# CITY OF HAYWARD BICYCLE MASTER PLAN

October 2007

Prepared by Alta Planning + Design

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## TABLE OF CONTENTS

## 1. INTRODUCTION

1. Introduction....1-1
1.1. Why Bicycling?....1-1
1.2. Purpose of the Bicycle Master Plan....1-1
1.3. Summary of Changes between 1997 and 2006 Plans....1-2
1.4. Plan Contents....1-4

## 2. GOALS AND OBJECTIVES

2. Goals and Objectives....2-1
2.1. New Facilities....2-1
2.2. Bicycle Commuting and Recreational Opportunities....2-1

## 3. EXISTING CONDITIONS

3. Existing Conditions....3-1
3.1. Setting....3-1
3.2. Existing Bicycle Facilities....3-5
3.3. Bicycle Facility Maintenance....3-18
3.4. Past Bicycle Program Expenditures....3-18
3.5. Enforcement and Education Programs....3-19
3.6. Multi-Modal Connections....3-19

## 4. PLANNING AND POLICY CONTEXT

4. Planning and Policy Context....4-1
4.1. Local Plans and Policies....4-1
4.2. Regional Bicycle Network....4-8
4.3 State Requirements....4-13

## 5. NEEDS ANALYSIS

5. Needs Analysis....5-1
5.1. Land Use and Demand....5-1
5.2. Commute Patterns....5-1
5.3. Trip Reduction and Potential Air Quality Benefits....5-3
5.4. Bicycle Safety and Accident Analysis....5-5
5.5. Bicyclist Needs....5-9
5.6. Citizen and Community Involvement....5-12

## 6. RECOMMENDED IMPROVEMENTS AND IMPLEMENTATION

6. Recommended Improvements and Implementation....6-1
6.1. Recommended Bikeway Network....6-1
6.2. Project Descriptions....6-1

6.3. Cost Breakdown .....6-6
6.4. Funding .....6-9

## APPENDIX A: COMPLIANCE WITH BTA REQUIREMENTS

## TABLE OF TABLES

Table 3-1: Public Elementary and Middle Schools in Hayward. .....3-4
Table 3-2: Index of Existing City of Hayward Class I Bike Paths .....3-14
Table 3-3: Index of Existing City of Hayward Class II Bike Lanes .....3-14
Table 3-4: Index of Existing City of Hayward Class III Bike Routes.....3-15
Table 3-5: Bicycle Racks and Support Facilities at Selected Hayward Employers.....3-18
Table 3-6: Past Bicycle Program Expenditures.....3-19
Table 4-1: High-Priority County Projects Located Within Hayward.....4-9
Table 4-2: Countywide North-South and East-West Corridors that Serve Hayward.....4-10
Table 4-3: Regional Bikeways within Hayward.....4-11
Table 5-1: Journey to Work Data.....5-2
Table 5-2: Travel Time to Work Data.....5-2
Table 5-3: Bicycle Commute and Air Quality Projections.....5-6
Table 5-4: Hayward Bicycle Collision Data 2002-2005.....5-8
Table 5-5: Characteristics of Recreational and Utilitarian Trips.....5-11
Table 6-1: Bicycle Paths to be Developed by Other Entities .....6-7
Table 6-2: Planning Level Cost Estimates for Recommended Bikeway Projects.....6-8
Table 6-3: Available Funding Sources through 2030 .....6-10

## TABLE OF FIGURES

Figure 3-1: Hayward General Plan Focus Areas.....3-3
Figure 3-2: Standard Bikeway Classifications.....3-7
Figure 3-3: Existing Bikeways City of Hayward 2007.....3-9
Figure 4-1: Proposed Mini-Loop in Downtown Hayward (Rt 238 Corridor Improvement Project) .....4-6
Figure 4-2: Proposed Partial Grade Separations at Foothill/Mission/Jackson and Jackson/Watkins .....4-7
Figure 4-3: MTC Regional Bicycle Plan: Hayward Bikeways.....4-11
Figure 6-1: Proposed Bikeways City of Hayward 2007.....6-3

# 1. INTRODUCTION

The Hayward Bicycle Master Plan provides long-term vision and direction for bicycle transportation and recreation in the City of Hayward. The City of Hayward has a long history of planning for the needs of bicyclists. The City adopted its first bicycle plan in 1979. Due to scarce funding, only a few of the recommended facilities within that plan were constructed. In 1997, the City adopted a Bicycle Master Plan, which updated the 1979 plan, proposed a more complete bicycle network, updated the bicycle design standards to Caltrans design standards, and established a funding and phasing strategy to implement the plan. Today, ten years after the 1997 Bicycle Master Plan was adopted, most of the recommended projects have been implemented.

*"A" Street Bike Route*

*Photo: Alta Planning + Design*

This update of Hayward's Bicycle Master Plan seeks to build upon this foundation. This plan provides an updated inventory of the City of Hayward's bicycle paths, bicycle lanes and bicycle routes. This plan contains an updated list of proposed bikeways and bicycle support facilities; projects no longer under consideration have been eliminated from the list, while some new projects have been added to the list. The plan seeks to improve connections to neighboring communities and the regional bicycle network. A summary of changes between the 1997 and 2007 Bicycle Master Plans is provided in Section 1.2 below.

Hayward's existing bicycle network, connections to regional recreational trails such as the Bay Trail, excellent transit service, temperate weather and relatively flat topography make bicycling in Hayward an effective transportation and recreation option at any time of the year. The recommendations included in this plan will further enhance the bicycling environment in Hayward.

## 1.1. WHY BICYCLING?

The bicycle is a low-cost and effective means of transportation that is quiet, non-polluting, extremely energy-efficient, versatile, healthy, and fun. Bicycles also offer low-cost mobility to the non-driving public. Bicycling as a means of transportation has been growing in popularity as many communities work to create more balanced transportation systems by giving bicyclists a greater share in use of the roadway networks. In addition, recent national surveys find that more people are willing to cycle more frequently if better bicycle facilities are provided.

## 1.2. PURPOSE OF THE BICYCLE MASTER PLAN

This Bicycle Master Plan provides a broad vision, strategies and actions for the improvement of bicycling in Hayward. The primary reasons for updating the City of Hayward's Bicycle Master Plan are:

*Bicycling can enhance the quality of life in Hayward*

*Photo: Alta Planning + Design*

**Develop an Implementation Strategy.** To facilitate construction of the recommended bikeway facilities, this plan presents updated cost estimates and funding sources and a revised implementation plan.

**Provide Needed Facilities.** Hayward has miles of existing bikeways, which provide access to all sections of the City. However, key gaps exist between some bikeways. This plan provides recommendations for filling those gaps. In addition, Hayward's recent growth has taken the form of infill development and transit oriented development. As new residential areas are developed, additional bikeway facilities may be needed. This plan includes bicycle facilities that serve Hayward's future foreseeable development patterns.

**Enhance the Quality of Life in Hayward**. The development of bicycle facilities provides for people-friendly streets, paths, trails, and activity centers available to everyone, and supports sustainable community development. Mode shifts to bicycling can reduce traffic congestion, vehicle exhaust emissions, noise, and energy consumption. It is a healthy and active form of travel. Good bicycling opportunities equate to a higher quality of life for Hayward residents.

**Integrate the Hayward Bicycle Network into Regional Bicycle Routes**. Regional bicycle plans have been developed for both Alameda County and the nine-county Bay Area. The recommended Hayward bicycle network incorporates regional bikeways identified by these plans and recommends programs to enhance regional connectivity.

**Maximize Funding Sources**. A final reason for updating the Bicycle Master Plan is to satisfy requirements of Caltrans' California Bicycle Transportation Account (BTA) and other bicycle-related state and federal funding programs. In order to qualify for available funding, the State of California requires that applicants have a master plan adopted or updated within the past five years that includes a number of specific elements related to bicycle commuting, land uses, multi-modal connections, funding, and public input. The complete list of required BTA elements and their locations in this document is provided in Appendix A.

## 1.3. SUMMARY OF CHANGES BETWEEN THE 1997 AND 2007 PLANS

The 2007 Bicycle Master Plan updates the 1997 Bicycle Master Plan for the City of Hayward. Key changes between this plan and the 1997 plan are:

Addition of bicycle projects related to the Route 238 Corridor Improvement Project:

- Northbound Class II bicycle lanes along Foothill Boulevard between D Street and A Street.

- Class III bicycle route on Mission Boulevard between A Street and D Street.

- Class III bicycle route on C Street between Foothill Boulevard and the Hayward BART Station, extending to Cannery Park as a Class II bicycle lane.

- Class III bicycle route along Watkins Street between B Street and Fletcher Lane.

- Class III bicycle route along Fletcher Lane between Watkins Street and Mission Boulevard.

- Class III bicycle route on Montgomery Avenue between city limits and B Street.

- Class III bicycle route on Main Street between Sunset Boulevard and A Street and Class II bike lane on Main Street between A Street and D Street.

Addition of bicycle projects related to the South Hayward BART/Mission Boulevard Concept Design Plan:

- Station Area Trail, including
    - Easement for multi-use path along western edge of K-mart site.
    - Bicycle-Pedestrian Bridge over Tennyson Road at South Hayward BART station.
    - Easement for multi-use path parallel to BART tracks between Tennyson Road, to station entrance and eastward to Dixon Street.
    - Easement for multi-use path along BART tracks between Valle Vista Avenue and Industrial Parkway.
- Constructing a new Bicycle Pedestrian Tunnel under BART tracks adjacent to Bowman Elementary School.
- Upgrading Sorenson Street Pedestrian Bridge to allow bicycle access.

Addition of regional bikeways:

- East Bay Greenway: This trail would be part of a proposed greenway on BART right-of-way extending from Oakland to Fremont. The trail would be developed by BART.
- Extension of the off-street portion of the San Francisco Bay Trail through Hayward. This trail will be developed by the East Bay Regional Park District.

Addition of other bikeways:

- Class II bicycle lanes on C Street between Hayward BART Station and Cannery Park.
- Bicycle-Pedestrian Bridge connecting Centennial Park and the future Cannery Park over the Union Pacific Railroad tracks.
- Completion of Eden Greenway Class I bicycle path (to be developed by Hayward Area Recreation District).
- Bike lanes are recommended along B Street between the Amtrak Station and the Downtown Hayward BART Station.

The following project included in the 1997 Bicycle Master Plan was modified for this Bicycle Master Plan.

- Class I path connecting Industrial Parkway bicycle path to Garin Avenue was modified to reflect the construction of Twin Bridges. The current plan recommends extending the path along Industrial Parkway from the BART tracks to the intersection with Mission Boulevard, then constructing a path on the south side of Mission Boulevard, ending at the sidewalk constructed as part of the Twin Bridges Project.

## 1.4. PLAN CONTENTS

The Hayward Bicycle Master Plan is organized as follows:

**Chapter 2, Goals, Objectives and Policies**, documents the goals and policies of this Bicycle Master Plan.

**Chapter 3, Existing Conditions**, provides a description of the existing bicycle conditions in Hayward. The conditions presented include the existing bicycle network, support facilities and programs as well as existing land use patterns, activity centers and destinations.

**Chapter 4, Planning and Policy Context,** provides an overview of the relevant local and regional plans and policies. The Bicycle Master Plan has been developed to ensure consistency with these plans and policies, in accordance with BTA requirements.

**Chapter 5, Needs Analysis**, documents the need for bicycle transportation in Hayward, including an overview of existing user groups, bicycle commute statistics, and an analysis of bicycle collisions in Hayward.

**Chapter 6, Recommended Improvements and Implementation**, outlines the recommended Class I, II, and III bicycle network and provides a map of the network, cost estimates and funding sources.

# 2. GOALS AND OBJECTIVES

This section presents the recommended goals and objectives for the Hayward Bicycle Master Plan. The goals provide the long-term vision and serve as the foundation of the plan, while the objectives provide more specific descriptions of actions to undertake to implement the plan.

*A bicyclist rides on A Street bicycle route*
*Photo: Alta Planning + Design*

The goals and objectives presented here have been carried over from the 1997 Bicycle Master Plan, and reviewed and updated as needed to reflect changes in the bicycle funding and planning process, and to ensure consistency with the Hayward General Polices Plan. Bicycle-related policies contained in the Hayward General Policies Plan and other City planning documents are described in Chapter 4: *Planning and Policy Context.*

## 2.1. NEW FACILITIES

**Goal 1:** *To provide the opportunity for safe, convenient and pleasant bicycle travel throughout all areas of Hayward*

**Objective 1.1:** To make the system of streets accommodate bicycle use

**Objective 1.2:** To assist in the development of new facilities, require new development either to contribute funding, or to assist in the construction of nearby planned bicycle facilities

**Objective 1.3:** Seek funding of bicycle facilities through available sources such as the Federal surface transportation funding (SAFETEA-LU); State of California Transportation Development Act funds; the Bicycle Transportation Account funds; the Regional Bay Area Air Quality Management District funds, and County of Alameda Measure B Bicycle and Pedestrian Funding

## 2.2. BICYCLE COMMUTING & RECREATIONAL OPPORTUNITIES

**Goal 2:** *To provide the related facilities and services necessary to allow bicycle travel to assume a significant role as a local alternative mode of transportation and recreation*

**Objective 2.1***:* To work with transit agencies, such as BART and AC Transit, to increase their systems' accessibility to bicycle users, especially during peak hour commute times and on lines serving major bicycle destinations such as California State University

**Objective 2.2:** To provide bicycle lockers at primary City facilities to increase bicycle commuter ridership among City employees

**Objective 2.3:** To consider additional Travel Demand Reduction programs that provide economic incentives for bicycle commuters

**Objective 2.4***:* To increase bicycle use, as alterative transportation

**Goal 3:** *To encourage the use of bicycle as a pleasant means of travel and recreation embodying physical, environmental and social benefits*

**Objective 3.1**: To reduce the number of bicyclist injuries (enhance bicyclists' safety) to create opportunities for new bicyclists to have a positive bicycling experience

**Objective 3.2:** To promote public awareness and acceptance of bicycling

# 3. EXISTING CONDITIONS

This chapter provides a description of existing conditions within the City of Hayward relevant to this Bicycle Master Plan. Information is based on field visits, existing planning documents, maps, and conversations with City and other agency staff. Much of the information from the 1997 Bicycle Master Plan is still relevant, and is replicated here when applicable.

## 3.1. SETTING

### LOCATION

The City of Hayward is located in central Alameda County, adjacent to the San Francisco Bay. Hayward is 44 square miles in area and has an 8-mile shoreline on the San Francisco Bay. The cities of San Jose, San Francisco, and Oakland are accessible via State Route-92, Interstate Highways 880 and 580, AC Transit, BART and Capitol Corridor Amtrak.

