicles less and live healthier lifestyles.

6.1 Project Criteria

Members of the TAC and feedback from the PAC combined to create project criteria. Each criterion contains valuable information about a facility and its ability to address an existing or future need in Culver City.

System Gaps & Connectivity to Existing Facilities

Existing facilities promote and support walking and bicycling, but their failure to connect to larger systems leaves gaps in the network. These gaps discourage walking/biking because they limit route continuity and prevent direct connections to desirable destinations. Projects that extend or connect to the Ballona Creek Bike Path, the Culver Boulevard Bike Path, and Venice Boulevard Bike Lane qualify for this prioritization criterion.

Connections to Activity Centers

Activity centers are the major trip-driving destinations within the City (e.g. Helms Bakery, Downtown, Culver Studios, *Target*, Parks, etc). Increasing bicycle and pedestrian accessibility to major Activity Centers can reduce traffic congestion and support residents and visitors who choose to bicycle or walk. Projects that connect to these centers qualify for this prioritization criterion.

Proximity to Transit Hubs

Bicycle and pedestrian accessibility to transit hubs is essential for longer multimodal trips. Facilities within ¼ mile of the Westfield Culver City Transit Center, West LA Transit Center, the Exposition Light Rail Station, and other transit hubs qualify for this prioritization criterion.

Proximity to Schools

School children typically have higher rates of bicycling and walking than adults for transportation. To encourage more students to bike and walk to school, proposed facilities within ¼ mile of K-12 schools (public and private), Antioch College, and West LA College qualify for this prioritization criterion.

Collisions

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

Public Input

The City solicited public input using a website survey, comment cards (electronic and printed), and public workshops. Feasible projects with demonstrated public endorsement qualify for this prioritization criterion.

6.2 Project Criteria Ranking

Each of the criteria in **Section 6.1** contains elements of a project's value to the bicycle and pedestrian network of the City.

In the summer of 2009, members of the TAC and PAC provided input concerning each of the criteria and ranked them from one to six in order of their importance to Culver City bicycle and pedestrian facilities. The ranking exercise resulted in the following prioritization:

1. System Gaps & Connectivity to Existing Facilities
2. Connections to Activity Centers
3. Proximity to Transit Hubs
4. Proximity to Schools

5./6. Collisions & Public Input (tie)

The extent to which proposed projects address these criteria determines the project's prioritization in construction and funding. Based on the above results, the criterion that will have the most impact on project implementation is System Gaps & Connectivity to Existing Facilities.

Table 6-1 shows how the PAC and TAC ranking exercise translated into weights for project prioritization. Weights are based on direct, secondary, or no service at all. Direct service means that a facility intersects with a facility, whereas secondary access occurs through connecting to a proposed facility or area in the network that meets the criteria.

Table 6-1 Criteria Weight/Scoring

Criteria	Score	Multiplier	Total Possible Score	Description
Connectivity	2	3.0	6	Direct access to an existing bicycle/pedestrian facility.
	1	3.0	3	Secondary access to an existing bicycle/pedestrian facility.
	0	3.0	0	No direct access to an existing bicycle/pedestrian facility.
Activity Centers	2	3.0	6	Direct connection to a major trip-driving destination in Culver City.
	1	3.0	3	Secondary connection to a major trip-driving destination in Culver City.
	0	3.0	0	No connection to a major trip-driving destination in Culver City.
Transit	2	2.0	4	Direct access to a transit station.
	1	2.0	2	Access to an existing bikeway that accesses a transit station within a half mile of the station.
	0	2.0	0	No direct access to a transit station with a half mile.
Schools	2	2.0	4	Direct access to a Culver City school (within a 1/4 mile).
	1	2.0	2	Secondary access to a Culver City school (within 1/2 mile)
	0	2.0	0	No direct access to a Culver City school.
Public Input	2	1.0	2	Identified by the public as desirable for a future facility (multiple times).
	1	1.0	1	Identified by the public as desirable for a future facility (once).
	0	1.0	0	Not identified by the public as desirable for a future facility
Collisions	2	1.0	2	Roadway that experienced four or more collisions in the last five years.
	1	1.0	1	Roadway that experienced one to four collisions in the last five years.
	0	1.0	0	Roadway that did not experience a collision in the last five years.

6.3 Project Prioritization Tables

The following tables present the proposed bicycle and pedestrian projects in the City, ranked according to the weighted criteria. The First Tier Projects are the five highest-ranked bicycle and five highest ranked pedestrian projects. The Second Tier and Third Tier Projects are lower-priority projects that the City can implement upon completing the First Tier projects or if provided the opportunity and funding.

The City will try to implement these projects in the rough order of their prioritization, tier, and availability of full funding. These rankings are not the final implementation order, but a guide to direct the City as funding and opportunities arise.

Table 6-2 Bicycle Project Prioritization

	Bikeway Type	Project Name	From	To	Connec - tivity	Activity Centers	Transit	Schools	Public Input	Collis- ions	Score Total
					WEIGHT						
					3	3	2	2	1	1	
Tier 1	BL/SLM	Washington Blvd	Walnut Ave	Fairfax Ave	2	2	1	2	2	2	22
	SLM	Overland Ave	Playa St	Culver Blvd	2	2	1	2	2	2	22
	BFS	Farragut Dr/ Franklin Ave	Duquesne Ave	Elenda St	2	2	0	2	2	2	20
	BR/L/SLM	Jefferson Blvd	Sepulveda Blvd	E City Limit	1	2	2	1	2	2	19
	BFS	Braddock Dr	Sawtelle Blvd	Irving Pl	1	2	0	2	2	2	17
	BR	Overland Ave	Culver Blvd	Venice Blvd	2	2	1	0	1	2	17
Tier 2	BFS	Helms Ave	Washington Blvd	National Blvd	2	2	2	0	0	1	17
	SLM/BR	Sepulveda Blvd	Ballona Creek	Green Valley Cir	1	2	2	0	2	2	17
	BR/SLM	Culver Blvd	Huron Ave	Venice Blvd	2	2	0	0	2	2	16
	BFS	Higuera St	Washington Blvd	Jefferson Blvd	2	2	0	0	2	2	16
	BFS	Wesley St	National Blvd	Higuera St	2	1	2	1	1	0	16
	BFS	Van Buren Pl	A St	Lucerne Ave	0	2	1	2	2	1	15
	SLM/BL	Sawtelle Blvd	Venice Blvd	Overland Ave	2	1	1	0	1	2	14
	SLM	Duquesne Ave	Braddock Dr	Jefferson Blvd	0	2	0	2	2	1	13
	BR	Playa St	Overland Ave	Slauson Ave	0	2	2	0	1	2	13
	BL	National Blvd	N City Limit	Washington Blvd	2	0	2	0	2	1	13
	BFS	Slauson Ave	Jefferson Blvd	Mc Donald St	0	2	2		1	2	13
	SLM	Centinela Ave	Washington Pl	Washington	1	1	2	0	2	1	13

Table 6-2 Bicycle Project Prioritization

	Bikeway Type	Project Name	From	To	Connec - tivity	Activity Centers	Transit	Schools	Public Input	Collis- ions	Score Total
					WEIGHT						
					3	3	2	2	1	1	
				Blvd							
	BFS	Irving Pl	Lucerne Ave	Culver Blvd	0	2	0	2	1	1	12
	BR/L	Centinela Ave	Mesmer Ave	Green Valley Cir	0	2	2	0	1	1	12
	BL	Washington Pl	Washington Blvd. (east end)	Washington Blvd (west end)	0	2	0	1	1	2	11
	BFS	Harter Ave	S. City Limit	Washington Blvd	2	0	0	2	0	1	11
	BFS	Huron Ave	Braddock Dr	Venice Blvd	2	0	0	2	0	1	11
	BL	Green Valley Cir	Centinela Ave	Sepulveda Blvd	0	2	2	0	0	1	11
	BFS	Fox Hills Dr	Hannum Ave	Green Valley Cir	0	2	2	0	0	1	11
	BFS	Elenda St	Washington Blvd	Farragut Dr	0	1	0	2	2	1	10
	BFS	Lucerne Ave	Higuera St	Duquesne Ave	1	0	1	1	2	1	10
Tier 3	BRS/L/R/SLM	Hannum Ave	Sawtelle Blvd	Slauson Ave	0	2	0	1	1	1	10
	BFS	Kinston Ave	Rhoda Way	Flaxton St		2	0	1	1	1	10
	BR	Bristol Pkwy	Slauson Ave	Centinela Ave	0	2	2	0	0	0	10
	BFS	Madison Ave	Washington Blvd	Farragut Dr	0	2	0	0	1	1	8

Table 6-2 Bicycle Project Prioritization

	Bikeway Type	Project Name	From	To	Connec - tivity	Activity Centers	Transit	Schools	Public Input	Collis- ions	Score Total
					WEIGHT						
					3	3	2	2	1	1	
	BFS	Rhoda Way	Cota St	Ocean Dr	0	2	0	1			8
	BFS	Hayter Ave	Berryman Ave	Sawtelle Blvd	1	0	0	2	1	0	8
	BFS	Cota St	Ocean Dr	Jefferson Blvd	0	2	0	0	0	1	7
	BFS	Lenawee Dr	Rodeo Rd	Wrightcrest Ave	0	2	0	0	1	0	7
	BFS	Wrightcrest Ave	Lenawee Dr	Blair Hills Park	0	2	0	0	1	0	7
	BFS	McDonald St	City Limit/Emporia Ave	Sawtelle Blvd	1	0	0	1	1	0	6
	BL	Buckingham Pkwy	Hannum Ave	Green Valley Cir	0	1	1	0	0	1	6
	BFS	Flaxton St	Overland Ave	Kinston Ave	1	1	0	0	0	0	6
	BFS	Reid Ave	Washington Blvd	Syd K. Park	0	2	0	0	0	0	6
	BFS	Girard Ave	Venice Blvd	Washington Blvd	0	0	0	2	0	1	5
	BFS	Malat Way	Sawtelle Blvd	Bush Way	0	0	0	2	0	1	5
	BFS	Berryman Ave	Segrell Way	Hayter Ave	0	0	0	2	1	0	5
	BFS	Ocean Dr	Cota St	Overland Ave	0	1	0	1	0	0	5
	BFS	Jacob St	Helms Ave	Reid Ave	1	0	1	0	0	0	5
	BL	A St	Irving Pl	Van Buren Pl	0	1	0	1	0	0	5
	BR	Adams Blvd	N City Limit	Fairfax Ave	1	0	0	0	0	1	4

Table 6-2 Bicycle Project Prioritization

	Bikeway Type	Project Name	From	To	Connec - tivity	Activity Centers	Transit	Schools	Public Input	Collis- ions	Score Total
					WEIGHT						
					3	3	2	2	1	1	
	BFS	Beethoven St	Washington Blvd intersection		1	0	0	0	0	1	4
	BFS	Matteson Ave	Tilden Ave	Girard Ave	0	0	0	2	0	0	4
	BFS	McLaughlin Ave	N City Limit	S City Limit	1	0	0	0	0	0	3
	BR	Bush Way	Malat Way	Hannum Ave	0	0	0	1	0	0	2
	BFS	Canterbury Dr	Hannum Ave	Green Valley Cir	0	0	0	0	0	1	1
	BFS	Tilden Ave	Washington Blvd	Venice Blvd	0	0	0	0	0	1	1

SLM – Sharrow (Shared Lane Marking), BFS – Bicycle Friendly Street, BL – Bike Lane, BR – Bike Route, PA – Pedestrian Area, PC – Pedestrian Corridor

Table 6-3 Pedestrian Project Prioritization

	Facility Type	Project Name	Limit 1	Limit 2	Connect-ivity	Activity Centers	Transit	Schools	Public Input	Collisions	Score Total
					Weight						
					3	3	2	2	1	1	
Tier 1	PC	Braddock Dr	Sawtelle Blvd	Irving Pl	2	2	1	2	2	2	22
	PC	Overland Ave	Venice Blvd	Playa St	2	2	1	2	2	2	22
	PA	Expo Light Rail Station	Venice Blvd	Wesley St	2	2	2	1	2	2	22
	PA	*Costco* shopping area	Walnut Ave	Glencoe Ave	1	2	2	2	2	2	21
	PC	Washington Blvd	Walnut Ave	Fairfax Ave	2	2	2	1	2	1	21
Tier 2	PC	Culver Blvd	Sawtelle Blvd	Washington Blvd	2	2	1	1	2	2	20
	PC	Elenda St/Girard Ave	Venice Blvd	Farragut Dr	1	2	1	2	2	2	19
	PC	Irving Pl/Van Buren Pl	A Street	Lucerne Ave	2	2	1	1	2	0	18
	PA	Downtown Culver City	Madison Ave	Main St	1	2	1	2	1	0	16
	PC	Farragut Dr	Duquesne Ave	Elenda St	2	1	0	2	1	1	15
	PC	Sepulveda Blvd	Venice Blvd	Jefferson Blvd	1	2	0	2	1	1	15
	PC	Huron Ave	Venice Blvd	Braddock Dr	1	1	0	2	2	2	14
	PC	Sawtelle Blvd	Venice Blvd	Braddock Dr	0	2	1	1	2	2	14
	PC	Washington Place	Albright Ave	Washington Blvd	2	1	1	0	2	0	13
	PC	Wesley St	National Blvd	Higuera St	2	0	0	2	0	2	12
	PC	Lucerne Ave	Higuera St	Duquesne Ave	2	0	1	0	1	2	11
	PA	*Target/Bed Bath & Beyond* (Jefferson / Sepulveda)	Kinston Ave	Playa St	2	0	0	1	0	0	8

	PA	Jefferson Blvd & Overland Ave (intersection)	Jefferson Blvd	Overland Ave	0	0	0	0	2	2	4

PA – Pedestrian Area, PC – Pedestrian Corridor

6.4 Cost Assumptions

Planning level cost estimates include both capital and maintenance costs as shown in Table 6-4. Cost assumptions include capital costs, but do not include maintenance. The cost estimates do not include some supplemental facilities that may depend on site-specific conditions. For instance, bicycle lane costs do not include treatments at intersections, which may depend on the presence of traffic signals and loop detectors. The City will refine the cost estimates during a project design phase.