*Hayward from the hills*

*Photo: Jefferey B. Banke*

The City can be divided into three distinct geographic areas, each of which has different characteristics that should be considered when planning for bicycling:

The Baylands stretch along the Bay and provide natural habitat for the Bay's birds and animals. This area is home to Hayward Regional Shoreline Park and provides excellent recreational opportunities for bicyclists. .A portion of the 400-mile Bay Trail runs through this section of Hayward. This paved multi-use trail is being developed by the Association of Bay Area Governments in conjunction with local and regional agencies. Enhancing public access to the Bayshore is a State and County priority.

The Bay Plain, also known as the "flatlands" contain most of Hayward's urbanized land area. This section is relatively flat and is served by on-street bicycle facilities. This area is likely to see more utilitarian bicycle riding (commuting, shopping, and errands) than other areas of the City.

The Hill Area is found in the eastern portion of the City. This area has steep hills served by narrow access roads. The Hill Area provides challenging rides for experienced recreational riders. Garin and Dry Creek regional parks are located in this section of Hayward. Utilitarian bicycle riding is likely to be less common in the Hill Area than in the rest of Hayward due to the steep grades and narrow roadways.

## POPULATION AND JOBS

In 2006, Hayward had a population of 146,398.[1] Hayward's population has been steadily increasing, and the Association of Bay Area Governments (ABAG) predicts that the population of Hayward will increase to 171,800 by 2030.[2] ABAG also predicts approximately 98,000 jobs for Hayward by 2030.[3]

## LAND USES

Most of the available land in Hayward has been developed for commercial, residential, industrial or other urban uses. The majority of Hayward's single-family homes were built between 1950 and 1960. Most multi-family homes were built between 1960 and 1990. Hayward experienced a boom in commercial and industrial construction during the late 1990's.

### Future Land Use Development

Relatively little land is left in Hayward for future development. The City instead has focused on utilizing "smart growth" principles to revitalize the downtown area, and efficiently develop within the existing boundaries of the City. The common smart growth principals identified in Hayward's General Plan are:

- Mixed land uses
- Take advantage of compact building design
- Create a range of housing opportunities and choices
- Create walkable neighborhoods
- Foster distinctive, attractive communities with a strong sense of place
- Preserve open space, farmland, natural beauty, and critical environmental areas
- Strengthen and direct development towards existing communities
- Provide a variety of transportation choices
- Make development decisions predictable, fair and cost-effective
- Encourage community and stakeholder collaboration in development decisions

Hayward's future development will be focused on these principals, and will include neighborhood revitalization strategies, open space preservation, urban growth boundaries, walkable neighborhoods and mixed use development. All these strategies have the potential to further improve the bicycling environment in Hayward.

[1] California Department of Finance, January 2007 estimate
[2] ABAG Draft Projections, 2007
[3] Ibid.

In its General Plan (discussed further in Chapter 4: *Planning and Policy Context*) The City of Hayward outlines five focus areas which are particularly appropriate for smart growth principals. These are:

1. Downtown Area
2. South Hayward BART Area
3. Mission Boulevard Corridor
4. Older Industrial Area
5. Industrial Area

Increased development is planned for these areas over the next 20 years. This Bicycle Master Plan has taken into account these focus areas when considering future bikeway facilities.

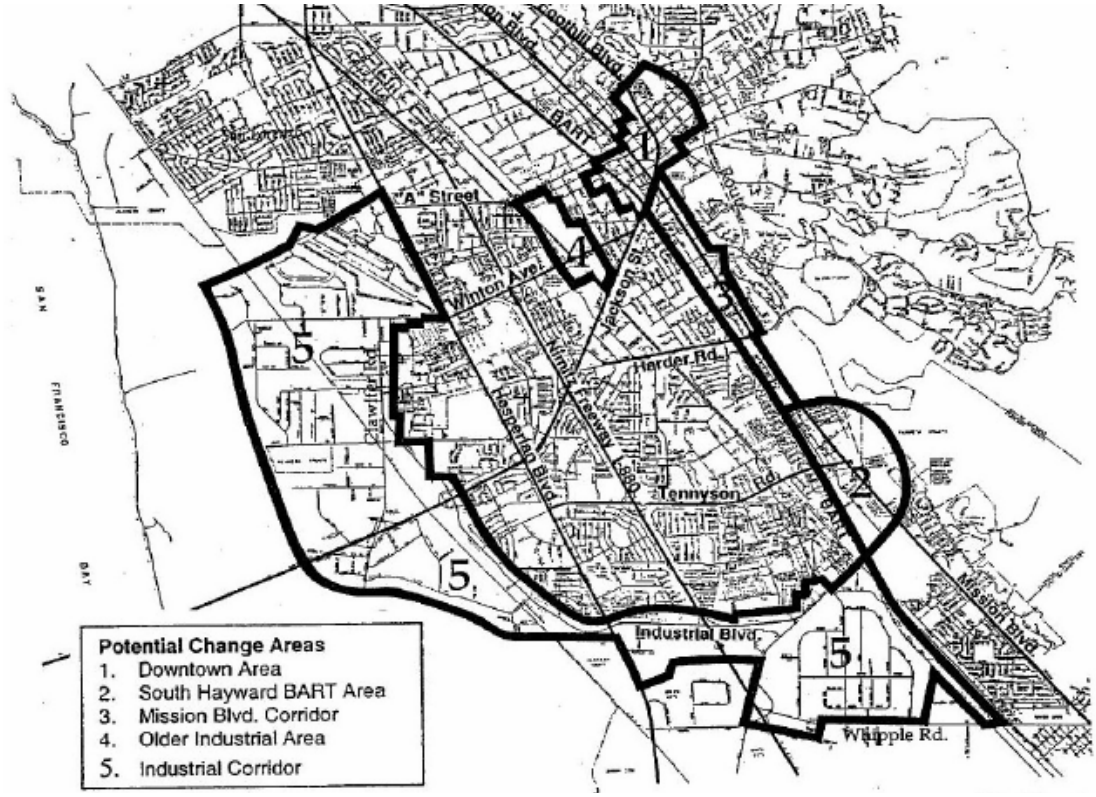


**Figure 3-1: Hayward General Plan Focus Areas**

*Image: Figure 2-3,City of Hayward General Plan, Page 2-10*

## SCHOOLS

It is important to consider schools when developing a bicycle master plan. By developing bicycle facilities and programs that serve schools, especially elementary and middle schools, the City of Hayward can improve school safety, reduce school-related vehicle trips, and provide Hayward's youth with a fun and healthy way to get to school.

### California State University

A campus of California State University (CSU) is located in Hayward, east of Mission Boulevard. The campus is served by a Class III bike route along Carlos Bee Drive/Hayward Boulevard and a Class II bicycle lane along Harder Road. (The Harder Road bicycle lane does not extend all the way to campus.) In fall 2005, the CSU campus had a combined full-time enrollment of 10,251 and is projected to have an enrollment of 13,260 full-time students in 2010. The campus allows bicycles on-site and provides bicycle racks near the Campus Union.

### Chabot College

Chabot College, a four-year community college is located on Hesperian Boulevard. Enrollment in 2005 was 15,000 students, with enrollment in 2015 projected to be 17,500. The college is served by bicycle lanes on Turner Court.

### Elementary, Junior and High Schools

The City of Hayward is served by the Hayward Unified School District. The District has 25 elementary schools, 5 middle schools (grades seven and eight) and 4 high schools, one of which is a continuation high school. There is expected to be some closure/consolidation of schools in future school years.

**Table 3-1** provides an inventory of elementary and middle schools in Hayward. Schools are also identified on the Existing Conditions Map.

**Table 3-1**
**Public Elementary and Middle Schools in Hayward**

| School Name | Address |
|---|---|
| Bowman Elementary | 520 Jefferson Street |
| Burbank Elementary | 353 B Street |
| Cherryland Elementary | 585 Willow Avenue |
| East Avenue Elementary | 2424 East Avenue |
| Eden Gardens Elementary | 2184 Thayer Avenue |
| Eldridge Elementary | 26825 Eldridge Avenue |
| Fairview Elementary | 23515 Maud Avenue |
| Glassbrook Elementary* | 975 Schafer Road |
| Harder Elementary | 495 Wyeth Road |
| Longwood Elementary | 850 Longwood Avenue |
| Lorin Eden Elementary | 27790 Portsmouth Avenue |
| Markham Elementary* | 1570 Ward Street |
| John Muir Elementary* | 24823 Soto Road |
| Palma Ceia Elementary | 27679 Melbourne Avenue |

| School Name | Address |
|---|---|
| Park Elementary | 41 Larchmont Street |
| Ruus Elementary (K-3) | 28027 Dickens Avenue |
| Ruus Peixoto (4-6)* | 29150 Ruus Road |
| Schafer Park Elementary | 26268 Flamingo Avenue |
| Shepherd Elementary (K-3)* | 27211 Tyrrell Avenue |
| Southgate Elementary | 26601 Calaroga Avenue |
| Stonebrae Elementary | 28761 Hayward Boulevard |
| Strobridge Elementary | 21400 Bedford Drive |
| Treeview Elementary (2-6)* | 30565 Treeview Street |
| Treeview (Bidwell K-1)* | 715 Fairway Street |
| Tyrrell Elementary (4-6) | 27000 Tyrrell Avenue |
| Bret Harte Middle | 1047 E Street |
| Cesar Chavez Middle | 27845 Whitman Street |
| King Middle | 26890 Holly Hill Avenue |
| Anthony W. Ochoa Middle | 2121 Depot Boulevard |
| Winton Middle | 119 Winton Avenue |
| Hayward High School | 1633 East Avenue |
| Tennyson High School | 27035 Whitman Street |
| Mt. Eden High School | 2300 Panama Street |
| Brenkwitz Continuation High School | 22100 (A) Princeton Street |
| Moreau Catholic High School (Private) | 27170 Mission Boulevard |

** Denotes schools proposed for future closure/consolidation*

### PARKS, RECREATION FACILITIES AND COMMUNITY CENTERS

The Hayward Area Recreation and Park District (HARD) manages Hayward's parks, open space, golf courses, community centers and some sports centers and runs numerous youth, adult and senior education and recreation programs. HARD is a separate governmental agency and represents the City of Hayward, and the unincorporated areas of Ashland, Castro Valley, Fairview and San Lorenzo. HARD manages approximately 45 parks within the City of Hayward, approximately 16 school-related parks, and several other facilities, including the Hayward Shoreline Interpretive Center, Hayward Plunge, Japanese Gardens, and the Douglas Morrison Theater. These parks are shown on the Existing Conditions Map.

*HARD's Japanese Tea Gardens are a recreational destination*

*Photo: Shannon Mahoney*

## 3.2. EXISTING BICYCLE FACILITIES

It is important to understand the extent and conditions of Hayward's existing bikeway facilities, so that areas for improvement or locations for additional routes can be identified. The existing bikeway facilities presented here are based on the City's prior mapping efforts, and verified and revised based on field work.

## DEFINITION OF BIKEWAYS

Bikeways within this plan are defined based on the three types of bikeways identified by Caltrans in Chapter 1000 of the Highway Design Manual. The bikeway definitions are:

**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 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 motor vehicle traffic and is identified only by signing.

The designation of a numbering system to differentiate the different bikeway types does not imply that one type of facility is better than another. Cross sections of all three bikeway classes are provided in **Figure 3-2**. Hayward's existing network of bicycle facilities is shown in **Figure 3-3**.

It is important to note that bicycles are permitted on *all* roads in the State of California and in Hayward (with the exception of access-controlled freeways). As such, Hayward's entire street network is effectively the city's bicycle network, regardless of whether or not a bikeway stripe, stencil, or sign is present on a given street. The designation of certain roads as Class II or III bicycle facilities is not intended to imply that these are the only roadways intended for bicycle use, or that bicyclists should not be riding on other streets. Rather, the designation of a network of Class II and III on-street bikeways recognizes that certain roadways are optimal bicycle routes, for reasons such as directness or access to significant destinations, and allows the City of Hayward to then focus resources on building out this primary network.

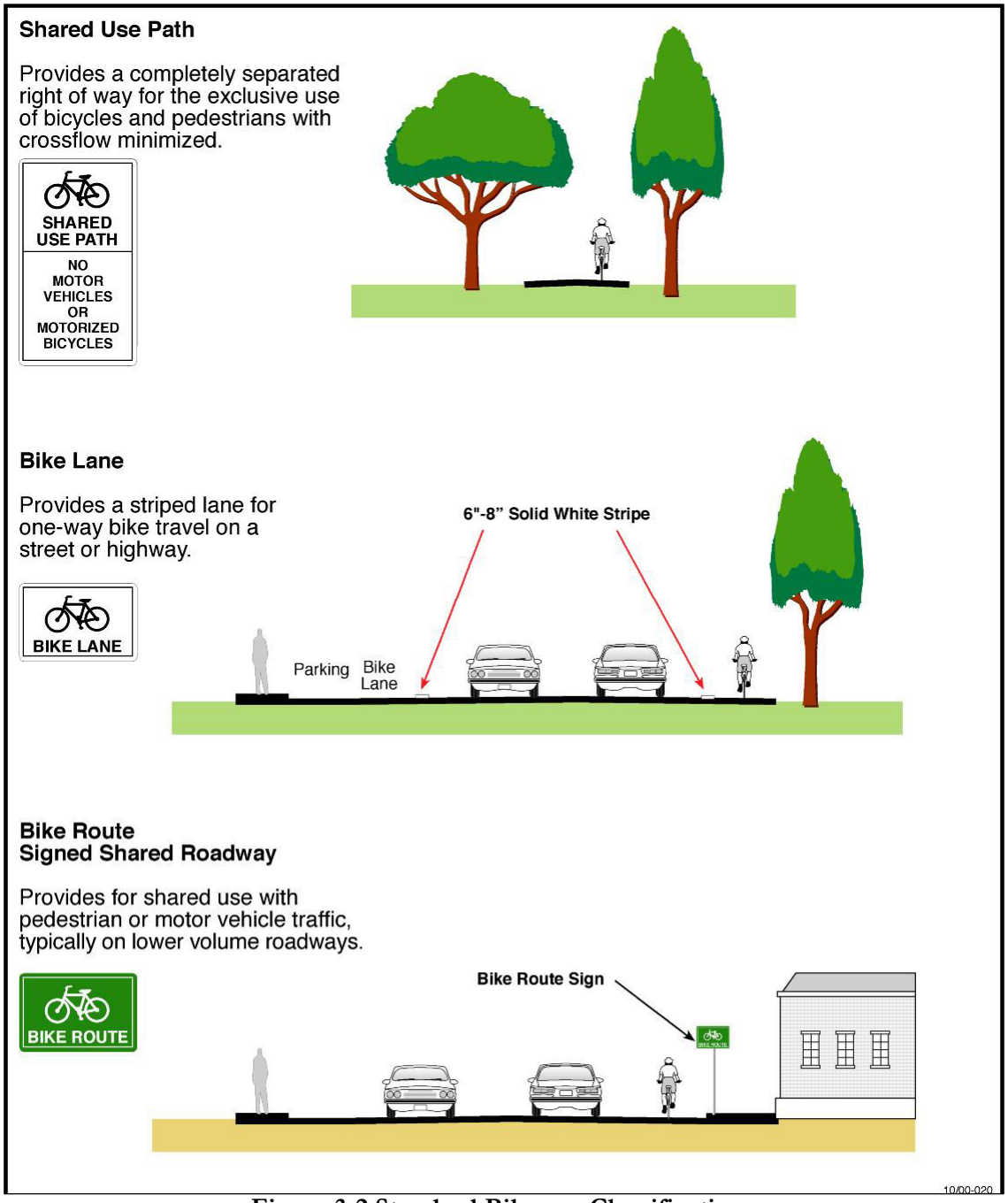


Figure 3-2 Standard Bikeway Classifications

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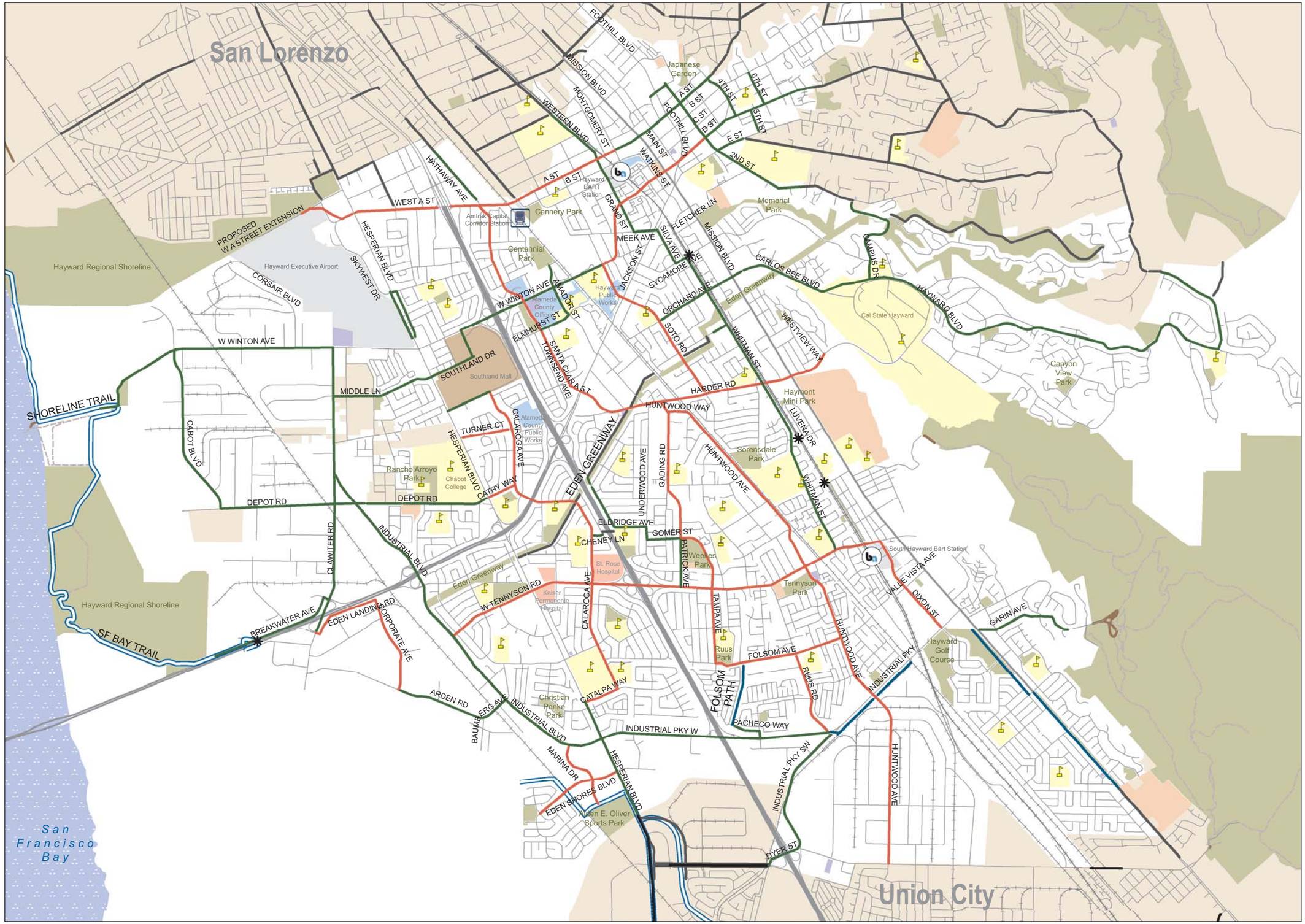


**FIGURE 3-3**

**Existing Bikeways**
**City of Hayward**
**2007**

**Existing Bikeways**
- Class I Bike Path
- Class II Bike Lane
- Class III Bike Route
- Bikeways by Others
- Bay Trail

**Bicycle-Accessible Trails**
- Dirt or Gravel
- Paved

**Land Uses**
- Community
- Education
- Government
- Medical
- Parks/Recreation
- Public Safety
- Shopping
- Transportation

**Bike or Pedestrian Bridges**
- Existing

- Amtrak Station
- BART Stations
- Schools

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Hayward Bicycle Master Plan

## IDENTIFICATION OF BICYCLE TRAVEL CORRIDORS

The 1997 Hayward Bicycle Master Plan developed the City's bicycle routes through a three-step process. First, the City identified preferred bicycle corridors based on the desired lines of travel for all modes:

> "Bikeways (bike lane, paths and routes) should be located in areas where use can be maximized. Generally, bikeways should be located within the same corridors as arterials and collectors since bicyclists have the same origins and destinations as motorists.
>
> …[T]ravel corridors can be thought of as "desired lines" connecting neighborhoods that generate trips with other area in the City that attract a significant number of trips.
>
> …It is assumed that people on bicycles want to go to the same places as people in cars (within the constraints imposed by distance) and the existing system of streets reflects the existing travel demands of the community."

Second, once a corridor was identified as a desired travel line, the City identified routes within the corridor that would be suitable for bicycle travel. Factors taken into consideration included:

- Points of destination
- Bicycle collision statistics
- Existing bicycle facilities
- Recommendations from neighborhood plans
- Degree to which a specific route meets the needs of anticipated users as opposed to other route options
- Possible cost and extent of construction required to implement the proposed facility
- The ease of implementation
- Proposed design treatment
- Opportunity to implement the proposed design treatment in conjunction with planned street construction or reconstruction projects.

Third, the City referred to Federal guidelines to determine the most appropriate bikeway design treatment for each roadway.[4] Bikeway design treatments were developed to accommodate the type of bicyclist that was expected to use the roadway (advanced, beginner or child – explained further in Chapter 5: *Needs Analysis*.) and care was taken to ensure that the bicycle network proposed in 1997 connected to existing and proposed regional bikeways.

[4] The City referred to Federal Highway Administration Publication No. FHWA-RD-92-07*3*. *Selecting Roadway Design Treatments to Accommodate Bicycles*. Wilkinson, W.C., January 1994.

The majority of the bikeways proposed in the 1997 plan have been built and are described below.

## EXISTING OFF-STREET BIKE PATHS

*Folsom Street Bicycle Path was constructed in the 1980's*

*Photo: City of Hayward*

The City of Hayward has nearly seven miles of existing off-street bike paths within its borders. Almost three miles of this is the Bay Trail, maintained by East Bay Regional Parks District. The bike path along the Eden Greenway, developed by HARD, is 1.5 miles long. The remaining 2.4 miles are located adjacent to Mission Boulevard, Industrial Parkway and along the Alameda County Flood Control Channel between Pacheco Way and Folsom Avenue.

Bike paths within the City were constructed in the mid-1970's, with the exception of the Alameda County Flood Control Channel. The City constructed a bike path in the landscaped area on the east side of Mission Boulevard in Fairway Park. HARD developed Class I bike paths within the Greenway in the Pacific Gas & Electric right-of-way.

The 1997 plan notes that all of the bicycle paths were constructed in locations that could physically accommodate them, but were not coincident with locations of bicycle commuting. These paths primarily attract recreational bicyclists, principally children from nearby neighborhoods.

## EXISTING ON-STREET BIKE LANES AND ROUTES

As shown in Figure 3-1, Hayward's existing on-street bikeway network is comprised of Class II bike lanes and Class III bike routes along many major streets. The existing network serves all sections of the city, and takes advantage of existing crossings over the BART and Amtrak rail lines and the 880 Freeway. **Table 3-4** shows the limits and lengths of existing Class II bike lanes and Class III bike routes.

Hayward's bikeway planning started early. The first on-street bikeways in the City of Hayward were Class III bike routes installed on several streets in 1972. None of these facilities still exist.

In implementing the 1979 bicycle master plan, the City striped four-foot wide bikeways on several streets as part of a demonstration project phase. The existing bike lanes on Tennyson Road (Industrial Boulevard to Dixon Street), Calaroga Avenue (La Playa Drive to Catalpa Way), Cathy Way (Hesperian Boulevard to Calaroga Avenue), Santa Clara Street (A Street to Jackson Street) and Harder Road (Jackson Street to Westview Way) were all installed as part of the demonstration project. These streets were intended to provide a minimum route system that linked major traffic generators, including Chabot College, Southland Shopping Center, California State University and South Hayward BART Station.

The bike lanes on D Street (Winton Avenue to Grand Street) and A Street (I-880 Freeway to Montgomery Street) were built in 1980 and 1989, respectively and included as part of the widening projects identified in the 1979 plan.

Industrial Boulevard (Hesperian Boulevard to Ruus Road) was signed as a Class III bike route, but signs no longer exist and lane restriping between Marina and Industrial Parkway South has made this section less hospitable to bicyclists.

The majority of the City's bikeways were constructed after the 1997 Bicycle Master Plan was adopted. Between 1997 and 2007, the City installed eleven miles of bike lanes and thirty miles of bike routes.

*Many of Hayward's on-street bicycle facilities, like this bike lane on Huntwood Avenue, were installed after the adoption of the 1997 Bicycle Master Plan*

*Photo: City of Hayward*

### The Bay Trail

The Bay Trail Plan proposes a 500-mile continuous bikeway that circles the San Francisco Bay. The plan was prepared by the Association of Bay Area Governments pursuant to Senate Bill 100 which mandated that the Bay Trail:

- Provide connections to existing park and recreation facilities,
- Create links to existing and proposed transportation facilities and,
- Be planned in such a way as to avoid adverse effects on environmentally sensitive areas.

*Three miles of Bay Trail path have been constructed in Hayward*

*Photo: Alta Planning + Design*

In 1993, the City of Hayward implemented the Bay Trail with a mix of bike lanes and bike routes along Breakwater Avenue, Clawiter Road, Eden Landing Road, Corporate Avenue, Arden Road, Baumberg Avenue and Hesperian Boulevard. The Bay Trail Design Guidelines require the installation of bike lanes before the facility can be considered a completed Bay Trail segment. Bike routes on Breakwater Avenue, Clawiter Road, Arden Road, Baumberg Avenue and Industrial Boulevard would need to be modified to Class II bike lanes before consideration as part of the Bay Trail.

A list of existing bikeways within the City of Hayward is provided in **Table 3-2 through Table 3-4** on the following page.

**Table 3-2**
**Index of Existing City of Hayward Class I Bike Paths**

| Name | From | To | Miles |
|---|---|---|---|
| Eden Greenway | East of Soto Road | Hesperian Boulevard | 1.48 |
| Folsom Path | Folsom Avenue | Pacheco Way | 0.38 |
| Industrial Parkway Path | Industrial Parkway Southwest | BART tracks | 0.67 |
| Mission Boulevard Path | Garin Avenue | Union City Border | 1.36 |
| San Francisco Bay Trail | West Winton Avenue | Breakwater Avenue | 2.87 |
| | | *TOTAL BIKE PATHS* | *6.77* |

*Source: Alta Planning + Design field inventory, Hayward GIS data, January 2007.*

**Table 3-3**
**Index of Existing City of Hayward Class II Bike Lanes**

| Street | From | To | Miles |
|---|---|---|---|
| "D" Street | Soto Road | 2nd Street | 1.12 |
| Calaroga Avenue | La Playa Drive | Catalpa Way | 2.34 |
| Catalpa Way | Calaroga Avenue | Hesperian Boulevard | 0.23 |
| Cathy Way | Calaroga Avenue | Hesperian Boulevard | 0.18 |
| Corporate Avenue | Eden Landing Road | Arden Road | 0.62 |
| Dixon Street | Tennyson Road | Industrial Parkway | 0.69 |
| Eden Landing Road | Clawiter Road | Corporate Avenue | 0.47 |
| Eden Shores Boulevard | Sandcreek Drive | Hesperian Boulevard | 0.57 |
| Folsom Avenue | Tampa Avenue | Huntwood Avene | 0.84 |
| Gading Road | Harder Road | Patrick Avenue | 0.59 |
| Harder Road | Santa Clara Street | Westview Way | 1.45 |
| Huntwood Avenue/Huntwood Way | Harder Road | Union City Border | 3.44 |
| Marina Drive | Industrial Boulevard | Eden Park Place | 0.48 |
| Patrick Avenue | Gading Road | Gomer Street | 0.33 |
| Ruus Road | Folsom Avenue | Industrial Parkway West | 0.53 |
| Santa Clara Street | West A Street | Harder Road | 1.65 |
| Soto Road | Winton Avenue | Harder Road | 1.05 |
| Tampa Avenue/Gomer Street | Patrick Avenue | Folsom Avenue | 0.92 |
| Tennyson Road/ West Tennyson Road | Industrial Boulevard | Dixon Street | 2.88 |
| Turner Court | Calaroga Avenue | Hesperian Boulevard | 0.30 |
| West A Street | Montgomery Street | Skywest Drive | 1.75 |
| | | *TOTAL BIKE LANES* | *22.43* |

*Source: Alta Planning + Design field inventory, Hayward GIS data, January 2007.*