Table 6-4 Cost Assumptions

Facility Type	Cost
Capital Cost	
Bicycle Path (along flood control channel or rail corridor)	$2,640,000/mile
Bicycle Path (in park, short connector no crossings)	$500,000/mile
Bicycle Lanes (may include signage, striping, and pavement markings)*	$100,000 / mile
Bicycle Route (may include signage and pavement markings)	$20,000 / mile
Bicycle Friendly Streets	$30,000 / mile
Maintenance Costs (Annual)	
Bicycle Path	$10,000 / mile
Bicycle Lanes / Bicycle Route	$3,500 / mile
Bicycle Friendly Streets	$2,500 / mile

**Cost estimates do not include intersection treatments, such as loop detectors and restriping vehicular lanes.*

Table 6-5 Total Capital Cost of Proposed Network

Facility Type	Length (mi)	Unit Cost	Total Cost
Proposed Bicycle (Multi-Use) Path	0.42	--	Metro funding
Proposed Bicycle Lanes	6.9	$100,000 / mile	$690,000
Proposed Sharrows	10.28	$28,000 / mile	$287,840
Proposed Bicycle Routes	5.91	$20,000 / mile	$118,200
Proposed Bicycle Friendly Streets	14.07	$30,000 / mile	$422,100
Total	**37.58**		**$1,518,140**

6.5 First Tier Projects

The primary component of Chapter 6 is ten (five bicycle, five pedestrian) high priority project sheets. The Plan highlights the following ten projects because of their importance to the network.

6.5.1 Top Priority Project

One project rose to the top of Culver City's bicycle and pedestrian connections through the public input process: establishing a major bikeway along one of the major arterials (Culver Boulevard or Washington Boulevard) accessing Downtown and continuing on to the Expo station. This Plan analyzed both Culver and Washington Boulevards for bike lane and sharrow feasibility. Due to the current State design guidelines, Culver Boulevard and sections of Washington Boulevard cannot accommodate bike lanes or sharrows without significant physical modifications and/or roadway striping changes to the current road configurations. Plans to implement such a project in the future are in development as a commitment to the values expressed in the vision statement of this Plan and as a result of strong public support.

6.5.2 Bicycle and Pedestrian Projects

The high priority project sheets include a description of the project area and issues, a listing of specific potential improvements, a cost estimate, an overview map of the project area, and conceptual designs of each of the bicycle/pedestrian potential improvements. The cost estimates provided are based on preliminary planning-level concepts. The City will refine the cost estimates during a project design stage.

The City will try to implement these projects in the rough order of their prioritization, tier, and availability of full funding. The BPMP recognizes that funding, and other factors like future development may allow some projects to finish sooner than others. These rankings are not the final implementation order, but a guide to direct the City as funding and opportunities arise.

Bicycle Project 1: Washington Boulevard: Walnut Avenue to Fairfax Avenue

Description of Area and Issues	Potential Improvements and Cost Estimate
Washington Boulevard is the longest (5.6 miles) continuous road in Culver City. The speed limit on Washington Boulevard is 35 mph. It provides direct connectivity to many of Culver City's most frequently visited destinations. In most segments, Washington Boulevard is a four lane road with street parking and center turn lane. Some minor segments drop street parking or the center turn lane converts to a median or is dropped completely. Challenges for bicyclists include deteriorated pavement in some areas and a lack of designated bicycle facilities. This high priority project ranked #1 (tie) out of 50 bicycle projects, and received 22 points out of 24 possible points in the priority ranking process.	• Stripe bike lanes where recommended (see project extent map) • Stripe sharrows on applicable segments where road width does not accommodate bike lanes • Install signage/wayfinding • Add bicycle route signage where sharrows and lanes cannot be installed • Intersection improvement at McLaughlin **Cost estimate $304,000** *Note: Cost includes vehicular lane restriping and moving loop detectors in bike lane sections.*

Site Photo: Washington Boulevard (eastbound) *Simulation*		Design Guide & Standards
	This photo simulation depicts a portion of Washington Boulevard as it may appear with bike lanes striped. Some portions of Washington Boulevard have enough width to stripe bicycle lanes as they are. Due to road width or other restrictions, bike lanes are not recommended on all sections of Washington Boulevard. Where permanent street parking exists, the City may install sharrows.	Bike Lanes – Design Guide, Section 1.3 Sharrows – Design Guide, Section 1.6.1 Bike Route – Design Guide, Section 1.6

Bicycle Project 2: Overland Avenue: Culver Boulevard to Playa Street

Description of Area and Issues	Potential Improvements and Cost Estimate
Overland Avenue tied for the top ranking with Washington Boulevard and scored 22 out of 24 points in the priority ranking process. Overland Avenue serves Sony Studios, Veteran's Park/Senior Center, Teen Center, Culver City Library, and other major employment areas. Overland is a five lane road (with center turn lane [CTL] or median) for the most part between Venice Boulevard and Freshman Drive. South of Freshman Drive, it becomes a four lane road with no CTL/median. The speed limit on Overland is 35 mph except in school zones. Most of Overland allows on-street parking.	• Restripe auto travel lanes to 10.5 feet wide and install bike lanes • Stripe sharrows • Install signage/wayfinding **Cost estimate: $56,000**

Site Photo: Overland Avenue & Culver Boulevard		Design Guide & Standards
	The City is exploring lane width options to allow installation of bike lanes. One proposal under consideration is restriping auto travel lanes on Overland Avenue to 10.5 feet wide. Where there is insufficient space for bike lanes and where permanent street parking exists, the City should install sharrows.	Bike Lanes – Design Guide, Section 1.3 Sharrows – Design Guide, Section 1.6.1 Bike Route – Design Guide, Section 1.6

Bicycle Project 3: Farragut Drive/Franklin Avenue: Duquesne Avenue to Elenda Street

Description of Area and Issues	Potential Improvements and Cost Estimate
Farragut Drive/Franklin Avenue is one of the more significant residential roads in Culver City with respect to connectivity and continuity. Farragut/Franklin provides direct access to Culver City High School, Middle School and Farragut Elementary. Retrofitting the Jackson-Jasmine pathway provided access to bicycles and improved Farragut/Franklin as a medium distance route for bicyclists and pedestrians. The speed limit along Farragut Drive is 25 mph. The Jackson-Jasmine gate needs further improvement to enable better movement of bicyclists and pedestrians. The intersection at Overland Avenue needs bicycle detection. Farragut/Franklin ranked #3 on the priority list and scored 20 out of a possible 24 points in the priority ranking process.	• Jackson-Jasmine pathway improvement • Bicycle-sensitive detection at Overland Avenue intersection • Install signage/wayfinding **Cost Estimate: $27,000**

Site Photo: Jackson Farragut gate		Design Guide & Standards
	Farragut/Franklin is a comfortable road segment for bicyclists and, with a few small improvements, will be considerably more enjoyable for bicyclists to use. One primary obstacle for bicyclists wanting to use Farragut is the access gate between Jackson Avenue and Jasmine Avenue. The pathway has recently been updated, with two of the poles being removed. This is a step in the right direction. Ultimately, the pathway should be fitted with bollards for a more modern approach.	Bicycle Friendly Street – Design Guide, Section 1.6.2 Bicycle Detection – Design Guide, Section 1.1.2

Bicycle Project 4: Jefferson Boulevard: Sepulveda Boulevard to East City Limit

Description of Area and Issues	Potential Improvements and Cost Estimate
Jefferson Boulevard is a high-speed arterial road serving north and south Culver City. Jefferson is a primary access point to West Los Angeles College, Baldwin Hills Scenic Overlook Park and the *Target/Bed Bath & Beyond, Ross* shopping area. Speed limits vary between 30-40 mph on Jefferson. Jefferson is a five lane road with street parking intermittently permitted throughout its length in the City. On some portions of Jefferson the outside lane is wide enough to be shared by motor vehicles and bicyclists, but in other areas bicyclists must position themselves towards the center of the lane to discourage motor vehicles from passing them at an unsafe distance. Obstacles on Jefferson include pavement conditions in some locations, lack of bicycle facilities and signage, and traffic speeds. Jefferson ranked #4 on the priority list and scored 19 out of a possible 24 points in the priority ranking process.	• Stripe bike lanes • Stripe sharrows • Install signage/wayfinding • Add bicycle route signage • Lighting at Slauson underpass **Cost estimate: $108,200** *Note: Cost includes vehicular lane restriping.*

Site Photo: Jefferson Boulevard at Leahy Street		Design Guide & Standards
	Jefferson Boulevard is a good street for more focused signage to promote "Share the Road" because of its diversity of land uses and road widths.	Bike Lanes – Design Guide, Section 1.4 Sharrows – Design Guide, Section 1.6.1 Bike Route – Design Guide, Section 1.6

Bicycle Project 5: Braddock Drive, Bicycle Friendly Street & Sharrows: Sawtelle Boulevard to Irving Place

Description of Area and Issues	Potential Improvements and Cost Estimate
Braddock Drive is the longest, uninterrupted residential street in Culver City. Because of its length, it is commonly used by motor vehicles as an alternative to Washington Boulevard, Culver Boulevard, or Jefferson Boulevard. The City implemented traffic calming measures in the past (e.g. installation of speed humps) to dissuade this behavior, but may do more to reprioritize the street and further discourage spill-over traffic. The speed limit on Braddock is 25 mph. Obstacles to bicyclists on Braddock include lack of bicycle detection at its intersections of Sepulveda Boulevard and Overland Avenue, and spill-over traffic. Wide portions (e.g. Carlson Park) leave room for improvement. Braddock ranked #5 on the priority list and scored 17 out of a total 24 points in the priority ranking process.	• Bicycle-sensitive detection at Overland Avenue and Sepulveda Boulevard intersections • Install signage/wayfinding • Install sharrows • Traffic calming where appropriate **Cost estimate: $49,900**

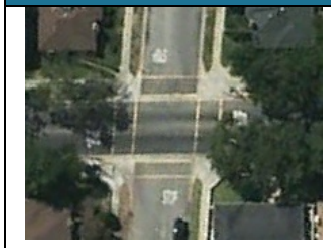
Site Photo: Braddock Drive at Sepulveda Boulevard

Design Guide & Standards

	Braddock Drive can be improved for bicyclists by adding bicycle detector loops at its intersections with major arterials. The image to the left shows where bicycle detection loops can be installed to allow bicyclists shorter waiting periods at major intersections. The City may analyze additional traffic calming measures as part of a future traffic engineering study to determine possible treatments to support designation as a Bicycle-Friendly Street.	Bicycle Friendly Street – Design Guide, Section 1.6.2 Sharrows – Design Guide, Section 1.6.1