**Table 3-4**
**Index of Existing City of Hayward Class III Bike Routes**

| Street | From | To | Miles |
|---|---|---|---|
| "A" Street | Montgomery Street | East City Limits | 0.77 |
| "D" Street | 2nd Street | East City Limits | 0.76 |
| "E" Street | 2nd Street | East City Limits | 0.18 |
| 2nd Street | Civic Center Drive | East City Limits | 1.16 |
| 4th Street | "A" Street | "D" Street | 0.29 |
| 5th Street | "D" Street | "E" Street | 0.15 |
| 6th Street | "B" Street | "D" Street | 0.22 |
| Amador Street | Centennial Park | Elmhurst Street | 0.35 |
| Arden Road/ Baumberg Avenue | Corporate Avenue | Industrial Boulevard | 0.76 |
| Berry Avenue | Eden Greenway east end | Whitman Street | 0.10 |
| Breakwater Avenue | San Francisco Bay Trail | Clawiter Road | 0.85 |
| Cabot Boulevard | West Winton Avenue | Depot Road | 1.11 |
| Campus Drive | Hayward Boulevard | 2nd Street | 0.76 |
| Carlos Bee Boulevard | Mission Bouelvard | Campus Drive | 0.61 |
| Cheney Lane | Calaroga Avenue | Peterman Avenue | 0.06 |
| City Center Drive | 2nd Street | Maple Court | 0.13 |
| Clawiter Road | West Winton Avenue | Breakwater Avenue | 1.62 |
| Depot Road | Cabot Boulevard | Hesperian Boulevard | 1.67 |
| Eden Landing Road | Breakwater Avenue | Eden Landing Road | 0.23 |
| Eldridge Avenue | Eden Greenway | Underwood Avenue | 0.54 |
| Elmhurst Street | Santa Clara Street | Amador Street | 0.20 |
| Fairview Avenue | Hayward Boulevard | City Limits | 0.71 |
| Garin Avenue | Mission Bouelvard | Skylark Court | 0.63 |
| Gomer Street | Underwood Avenue | Patrick Avenue | 0.20 |
| Grand Street | "A" Street | Meek Avene | 0.51 |
| Hathaway Avenue | San Leandro City Limits | West "A" Street | 0.41 |
| Hayward Boulevard | Campus Drive | Fairview Avenue | 2.87 |
| Hesperian Boulevard | Catalpa Way | City Limits | 0.26 |
| Hesperian Boulevard Frontage | Skywest Drive | north of West Winton Avenue | 0.67 |
| Industrial Boulevard | Clawiter Road | Hesperian Boulevard | 2.55 |
| Industrial Parkway SW/Dyer Street | Industrial Parkway West | Union City Border | 1.09 |
| Industrial Parkway W | Hesperian Boulevard | Industrial Parkway | 1.46 |
| La Playa Drive | Hesperian Boulevard | Calaroga Avenue | 0.29 |
| Meek Avenue | Grand Street | Silva Avenue | 0.14 |
| Middle Lane | Clawiter Road | Hesperian Boulevard | 0.64 |
| Orchard Avenue | Soto Road | Mission Boulevard | 0.53 |

| Street | From | To | Miles |
|---|---|---|---|
| Pacheco Way/Stratford Road | Folsom Path | Industrial Parkway West | 0.22 |
| Patrick Avenue | Gomer Street | West Tennyson Road | 0.30 |
| Silva Avenue | Meek Avenue | Sycamore Avenue | 0.24 |
| Southland Drive | Hesperian Boulevard | West Winton Avenue | 0.50 |
| Sycamore Avenue | Silva Avenue | Whitman Street | 0.08 |
| Underwood Avenue | Eldridge Avenue | Gomer Street | 0.08 |
| West Winton Avenue | Cabot Boulevard | Clawiter Road | 1.68 |
| Western Boulevard | San Leandro City Limits | "A" Street | 0.40 |
| Whitman Street | Sycamore Avenue | Tennyson Road | 2.11 |
| Winton Avenue | Southland Drive | Soto Road | 0.97 |
| | | *TOTAL BIKE ROUTES* | *32.06* |

*Source: Alta Planning + Design field inventory, Hayward GIS data, June 2007.*

## BIKEWAY SIGNAGE

*Hayward's bikeways are well signed*
*Photo: City of Hayward*

Implementing a well-designed, attractive, and functional system of network signage greatly enhances bikeway facilities by promoting their presence to both potential and existing users. Currently, Hayward uses standard Caltrans bikeway signage for Class II bike lanes and Class III bike routes. Almost all of Hayward's existing on-street facilities are well signed with signs placed along routes, at intersections, and at turning points. The City also signs bicycle facilities that are part of the Bay Trail with Bay Trail signage.

## BICYCLE SIGNAL DETECTION

Bicycle signal detection refers to mechanisms that activate traffic signals when a bicyclist positions him/herself in bicycle or auto travel lanes at signalized intersections. The City of Hayward currently uses a combination of in-pavement loop detectors and video detection systems to allow motor vehicles to activate traffic signals. These detection devices are not currently calibrated to detect bicyclists.

## BICYCLE PARKING

Bicycle parking is an important component in planning bicycle facilities and encouraging people to use their bicycles for everyday transportation. Bicycles are one of the top stolen items in most communities, with components often being stolen even when the bicycle frame is securely locked to a rack. Because today's bicycles are often high-cost and valuable items, many people will not use a bicycle unless they are sure that there is secure parking available at their destinations. Cyclists with higher-end bicycles are often reluctant to let a bicycle out of their sight at all, and may instead forgo outside racks and lockers and instead bring their bicycle into the building with them.

In California, bicycle parking facilities are classified as either Class I or Class II facilities.

**Class I Parking – Long Term Facilities** include secure areas such as lockers or bicycle "cages" that can be locked by the cyclist. Used mainly by students, employees, residents and others expected to park for more than two hours.

**Class II Parking – Short Term Facilities** include bicycle racks. Cyclists provide their own locks to secure their bicycles. Used mainly by shoppers, visitors, messengers and others expected to depart within two hours.

*Bicycle parking is provided at Hayward's BART stations*
*Photo: Caltrans*

### Bicycle Parking Requirements

Hayward's Municipal Code requires bicycle parking for projects with more than 50 motor vehicle parking spaces. (Section 10-2.406) Additionally, developers may receive one credit for motor vehicle parking for every four bicycle parking spaces, whether the bicycle spaces are required or not. These credits may not exceed 5% of the required parking.

The Municipal Code requires that bicycle parking measure at leeast 2 foot by 7 foot, be located in groups of four, and be equipped with locking devices for each bicycle.

### Hayward Existing Bicycle Parking Facilities

Bicycle parking is available at Hayward's two BART stations. South Hayward BART station provides a total of four wave racks with room for four bikes each and 30 locker spaces. Hayward BART Station has 20 locker spaces.

## SHOWERS, LOCKERS AND OTHER BICYCLE SUPPORT FACILITIES

End-of-trip facilities such as showers, lockers, and changing rooms are a critical need for commuting bicyclists. For those bicyclists needing to dress more formally, commute long distances, or bicycle during wet or hot weather, the ability to shower and change clothing can be as important as bicycle storage. Such facilities are most often provided by building owners or tenants for use by those who work in the building. Cyclists are more likely to ride to work if employers offer bicycle support facilities which offer a safe place to store bicycles, changing facilities and showers.

**Table 3-5** shows Hayward's largest employers and the bicycle support facilities offered by each.

**Table 3-5**
**Bicycle Racks and Support Facilities at Selected Hayward Employers**

| Employer Name | Number of Employees | Bike Parking? | Showers? | Notes |
|---|---|---|---|---|
| Kaiser Permanente Medical Center | 2200 | yes | yes | |
| Hayward Unified School District | 2100 | no | no | Response only for school district headquarters. |
| Cal State University | 1600 | yes | yes | Space for 4 bikes in front of police station. Employee shuttles have bike racks. |
| City of Hayward | 847 | yes | yes | 10 racks at City Hall, some also at police department, firehouses, library, and the corporation yard |
| Chabot College | 763 | yes | yes | Students generally use racks. There is an additional gated storage room that fits 10 bikes. |
| St. Rose Hospital | 660 | yes | yes | Currently have one bike rack (not bolted down) for 6 bikes at front of the hospital. Going to replace rack in front and add one in the back. |
| Berkeley Farms | 640 | no | no | |
| Gillig Corporation | 474 | no | no | |
| Alameda Newspaper Group | 405 | no | no | |
| Pepsi Cola | 400 | yes | no | |
| Cell Genesys, Inc. | 375 | no | yes | |
| Injex Industries, Inc. | 350 | yes | no | 6-10 bikes fit on rack Have changing area, but no showers. |

*Source: Alta Planning + Design Telephone Survey, January 2007*

## 3.3. BICYCLE FACILITY MAINTENANCE

Currently, the maintenance of Hayward's on-street bikeway facilities consists of restriping, re-stenciling and sweeping, as needed. The East Bay Regional Parks District is responsible for maintaining the Bay Trail.

## 3.4. PAST BICYCLE PROGRAM EXPENDITURES

**Table 3-6** lists past bicycle program funds and expenditures in Hayward.

**Table 3-6**
**Past Bicycle Program Expenditures**

| Year | Cost |
|---|---|
| 2002/2003 | $171,000 |
| 2003/2004 | $213,000 |
| 2004/2005 | $270,000 |
| 2005/2006 | $468,000 |
| *-TOTAL* | **$1,122,000.00** |

*Source: City of Hayward, Capital Improvement Projects, 20003/04 through 2006/07*

## 3.5. ENFORCEMENT AND EDUCATION PROGRAMS

### ENFORCEMENT

The City of Hayward Police Department enforces California Vehicle Code for bicyclists and vehicle drivers.

### EDUCATIONAL PROGRAMS

The City does not currently have any bicycle education programs. In the late 1990's the City of Hayward's Police Department developed a traffic safety program and that included bicycle education and helmet programs. However, these programs were discontinued due to lack of funding.

There are several low-cost educational and encouragement programs that the City should consider pursuing. These include purchasing marketing and education materials developed by the City of San Jose for its Street Smarts safety program, working with the East Bay Bicycle Coalition to provide bicycle education programs in Hayward schools, and contacting the League of American Cyclists to set up adult bicycle education courses.

## 3.6. MULTI-MODAL CONNECTIONS

Multi-modal refers to the use of two or more modes of transportation in a single trip (i.e., bicycling and riding the bus or train). Improving the bicycle-transit link is an important part of making bicycling a part of daily life in Hayward. Accommodating bicycles on mass transit allows cyclists to increase the distance they can travel and provides an alternative to riding at night or in poor weather.

*Both of Hayward's BART stations are served by bicycle facilities.*
*Photo: Caltrans 2001*

Making the multi-modal connection consists of three key elements: providing bicycle access to transit stops, providing bicycle parking facilities at transit stops and accommodating bicycles on trains and buses. Bicycle parking facilities are currently provided at the Downtown Hayward and South Hayward BART

stations. Hayward's three transit providers: Amtrak, BART and AC Transit allow bicycles on transit vehicles. The service areas and bicycle amenities provided by these transit agencies are described in more detail below.

## AC TRANSIT

Alameda Contra Costa County Transit (AC Transit) operates bus service throughout Hayward. AC Transit provides service from Hayward to other Alameda County destinations as well as express service across the San Mateo-Hayward Bridge and Bay Bridge. Each AC Transit bus can accommodate two bicycles, and cyclists may ride with their bicycles without additional fee or permit.

According to the "2002 On-Board Passenger Survey" published by AC Transit, system-wide 3% of bus riders bicycled to or from the bus stop.

## BAY AREA RAPID TRANSIT

Two BART stations are located in Hayward (Hayward and South Hayward) and one is located in Castro Valley (Castro Valley station). Three BART lines serve these stations (Fremont-Richmond, Fremont-Daly City/Colma, and Dublin/Pleasanton-Daly City/Colma), connecting Hayward with other Bay Area locations.

BART riders can rent bicycle lockers on a three-month or annual basis for a $15 or $30 dollar fee, respectively. A $25 dollar key deposit is required for all lockers, regardless of the length of rental. The deposit is returned as keys are relinquished.

## AMTRAK

Amtrak's Capitol Corridor route serves Hayward. The route provides intercity rail passenger service between Sacramento and San Jose. The Amtrak station is located at B Street and Meekland Avenue in downtown Hayward. Amtrak trains on the Capitol Corridor are equipped with bicycle racks. Riders may reserve a space in a bicycle rack for a fee when booking their ticket. Fees range from $5 to $10.

# 4. PLANNING AND POLICY CONTEXT

As required by Caltrans, this chapter provides an overview of local and regional planning documents and policies relevant to Bicycle Master Plan. This chapter demonstrates consistency between this Master Plan and existing plans and policies.

## 4.1. LOCAL PLANS AND POLICIES

Bicycle-related aspects of local plans and policies are summarized below. Where plans have identified specific corridors or routes for construction of bicycle facilities, those are described. Recommended bicycle facilities have been included in this update of the Bicycle Master Plan.

*Bicycle lanes have recently been installed on Eden Shores*
*Image: City of Hayward*

### HAYWARD GENERAL PLAN

The City of Hayward's General Plan was adopted on March 12, 2002, with the most recent amendment to the General Plan on June 27, 2006. The General Plan serves as a "local constitution" that outlines the City's environmental, social and economic goals, objectives and policies and guides all future decisions about development within the City. The plan is comprehensive, long-range, and general. The goals and objectives of the Bicycle Master Plan have been written to reflect the policies and strategies of Hayward's General Plan.

Bicycle-related policies and strategies can be found in the Circulation Element, and Conservation and Environmental Protection Element within the Hayward General Plan. The relevant policies and strategies are listed below.

### CIRCULATION ELEMENT

The Circulation Element contains the following policies and strategies that relate to bicycles and bicycling. Policy and strategy numbers have been retained from the Circulation Element.

**Improve Mobility to Foster Economic Vitality (Policy 4)**

> Provide leadership in educating the community about the benefits of commuting via alternative transportation modes and other ways to help the environment in making transportation choices. (Strategy 2)

**Improve Coordination among Public Agencies and Transit Providers (Policy 5)**

Consider the needs of transit riders, pedestrians, people in wheelchairs, cyclists, and others in long-range planning and the review of development proposals. (Strategy 1)

Encourage AC Transit and BART to expand access to cyclists, including providing racks on buses and secure bicycle parking. (Strategy 2)

**Provide the opportunity for safe, convenient and pleasant bicycle travel throughout all areas of Hayward. (Policy 9)**

Implement system of bikeways throughout the City (per the Bicycle Master Plan) tying residential areas to commercial areas and to recreational open space along the shoreline and in the hills. (Strategy 1)

Provide the related facilities and services necessary to allow bicycle travel to assume a significant role as a local alternative mode of transportation and recreation. (Strategy 2)

Encourage the use of bicycles as a pleasant means of travel and recreation embodying physical, environmental and social benefits. (Strategy 3)

**Encourage Land Use Patterns that Promote Transit Usage** (Policy 10)

Encourage alternatives to automobile transportation through development policies and provision of transit, bike and pedestrian amenities. (Strategy 4)

**Enhance the Capability of the Arterial Street Network to Reduce Congestion and Improve Traffic Flow. (Policy 11)**

Consider alternatives to street widening that balance the needs of pedestrian and bicycle movements with that of vehicles. (Strategy 2)

**Utilize All Possible Sources of Funding for Proposed Transportation Improvements. (Policy 15)**

Maintain a comprehensive Capital Improvement Program that adequately addresses all modes of transportation. (Strategy 4)

## CONSERVATION AND ENVIRONMENTAL PROTECTION ELEMENT

The Conservation and Environmental Protection Element contains the following policies and strategies that relate to bicycles and bicycling. Policy and strategy numbers have been retained from the Conservation and Environmental Protection Element.