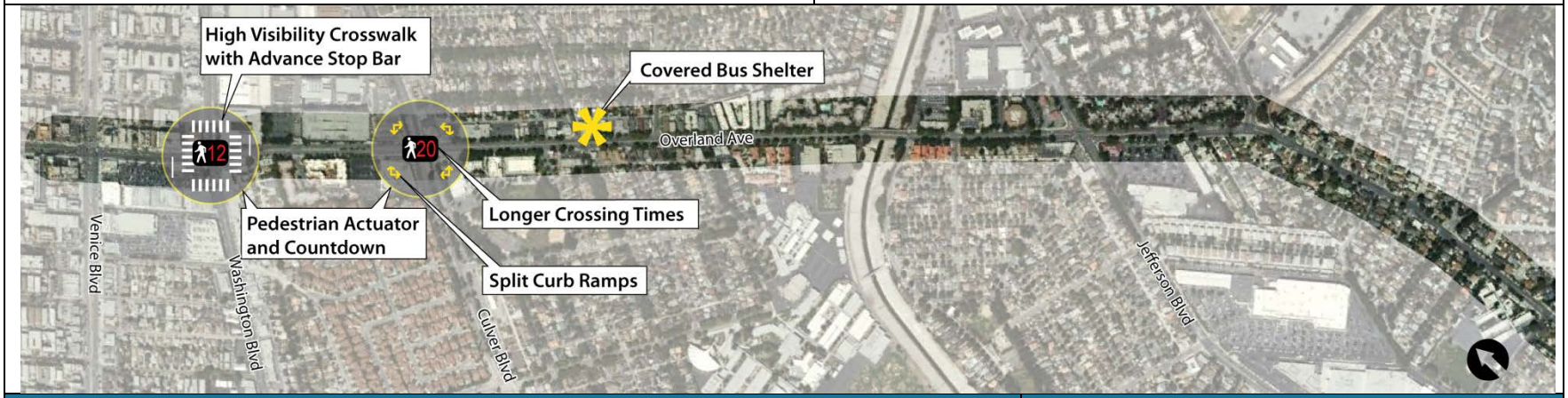
Pedestrian Project 1: Braddock Drive: Sawtelle Boulevard to Irving Place

Description of Area and Issues	Potential Improvements and Cost Estimate
As the longest residential street in Culver City, Braddock Drive is one of the most popular corridors in the pedestrian network. Much of Braddock's current configuration makes it a comfortable place to walk. Braddock provides access to the City's high school, middle school, several elementary schools, and community-oriented commercial corridors on Sepulveda and Overland and Downtown. Because of its continuity, motorists use it as an alternate road to avoid Washington, Culver or Jefferson Boulevards. The net-effect of this spillover traffic can make Braddock an uninviting environment. Braddock is a major pedestrian route for school-bound children, making its intersections at major arterials a place of special consideration. Braddock's intersections with Overland and Sepulveda will be considered for signal and marking improvements. Braddock ranked #1 among pedestrian projects, scoring 22 out of a total 24 points in the priority ranking process.	• At Huron Avenue, Elenda Street and Irving Place (school intersections) – install high visibility crosswalk • Crossing improvements at Overland and Sepulveda Boulevards • Install a curb ramp at Le Bourget (on east side of intersection) at Carlson Park • Stripe crosswalk at southeast side of Motor intersection **Cost estimate: $17,200**

Site Photo: Braddock Drive at Huron Avenue		Design Guide & Standards
	Braddock Drive can be improved for pedestrians by enhancing crosswalks at high traffic areas. The picture to the left shows the intersection of Braddock Drive and Huron Avenue, which is a main point of pedestrian access to the high school and middle school. At present, the crosswalk features the minimum yellow transverse line striping. With an upgrade to high visibility striping, the crosswalk would become more prominent and vehicles would have an easier time recognizing the crosswalk as a pedestrian space.	Crosswalks – Design Guide, Section 1.10.11 Curb Ramps – Design Guide, Section 1.11.4

Pedestrian Project 2: Overland Avenue: Venice Boulevard to Playa Street

Description of Area and Issues	Potential Improvements and Cost Estimate
Overland Avenue services major areas of employment, and commercial and civic activity in Culver City. At its intersections with Washington Boulevard and Culver Boulevard, crossing may be difficult for some users due to the width of the road, traffic volumes, and pedestrian conditions in general. Overland also serves a significant portion of Culver City's senior population, including the Senior Center and private-assisted living residences. Overland tied with Braddock as the #1 pedestrian project, scoring 22 out of a total 24 points in the priority ranking process.	• At Culver - Move light/ped actuator closer to ramp. Split ramps • At Culver - Increase crossing distance time/pedestrian lead time • At Braddock – Covered bus shelter • At Washington - Higher visibility crosswalks • At Washington – Install pedestrian countdown • At Washington - Upgrade pedestrian actuators to latest approved designs **Cost Estimate: $18,900**



Site Photo: Overland Avenue and Culver Boulevard		Design Guide & Standards
	Overland is a heavily used street by pedestrians and motor vehicles alike. It connects some of Culver City's more bustling civic destinations. To enable expedited crossing by those with mobility impairments, pedestrian crossing actuators could be located closer to the ramp and a split ramp should be provided to shorten the street-crossing distance.	Crosswalks – Design Guide, Section 1.10.11 Pedestrian Countdown Signals – Design Guide, Section 1.11.1 Bus Shelter – Design Guide, Section 1.10.10

Pedestrian Project 3: Expo Light Rail Station Area

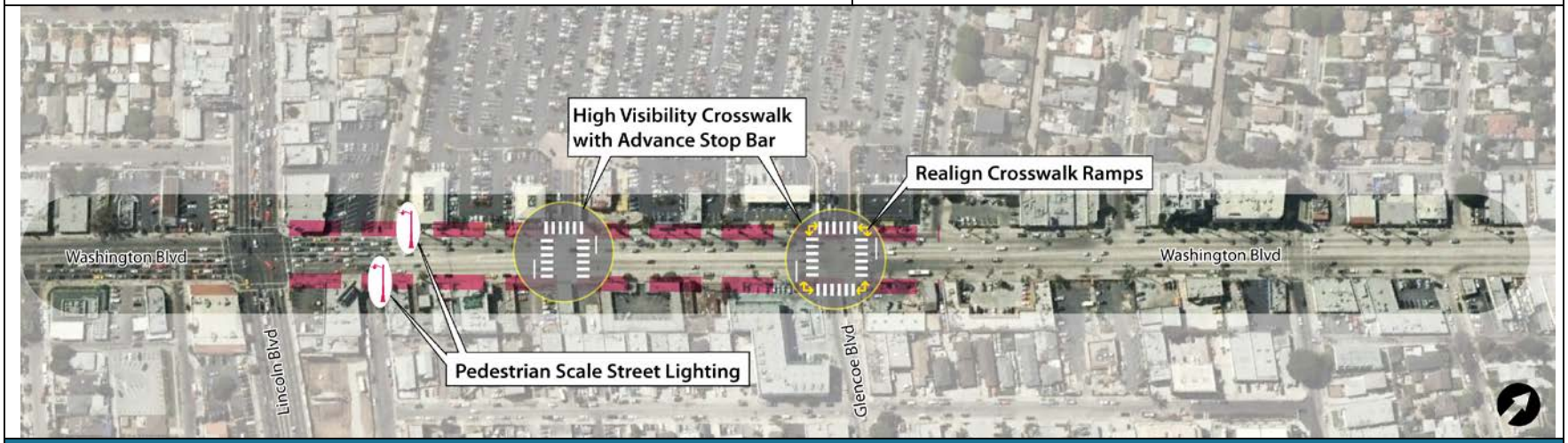
Description of Area and Issues	Potential Improvements and Cost Estimate
The Expo Light Rail Station may quickly become an area with one of the highest concentrations of pedestrian activity in all of Culver City. As the physical landscape changes to accommodate the light rail, Culver City needs to improve the built environment around the station to meet the needs of the pedestrians accessing the station. The Expo Light Rail Station ranked #3 on pedestrian projects, and scored 21 out of a total 24 points in the priority ranking process.	Install signage, wayfinding, and high visibility crosswalks up to ¼ mile radius from the Expo Light Rail Station to encourage/promote pedestrian connectivity to the Station **Cost Estimate: $14,650*** **Includes signage, wayfinding, and crosswalks*

Design Guide & Standards

Crosswalks – Design Guide, Section 2.5 Signage – Design Guide, Section 1.5.5

Pedestrian Project 4: *Costco* Shopping Area

Description of Area and Issues	Potential Improvements and Cost Estimate
The *Costco* shopping area has the highest concentration of bicycle and pedestrian collisions as reported through the years 2002-2007 (SWITRS). The area includes *Albertsons*, *In-N-Out*, and *Starbucks* and commercial corridor. The *Costco* shopping area represents the western-most border of Culver City, terminating just half a block from Lincoln Boulevard. Improvements to the pedestrian environment in this area will help mitigate the effect of high traffic volumes along this portion of Washington Boulevard. The *Costco* shopping area ranked #4 on pedestrian priority areas and scored 20 out of a total 24 points in the priority ranking process.	• Re-align ramps to coincide with crosswalks. • Consider separate pedestrian crossing signal • Establish high visibility crosswalk • Install pedestrian-scale street light • Install advanced stop bar at Glencoe and west shopping center entrance **Cost Estimate: $65,000**



Design Guide & Standards		
Crosswalks – Design Guide, Section 1.10.11	Street Lighting - Design Guide, Section 1.10.9	Curb Ramps – Design Guide, Section 1.11.4

Pedestrian Project 5: Washington Boulevard: Walnut Avenue to Fairfax Avenue

Description of Area and Issues	Potential Improvements and Cost Estimate	
Washington Boulevard is the longest arterial road in Culver City and connects many important destinations, such as Downtown, the Expo Light Rail Station, *Costco*, etc. As a major arterial, its intersections are frequently wide, which may create crossing challenges for some pedestrians. Pedestrian crossings can be improved with several options, including modifying signal phases. Though generally not used for traffic efficiency, in high pedestrian areas "automatic green" may be explored after traffic engineering analysis. Field review found a great need for continued maintenance and debris removal. Some sections of Washington Boulevard are undergoing separate review/update through the Culver City Redevelopment Agency to become more pedestrian oriented. Washington Boulevard ranked #5 among all pedestrian projects and scored 19 out of a total 24 points in the priority ranking process.	*At Sony Studios:* • Explore placing planter boxes to provide buffer in between street trees from vehicular traffic *At Washington Place and Tilden* • Increase crossing time *At Sepulveda* • Curb extension • Pedestrian lead times on crossing	*At Inglewood* • Widen curb ramps and realign crosswalks with ramps • Improve pavement *At Centinela* • Repair pavement • Add additional signage **Cost Estimate: $17,300**

Design Guide & Standards	
Planter Boxes – Design Guide, Section 1.10.5	Curb Ramps – Design Guide, Section 1.11.4

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6.6 Second Tier Projects

This section summarizes lower-priority projects included in the Bicycle and Pedestrian Master Plan. The City can implement these improvements upon completing the Tier 1 projects or if provided the opportunity and funding.

6.6.1 Bikeway Projects

Helms Avenue

Helms Avenue is a Proposed Bicycle Friendly Street between Washington Boulevard and the Expo Bike Path. This small segment of the bikeway network will connect the sharrows on Washington Boulevard with the Expo Bike Path and the Ballona Creek Bike Path.

Sepulveda Boulevard

Sepulveda Boulevard will become a bike route between Jefferson Boulevard/Playa Street and Centinela Avenue. The City will add sharrows along Sepulveda Boulevard from Jefferson Boulevard/Playa Street to Venice Boulevard (within City limits) where allowed by CaMUTCD, e.g. segments within allowable speed limits with on-street parking. Sepulveda Boulevard is a major arterial that connects to some of Culver City's most prominent commercial areas and recreational opportunities. Current conditions make it a more viable option for confident bicyclists.

Culver Boulevard

Culver Boulevard will become a bike route between Huron Avenue and Overland Avenue, and from Duquesne Avenue to Washington Boulevard. Culver Boulevard will add sharrows between Overland Avenue and Duquesne Avenue. Currently, Culver Boulevard serves bicyclists along the Culver Boulevard Bike Path (on the median east of Elenda Street and west of Sawtelle Boulevard). This bike route will serve as an extension of that Path.

Higuera Street

Higuera Street is a Proposed Bicycle Friendly Street between Washington Boulevard and Jefferson Boulevard. Higuera will act as an important connector between the popular Washington and Jefferson Boulevard arterials, the Ballona Creek Bike Path, and Expo Light Rail Transit Station. Higuera currently features some elements of traffic calming and plays a small part of the proposed connection between East Culver City, the Expo Bike Path, and Downtown.

Wesley Street

Wesley Street is a Proposed Bicycle Friendly Street between National Boulevard and Higuera Street. Wesley is an important connector between East Culver City, the Expo Bike Path, and Downtown Culver City. During the school year, Wesley sees increased car traffic in the mornings and afternoons from student drop-off and pick-up, resulting in car queuing. At other times of day, Wesley is a low-volume street and ideal for bicyclists looking to avoid Washington, National, and Culver Boulevards.

Van Buren Place

Van Buren Place is a Proposed Bicycle Friendly Street between A Street and Lucerne Avenue. Van Buren is a part of a one-way couplet with Irving Place that enables bicycle and pedestrian traffic between Downtown, East Culver City, and the Ballona Creek Bike Path. This route serves as an alternative route for individuals wishing to travel on roads with lower vehicle volumes.

Sawtelle Boulevard

Sawtelle Boulevard will add sharrows and bike lanes between Venice Boulevard and Overland Avenue. Sawtelle Boulevard is a secondary arterial that connects to Braddock Drive, the Culver City terminus of the Culver Boulevard Bike Path and the Ballona Creek Bike Path (in the City of Los Angeles).

Duquesne Avenue

Duquesne Avenue will add sharrows between Braddock Drive and Jefferson Boulevard. This corridor serves as a primary way for cyclists to move to and from the Ballona Creek Bike Path, Downtown, and to those accessing West LA College and Culver City Park.

Playa Street

Playa Street will become a bike route as it extends south from Overland Avenue to Slauson Avenue. This corridor accesses residential and commercial areas.

National Boulevard

National Boulevard will receive a Class I bike path as a part of the Expo Light Rail Transit project. The street will become a bike route from Washington Boulevard to Wesley Street, and will accommodate a bike lane between Washington Boulevard and Venice Boulevard. As the Expo project develops, National Boulevard will be a critical right of way for bicyclists, as it connects the Expo Bike Path to the Venice Boulevard Bike Lane, serving much of West Los Angeles, Santa Monica and Culver City.

Slauson Avenue

Slauson Avenue is a Proposed Bicycle Friendly Street between Jefferson Boulevard and McDonald Street. This portion of Slauson will serve as a residential route for the surrounding neighborhood.

Centinela Avenue

Centinela Avenue will add sharrows between Washington Place and Washington Boulevard, which will connect its two limits while providing accessibility to neighboring residential and commercial areas. As a major arterial within the region, placing sharrows on this section of Centinela may encourage the City of Los Angeles to install bicycle facilities in their jurisdiction. Centinela Avenue will be a bike route from Mesmer Avenue to south of Bristol Parkway, and will receive a bike lane from south of Bristol Parkway to Green Valley Circle. This segment connects to activity centers and a transit hub.

Irving Place

Irving Place is a Proposed Bicycle Friendly Street as a one-way street between Lucerne Avenue and Culver Boulevard. The street will move cyclists from the Ballona Creek Bike Path via Duquesne Avenue to Downtown Culver City. Irving experiences increased traffic volumes during student drop-off and pick up at Linwood Howe Elementary School. Irving Place is also the terminus of Culver City's longest Proposed Bicycle Friendly Street, Braddock Drive.

Washington Place

Washington Place will add a bike lane between Washington Boulevard and Albright Avenue (east end) and Washington Boulevard and Grandview Boulevard (west end). Washington Place is a corridor that essentially parallels Washington Boulevard, but traveling in a more direct route. This makes it a desirable alternative route for those travelling along the Washington Boulevard corridors and between east-west Culver City.

Harter Avenue

Harter Avenue is a Proposed Bicycle Friendly Street between the south city limit and Washington Boulevard. The road provides access to schools, the Culver Boulevard Bike Path, the Ballona Creek Bike Path via Sepulveda Boulevard, and Tellefson Park. At its intersection with Washington Boulevard, Harter Avenue continues north and becomes Tilden Avenue This intersection will require improvements for the route to be a viable cross town option. Linking to the bike lane on Venice Boulevard is important for regional bikeway connectivity.

Huron Avenue

Huron Avenue is a Proposed Bicycle Friendly Street between Braddock Drive and Venice Boulevard. The road connects to many major arterials and allows access to the Culver Boulevard Bike Path. At Washington Boulevard, the Huron Avenue Bicycle Friendly Street will require intersection improvements to facilitate north/south bicyclist movement.

Green Valley Circle

Green Valley Circle will add a bike lane between Centinela Avenue and Sepulveda Boulevard. This bike lane allows bicyclists to avoid Centinela Ave when accessing the newly refurbished Westfield Culver City shopping area and Westfield Culver City Transit Center.

Fox Hills Drive

Fox Hills Drive is a Proposed Bicycle Friendly Street between Hannum Avenue and Green Valley Circle. This small Bicycle Friendly Street will provide signage and bikeway access to the Westfield Shopping center and Westfield Culver City Transit Center.

Elenda Street

Elenda Street is a Proposed Bicycle Friendly Street between Washington Boulevard and Farragut Drive. Elenda is the primary bikeway providing access to Culver High School, Culver Middle School, and Farragut Elementary School. Elenda also provides bikeway proximity to the Culver Boulevard Bike Path.

Lucerne Ave

Lucerne Avenue is a Proposed Bicycle Friendly Street between Higuera Street and Duquesne Avenue. Lucerne is a low-volume street and is part of a series of other low-volume streets providing an alternative to Washington and Culver Boulevards between East Culver City and Downtown.

6.6.2 Pedestrian Projects

Culver Boulevard

Culver Boulevard will receive the Pedestrian Corridor designation between Sawtelle Boulevard and Washington Boulevard. This roadway passes by the Culver Boulevard Bicycle Path, Veterans Memorial Park, Sony Studios, and Downtown Culver City.

Elenda Street / Girard Avenue

Elenda Street / Girard Avenue will receive the Pedestrian Corridor designation between Venice Boulevard and Farragut Drive. At its north end. These streets provide north-south access from Venice Boulevard, Washington Boulevard, and Culver Boulevard to La Ballona Elementary School to the north, and the tri-schools area (Culver High School, Culver Middle School, and Farragut Elementary School to the south.

Irving Place/Van Buren Place

Irving Place/Van Buren Place will receive the Pedestrian Corridor designation between A Street and Lucerne Avenue. These corridors will receive sidewalk maintenance, a high visibility crossing, and appropriate traffic calming treatment added at Linwood Howe Elementary School, subject to traffic engineering analysis. These recommendations come as a collaborative effort through a separate Safe Routes to School planning process.

Downtown Culver City

Downtown Culver City will receive the Pedestrian Area designation between Madison Avenue and Main Street. As the primary pedestrian destination in Culver City, Downtown will continue to undergo continued study for potential improvements to pedestrian friendliness and accessibility.

Farragut Drive

Farragut Drive will receive the Pedestrian Corridor designation between Duquesne Avenue and Elenda Street. Farragut Drive provides direct access from Duquesne Avenue to Culver City High School, Culver City Middle School, and Farragut Elementary School along a low-volume street.

Sepulveda Boulevard

Sepulveda Boulevard will receive the Pedestrian Corridor designation between Venice Boulevard and Jefferson Boulevard/Sawtelle Boulevard. The Sepulveda Corridor provides access to community servicing businesses.

Huron Avenue

Huron Avenue will receive the Pedestrian Corridor designation between Venice Boulevard and Braddock Drive. Huron Avenue provides a controlled pedestrian crossing with Culver Boulevard, which benefits students walking from nearby school.

Sawtelle Boulevard

Sawtelle Boulevard will receive the Pedestrian Corridor designation between Venice Boulevard and Braddock Drive. Sawtelle Boulevard serves as a lower-volume alternative to Sepulveda Boulevard.

Washington Place

Washington Place will receive the Pedestrian Corridor designation between Albright Avenue and Washington Boulevard. This corridor provides access to Tellefson Park, residential areas, and commercial areas.

Wesley Street

Wesley Street will receive the Pedestrian Corridor designation between National Boulevard and Higuera Street. Wesley Street provides an alternative route to Washington Boulevard. Via other streets, Wesley provides the most direct pedestrian access from East Culver City to Culver City High School, Culver City Middle School, and Farragut Elementary School.

Lucerne Avenue

Lucerne Avenue will receive the Pedestrian Corridor designation between Higuera Street and Duquesne. Standard improvements include signage and sidewalk improvements.

The *Target/Bed, Bath & Beyond* Shopping Area

The *Target/Bed, Bath & Beyond* Shopping Area (Jefferson/Sepulveda Boulevards) will receive the Pedestrian Area designation between Kinston Avenue and Playa Street. This extended area needs pedestrian enhancements to promote walking from and to the adjacent residential neighborhoods and between commercial businesses.

Jefferson Boulevard and Overland Avenue Intersection

The public identified the Jefferson Boulevard at Overland Avenue intersection as requiring specific attention for pedestrian enhancements. This Plan will evaluate that the intersection for opportunities to enhance pedestrian convenience.

6.7 Third Tier Projects

This section summarizes the lowest-priority projects included in the Bicycle and Pedestrian Master Plan. The City can implement these improvements upon completing the Tier 1 and Tier 2 projects, or if provided the opportunity and funding.

Hannum Avenue

Hannum Avenue is a Proposed Bicycle Friendly Street between Sawtelle Boulevard and Playa Street. At its intersection with Playa, improvements to the current cul-de-sac permit through-traffic for bicycle connection and include a bicycle/pedestrian actuator. South of Playa Street, Hannum becomes a bike route until the State Route 90 freeway overpass, after which it will have either bike lanes or sharrows based on the road configurations. Hannum serves commercial, residential, and school-bound traffic.

Kinston Avenue

Kinston Avenue is a Proposed Bicycle Friendly Street between Rhoda Way and Flaxton Street. The Kinston Avenue bikeway takes advantage of a current cul-de-sac with bollards that restricts vehicle movement at its intersection with Flaxton Street. Currently, the bollards permit pedestrian through traffic, but need retrofitting to facilitate bicyclists moving eastward on Flaxton Street. To the south the road connects to El Rincon Elementary School and Blanco Park. The recreational path at Blanco Park is currently closed during school hours.

Bristol Parkway

Bristol Parkway will become a bike route between Slauson Avenue and Centinela Avenue. This road accesses several shopping centers and connects with public transit service.

Madison Avenue

Madison Avenue is a Proposed Bicycle Friendly Street between Washington Boulevard and Farragut Drive. This short bikeway will connect two of Culver City's most important arterial roads (Washington and Culver Boulevards) and neighborhood connectors (Braddock Drive) with the Bicycle Friendly network.

Rhoda Way

Rhoda Way is a Proposed Bicycle Friendly Street between Cota Street and Ocean Drive. Rhoda Way provides residential connectivity to the Ballona Creek Bike Path and Lindberg Park.

Hayter Avenue

Hayter Avenue is a Proposed Bicycle Friendly Street between Berryman Avenue and Sawtelle Boulevard. This short segment provides access to El Marino Elementary School and connects to an I-405 freeway crossing at Port Road.

Cota Street

Cota Street is a Proposed Bicycle Friendly Street between Ocean Drive and Jefferson Boulevard. Cota Street provides residential connectivity to the Ballona Creek Bike Path, Lindberg Park, and the *Target/Bed Bath & Beyond* commercial shopping area.

Lenawee Drive

Lenawee Drive is a Proposed Bicycle Friendly Street between Rodeo Road and Wrightcrest Avenue. The road passes through a residential and industrial area, and serves as a lower-volume alternative route to La Cienega Boulevard. Lenawee Drive provides access to Blair Hills Park via Wrightcrest Drive.

Wrightcrest Drive

Wrightcrest Drive is a Proposed Bicycle Friendly Street between Lenawee Drive and Blair Hills Park. The road passes through a residential road and provides access to the park.

McDonald Street

McDonald Street is a Proposed Bicycle Friendly Street between Emporia Avenue and Sawtelle Boulevard. McDonald Street serves the residential neighborhood by connecting to Slauson Avenue and the Sawtelle Boulevard Bikeways.

Buckingham Parkway

Buckingham Parkway will add a bike lane between Hannum Avenue and Green Valley Circle. This bike lane provides nearby residential access to Fox Hills Park, Westfield Shopping Area, and the Westfield Culver City Transit Station.

Flaxton Street

Flaxton Street is a Proposed Bicycle Friendly Street between Overland Avenue and Kinston Avenue. Flaxton picks up from the Kinston cul-de-sac planned for improvements, which will allow cyclists to make the through-movement to Overland Avenue, or south on Kinston towards Blanco Park.

Reid Avenue

Reid Avenue is a Proposed Bicycle Friendly Street between Washington Boulevard and Syd Kronenthal Park. This short bikeway will connect the recommended sharrows on Washington Boulevard with the park, the Expo Bike Path and Ballona Creek Bike Path.

Girard Avenue

Girard Avenue will become a bikeway continuation of the Elenda Street Bicycle Friendly Street. Extending Elenda through Washington Boulevard will provide important connectivity from the Venice Boulevard bike lane to Culver High School and Middle School. This route also serves La Ballona Elementary school, making it a valuable bikeway for parents and students going to school by bicycle.

Malat Way

Malat Way is a Proposed Bicycle Friendly Street between Sawtelle Boulevard and Bush Way. This short, one block route provides route connectivity. Malat Way will become an alternative route to the Sepulveda Boulevard and Overland Avenue bikeways when the Blanco Park Bike Path opens to the public during non-school hours.