**Enhance the aesthetic and recreational values of open space resources in the hill and shoreline areas. (Policy 2)**

Continue development of the Ridge Trail through implementation of a continuous green belt from Lake Chabot to Garin Park in coordination with Alameda County, Hayward Area Recreation and Park District, and East Bay Regional Park District. (Strategy 1)

Support regional efforts to expand opportunities for camping, picnicking, swimming, hiking and riding activities within the Hayward planning area. (Strategy 2)

Continue to develop passive and active recreational facilities on former disposal sites and continuous trails for hiking and riding. (Strategy 3)

Continue development of the Bay Trail and connecting trail systems in the Baylands, and seek to replace on-street segments of the Bay Trail with an alignment on the levees or along the edge of the Baylands. (Strategy 4)

Encourage provision of public access to the Baylands in the review of adjacent development projects, consistent with federal and state policies. (Strategy 5)

Work with appropriate agencies to provide trail corridor links between the hill area and the Baylands, such as along San Lorenzo Creek and along Industrial Parkway with connections to Old Alameda Creek. (Strategy 6)

**Maintain improved air quality by creating efficient relationships between transportation and land use. (Policy 11)**

Guide development into patterns that reduce dependency on automobile usage. (Strategy 1)

Require pedestrian-, bicycle-, and transit-oriented features in new development projects. (Strategy 2)

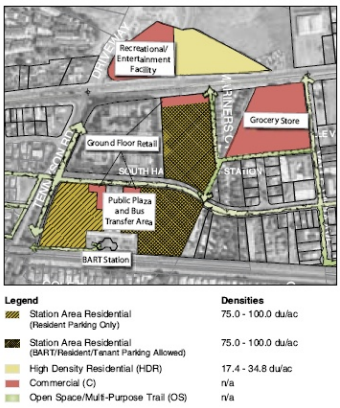
**Support implementation of Transportation Control Measures adopted by the Bay Area Air Quality Management District. (Policy 12)**

Review and evaluate the Bicycle Facilities Master Plan to determine if revisions are necessary to promote bicycle usage. (Strategy 2)

Encourage employers and developers to provide bicycle access and facilities. (Strategy 3)

Consider traffic calming strategies in capital improvement programs. (Strategy 8)

## SOUTH HAYWARD BART/MISSION BOULEVARD CONCEPT DESIGN PLAN




*South Hayward BART Concept Design Plan bicycle recommendations are included in the 2007 Bicycle Master Plan*

*Image: South Hayward BART Concept Design Plan*

The final *South Hayward BART/ Mission Boulevard Concept Design Plan* was adopted by City Council and published in June 2006. The plan outlines a land use and transit village plan for the area around the South Hayward BART station. The study area includes the Mission Boulevard Corridor between Harder Road and Industrial Parkway and encompasses 240 acres. The plan recommends several bicycle-related circulation improvements, described below. These recommendations have been incorporated into the recommended projects of the Bicycle Master Plan.

### Station Area Trail

Recognizing that the Route 238 improvements will result in reducing the sidewalk width along Mission Boulevard from 10 feet to 7 feet, the plan recommends providing a parallel north-south bicycle and pedestrian corridor (the "Station Area Trail"). Segments of this corridor already exist in some locations, via bicycle lanes on Dixon Street, and the linear park, Nuestro Parquecito, between Tennyson Road and Bowman School.

The plan recommends the following actions to develop the Station Area Trail between Harder Road and Tennyson Road:

- Provide an easement for a multi-use path along the western edge of the Kmart site, to connect Kmart site to Luvena Drive, via Haymont Mini Park, if developed as a retail use.
- Consider upgrading the crossing of Tennyson Road immediately to the east of the BART tracks, through construction of a bridge cantilevered off the BART track platform and/or in the short term, improve the path leading East 10th Street and East 11th Street down to Tennyson Road and make improvements to the signalized Dixon Street/Tennyson Road intersection such as corner bulbouts and special markings.
- South of Tennyson Road, provide an easement for a multi-use path alongside the BART tracks between Tennyson Road and the station

building entrance, to continue eastward to connect with Dixon Street. This would be achieved in conjunction with development of the BART surface parking lots.

- South of Tennyson Road, implement streetscape improvements to Dixon Street through setbacks for new development to permit a planting strip and wider sidewalk.
- Consider providing an easement for a multi-purpose path alongside the BART tracks between Valle Vista Avenue and Industrial Parkway on lands owned by public entities."

### Union Pacific Regional Trail

The plan also recommends that the City assess the feasibility of providing a north-south corridor along the Union Pacific right-of-way parallel to the BART tracks. The study envisions that this corridor "has the potential to become a regional recreational facility as well as a transportation route, similar to the Iron Horse Trail in the San Ramon Valley."

### Bicycle Pedestrian Tunnel under BART Tracks

The plan recommends a feasibility study to upgrade the existing pedestrian tunnel under the BART tracks adjacent to Bowman Elementary School. The current facility is cramped, dark, and not wheelchair or bicycle accessible. However, it provides an important connection between the BART station and the neighborhoods west of the tracks. The study recommends short-term improvements to lighting, maintenance and operations. Long-term improvements include widening and deepening the tunnel and providing a wheelchair-accessible ramp.

### Sorenson Pedestrian Bridge

The study recommends examining the feasibility of upgrading the pedestrian bridge at Sorenson Street so that it is wheelchair (and bicycle) accessible. This may require complete replacement of the bridge.

## ROUTE 238 CORRIDOR IMPROVEMENT PROJECT

In March 2005, the Hayward City Council approved the Route 238 Corridor Improvement Project as a replacement project for the Hayward Bypass and authorized the project to go forward with environmental analysis. Motor vehicle traffic along Route 238 (Mission and Foothill Boulevards) has become more congested as a result of increased local and regional traffic traveling through Hayward. Traffic on this corridor is estimated to increase 30% over the next 20 years.

*The Route 238 Corridor Improvement Project contains several bicycle-related mitigation measures*
*Image: Mark Thomas and Company*

The project is located along Foothill Boulevard and Mission Boulevard between the Hayward City of Hayward Limits Road and Industrial Parkway in the City of Hayward. The project includes changes in circulation, changes in lane directions and controls, a downtown one-way loop street system, improvements to the Jackson Street/Watkins Street intersection, improvements to the Foothill

Boulevard/Mission Boulevard/Jackson Street intersection, improvements to the Mission Boulevard/Carlos Bee Boulevard Intersection, improvements to the Foothill Boulevard/D Street intersection, improvements to the Jackson Street/Grand Street intersection, and other roadway improvements along Foothill Boulevard and Mission Boulevard.

The proposed plan, as it currently exists, would affect bicycle travel through downtown Hayward. Impacts to bicycle circulation in the area and mitigation measures are being addressed as part of the project's environmental review process, which is currently underway. Key components of the Route 238 Corridor Project include:

### Mini-Loop

The mini-loop design proposes the following circulation changes in downtown, as illustrated in **Figure 4-1**:

- Convert Foothill Boulevard from a two-way to a six lane one-way northbound street between A Street and Mission Boulevard.
- Convert A Street to a five lane one-way westbound street between Foothill Boulevard and Second Street. A Street in this section is an existing bicycle route.
- Convert Mission Boulevard to a five lane one-way southbound street between A Street and Jackson Street.
- Convert B Street to a two-way street between Foothill Boulevard and Second Street.

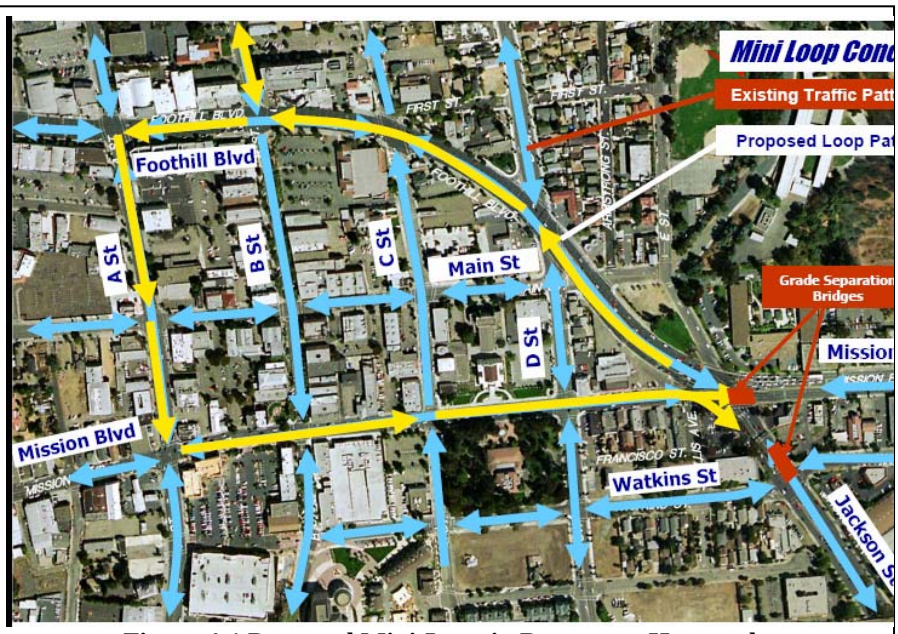



**Figure 4-1 Proposed Mini-Loop in Downtown Hayward**

### Foothill and Mission Boulevards

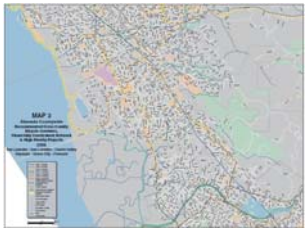
The proposed project will create combined peak-hour travel/off-peak parking lanes along Mission Boulevard between Fletcher Lane and Industrial Boulevard. The plan also proposes spot widening Mission Boulevard at its intersection with Orchard Avenue/Carlos Bee Boulevard and installing dual left-turn lanes from southbound Mission Boulevard to eastbound Carlos Bee, from westbound Carlos Bee to southbound Mission, and from eastbound Orchard Avenue to northbound Mission.

The proposed project includes several bicycle facility improvements. A bike route will be installed on southbound Mission Boulevard between A and D Streets. Bicycle lanes will be installed on northbound Foothill Boulevard between A and D Streets.

## 4.2. REGIONAL BICYCLE NETWORK

### ALAMEDA COUNTY CONGESTION MANAGEMENT AGENCY BICYCLE PLAN

The Alameda County Congestion Management Agency first developed a bicycle plan for Alameda County in 2001 and updated the plan in September 2006. The updated plan will be incorporated into Alameda County's *Countywide Transportation Plan*, which is updated every five years. The vision of the *Countywide* Bicycle Plan is:



*Alameda County Congestion Management Agency Bicycle Plan identifies regionally important routes in Hayward.*
*Image: ACCMA*

"To establish and maintain bicycling as a viable mode of transportation and integrate it with other modes of transportation; to assure that bicycling is safe for bicyclists of all abilities; and to encourage multi-jurisdictional coordination to plan, fund, design and construct bicycle projects." (ACCMA Countywide Bicycle Plan, page I-1)

The plan focuses on bicycle facilities that provide direct, convenient connections to workplaces, shops, parks, schools, libraries, greenways and transit. It identifies both on-road bicycle facilities and off-road recreational trails. The plan is intended to help improve coordination between jurisdictions when planning and constructing bicycle facilities that cross jurisdictional boundaries.

The Countywide Bicycle Plan has five goals, listed below:

1. Create and maintain an inter-county and intra-county bicycle network that is safe, convenient and continuous.
2. Integrate bicycle travel in transportation planning activities and in transportation improvement projects.
3. Encourage policies and actions that foster bicycling as a mode of travel.
4. Improve bicycle safety through facilities, education and enforcement.

5. Promote implementation of the *Countywide Bicycle Plan* by maximizing the use of public and private resources in establishing the bikeway network.

The plan includes a "Vision" plan, which is not financially constrained, and a Financially Constrained Network, that includes projects from the Vision that can be constructed in the 25-year planning time frame and are within estimated revenues available for that period. High priority projects are taken from the Financially Constrained Network. High priority County projects that relate to Hayward are included in this update to the Hayward Bicycle Master Plan.

The *Countywide Bicycle Plan* identifies two projects in Hayward as high-priority: Project 13 is a Class I bike path connecting the existing Industrial Parkway bike Path to Garin Avenue at Mission Boulevard. Project 2 is the Bay Trail, which is included in this Bicycle Master Plan.

**Table 4-1:**
**High-Priority County Projects Located Within Hayward**

| Project | City | Road | From | To | Miles | Type | Cost |
|---|---|---|---|---|---|---|---|
| Central County, I-580/ Foothills | Hayward | Industrial/ Mission | UPRR/ BART tracks | Woodland | 0.3 | Class I Bike Trail | 500,000 |
| S. Alameda County, I-880 Corridor | EB/Union City/ Hayward | Bay Trail | Eden Landing | Alameda Creek Bridge | 3.0 | Class 1 Bike Trail | 1,900,000 |

*Source: ACCMA Countywide Bicycle Plan, 2006*

The *Countywide Bicycle Plan* also identifies key north-south and east-west corridors. Four of these serve Hayward.

The **Bay Trail** segment south of SR-92 has not been built yet, but plans for that Class I bike path are included in Hayward's Bicycle Master Plan.

The **I-880 Corridor** through Hayward primarily consists of on-street bicycle facilities. The route runs along Skywest Drive (bike lanes) from the San Leandro border to Suierro Street, turns south on Hesperian Boulevard (bike route) to La Playa Drive (proposed bike route), turns south on Calaroga Drive (existing Class II bike lanes), west on Catalpa Way (existing Class II bike lanes) and south on Hesperian Boulevard (existing Class III bike route) toward Union City.

The **SR-92/Dublin Boulevard** corridor also consists of on-street bicycle facilities. It runs from the Bay Trail along Breakwater Avenue (existing bike route) to Clawiter Road (existing bike route), turns east on Middle Lane/Southland Drive (existing bike route), continues on Winton Avenue (existing bike route), and D Street (existing bike lanes).