Ocean Drive

Ocean Drive is a Proposed Bicycle Friendly Street between Cota Street and Overland Avenue. Ocean Drive provides residential access to Lindberg Park and the Ballona Creek Bike Path.

Jacob Street

Jacob Street is a Proposed Bicycle Friendly Street between Helms Avenue and Reid Avenue. This is a residential alternative for bicyclists who do not want to travel along Washington Boulevard. Jacob Street will provide secondary access to the Expo Bike Path.

A Street

A Street will add a bike lane between Irving Place and Van Buren Place. A Street is a short one-way connector between Irving and Van Buren, which run in opposite directions.

Adams Boulevard

Adams Boulevard will become a bike route from the north city limit to Fairfax Avenue. This short segment provides regional bikeway connectivity for cyclists between Culver City and the City of Los Angeles.

Matteson Avenue

Matteson Avenue is a Proposed Bicycle Friendly Street between Tilden Avenue and Girard Avenue. This short bikeway will serve parents and students accessing La Ballona Elementary School and provide neighboring residential neighborhood a short alternative to Washington Boulevard.

McLaughlin Avenue

McLaughlin Avenue is a Proposed Bicycle Friendly Street from its extents at the City's north and south limits. This short segment is a part a cooperative effort between Culver City and the City of Los Angeles to provide regional bikeway connectivity for cyclists.

Bush Way

Bush Way is a Proposed Bicycle Friendly Street between Malat Way and Hannum Avenue. Bush Way is a short connector for bicyclists traveling on Hannum Avenue and is an alternate connection between Sepulveda Boulevard and Overland Avenue.

Canterbury Drive

Canterbury Drive is a Proposed Bicycle Friendly Street between Hannum Avenue and Green Valley Circle. This bikeway connects the multi-family residential neighborhood with the larger city network via Green Valley Circle and Hannum Avenue.

Tilden Avenue

Tilden Avenue is a Proposed Bicycle Friendly Street between Washington Boulevard and Venice Boulevard. This bikeway provides a low volume alternative to Sepulveda Boulevard.

Segrell Way

Segrell Way is a Proposed Bicycle Friendly Street between Sawtelle Boulevard and Slauson Avenue. Segrell provides residential connectivity to El Marino Elementary School and is a low-volume alternate route to a segment of Sepulveda Boulevard.

6.8 Bicycle End-of-Trip and Intermodal Facilities

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

The City has either installed or is in the process of installing bike parking, including bike racks along the Downtown corridor. Moving forward, the City will place bike parking at the following high-priority locations:

- Metro Exposition Line Rail Station
- Westfield Culver City Transit Center station
- Parks
- Schools
- Commercial/office areas
- Civic/government buildings
- Public transit stations

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

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

Appendix 3 contains a technical memorandum that presents an initial concept design for installing bicycle parking in Downtown Culver City.

7 Enforcement, Education and Awareness Programs

Creating a city that supports and encourages its residents to bicycle and walk involves more than just infrastructure and amenity improvements. This chapter contains a discussion of enforcement, education and awareness policies and programs for Culver City.

The programs and policies discussed in this chapter require additional funding for implementation, as they are supplemental to the current City budget. Furthermore, staff cannot currently support these endeavors, and so these efforts must happen primarily through volunteers or supported through other means, such as grant funding. In some cases, these programs may expand the role of City staff if policies and programs fall within their purview upon implementation. Either current staff may take on more responsibilities or the City must hire additional staff to address the additional workload.

7.1 Enforcement Programs

Motorists, pedestrians and bicyclists alike are sometimes unaware of each other's rights as they travel city streets. Educating the public through enforcement policies will supplement the physical improvements made in Culver City. The California Vehicle Code (CVC), as enforced by the CCPD, protects pedestrians and bicyclists in the public right-of-way. For a review of Culver City Municipal Code (CCMC) affecting bicyclists and pedestrians, please refer to the existing conditions discussion in Chapter 3.

Targeted Enforcement

Targeted enforcement action along streets should focus on areas with high volumes of bicycle, pedestrian, and other non-motorized traffic (e.g. Downtown, Ballona Creek Bike Path, East Washington Boulevard and Culver Boulevard Bike Path, etc.). Law enforcement efforts could target locations where motorists and the public will become aware of bicycle/pedestrian laws and their penalties for violations.

Bicycle Patrol Unit

Culver City may explore with CCPD, local businesses and neighborhood groups opportunities to establish local Bicycle Patrol Units. Culver City's size and topography make many parts of it highly accessible by bicycle. A Bicycle Patrol Unit could be an official law enforcement unit, a private security guard patrol, or an expanded volunteer program. Bicycles are an excellent community-policing tool, as the public views officers on bikes as more approachable, thus improving trust and relations between the citizens and police.

Bicycle Patrol Units can work closely with citizens to address concerns before they become problems. Bicycle Patrol Units can have a direct impact on bicycle safety by enforcing bicycle traffic laws (e.g. wrong-way riding, sidewalk riding, obeying traffic controls, children wearing helmets, etc.), and providing bicycle safety education.

Portland bicycle patrol officer

Speed Limit Enforcement

Participants at the second public workshop expressed concern about high motor vehicle speeds. City staff can work with police to enforce speed limits on designated streets with bikeways, near schools, and in response to bicyclist/pedestrian complaints. This increases safety and may reduce crashes, which improves walking and bicycling conditions.

Speed Radar Trailer/Permanent Speed Signs

Speed Radar Trailers can help reduce speeds traffic and may help enforce speed limits in areas with speeding problems. Police set up an unmanned trailer that displays the speed of approaching motorists along with a speed limit sign. Speed trailers may be effective on busier arterial roads without bikeway facilities (Washington Boulevard, Jefferson Boulevard, Overland Avenue, etc.), or near schools with reported speeding. Speed trailers should be located in a position that mitigates its influence on bicycle traffic when placed on the road.

Speed trailer in use

Speed trailers work as both an educational and enforcement tool. By itself, the unmanned trailer educates motorists about their current speed in relation to the speed limit. As an alternative enforcement measure, the CCPD may choose to station an officer near the trailer to issue citations to motorists exceeding the speed limit. Radar trailers can transport easily to streets where local residents complain about speeding problems. However, motorists may not obey the speed limit without an officer present for enforcement.

Public Works Department staff may provide the management role for this program, working with the public and determine which locations are in most need. Speed trailers can be located randomly, cyclically, or as demand necessitates because of the speed trailers' portability.

7.2 Education Policies & Programs

The following section outlines the variety of education programs that can contribute to a bicycle and pedestrian community.

7.2.1 Child/School-based Education Programs

School-based bicycle and pedestrian education programs teach students about the rules of the road, proper use of bicycle equipment, bicycling skills, street crossing skills, and the benefits of bicycling and walking. These education programs typically receive support from a joint City/school district committee that includes appointed parents, teachers, student representatives, administrators, active bicyclists, CCPD and the Public Works Department. These programs can also incorporate into a Safe Routes to School Program, which Chapter 8 discusses in further detail.

Students participate in a safety exercise

7.2.1.1 Safety Handbook

Safety handbooks are part of a school-based bicycle and pedestrian safety program. These handbooks may include a circulation map of the campus and immediate neighborhood, suggested routes to school, crosswalk and crossing guard locations, signalized intersection locations, bicycle maintenance and use instructions, helmet wear instructions, street crossing instructions, and emergency and school numbers. The City or school district can publish the handbook for use at each school, in conjunction with a school-specific map.

7.2.1.2 Walking School Bus

Parent and neighborhood volunteers can escort children walking to school together in a "Walking School Bus" if parents are uncomfortable allowing their children to walk or bicycle alone to or from school. Children can join the "Walking School Bus" if the home runs along the route or at designated staging areas. The parents offer supervision and protection, and the group size makes the children more visible to traffic. Usually, one parent acts as the organizer and recruits other parents, neighbors, seniors or community volunteers to walk with the children.

Children participate in a walking school bus

As in a motor carpool, the participants need to coordinate schedules and meeting places. Adults and children can wear safety vests or use other means to enhance visibility. Sometimes the adult pulls a wagon to carry the children's books and projects.

Certified Safe Routes to School Instructors can train volunteers. Supplemental training materials are available through the National Safe Routes to School partnership at www.saferoutes.org.

7.2.1.3 Bike Trains

Bike trains work exactly like the Walking School Bus program, but with children on bicycles. Parents and volunteers should select residential and low-traffic volume streets to get to school if sidewalks cannot accommodate multiple children.

7.2.2 Adult Cycling Skills Education

Most bicyclists learn to ride when they are children and do not have the opportunity to learn riding skills or safe road positioning. Adult bike skills training are an excellent way to improve both cyclist confidence and safety.

The League of American Bicyclists developed a comprehensive bicycle skills curriculum considered the national standard for adults seeking to improve their on-bike skills. The classes available include basic and advanced on-road skills, commuting, and driver education. Local League of American Bicyclist Certified Instructors offer "StreetSmarts Cycling" classes that teach participants how to operate a bicycle under various conditions, and about bicyclists' rights and responsibilities. There are currently eleven League-Certified Instructors in the Culver City area. More information on this program is available online at: www.bikeleague.org/programs/education/courses.php.

Other organizations such as the Los Angeles County Bicycle Coalition (LACBC), Cyclists Inciting Change through Live Exchange (CICLE), and Sustainable Streets provide regular training classes that instruct individuals on safe bicycle operations.

7.2.3 Education Campaigns

Motorists have limited education on the rights of bicyclists and pedestrians. Many motorists mistakenly believe that bicyclists do not have a right to ride in travel lanes, and that bicyclists should ride on sidewalks. Education about the rights and responsibilities of pedestrians and cyclists can include:

- Incorporating bicycle and pedestrian safety into traffic school curriculum
- Producing a brochure on bicycle and pedestrian safety and laws for public distribution
- Instructing of law enforcement officers on laws that pertain to bicyclists
- Providing bicycle and pedestrian awareness training for all City staff who work within the public right-of-way
- Working with contractors, subcontractors and city maintenance and utility crews to ensure they understand the needs of bicyclists and pedestrians and follow standard procedures when working on or adjacent to roadways and walkways

Additional resources for a police education course include:

- www.bicyclinginfo.org/enforcement/training.cfm
- www.massbike.org/police

7.3 Awareness & Encouragement Programs

Awareness and encouragement programs play a critical role in growing bicycling and pedestrian activity in a city. The programs listed in the following section will help walking and bicycling grow in Culver City.

7.3.1 Share the Road Education Campaign

One main request from the public is for more motorist education on bicyclists and pedestrians' rights to the road. A Share the Road campaign educates motorists, bicyclists and pedestrians about their legal rights and responsibilities on the road, and the need for increased courtesy and cooperation among all users.

Share the Road campaigns often hold periodic traffic checkpoints along roadways with concentrated bicycle and pedestrian activity. Motorists, bicyclists and pedestrians stop at these checkpoints to receive a Share the Road flyer and can give feedback to officers regarding the campaign. Checkpoints can also occur along local bikeways and paths. Public service announcements on radio and television can help promote the Share the Road campaign.

The Marin County Bicycle Coalition offers an example of a successful Share the Road campaign at www.marinbike.org/Campaigns/ShareTheRoad/Index.shtml.

7.3.2 Bike Light Campaign

California Vehicle Code (CVC) §21201 requires bicycles to mount a front white light and red rear reflectors. Bicycle lights are more visible than reflectors at night. A Bike Light campaign in Culver City could promote cooperation with the CVC and increase safe riding habits.

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

Portland, Oregon developed a "See and Be Seen" public safety campaign to encourage bicyclists to use lights and to remind motorists to watch for bikes. Campaign elements included coupons for bike lights and other reflective gear, and a parade to celebrate bright bikes. More information on Portland's program is available at:

www.portlandonline.com/transportation/index.cfm?&c=deibb&a=bebfjh.

7.3.3 Bike-to-Health Campaign

The BPMP aims to support healthier lifestyles by encouraging and enabling bicycling and walking. Obesity and sedentary lifestyles are on the rise for both adults and children in America, and one way to combat this is to integrate daily exercise into the American lifestyle.

A Bike-to-Health marketing campaign may include:

- Websites with information on getting started, event calendars, advice from health professionals, and safety information for adults and children
- Print ads in community newspapers to increase the exposure of the campaign
- Community events and rides. These rides occur during the summer and early fall months. Participants earn prizes and attain better health through reaching mileage goals. Campaigns encourage families to bike to better health together.

7.3.4 Event Bicycle Parking

Providing safe and secure bicycle parking helps encourage individuals to bicycle. Many individuals during the public input process expressed interest in seeing a "bike valet" program at Culver City events. San Francisco passed a city ordinance that requires all major city events to provide bike parking and pioneered an innovative tool for stacking hundreds of bicycles without racks (www.sfbike.org/?valet). Culver City should consider temporary bicycle parking for events with expected large attendance and at regularly occurring events like the Farmer's Market.