The **Industrial Parkway** corridor runs between Hesperian Boulevard and Mission Boulevard. It is designated as a Class III bike route, from Hesperian Boulevard to Ruus Road. From Ruus Road to the Golf Course the bicycle facility on the Alameda County Flood Control Channel, parallel to Industrial Parkway, is designated as Class I.

**Table 4-2:**
**Countywide North-South and East-West Corridors that Serve Hayward**

| North South Corridors* | Jurisdictions Served |
|---|---|
| #5 –Bay Trail | Albany, Berkeley, Emeryville, Oakland, San Leandro, San Lorenzo, Hayward, Union City, Newark Fremont |
| #25 – I-880 | Albany, Berkeley, Emeryville, Oakland, San Leandro, San Lorenzo, Hayward, Union City, Newark, Fremont |
| #40- SR-92/ Dublin Blvd | Hayward, Castro Valley, Unincorporated County, Pleasanton, Dublin, Livermore |
| **East-West Corridors*** | **Jurisdictions Served** |
| 110 – Industrial Parkway | Hayward |

*Source: ACCMA Countywide Bicycle Plan, 2006*
** Numbers designate the ACCMA Corridor Number*

The plan identifies a spur route to California State University along Orchard Avenue, Carlos Bee Boulevard and Hayward Boulevard. These three roads are currently signed as Class III bike routes.

## ALAMEDA COUNTY BICYCLE MASTER PLAN FOR UNINCORPORATED AREAS

In December 2006, the Alameda County Public Works Agency released the public review draft of the Bicycle Master Plan for Alameda County's unincorporated areas. The prior 1999 plan focused on the western unincorporated areas of the County: Castro Valley, San Lorenzo, Ashland, Cherryland and Fairview. The 2006 update includes the eastern unincorporated areas.

Recognizing that Caltrans Class III bike route designation includes a variety of roadway conditions, from rural high-speed roadways to urban shared lane arterials, the draft plan identifies four different types of Class III bike route:

Class IIIA - Bike Route with Slower Traffic - Rideway
Class IIIB - Bike Route with Wide Curb Lanes - 14 to 16 feet

Class IIIC - Bike Route with Wide Shoulders - 4 feet min.
Class IIID - Rural Bike Route with Two-Foot shoulders where possible

The existing and proposed bikeways identified in the Draft Alameda County Bicycle Master Plan for Unincorporated Areas have been included in the bikeway network maps included in Hayward's Bicycle Master Plan Update.

## REGIONAL BICYCLE PLAN FOR THE SAN FRANCISCO BAY AREA

In 2001 the Metropolitan Transportation Commission published a regional bicycle plan for the nine-county Bay Area. The plan identifies a network of regionally significant bikeways that connect the Bay Areas towns, cities and unincorporated areas to transit, schools and universities and major central business district areas. Regional bikeways within Hayward are listed in **Table 4-3** and shown in **Figure 4-2** below.

**Table 4-3**
**Regional Bikeways within Hayward**

| Route | From | To | Status as of 2006 |
|---|---|---|---|
| Bay Trail | San Leandro Border | Route 92 | Existing |
| Clawiter Road | Breakwater Avenue | Winton Avenue | Existing |
| Winton Avenue | Clawiter Road | Santa Clara Street | Existing |
| Santa Clara Street | Winton Avenue | "A" Street | Existing |
| "A" Street | Santa Clara Street | Hayward City Limits | Existing |
| Eden Landing Road | Clawiter Road | Corporate Ave | Existing |
| Corporate Ave | Eden Landing Road | Arden Road | Existing |
| Arden Road | Corporate Ave | Industrial Parkway | Existing |
| Industrial Boulevard | Arden Road | Hesperian Boulevard | Existing |

*Source: MTC Regional Bicycle Plan, 2001 Subarea Map 5: East Bay Proposed Regional Bikeway System*

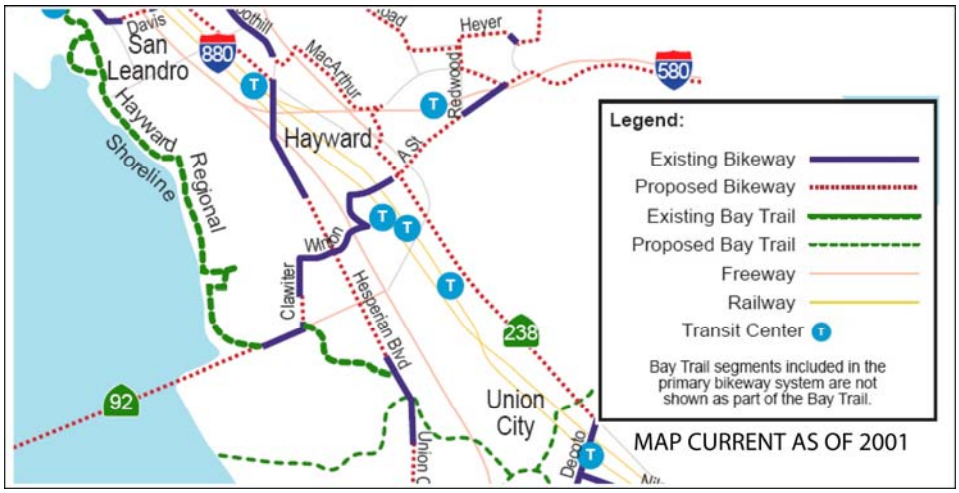



**Figure 4-2 MTC Regional Bicycle Plan: Hayward Bikeways**
*Source: Inset from the MTC Regional Bicycle Plan Map*

## ASSOCIATION OF BAY AREA GOVERNMENTS BAY TRAIL PLAN

The Bay Trail Plan was adopted in 1989 by the Association of Bay Area Governments, with the goal of developing a 500-mile loop around the San Francisco Bay Area. The plan mandates that the trail provide connections to existing parks and recreation facilities and create links to proposed and existing transit facilities.

The Bay Trail is partially constructed in Hayward, with existing segments in the north and south parts of the City. The existing northern Bay Trail alignment follows the Hayward Regional Shoreline Trail, from San Lorenzo south to Highway 92 and crosses over Highway 92 via Breakwater Ave and a bicycle and pedestrian bridge. The existing southern alignment through Hayward follows several pathways through Eden Landing development, and connects to Hesperian Boulevard's bicycle lanes at Eden Park Place, where it travels on on-street facilities into Union City.

An alignment of the Bay Trail between Highway 92 and the existing Eden Landing segment has been proposed. The proposed alignment will be an off-street trail that parallels the Hayward Shoreline, running roughly parallel to Arden Road and cutting south to edge the Eden Landing development. A spur of the Bay Trail is proposed along Old Alameda Creek (Alameda Creek Regional Trail). The Bay Trail Project and other stakeholders such as the East Bay Regional Park District are working with the South Bay salt Pond Restoration Project to determine an alignment of the Bay Trail that will extend the proposed Eden Landing Bay Trail down to the Alameda Creek Regional Trail. The exact alignment of the trail has not been determined yet.

### UNION CITY BICYCLE PLAN

Hayward is bordered by Union City on the South and several bikeways connect the two cities. Union City is in the process of finalizing its Non-Motorized Transportation Plan. Hayward's Class III bike route on Hesperian Boulevard is continued into Union City as a Class II bicycle lane on Union City Boulevard. The Union City Non-Motorized Transportation Plan proposes adding on-street bikeway facilities to Whipple Road, which will connect to Hayward's Class II bike lanes on Huntwood Avenue. The plan also proposes on-street bicycle facilities along Mission Boulevard to connect to the Hayward border. Several connections are recommended between the proposed Bay Trail and Union City neighborhoods.

### SAN LEANDRO BICYCLE AND PEDESTRIAN PLAN

San Leandro is surrounded by the cities of Oakland to the north and unincorporated community of San Lorenzo to the south. Currently, San Leandro has 25.5 miles of bikeways currently in place. Although some improvements have been made to the bikeway system and bike lanes exist on Bancroft Avenue, they are sporadic throughout the city. The plan recommends a bikeway system that provides a bicycle facility within one-half mile of any residential street and should be continuous with a minimal number of arterial crossings. The proposed system calls for approximately 27.5 miles of new bikeway facilities to be added into the city's bikeway system, an east-west connection between the Bay and the hills, and a north-south bikeway that would connect Oakland to San Lorenzo.

## 4.3. STATE REQUIREMENTS

### LOCAL STREETS AND ROADS

California State's "routine accommodation" policies require Caltrans to design, construct, operate, and maintain transportation facilities using best practices for pedestrians and bicyclists. Local jurisdictions can begin to expect that some portion of bicycle and pedestrian project costs, when they are built as part of larger transportation projects, will be covered in project construction budgets. This applies to Caltrans and other transportation facilities, such as new BART stations and Bus Rapid Transit stops. When developed in this manner, bicycle facility location is dictated by the transportation agency that is funding and constructing the facility.

# 5. NEEDS ANALYSIS

This chapter reviews the relationship between bicycle use, commute patterns, demographics, and land use in the City of Hayward. It identifies major activity centers and public facilities where bicyclists may be destined, along with the needs of recreational and commuter bicyclists. A review of the needs of each bicycle user group will help guide the type and routing of the bikeway system. This chapter also summarizes the results of public meetings to develop this plan, providing insight into the needs of Hayward's bicycling community.

*Utilitarian bicyclist on Dixon Street*
*Image: City of Hayward*

One of the primary reasons for producing this Bicycle Master Plan is to maximize the number of bicycle commuters in order to help achieve transportation goals such as minimizing traffic congestion and air pollution. In order to set the framework for these benefits, local and national statistics are used as a basis for determining the benefits of enhancements to Hayward's bikeway network and implementation of educational, encouragement and maintenance programs.

## 5.1. LAND USE AND DEMAND

Unlike automobile use, where historical trip generation studies and traffic counts for different types of land uses permits an estimate of future "demand" for travel, bicycle trip generation methods are less advanced and standardized. This is partly due to the limited data available on when, where and why people bicycle. Land use patterns can help predict demand and are important to bikeway planning because changes in land use (and particularly employment areas) will affect average commute distance, which in turn affects the attractiveness of bicycling as a commute mode. A comprehensive bikeway network should connect the neighborhoods where people live to the places they work, shop, recreate, or go to school.

## 5.2. COMMUTE PATTERNS

A central focus of presenting commute information is to identify the current "mode split" of people that live and work in Hayward. Mode split refers to the choice of transportation a person selects to move to destinations, be it walking, bicycling, taking a bus, or driving. One major objective of any bicycle facility enhancement or encouragement program is to increase the "split" or percentage of people who choose to bike rather than drive or be driven. Every saved vehicle trip or vehicle mile represents quantifiable reductions in air pollution and can help in lessening traffic congestion. Due to the unstable nature of congestion, even small reductions in the number of vehicles on the road can dramatically improve congestion.

Journey to work data obtained from the 2000 US Census for the City of Hayward, Alameda County, California, and the United States are shown in **Table 5-1**.

**Table 5-1**
**Journey to Work Data**

| Mode | United States | California | Alameda County | City of Hayward | |
|---|---|---|---|---|---|
| | | | | *Percent* | *Number* |
| Bicycle | 0.40% | 0.80% | 1.3% | 0.36% | 218 |
| Drove Alone | 76% | 72% | 68.8% | 70.4% | 42,622 |
| Carpool | 12% | 15% | 14.3% | 19.0% | 11,477 |
| Public Transit | 5% | 5% | 11.0% | 6.9% | 4,164 |
| Walked | 3% | 3% | 3.3% | 2.2% | 1,325 |
| Other | 4% | 5% | 0.9% | 1.2% | 742 |
| Total | 100% | 100% | 100% | 100% | 60,548 |

*Source: U.S. Census 2000. Percentages reflect percent of workers who do not work from home.*

As shown, in 2000, 218 Hayward residents commuted primarily by bicycle. This equates to a bicycle mode share of 0.36% and is just below the national average of 0.40%, and below the state and County averages of 0.80% and 1.3%. This figure indicates that Hayward has a below average bicycle mode share for commuting purposes.

Travel time to work is shown in **Table 5-2**. Travel time is important because it can give an indication of the number of potential new bicycle commuters.

**Table 5-2**
**Travel Time to Work Data**

| Time | United States | California | Alameda County | City of Hayward | |
|---|---|---|---|---|---|
| | | | | % | # |
| 9 minutes or less | 14% | 12% | 9% | 6% | 3,929 |
| 10 to 14 minutes | 15% | 14% | 12% | 11% | 6,873 |
| 15 to 29 minutes | 36% | 35% | 32% | 33% | 19,757 |
| 30 to 59 minutes | 27% | 29% | 34% | 36% | 21,899 |
| 60 minutes or more | 8% | 10% | 14% | 13% | 8,090 |

*Source: Census 2000. Percentages reflect percent of workers who do not work from home.*

It is important to note that Census data on commuting patterns is limited and tends to underestimate the true number of bicyclists in any community. First, commute trips only make up 20% of all trips: People who bicycle to school, for recreation or for errands are not included in Census data. Second, Census data only allows a person to choose one mode when answering. If a commuter uses more than one mode, biking to BART for instance, only the longest mode is recorded.

The next section uses average mode share rates for students and transit riders to develop a more realistic estimate of the bicycle mode share in the City of Hayward. The section also estimates the potential number of future bicycle commuters in Hayward and calculates the reductions in vehicle-based air pollution that would result from increasing the number of bicyclists in Hayward.

## 5.3. TRIP REDUCTION AND POTENTIAL AIR QUALITY BENEFITS

### AIR QUALITY IN HAYWARD

Hayward lies within the San Francisco Bay Area Air Basin, which is regulated by the Bay Area Air Quality Management District (BAAQMD). The city is within the South Central Bay District of the Basin. Currently, the Basin is classified as non-attainment for the Federal ground-level ozone and PM10 standards. The Basin is classified as severe non-attainment for the California ozone standard and non-attainment for the California PM10 standard.

According to the BAAQMD, motor vehicles produce about 75% of carbon monoxide and more than 60% of all air pollutants combined in the Bay Area.[1] Reducing vehicle miles traveled (VMTs) is a key goal of the BAAQMD, and fully implementing Hayward's proposed bicycle network will help achieve this goal by providing residents safe and functional ways to get to work, school, or shopping by bike.

### FUTURE RIDERSHIP AND POTENTIAL AIR QUALITY BENEFITS

It is possible to use the Census data in Section 5.2, in combination with national commuting statistics from the 2001 National Household Travel Survey (NHTS) and Bureau of Transportation Statistics estimates of standard emissions rates for motor vehicles to give a rough projection of potential future bicycle ridership in Hayward along with the trip reduction and air quality benefits. While these projections are ambitious goals, they are important to building a case for investing in bicycle facilities and programs over time.