Bike valets provide safe parking and advertise bicycling to events

7.3.5 Community Bikeway/Walkway Adoption

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

7.3.6 Multi-Modal Access Guide

A multi-modal access guide provides information on accessing specific destinations using bicycling, walking and public transit. Simple access guides are maps printed on the back as a business card, or while complex guides can be multi-page packets distributed to employees. Items commonly included in access guides are:

- An area map depicting bus stops, recommended walking and bicycling routes, landmarks, facilities such as restrooms and drinking fountains, bicycle and vehicle parking, and major roads
- Information on transit service, including frequency, fares, accepted payment methods, first and last runs, schedules, and contact information for transit service providers and taxis
- Information on walk or bike travel time from a transit center to a destination
- Accessibility information for people with disabilities
- Wayfinding and local advertisements

Best practices include using graphics, providing specific step-by-step travel directions, providing parking location and pricing information, and providing information about the benefits of walking and bicycling. High quality access guides should be concise and accurate, and incorporate input from key stakeholders including public transportation operators, public officials, public and private employees, guide distributors, and those with disabilities.

7.3.7 Ciclovias/ "Sunday Streets"

First implemented in Bogota, Colombia, the Ciclovia is a community event based around a street closure. Ciclovias provide local recreational and business opportunities for the community and are increasingly popular citywide events. Ciclovias can combine with other popular community events to promote walking and bicycling as a form of viable transportation. The public workshops discussed Ciclovias several times and participants requested holding Ciclovias during the public input process.

Inaugural CicLAvia in Los Angeles, October 10, 2010

Ideally, Ciclovias should provide access to civic, cultural, or commercial destinations. Culver Boulevard may be an ideal candidate for a Ciclovia.

More information is available at:
www.healthystreets.org/pages/sunday_parkways.htm

7.3.8 Community Walks/Bike Tours

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

Example bicycle and pedestrian signage

7.3.9 Bicycle & Pedestrian Signage Program

Discussed earlier in this Plan, Culver City should develop a uniform signage concept and plan for on/off-street bikeways and pedestrian corridors. The Plan should include uniform sign design(s), placement guidelines (where and how often), and a map of proposed bikeways and corridors to receive signage, and guides on avoiding places too many signs or "sign clutter."

Culver City can support individuals choosing to make non-motorized trips within Culver City by advertising routes and destinations to bicyclists and pedestrians. Signage posted along bikeways and pedestrian corridors should advertise linkages to popular destinations, and be in harmony with other Culver City signage

standards. Sign placement should be strategic and thoughtful to have the greatest impact and to avoid the "clutter" of over-signing.

7.3.10 Ballona Creek Bike Path Volunteer Program

The Ballona Creek Bike Path is a valuable public resource. Some Culver City residents expressed concern about the Path's safety. Path volunteers are one way to improve Path safety. These trained volunteers would station at access points or ride along the Path in a non-enforcement role, providing information to the public. Path volunteers could station at access points during peak-use, typically weekends and holidays.

The goals of the Path volunteers should include:

- Educating users on sharing the Path
- Providing information on Path resources in the area
- Maintaining proper Path conditions by informing responsible agencies of hazards
- Acting as a crime deterrent by observing Path activity

Toronto's Trail Ambassadors program provides helpful information for developing this program: www.toronto.ca/cycling/ratsa/index.htm.

Bicyclist along the Ballona Creek Path

8 Funding

8.1 Funding Sources

A variety of federal, state, and local sources can provide funding for the recommended projects and programs identified in the BPMP. Staff will need to apply for these grants. **Table 8-3** provides additional information about the following funding sources:

8.1.1 Federal

Land & Water Conservation Fund (LWCF)

The LWCF program provides matching grants to State and local governments for the acquisition and development of public outdoor recreation areas and facilities. The program aims to create and maintain a nationwide legacy of high quality recreation areas and facilities, and to stimulate non-federal investments in the protection and maintenance of recreation resources. The LWCF could fund Ballona Creek-adjacent bicycle facilities.

Petroleum Violation Escrow Account (PVEA)

PVEA funds come from fines paid by oil companies in the 1970's for violating oil price caps set by the federal government. The Department of Energy's State Energy and Weatherization Assistance Program distributes the money at the state level through grants. PVEA funds projects with an emphasis on energy saving, including public transportation and bridge construction or maintenance. PVEA funds could assist with building the Ballona Creek bridges.

Safe Routes to School (SRTS) Program

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

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

A minimum of 70 percent of each year's apportionment is available for infrastructure projects, with up to 30 percent for non-infrastructure projects.

Infrastructure Projects

Infrastructure projects are engineering projects or capital improvements that improve safety and the ability of students to walk and bicycle to school. They typically involve the planning, design, and construction of facilities within a two-mile radius of a grade school or middle school. The maximum funding cap for an infrastructure project is $1 million. California Department of Transportation (Caltrans) does not set minimum caps. The project cost estimate may include eligible direct and indirect costs. Direct costs include the cost of construction and materials. Indirect costs may include salaried employees or staff time allotted to the project.

Infrastructure projects should directly support increased safety and convenience for K-8 children to walk and bicycle to school, including children with disabilities.

Eligible projects include:

- Bicycle projects such as new bicycle trails and paths, bicycle racks, bicycle lane striping and widening, new sidewalks, widened sidewalks, sidewalk gap closures, curbs, gutters, and curb ramps
- Pedestrian projects such as new pedestrian trails, paths, and pedestrian over and under crossings, roundabouts, bulb-outs, speed bumps, raised intersections, median refuges, narrowed traffic lanes, lane reductions, full or half-street closures, and other speed reduction techniques
- Traffic control devices such as new or upgraded traffic signals, crosswalks, pavement markings, traffic signs, traffic stripes, in-roadway crosswalk lights, flashing beacons, bicycle-sensitive signal actuation devices, pedestrian countdown signals, vehicle speed feedback signs, and pedestrian activated upgrades

Non-Infrastructure Projects

Non-infrastructure projects are education/encouragement/enforcement activities intended to change community behavior, attitudes, and social norms to make it safer for children in grades K-8 to walk and bicycle to school. Non-infrastructure projects should increase the likelihood of programs becoming institutionalized once in place. The application for a non-infrastructure project must be clearly state the deliverables and the final invoice or Progress Report must attach tangible samples, e.g., sample training materials and promotional brochures. The funding cap for a non-infrastructure project is $500,000. Multi-year funding allows the applicant to staff up and deliver their project over the course of four (4) years, thereby reducing overhead and increasing project sustainability.

Non-infrastructure projects must fall into one or more of the following categories:

- **Education** – Teaching children about the broad range of transportation choices, instructing them in important lifelong bicycling and walking safety skills, and launching driver safety campaigns near schools
- **Enforcement** – Partnering with local law enforcement to ensure traffic laws compliance nears schools (this includes enforcement of speeds, yielding to pedestrians in crossings, and proper walking and bicycling behaviors), and initiating community enforcement such as crossing guard programs or pedestrian right-of-way sting programs
- **Encouragement** – Using events and activities to promote walking and bicycling

- **Evaluation** – Monitoring and documenting outcomes and trends by collecting data before and after the intervention(s)
- **Engineering** – Creating improvements near schools to reduce speeds, alleviate conflicts with motor vehicle traffic, establish safer and fully accessible crossings, and provide walkways, trails and bikeways

Note: While typical non-infrastructure projects fall under one or more of the top four E's listed above, some non-infrastructure activities may involve design. For that reason, Engineering is included as the fifth E above.

Eligible projects may target a single local school or school district, or an entire State. The most effective non-infrastructure activities occur within the framework of a community coalition. Thus, the Plan strongly supports establishing a SRTS community coalition. A community coalition begins by convening community stakeholders at a walkable/bikeable Community Workshop. The coalition works to pursue concrete steps to make the community more walkable and bikeable. The workshop serves as the impetus to bring together key partners, including schools, elected officials, local government, parks and recreation, law enforcement, emergency services, public health, business owners, residents, advocacy groups and other organizations. Participants in the community coalition design and implement a Plan that incorporates the five Es.

Transportation, Community, and System Preservation Program (TSCP)

Implementation grants under the TCSP Program provide financial resources to States, metropolitan planning organizations, local governments and tribal governments to enact activities that address transportation efficiency, while meeting community preservation and environmental goals. Policy and program examples include spending policies that direct funds to high-growth regions; urban growth boundaries to guide metropolitan expansion; and "green corridor" programs that provide access to highway corridors in areas targeted for efficient and compact development.

Recreational Trails Program (RTP)

The Recreational Trails Program provides funds to states to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. Examples of trail uses include hiking, bicycling, in-line skating, equestrian use, and other non-motorized as well as motorized uses.

Recreational Trails Program funds may be used for:

- Maintenance and restoration of existing trails
- Development and rehabilitation of trailside and trailhead facilities and trail linkages
- Purchase and lease of trail construction and maintenance equipment
- Construction of new trails (with restrictions for new trails on federal lands)
- Acquisition of easements or property for trails
- State administrative costs related to this program (limited to seven percent of a State's funds)
- Operation of educational programs to promote safety and environmental protection related to trails (limited to five percent of a State's funds)

8.1.2 State of California

Bicycle Transportation Account-State

The State of California Bicycle Transportation Account (BTA) is an annual statewide discretionary program that funds bicycle projects through the Caltrans Bicycle Facilities Unit. Available as grants to local jurisdictions, the program emphasizes projects that benefit bicycling for commuting purposes. As of 2009, the BTA makes $7.2 million available each year. The local match is a minimum of 10% of the total project cost.

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

- New bikeways serving major transportation corridors
- New bikeways removing travel barriers to potential bicycle commuters
- Secure bicycle parking at employment centers, park-and-ride lots, rail and transit terminals, and ferry docks and landings
- Bicycle-carrying facilities on public transit vehicles
- Installation of traffic control devices to improve the safety and efficiency of bicycle travel
- Elimination of hazardous conditions on existing bikeways
- Planning
- Improvement and maintenance of bikeways

Eligible project activities include:

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

Environmental Enhancement and Mitigation Program (EEMP)

Environmental Enhancement and Mitigation Program Funds support projects that offset environmental impacts of modified or new public transportation facilities. These projects can include highway landscaping and urban forestry projects, roadside recreation projects, and projects to acquire or enhance resource lands. EEMP grant funding supports only mitigating transportation projects beyond mitigation originally required of the project. State gasoline tax monies fund the $10 million EEMP.

Highway Safety Improvement Program (HSIP)

The Highway Safety Improvement Program (HSIP) is a state safety program that funds safety improvements on all public roads and highways. These funds attempt to reduce the number and severity of traffic accidents at improved locations.

Local agencies compete for HSIP funds each year by submitting candidate safety projects to Caltrans for review and analysis. Caltrans prioritizes these projects statewide and releases an annual HSIP Program Plan

that identifies the approved projects. The State disperses funding annually following the federal fiscal year. Approximately $27 million dollars were available in the 2007 funding cycle.

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

Office of Traffic Safety (OTS) Grant

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

The grant cycle typically begins with a request for proposals in October due the following January. In 2006, OTS awarded $103 million to 290 agencies.

Safe Routes to School (SR2S) Program

The State-legislated Safe Routes to School (SR2S) program began in 1999. Since then, seven funding cycles have been completed. The State typically announces the list of awarded projects in the fall.

Although both the federal and state programs have similar goals and objectives, they have different funding sources, local funding match requirements, and other program requirements (see previous section).

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

The SR2S program is primarily a construction program. Construction improvements must occur on public property. Improvements can occur on public school grounds providing the cost is incidental to the overall project cost. Statewide, the program typically provides approximately $25 million annually. The maximum reimbursement percentage for any SR2S project is ninety percent. The maximum amount that SR2S funds to any single project is $900,000.

Eligible project elements include bicycle facilities, traffic control devices and traffic calming measures. Up to ten percent of project funding can go toward outreach, education, encouragement, and/or enforcement activities. The 2009 cycle provided $48.5 million in funding.

TDA Article III (SB 821)

The State of California distributes Transportation Development Act Article 3 funds for application at the county level. Locally, the Los Angeles County Metropolitan Transportation Authority (Metro) administers this program and establishes its policies. Cities can use the funds for planning and constructing bicycle and pedestrian facilities

Fund allocation to cities and the County of Los Angeles occurs on an annual cycle based on population. Local agencies may either draw down these funds or place them on reserve. Agencies must submit a claim form to Metro by the end of the allocated fiscal year. Failure to do so may result in losing the allocated funds.

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

- Engineering expenses leading to construction
- Right-of-way acquisition
- Construction and reconstruction
- Retrofitting existing bicycle and pedestrian facilities, including installation of signage, to comply with the Americans with Disabilities Act (ADA)
- Route improvements such as signal controls for bicyclists, bicycle loop detectors, rubberized rail crossings and bicycle-friendly drainage grates
- Purchase and installation of bicycle facilities, such as secure bicycle parking, benches, drinking fountains, changing rooms, rest rooms and showers which are adjacent to bicycle trails, employment centers, park-and-ride lots, and/or transit terminals (must be accessible to the general public)

8.1.3 Regional

Metro Call for Projects (CFP)

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

Every other year (pending funding availability), Metro accepts Call for Projects (CFP) applications in several modal categories. The Metro Long Range Transportation Plan (LRTP) determines funding levels based on mode share. As of the writing of this Plan, the Call is currently on an odd-year funding cycle with applications typically due early in the odd years (next anticipated call is in 2011). Local jurisdictions, transit operators, and other eligible public agencies may submit applications proposing projects for funding. Metro staff ranks eligible projects and presents preliminary scores to Metro's Technical Advisory Committee, comprised of members of public agencies, and the Metro Board of Directors for approval. Upon approval, SCAG updates and formally transmits the TIP to the Southern California Association of Governments (SCAG) and the California Transportation Commission (CTC). The TIP becomes part of the five-year program of projects scheduled for implementation in Los Angeles County.

The modal categories relevant to the implementation of bicycle projects and programs are Bikeway Improvements, Regional Surface Transportation Improvements (RSTI), Transportation Enhancements Activation (TEA), and Transportation Demand Management (TDM). Typically, funding provided for bicycle improvements include the deferral transportation fund, currently SAFETEA-LU, TDA and CMAQ categories. Some intersection improvements or grade-separated crossing projects in the BPMP may provide an equal or greater benefit to pedestrians. In these cases, the City should consider applying for funding within the Pedestrian Improvements modal category. Wherever possible, BPMP projects should be included as part of larger arterial improvement projects and submitted under the RSTI category.

The following table provides information on each of the relevant modal categories within the Metro Call for Projects as of 2009.

Table 8-1 Metro Call For Projects (Bicycle Related)

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

*Funding estimate is bi-annual (every other year) based on the approved funding from the 2009 Call.
**The discussion of eligible projects is based on 2009 CFP requirements and assumes all eligibility requirements are met and the questions in the Call application are adequately addressed. These requirements are subject to change in future cycles. City staff should refer to the latest Call Application Package for detailed eligibility requirements.

Metro's 2009 Long Range Transportation Plan identifies funding totaling $287 million over the next 30 years in the pedestrian mode through the Call for Projects program. Eligible projects under the Pedestrian Improvements category include pedestrian improvements that promote walking for utilitarian travel, pedestrian safety, and linkages to the overall transportation system.

Table 8-2 Metro Call for Projects (Pedestrian Related)

Modal Category	Share of Funding*	Eligible Projects**
Pedestrian Improvements	8%	Pedestrian improvements that promote walking for utilitarian travel, pedestrian safety, and linkages to the overall transportation system.

*Funding estimate is bi-annual (every other year) based on the approved funding from the 2009 Call.
**The discussion of eligible projects is based on 2009 CFP requirements and assumes all eligibility requirements are met and the questions in the CFP application are adequately addressed. These requirements are subject to change in future cycles. City staff should refer to the latest CFP Application Package for detailed eligibility requirements.

8.1.4 Local

The following section lists fees that Culver City could collect through its discretionary permit process or other local processes:

Vehicle Trip Impact Fees

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

Mello-Roos Community Facilities District Act

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

New Development Impact Fee (CCMC 15.06)

The New Development Impact Fee is assessed on non-residential developments that exceed a certain threshold for increased square footage through new construction or change of use. This fee is used for funding capital improvements.

8.1.5 Private & Non Profit

The following are funding sources capable of supporting bicycle and pedestrian facilities and programs from private and non-profit sources.

Bikes Belong Coalition, Ltd.

The American Bicycle Industry sponsors the Bikes Belong Coalition, which encourages people to ride bicycles throughout the United States. The coalition administers grants of up to $10,000 to develop bicycle facilities through the Federal Transportation Act.

Robert Wood Johnson Foundation (RWJF)

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

8.2 Past Expenditures

The Los Angeles County Metropolitan Transportation Agency (Metro) *Bicycle Transportation Account Compliance Document* (BTA Document, 2006) contains an inventory of existing bikeway facilities, past expenditures, proposed bikeways, and proposed costs for cities within Metro jurisdiction. Table 3 of the BTA Document (pp. 17-21) shows that Culver City has past expenditures of $160,377, which cover 3.16 miles of Class I and 0.45 miles of Class II Bikeways.

Table 8-3 Funding Sources

Granting Agency	Due Date	Fund Source(s)	Annual Funding (approx) 2009	Matching Requirement	Eligible Bikeway Projects			Comments
					Commute	Rec-reation	Safety/Ed	
Land & Water Conservation Fund (LWCF)	May	State DPR	$7.7 m statewide	50%, including in-kind		X		Federally-funded. Projects that acquire and develop outdoor recreation areas and facilities.
Petroleum Violation Escrow Account (PVEA)	On-going	State Legislature	$6m	$5 m		X	X	Bicycle and trail facilities have been funded with this program.
Safe Routes to School - Federal	April	Caltrans	$48.5 m (Nationally)		X	X	X	Infrastructure improvements must be within 2 miles of elementary or middle school.
Transportation and Community and System Preservation Program (TCSP)	Pending	FHWA	$61.25 m		X	X		Projects that improve system efficiency, reduce environmental impacts of transportation, etc.
Bicycle Transportation Account	December	Caltrans	$7.2 m	min. 10% local match on construction	X		X	State-funded. Projects that improve safety and convenience of bicycle commuters.
Environmental Enhancement and Mitigation Program (EEMP)	November	State Resources Agency, Caltrans	$10 m statewide	not required but favored	X	X	X	Projects that enhance or mitigate future transportation projects; can include acquisition or development of roadside recreational facilities.
Highway Safety Improvement Program (HSIP)	December	Caltrans	$50	10%	X		X	Refer to latest Call for Projects Application Package for eligibility requirements.

Table 8-3 Funding Sources

Granting Agency	Due Date	Fund Source(s)	Annual Funding (approx) 2009	Matching Requirement	Eligible Bikeway Projects			Comments
					Commute	Rec-reation	Safety/Ed	
Office of Traffic Safety Grants (OTS)	January	Office of Traffic Safety	$56 m	--			X	Bicycle and pedestrian projects have been funded through this program.
Recreational Trails Program (RTP)	October	TEA	$3 m	20% match		X		For recreational trails to benefit bicyclists, pedestrians, and other users.
Safe Routes to School – State	June or July	Caltrans	$18 m	10% min.	X	X	X	Primarily construction program to enhance safety of pedestrian and bicycle facilities.
Transportation Development Act (TDA) Article 3 (2% of total TDA)	January	Metro	Per capita	N/A	X	X	X	Purchase and installation of bicycle facilities including bikeway support facilities and secure bicycle parking. Retrofit of existing facilities to comply with ADA.
Metro CALL: Bikeway Improvements	Odd-numbered years: late winter / early spring	Metro	$17.5 m	20% local match	X			Refer to latest Call for Projects Application Package for eligibility requirements.

Table 8-3 Funding Sources

Granting Agency	Due Date	Fund Source(s)	Annual Funding (approx) 2009	Matching Requirement	Eligible Bikeway Projects			Comments
					Commute	Rec-reation	Safety/Ed	
Metro CALL: Regional Surface Transportation Improvements (RSTI)	Odd-numbered years: late winter / early spring	Metro	$110 m	35% local match	X			Refer to latest Call for Projects Application Package for eligibility requirements.
Metro CALL: Transportation Enhancement Activities (TEA)	Odd-numbered years: late winter / early spring	Metro	$6.5 m	20% local match	X		X	Refer to latest Call for Projects Application Package for eligibility requirements.
Metro CALL: Transportation Demand Management (TDM)	Odd-numbered years: late winter / early spring	CMAQ	$3.5 m	20% local match	X			Refer to latest Call for Projects Application Package for eligibility requirements.
Metro CALL: Pedestrian Improvements	Odd-numbered years: late winter / early spring	SLPP TEA CMAQ RSTP	$20 m	20% local match	X			Refer to latest Call for Projects Application Package for eligibility requirements.

Table 8-3 Funding Sources

Granting Agency	Due Date	Fund Source(s)	Annual Funding (approx) 2009	Matching Requirement	Eligible Bikeway Projects			Comments
					Commute	Rec-reation	Safety/Ed	
Mello-Roos Community Facilities Act	Ongoing	Tax Revenue approved by 2/3 vote	N/A	--	X	X	X	Funds have been used for bicycle lanes/paths
New Development Impact Fee	Ongoing	Cities or County	N/A	N/A	X	X	X	Assessed on non-residential developments that exceed a certain threshold for increased square footage through new construction or change of use.
Vehicle Trip Fee	Ongoing	Cities or County	N/A	N/A	X	X	X	Assessed on developments that generate new trips.
Private Funding Sources	Ongoing	Private Donors	N/A	N/A	X	X	X	Community and corporate sponsorships for new facilities

* Metro Call for Projects funding levels may vary greatly from cycle to cycle. Approved funding from the 2007 CFP provided the basis for this table's annual estimates.

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9 Evaluation & Implementation Responsibility

9.1 Implementation Responsibility

Grant funding is critical to implementing this Plan. The most important step is securing funding for a mobility coordinator as the main contact for bicycle and pedestrian related issues. However, the Public Works Department's Administration Division will have the primary responsibility for implementing and evaluating the BPMP until the City fills the mobility coordinator position.

9.2 Evaluation

Evaluation is an important component of a comprehensive BPMP. The definition of a project's success can take on many forms, but this Plan's ultimate goal is to make bicycle and pedestrian more convenient and comfortable. Regular evaluations in the form of bike/pedestrian counts and surveys can assess bicyclist and pedestrian convenience and comfort. Counts and surveys administered after completing a project can find effective project features and areas still needing improvement. Other evaluations, such as accident data, will also provide important information about the Plan's success.

9.2.1.1 Before & After Counts

Counts of non-motorized activity at key project locations will help the City evaluate project use, and to understand bicycle and pedestrian activity throughout the City.

9.2.1.2 Annual Counts

Annual counts at various points within the City can help gauge bicycle and pedestrian activity on a regular basis.

9.2.1.3 Census Analysis

A comparative analysis of 2000 and 2010 Census Journey to Work data can provide baseline understanding for the changes in non-motorized transportation in Culver City. Though Census data has its limitations, it can provide a starting point for planning and programming purposes.

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10 Goal, Objectives, Policies and Actions

The BPMP concludes with a summary of the Plan's principal goal, as well as the identification of specific objectives, policies and actions for achieving this goal. This goal and its associated objectives, policies and actions relate to all the issues addressed in the BPMP, from vision, to policy changes informed by the existing conditions, to expanding the City's network of facilities and creating non-infrastructure programs to encourage cycling and walking.

As previously stated, in creating its first ever Bicycle and Pedestrian Master Plan, the City is embracing the concept of Complete Streets, recognizing that it is essential to enhancing the quality of life not only for residents and visitors, but also the broader community and world. This form of transportation planning emphasizes a balanced transportation system that considers all users of the road when planning development and transportation projects, whether cyclists, pedestrians, transit riders, or vehicles. In doing so the City is transforming itself into a place with an extensive bicycle and pedestrian network that allows travelers of all levels and abilities to feel comfortable walking and biking to their destinations. The following principal goal, identified earlier in this document, provides the overarching guidance to attain this transformation:

Goal

> ***Transform the City into a place with an extensive bicycle and pedestrian network that allows travelers of all levels and abilities to feel comfortable walking and biking to their destinations. In so doing, encourage more people to forgo car trips, when possible, in favor of alternative forms of transportation and become truly bicycle and pedestrian friendly.***

In order to attain this goal the following objectives, policies and actions will provide guidance to the implementation of the BPMP. Adopting this Plan establishes and implements some of the actions identified in this Plan. In most instances, however, implementation will depend on obtaining grant funding.

Objective 1 - Implement the 2010 Bicycle and Pedestrian Master Plan (BPMP) by initiating funded projects and programs and pursuing grant funding for unfunded projects and programs over the next 5 years.

Policy 1a – Update the Plan periodically as necessary to be current with changing policies and/or requirements for grant funding.

> *Action 1a* – Continue to monitor state and regional bicycle and pedestrian related policy and funding discussions to ensure the BPMP is current or amended in order to take advantage of all applicable funding opportunities.

Policy 1b – Coordinate with state, regional and local agencies on bicycle and pedestrian related issues.