[1] http://www.baaqmd.gov/pln/emission_inventory.asp

*Bicyclist near downtown Hayward*
*Image: Alta Planning + Design*

To estimate the number of potential commuter bicyclists, we need to determine how many Hayward residents live within biking distance of their workplace. However, Census data do not include the *distance* from a worker's home to workplace. Instead, the Census records the *time* it takes a worker to travel from home to work. The following paragraphs will explain the calculations that one must make to determine how many people live within bicycling distance of their workplace.

First, we determine the "average" commute time. According to the NHTS, the average commute time to work has remained close to 20 minutes since 1983. In 2001, averaging all modes, the commute time was 23 minutes[2]. Second, we determine how far a bicyclist can ride within 23 minutes. Assuming an average speed of 12 miles per hour, a bicyclist traveling for 23 minutes covers 4.6 miles. Third, we determine how long it takes an average commuter to drive 4.6 miles. According to the NHTS, in 2001 the average commute speed for workers who drive was 32 miles per hour. At an average commute speed of 32 miles per hour, a 4.6-mile journey would take almost nine minutes.

Finally, we find that 2000 Census data shows that 3,929 commuters within Hayward had commute times of 9 minutes or less (**Table 5-2**). Subtracting those residents that already walk or bike to work, (1,543, US Census) we find that 2,386 Hayward residents could potentially convert their commute trip from a car trip into a bicycle trip.

As shown in **Table 5-2**, approximately four thousand Hayward residents live within a nine-minute drive (a twenty-minute bicycle ride) of their work. With enhancement of the City's existing bikeways, construction of new bikeways, implementation of education and encouragement programs and employer incentives, and establishment of a bikeway maintenance program, it is possible that the city could capture 25% of those potential bicycle commuters. If the City of Hayward successfully encourages 25% (approximately 600) of these potential bicycle commuters to bicycle to work, the City's bicycle commute mode share would more than quadruple to 1.6%.[3] Bicycle commute mode shares between 2% to 3% are generally considered high, while higher bicycle mode shares are achievable. The City of Davis, California estimates its 2000 bicycle mode share at between 15% and 17.5% and its 1990 bicycle mode share to have been between 20% and 25%.

2 Hu, Patricia and T. Reuscher. "Summary of Travel Trends: 2001 National Household Travel Survey." Published by U.S. Department of Transportation, Federal Highway Administration. December 2004. Available at <nhts.ornl.gov/2001/pub/STT.pdf> Table 26. General Commute Patterns by Mode of Transportation.

3 It is possible that some commuters would be willing to bicycle more than 23 minutes to their workplace. Almost 6,900 Hayward residents have a commute time between 10 and 15 minutes. (Table 5-2) A fifteen-minute drive translates to a 40-minute bicycle ride. If 10% of the 6,873 commuters that have a ten to fifteen minute commute convert to bicycling, the Hayward bicycle commute mode share would increase to 2.1%.

**Table 5-3** quantifies the estimated reduction in vehicle miles traveled (VMT) and estimated reduction in air pollutant emissions in Hayward with the assumption that 25% of potential bicycle commuters will commute by bicycle. Under these estimates, the bicycle mode share of trips in Hayward would increase from 0.36% in 2000 (U.S. Census) to 1.6% percent. This increase would more than quadruple the current number of bicycle commuters in Hayward.

As seen in **Table 5-3**, an increase of this magnitude would result in an estimated decrease of 21 kilograms per day of hydrocarbons, 210 kilograms per day of carbon monoxide and 32 kilograms per day of nitrous oxides. Total annual reductions in these pollutants would be 5 metric tons of hydrocarbons, 54 metric tons of carbon monoxide, and 8 metric tons of nitrous oxides.

## 5.4. BICYCLE SAFETY AND ACCIDENT ANALYSIS

Safety is a major concern of both existing and potential bicyclists. For those who ride, safety is typically an on-going concern or even a distraction. For those who do not ride, it is one of the most compelling reasons not to ride. Nationwide, the total number of reported bicyclist fatalities has dropped dramatically since 1994, with 802 fatalities reported in 1994 and 725 fatalities reported in 2004. In comparison, total traffic fatalities have increased by 5% over this ten-year period.[4]

The same study shows that in 2004, of all California traffic fatalities 2.7% were bicyclist fatalities (110). This is higher than the nationwide average of 2%, but does not take into account the higher rates of bicycling found in California.[4] Bicyclist fatalities in California represent a fatality rate of just over 3 per million residents.

In 2004, adult bicyclists (25 and older) accounted for more than half of the total number of bicyclist fatalities in the US, and bicyclists under the age of 16 accounted for 21% of the fatalities and 32% of the injuries. However, bicyclists under the age of 16 have higher fatality and injury rates than other age groups (2.5 fatalities per million population, about 24% higher than the overall bicyclist fatality rate, and 286 injuries per million population, more than twice the injury rate for bicyclists of all ages.) [4]

[4] Traffic Safety Facts, 2004 Data. "Pedalcyclists" NHTSA, DOT # HS 809 912

**Table 5-3**
**Bicycle Commute and Air Quality Projections**

| **Current Commuting Statistics** | | **Source** |
|---|---|---|
| Hayward Population | 146,398 | *Department of Finance, 1/1/2006 estimate* |
| Number of Commuters | 60,548 | *2000 US Census (Employed persons minus those that work at home)* |
| Number of Bicycle-to-Work Commuters | 218 | *2000 US Census* |
| Bicycle-to-Work Mode Share | 0.36% | *Mode share percentage of Bicycle to Work Commuters* |
| School Children Grades K-8 | 16,000 | *Hayward Unified School District* |
| Estimated School Bicycle Commuters | 800 | *Lamorinda School Commute Study (Fehr & Peers Associates, 1995) and San Diego County School Commute Study (1990). (5%)* |
| Number of College Students | 8,865 | *2000 US Census* |
| Estimated College Bicycle Commuters | 443 | *National Bicycling & Walking Study, FHWA, Case Study No. 1, 1995. Review of bicycle commute share in seven university communities (5%)* |
| Average Weekday BART/AC Transit | 8,212 | *Calculated from BART's average weekday average exits in 1st, 2nd, 3rd, 4th quarters of 2006, AC Transit On Board Passenger Survey: System-wide Results, 2002 and 2000 US Census* |
| Number of Daily Bike-BART/AC Transit | 246 | *BART Station Profile Study, August 1999 (3% of total boardings) and AC Transit On Board Passenger Survey: System-wide Results, 2002* |
| Estimated Total Number of Bicycle Commuters and Utilitarian Riders | 1,708 | *Total of bike-to-work, transit, school, college and utilitarian bicycle commuters. Does not include recreation.* |
| Estimated Adjusted Mode Share | 1.2% | *Estimated Bicycle Commuters divided by population* |
| **Estimated Current Bicycle Trips** | | |
| Total Daily Bicycle Trips | 3,415 | *Total bicycle commuters x 2 (for round trips) plus total number of utilitarian bicycle trips* |
| Reduced Vehicle Trips per Weekday | 1,749 | *Assumes 73% of bicycle trips replace vehicle trips for adults/college students and 53% for school children* |
| Reduced Vehicle Miles per Weekday | 6,308 | *Assumes average one-way trip travel length of 4.6 miles for adults/college students and 0.5 mile for schoolchildren* |

| Potential Future Bicycle Commuters | | |
|---|---|---|
| Number of workers with commutes nine minutes or less | 3,929 | *US Census 2000* |
| Number of workers who already bicycle or walk to work | 1,543 | *US Census 2000* |
| Number of potential bike-to-work commuters | 2,386 | *Calculated by subtracting number of workers who already bicycle or walk from the number of workers who have commutes 9 minutes or less* |
| Future number of new bike-to-work commuters | 597 | *Based on capture rate goal of 25% of potential bicycle riders* |
| Total Future Daily Bicycle Commuters and Utilitarian Riders | 2,304 | *Current daily bicycle commuters, bike to school and utilitarian riders, plus future bicycle commuters* |
| **Future Trip Reductions** | | |
| Future Total Daily Bicycle Trips | 4,608 | *Total bicycle commuters x 2 (for round trips)* |
| Future Reduced Vehicle Trips per Weekday | 3,364 | *Assumes 73% of bicycle trips replace vehicle trips* |
| Future Reduced Vehicle Miles per Weekday | 15,474 | *Assumes average one-way trip travel length of 4.6 miles for adults.* |
| Future Reduced Vehicle Miles per Year | 4,100,717 | *256 weekdays per year* |
| **Future Air Quality Benefits** | | |
| Reduced HC (kg/weekday) | 21 | *(0.00135 kg/mile)* |
| Reduced CO (kg/weekday) | 210 | *(0.0136 kg/mile)* |
| Reduced NOX (kg/weekday) | 32 | *(0.00207 kg/mile)* |
| Reduced HC (metric tons/year) | 5 | *1000 kg per metric ton; 256 weekdays/year* |
| Reduced CO (metric tons/year) | 54 | *1000 kg per metric ton; 256 weekdays/year* |
| Reduced NOX (metric tons/year) | 8 | *1000 kg per metric ton; 256 weekdays/year* |

*Emissions rates from Table 4-38 - Estimated National Average Vehicle Emissions Rates per Vehicle by Vehicle Type Using Gasoline and Diesel (Updated June 2005) "National Transportation Statistics", Bureau of Transportation Statistic,s.*
*Other sources as noted in the table.*
*HC = hydrocarbons, CO = carbon monoxide; NOX = nitrogen oxides*

According to a 1990 study of 3,000 bicycle crashes, the most common type of bicycle-vehicle crash was one where the motorist failed to yield right-of-way at a junction (21.7% of all crashes)[5]. More than a third of these involved a motorist violating the sign or signal, driving into the crosswalk or intersection, and striking the bicyclist. The next most common types of vehicle-bicycle crash were where the bicyclist failed to yield right-of-way at an intersection (16.8%), a motorist turning or merging into the path of a bicyclist (12.1%) and a bicyclist failing to yield right-of-way at a midblock location. These data suggest that a bicycle safety plan should address intersection improvements and education about the rights and responsibilities of bicyclists and motorists, especially regarding right-of-way laws.

Data for reported bicycle collisions were collected for the calendar years 2002 to 2005 in Hayward. These are presented in **Table 5-4**. As shown, there were 170 bicycle-related collisions reported in Hayward from 2002 to 2005. Two of these collisions were fatal, 11 resulted in severe injury, 59 resulted in other visible injuries and 80 resulted in complaint of pain. Comparing Hayward's injury rate to the national bicyclist injury rates (139 injuries per 1 million population in 2004), Hayward would expect to have only nineteen injury collisions per year, but according to the collision data, the City has a higher than expected injury rate.[6].Between January 2002 through December 2005, Hayward averaged 43 injury collisions per year. Additionally, Hayward's fatality rate during the study period (0.5 fatalities per year) is slightly higher than what would be expected using statewide fatality rates (3 per 1 million residents, which works out to an average 0.42 fatalities per year for a City the side of Hayward). [6]

Hayward's injury and fatality rates for bicyclists are above statistical expectations, it is important for the City to strive to reduce bicycle fatalities and injuries to the greatest extent possible.

**Table 5-4**
**Hayward Bicycle Collision Data 2002-2005**

| Year | Total Traffic Collisions | Total Bicycle Related | | Fatal | Severe Injury | Other Visible Injury | Complaint of Pain |
|---|---|---|---|---|---|---|---|
| | | *Number* | *Percent* | | | | |
| 2002 | 1,837 | 55 | 3.0% | 1 | 2 | 25 | 20 |
| 2003 | 1,566 | 33 | 2.1% | 1 | 2 | 7 | 16 |
| 2004 | 1,448 | 40 | 2.8% | 0 | 3 | 16 | 18 |
| 2005 | 1,331 | 42 | 3.2% | 0 | 4 | 11 | 26 |
| TOTAL | 6,182 | 170 | - | 2 | 11 | 59 | 80 |

*Source: Statewide Traffic Records System 2005.*

[5] Pedestrian and Bicycle Crash Types of the Early 1990's, Publication No. FHWA-RD-95-163, W.H. Hunter, J.C. Stutts, W.E. Pein, and C.L. Cox, Federal Highway Administration, Washington, DC, June, 1996.

[6] Injury rates from Traffic Safety Facts, 2004 Data. "Pedalcyclists" NHTSA, DOT # HS 809 912

## 5.5. BICYCLIST NEEDS

The purpose of reviewing the needs of bicyclists is twofold: (a) it is instrumental when planning a system that must serve different skill levels and different trip types; and (b) it is useful when attempting to quantify future usage and benefits to justify expenditures of resources. According to a nationwide 1991 Lou Harris Poll, it was reported that "...nearly 3 million adults (about one in 60) already commute by bike, and projected the number could rise to 35 million if more bicycle friendly transportation systems existed." In short, there is a large reservoir of potential bicyclists who do not ride (or ride more often) simply because they do not feel comfortable using the existing street system and/or do not have appropriate bicycle facilities at their destination.

While the majority of Americans own bicycles, most of these people are recreational riders who ride relatively infrequently. Schoolchildren between the ages of about 6 and 14 typically make up a large percentage of the bicycle riders, often riding to school, parks, or other local destinations. The serious adult road bicyclist makes up a small, but important, segment of bikeway users, along with serious off-road mountain bicyclists, who enjoy riding on trails and dirt roads. The single biggest adult group of bicyclists is the intermittent recreational rider who generally prefers to ride on pathways or quiet side streets.

### NEEDS OF CASUAL AND EXPERIENCED BICYCLISTS

Bicyclist needs vary depending on the skill level of the bicyclist and the type of trip the bicyclist is taking. For the purposes of this Plan, bicyclists are separated into three skill levels as classified by the Federal Highway Administration (FHWA). The bicyclists classification is as follows:

### GROUP A – ADVANCED BICYCLISTS

Experienced riders, who can operate under most traffic conditions, ride longer distances at higher speeds and tend to use the same roadways that the cars use, comprise the majority of the current users of collector and arterial streets and are best served by the following:

- Direct access to destinations usually via the existing street and highway system.
- The opportunity to operate at maximum speed with minimum delays.
- Sufficient operating space on the roadway or shoulder to reduce the need for either the bicyclist or the motor vehicle operator to change position when passing.

This group of experienced riders considers the bicycle as the primary transportation mode for most trips.

## GROUP B – BASIC BICYCLISTS

Casual or new adult and teenage riders who are less confident of their ability to operate in traffic without special provisions for bicycles. Some will develop greater skills and progress to the advanced Group A level, but there will always be many millions of basic bicyclists. For the most part, they do not ride for transportation or if they do, they do not ride long distances. This group of average bicyclists prefers:

- Comfortable access to destinations, preferably by a direct route (these bicyclists are willing to accept some out of direction travel to avoid hazardous locations), either low speed, low traffic volume streets or designated bicycle facilities.