> *Action 1b* – Continue to coordinate with the City and County of Los Angeles, Culver City Unified School District, Metropolitan Transportation Authority and other community/regional serving agencies to work cooperatively on bicycle and pedestrian issues of mutual concern.

Policy 1c – Implement the Bicycle and Pedestrian Networks identified in the BPMP.

> *Action 1c.1* – Develop a comprehensive implementation strategy to identify funds and construct Tier 1 Bicycle and Pedestrian Network projects by 2015.

Action 1c.2 – As funding is identified and in order to initiate the educational process of motorists, implement the BPMP Bicycle Network by placing Class III Bike Route and "Share the Road" signage along all Tier 1 Bicycle projects until funding to implement Bike Lane striping projects can be secured, where appropriate.

Action 1c.3 – As funding becomes available, implement the Tier 1, 2 and 3 projects identified in the BPMP to improve Bikeway and Pedestrian Networks' access to community and citywide amenities, such as Downtown, regional and community recreation centers, and commercial destinations.

Action 1c.4 – Establish Bicycle Friendly Streets through the Neighborhood Traffic Management Program process as necessary. Use Bicycle Friendly Streets to encourage bicycling on "bicycle friendly" local and "Neighborhood Feeder" streets with low traffic volumes and slow speeds, in order to enhance access to community and regional centers/amenities.

Action 1c.5 – Explore the potential for additional Ballona Creek Bike Path access points.

Policy 1d – Continue to explore/pursue opportunities and funding to expand and/or enhance the City's Bikeway and Pedestrian Networks beyond the facilities identified in the BPMP.

Action 1d.1– Continue to analyze the City's roadway network to identify opportunities to expand and/or enhance the City's Bikeway and Pedestrian Network and facilities, and to pursue grant funding for the design and/or construction of these facilities.

Objective 2 – Implement a "Complete Streets" Program by evaluating the needs of and/or the potential impacts on cyclists and pedestrians, including persons with special mobility needs, during planning/review of proposed public and private development and capital improvement projects.

Policy 2a – Recognize that bicyclists and pedestrians are users of all City streets and that the design of future street projects should accommodate bicycle and pedestrian travel.

Action 2a.1 – Adopt a "Complete Streets" policy requiring that bicyclist, pedestrian, and transit user needs are analyzed as part of all discretionary development review processes and capital improvement project design phases.

Action 2a.2 - Prepare a plan surveying/analyzing existing sidewalk facilities at high pedestrian volume intersections and at all bus stops to identify accessibility barriers and needed improvements, and develop an implementation strategy.

Action 2a.3 – Revise the City's Traffic Study criteria to ensure that bicycle and pedestrian movements are counted along with other vehicle movements counts and that the analysis shall include a weighing of the merits of the motor-vehicle related improvements against the needs of accommodating bicyclist and pedestrian movements.

Action 2a.4 – Consider adopting a mechanism for project related vehicle trips to be mitigated through funding of BPMP projects and/or programs or the provision of end-of-trip amenities, such as additional bicycle parking and shower and clothing locker facilities to be located at transit centers and new employment sites to promote bicycle commuting.

Action 2a.5 – Consider establishing a trip-mitigation fee or expanding/increasing the New Development Impact Fee to fund BPMP project and program implementation.

Action 2a.6 – Consider establishing a process for payment of an in-lieu fee for use to fund BPMP projects and/or programs as a trip reduction credit.

Objective 3 - Create Mobility Coordinator position.

Policy 3a – Establish a Mobility Coordinator function within the Public Works Department to oversee implementation of the BPMP and future updates.

Action 3a.1 – Pursue funding for a Mobility Coordinator responsible for managing the implementation of the BPMP. Until a Mobility Coordinator is funded and the position filled, the Public Works Department's Administration Division will implement and evaluate the BPMP.

Objective 4 - Reduce the number bicyclists and pedestrians involved in traffic crashes.

Policy 4a – Pursue a program to enhance the cycling and pedestrian safety of the City's roadways through: education efforts for all roadway users; increasing awareness of bicyclists' rights and responsibilities; enhanced enforcement efforts for all roadway users; improvements to existing facilities; and continued regular maintenance of facilities.

Action 4a.1 – Periodically each year review cyclist and pedestrian crash reports to identify any potential problem areas and potential improvements.

Action 4a.2 – Identify streets without sidewalks or with partial sidewalks and, where appropriate, construct sidewalk improvements.

Action 4a.3 – Continue to enforce traffic laws by consistently citing bicyclists, pedestrians and motor vehicle operators for violations in order to enhance bicyclist and pedestrian safety.

Action 4a.4 – Pursue funding to conduct targeted enforcement activities, at least four times per year and lasting one week. Focused enforcement should be along streets in areas with high bicycle and pedestrian volumes or where non-motorized traffic is particularly high (e.g. Downtown, Ballona Creek Bike Path, East Washington Boulevard and Culver Boulevard Bike Path, etc.).

Policy 4b – Pursue implementing child/adult educational programs to provide cycling and pedestrian safety and skills courses.

Action 4b.1 – Pursue and promote funding programs for child and adult bicycle and pedestrian safety and education programs and the provision of information to bicyclists, motorists and the general public to improve bicycle safety.

Policy 4c – Pursue enhancing training of City staff, including Culver City Police Department (CCPD) officers on bicyclist rights and responsibilities.

Action 4c.1 – Develop and conduct a City-approved training program to educate City staff involved in decisions regarding transportation projects such as, traffic engineers, civil engineers, field inspectors, street maintenance personnel, planners, and parks and recreation staff.

Action 4c.2 – Pursue funding to provide additional training for CCPD officers regarding bicyclists' rights and responsibilities, pursuant to the California Vehicle Code and the Culver City Municipal Code.

Policy 4d – Assure a safe bicycling environment for riders of all experience levels.

Action 4d.1 – Consider establishing a Bicycle Patrol Program in conjunction with CCPD, local businesses and neighborhood groups to establish local Bicycle Patrol Units in order to enhance bicycle safety by enforcing bicycle traffic laws (e.g. wrong-way riding, sidewalk riding, obeying traffic controls, children wearing helmets, etc.), and providing bicycle safety education.

Action 4d.2 – Consider forming a City sponsored Ballona Creek Bike Path Volunteer Program to provide enhanced safety along the Ballona Creek Bike Path, through the use of trained volunteers stationed at access points or riding along the Path (in a non-enforcement role) providing information to the public during times of peak-use, typically weekends and holidays.

Policy 4e – Conduct routine maintenance of the City's public rights-of-way to eliminate hazards to all users.

Action 4e.1 – Continue to provide regular maintenance and repairs for integral portions of the bicycle and pedestrian networks. Enhance awareness of the City hotline and website for the public to report facility maintenance and repair issues.

Action 4e.2 – Explore implementing a bikeways sponsorship program to provide additional revenue for maintenance costs and security improvements of bikeway facilities.

Action 4e.3 – Formalize and expand the City's sidewalk inspection and maintenance program in order to enhance and coordinate maintenance of public sidewalks.

Objective 5 - Over the next five (5) year planning period, double the percentage of total trips made by bicycling and walking in the City as observed from the City's 2009 bicycle and pedestrian counts.

Policy 5a – Continue to explore opportunities and funding to expand and/or enhance the City's Bicycle and Pedestrian Networks.

Action 5a.1 – Purse funding to enhance transit stations and high use bus stops to facilitate multi-modal trips by adding facilities/amenities.

Action 5a.2 – Explore installing/enhancing pedestrian facilities in areas with high pedestrian activity (where appropriate), especially Downtown, in commercial areas and adjacent to schools, such as widening sidewalks, lengthening crosswalk times, and adding bulbouts, high visibility crosswalks, split curb-ramps, benches, street trees, water fountains, enhanced maintenance schedules, etc.

Action 5a.3 – Actively pursue grant funding opportunities for the implementation of the BPMP projects and programs, including federal and state Safe Routes to School programs, to make the City more bicycle and pedestrian friendly.

Action 5a.4 – Pursue grant funding to design and construct public sidewalks on residential and non-residential street segments that require sidewalk improvements.

Action 5a.5 – Pursue grant funding for design/community outreach and construction for a separate walking path along Ballona Creek, and enhancements to the Bike Path.

Action 5a.6 – Pursue grant funding for design and construction of a ramp at the Higuera Street Bridge to the Ballona Creek Bike Path.

Action 5a.7 – Pursue grant funding for bicycle and pedestrian improvements near Jefferson Boulevard and Hetzler Road.

Action 5a.8 – Develop and pursue grant funding to implement an improvement plan for the intersection of the Ballona Creek Bike Path entrance with Duquesne Avenue.

Action 5a.9 – Conduct traffic engineering analysis and if warranted purse grant funding to install a bicycle/pedestrian traffic signal in the area of the Ballona Creek Bike Path and Overland Avenue.

Action 5a.10 – Conduct a traffic engineering analysis and evaluation of facilities that best provide access to/from Downtown from an area bounded by Venice Boulevard, Jefferson Boulevard, Overland Avenue, and National Boulevard. After completing the analysis and evaluation, identify specific priority projects and pursue funding for construction of these projects.

Policy 5b – Increase the number of bicycle and walking trips through the provision of public and private end of trip facilities.

Action 5b.1 – Pursue funding to encourage bicycling and walking for everyday trips by providing convenient and secure public bicycle parking and support facilities at all public building, parks, Downtown and destination centers.

Action 5b.2 – Amend the Municipal Code to allow a citywide program to modify parking meter poles to serve as bicycle racks in order to increase the supply of quality bicycle parking in the public rights of way and pursue funding to implement a program.

Action 5b.3 – Consider the feasibility of placing bicycle parking corrals in on-street parking spaces in commercial areas of potential high demand in conjunction with local businesses.

Action 5b.4 – Explore increasing the City's Transportation Demand Management requirements for bicycle racks, lockers, and shower amenities for non-residential projects.

Action 5b.5 – Adopt design standards for all bicycle racks on public property, right-of-way, and design requirements for private development.

Action 5b.6 – Develop a Bicycle Parking Plan to inventory all current bicycle parking facilities in Downtown and at all City facilities and provide a specific set of recommendations for type, design, and location of bicycle parking facilities.

Policy 5c – Implement encouragement programs to increase bicycling and walking the City.

Action 5c.1 – Pursue funding for awareness and encouragement programs in collaboration with the community, though educational campaigns like Share the Road, community events like Ciclovias, or programs to make biking more comfortable like bike valets and signage.

Policy 5d - Develop a comprehensive signage program to aid cyclists and pedestrians.

Action 5d.1 – Develop a bicyclist-oriented signage plan for Culver City incorporating a unique City logo, and identifying alternative Route Signage, destination/bike parking signage and signage locations.

Action 5d.2 – Develop and install a bicycle wayfinding signage program to provide clear and accurate information as to the best way to navigate the City and indicate route turns, the presence of intersecting bikeways and streets and nearby local and major destinations.

Policy 5e – Continue to explore/pursue opportunities and funding to convert adopted Bike Routes on the City's Bicycle Network to bike lanes.

Action 5e.1 – Pursue grant funding for design/community outreach and construction of bike lanes along Washington Boulevard, from National Boulevard to Fairfax Avenue.

Objective 6 - Amend and update the bicycle and walking related sections of the Municipal Code.

Policy 6a – Support implementation of BPMP, though amending and updating the Municipal Code.

Action 6a.1 – In coordination with appropriate City Departments, conduct a review and process amendments of the Municipal Code and any related development standards and review criteria to ensure their provisions are consistent with the BPMP Policies.

Action 6a.2 – Adopt Municipal Code provisions for regulating bicyclists and pedestrian behavior on the Ballona Creek and Culver Boulevard Bike Paths and public sidewalks and plazas. The Ballona Creek and Culver Boulevard Bike Paths are valuable public resources. Currently neither the CVC nor the Municipal Code includes regulations for the use of the Paths. In order to enhance safety along the Paths, it could be beneficial adopt regulations governing the use of the Paths.

Bike Path Regulations

Always show courtesy to other trail users

Travel at speeds which are safe and appropriate

Travel in the right hand lane and allow faster path users to pass safely

Pass on the left

Give audible warning when passing other path users

Move off the path when stopping

Pay attention for other path users

Keep dogs on leash, and clean up after your pet

Bicyclists on Sidewalks

Yield to pedestrians at all times

Give audible warning when passing other sidewalk users

Ride speeds which are safe and appropriate

Objective 7 – Annually evaluate the outcomes of the BPMP implementation.

Policy 7a – Determine if the BPMP is succeeding in the identified Goal and Objectives.

Action 7a.1 – Use a combination of before & after counts, annual counts, census data analyses and accident rates to help gauge the City's effectiveness in increasing bicycle and pedestrian activity and safety.