- Well-defined separation of bicycles and motor vehicles on arterial and collector streets (bike lanes or shoulders), or on separate bike paths.

## GROUP C – CHILDREN

Usually pre-teen riders whose roadway use is often initially monitored by parents. Eventually they are allowed independent access to the roadway system. They and their parents prefer the following:

- Access to key destinations surrounding residential areas including schools, recreation facilities, shopping or other residential areas.

- Shortest route almost exclusively.

- Residential streets with low motor vehicle speed limits and volumes.

- Well-defined separation of bicycle and motor vehicles on arterial and collector streets, or on separate bike paths.

The FHWA study combines Groups B and C thereby recognizing two broad classes of bicyclists: Group A riders and Group B/C riders. In lieu of a California "design bicyclist", these two groupings are proposed to define bicycle facilities in Hayward. Casual bicyclists include youth and adults who are intermittent riders. Some casual bicyclists, such as youth under age 16, may be unfamiliar with operating a vehicle on roads. Experienced bicyclists include long-distance road bicyclists, racers, and those who use their bicycle as a primary means of transportation. These bicyclists generally feel comfortable riding on roads and with traffic. A summary of the different types of bicyclist needs are provided below.

## NEEDS OF BICYCLISTS MAKING RECREATIONAL AND UTILITARIAN TRIPS

As available state and federal bicycle funding is primarily focused on commuting bicyclists – those riding to work or school, or for shopping, errands, and other utilitarian trips – it is important to understand the specific needs of bicycle commuters.

**Table 5-5**
**Characteristics of Recreational and Utilitarian Trips**

| Recreational Trips | Utilitarian Trips |
|---|---|
| Directness of route not as important as visual interest, shade, protection from wind | Directness of route more important than visual interest, etc… |
| Loop trips may be preferred to backtracking | Trips generally travel from residential to shopping or work areas and back |
| Trips may range from short to over 50 miles | Trips generally are 1-5 miles in length |
| Short-term bicycle parking should be provided at recreational sites, parks, trailheads and other recreational activity centers | Short-term and long-term bicycle parking should be provided at stores, transit stations, schools, workplaces. |
| Varied topography may be desired, depending on the skill level of the bicyclist | Flat topography is desired |
| May be riding in a group | Often ride alone |
| May drive with their bicycles to the starting point of a ride | Use bicycle as primary transportation mode for the trip; may transfer to public transportation; may or may not have access to a car for the trip |
| Trips typically occur on the weekend, before morning commute hours or after evening commute hours. | Trips typically occur during morning and evening commute hours (commute to school and work). Shopping trips also occur on weekends. |
| Type of facility varies, depending on the skill level of bicyclist | Generally use on-street facilities, may use pathways if they provide easier access to destinations than on-street facilities |

For the purpose of this Plan, bicycle trips are separated into two trip types: recreational and utilitarian. Recreational users cover all age groups from children to adults to senior citizens. Recreational trips can range from a 50-mile weekend group rides, to a family outing along a quiet bike path, and all levels in between. Utilitarian trips include commuter bicyclists, which are a primary focus of state and federal bicycle funding, as well as bicyclists going to school, shopping or running other errands.

Recreational bicyclists' needs vary depending on their skill level. Road bicyclists out for a 100-mile weekend ride may prefer well-maintained roads with wide shoulders and few intersections, stop signs or stop lights. Casual bicyclists out for a family trip may refer a quiet bike path with adjacent parks, benches and water fountains.

Utilitarian bicyclists have needs that are more straightforward. They require bike lanes or wider curb lanes along all arterials and collectors, loop detectors at signalized intersections and adequate maintenance of the pavement. At destination points, commuters require and adequate long-term bicycle storage and showers or changing facilities while shoppers require short-term bicycle storage, specifically bike racks.

## 5.6. CITIZEN AND COMMUNITY INVOLVEMENT

Public involvement is an important component of the Hayward Bicycle Master Plan process and provides the primary means of determining the specific needs of Hayward's bicycling community. In developing this updated Bicycle Master Plan, the City hosted a public meeting in which staff presented the plan and solicited information from the community. Community input has been incorporated into the Bicycle Master Plan.

# 6. RECOMMENDED IMPROVEMENTS AND IMPLEMENTATION

This chapter outlines the recommended bikeway facilities, provides construction cost estimates and outlines potential funding sources. Most of the recommended bikeways serve as gap connectors between the existing bikeways, are part of a regional bikeway plan, or are included in a local development plan.

## 6.1. RECOMMENDED BIKEWAY NETWORK

A bikeway network is a system of bikeways that for a variety of reasons – safety, convenience, destinations served, attractiveness – provides a superior level of service for bicyclists. The bikeway network serves as a tool that allows the City to focus and prioritize bicycle facilities where they will provide the greatest benefit to bicyclists and the community at large. It is important to note that bicyclists are legally allowed on all City streets whether the streets are a part of the designated bikeway network or not.

*A bicyclist using one of Hayward's many bicycle routes*

*Image: Alta Planning + Design*

The Recommended Bikeway Network for Hayward is shown in **Figure 6-1**. The bikeways are classified into the standard Caltrans Class I, II, and III bikeway categories discussed in Chapter 3.

## 6.2. PROJECT DESCRIPTIONS

This section describes the bikeway projects recommended by this plan.

### Proposed Bikeways Carried over From the 1997 Plan

The following bikeways were proposed in the 1997 Bicycle Master Plan, have not yet been constructed, and are included in this update to the Bicycle Master Plan.

**West A Street Extension**. The extension of West A Street from Hesperian Boulevard to Skywest Drive has been constructed, and includes bicycle lanes in each direction. Future extension of West A Street from Skywest Drive to Corsair Boulevard is proposed. This proposed extension would have an 80-foot right-of-way (68 feet curb to curb), including 5 foot bicycle lanes in each direction that would provide continuity with the existing bicycle lanes on West A Street.

**Corsair Avenue**. The 1997 plan recommended signing Corsair Avenue as a Class II bicycle lane in conjunction with the possible A Street extension. Corsair Avenue is a collector street serving the Industrial Area. If the A Street extension is implemented, Corsair would be the link with West Winton Avenue and the rest of the Industrial Area. The street has two specific segments:

> West Winton to Sabre This segment is 68 feet wide and has four vehicular lanes with a raised median. The proposed bicycle facility for this segment is two one-way five-foot bike lanes and will consist of restriping and directional signs.
>
> Sabre to Proposed West A Street Extension This segment is narrower, at 45 feet, and consists of two vehicular lanes. The proposed bicycle facility for this segment is two one-way five-foot bike lanes. To implement this facility, parking should be prohibited on one side.

**Skywest Drive**. This street from West A Street to Hesperian Boulevard provides access to the Hayward Executive Airport and related businesses via Hesperian. The proposed bicycle facility on this street is two one-way 5-foot Class II bicycle lanes. This bicycle facility would link with the future bicycle lanes on A Street and the existing bicycle route on Hesperian Boulevard.

*The Mission-Foothills Neighborhood Plan recommends a trail along the Hayward Fault*
*Image: City of Hayward*

**Feasibility Study for Hayward Fault Trail** This proposed bicycle facility is a Class I bike path along the Hayward Fault that parallels Mission Boulevard. It is shown in the Recommended Community Improvements Map of the Mission-Foothills Neighborhood Plan (adopted 1992). The alignment shown in the Neighborhood Plan utilizes several park areas and crosses numerous privately owned parcels. This bikeway would connect the existing bike lane on Harder Road to downtown and provides an alternative parallel route to Mission Boulevard. The implementation of this project will require detailed study and identification of environmental cost and funding issues to determine its feasibility. The location of the bike path has been shown on the Bicycle Map for future consideration.

### Bicycle Projects Related to Route 238 Corridor Improvement Project

**Foothill Boulevard Bike Lane**. Class II bicycle lane is recommended along the east side of Foothill Boulevard (northbound) between D Street and A Street (included in Route 238 Project).

**Watkins Street Bike Lane**. A Class II bicycle lane is recommended along Watkins Street between B Street and Fletcher Lane (currently included in Route 238 Project).

**Fletcher Lane Bike Lane** A Class II bicycle lane is recommended along Fletcher Lane between Watkins Street and Mission Boulevard.

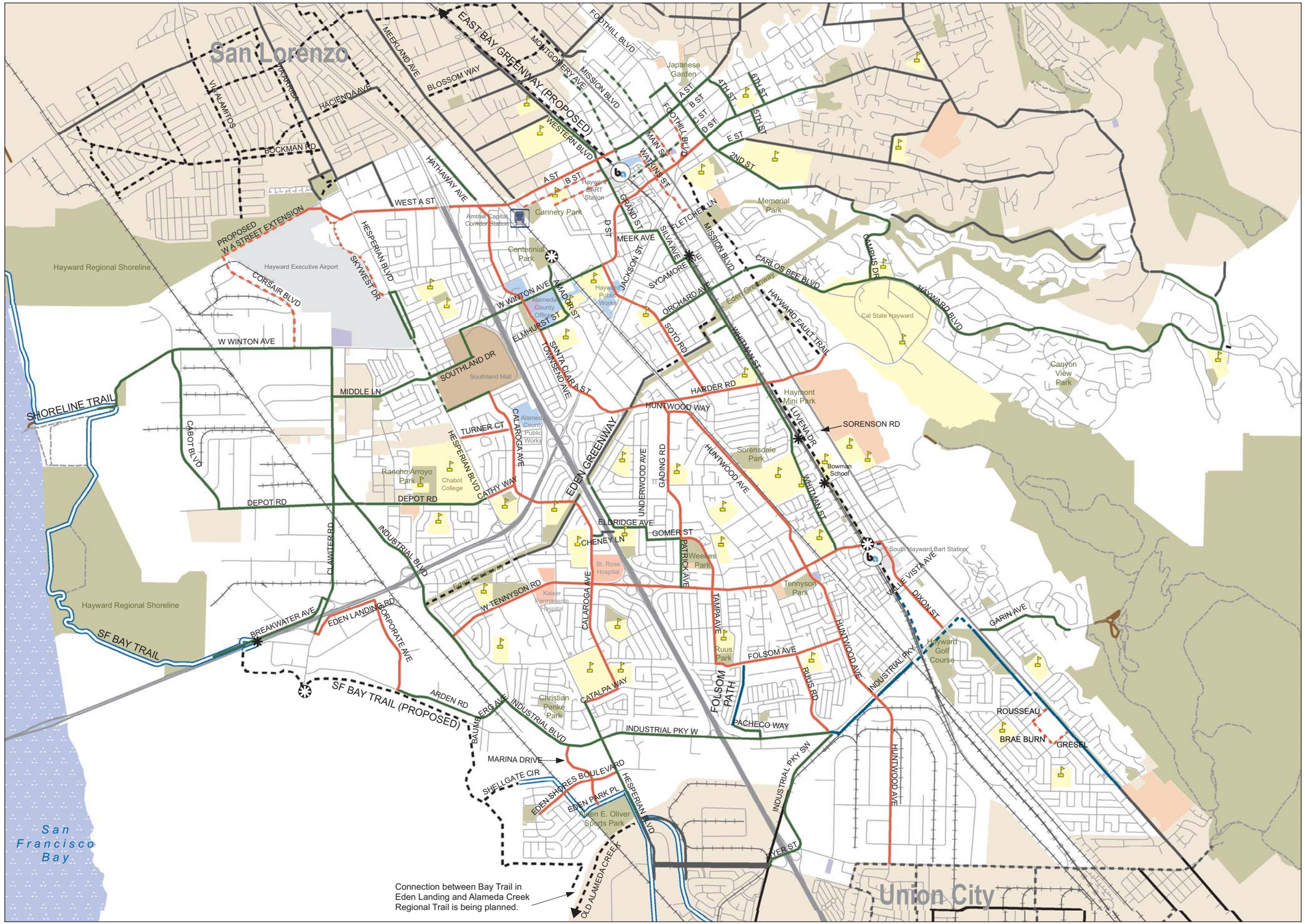



**FIGURE 6-1**

**Proposed Bikeways City of Hayward 2007**

**Existing Bikeways**
- Class I Bike Path
- Class II Bike Lane
- Class III Bike Route
- Bikeways by Others
- Bay Trail

**Proposed Bikeways**
- Class I Bike Path
- Class II Bike Lane
- Class III Bike Route
- Bikeways by Others

**Bicycle-Accessible Trails**
- Dirt or Gravel
- Paved

**Land Uses**
- Community
- Education
- Government
- Medical
- Parks/Recreation
- Public Safety
- Shopping
- Transportation

**Bike or Pedestrian Bridges**
- Existing
- Proposed

- Amtrak Station
- BART Stations
- Schools

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alta PLANNING + DESIGN

**Mission Boulevard Bike Route** A Class III bicycle route is recommended along Mission Boulevard between A Street and D Street.

**C Street Bike Route** A Class III bicycle route on C Street between Foothill Boulevard and the Hayward BART Station.

**Bicycle Route Guidance** Install bicycle route guide signs on A Street before Mission Boulevard, guiding through bicyclists to the Mission Boulevard and C Street bicycle routes.

**Montgomery Avenue Bike Route** A Class III bicycle route is recommended on Montgomery Avenue between city limits and B Street.

**Main Street Bike Route** A Class III bicycle route is recommended on Main Street between Sunset Boulevard and A Street, continuing as Class II bicycle lanes to D Street.

### Bicycle Projects Related to the South Hayward BART Concept Design Plan

**Station Area Trail**: This proposed bicycle improvement would include an easement for multi-use path along western edge of K-Mart site between Harder Road and Luvena Drive, a bicycle-pedestrian Bridge over Tennyson Road at South Hayward BART station, easement for multi-use path parallel to BART tracks between Tennyson Road to station entrance and eastward to Dixon Street, and an easement for multi-use path along BART tracks between Valle Vista Avenue and Industrial Parkway.

*A bicycle pedestrian bridge is proposed over Tennyson Road at the South Hayward BART station*

*Image: Alta Planning + Design*

**East Bay Greenway**. This trail would be part of a proposed greenway on BART right-of-way extending from Oakland to Fremont. The group Urban Ecology is currently working with BART to negotiate trail construction in conjunction with BART's seismic retrofit of the elevated rail lines. The Hayward segment of the trail would run along the elevated BART tracks from the San Leandro border to the Downtown Hayward BART Station. The alignment would continue as on-street improvements (to be identified) between Hayward and Fremont.

**Bicycle Pedestrian Tunnel**. A new tunnel is proposed under the BART tracks adjacent to Bowman Elementary School. The existing tunnel does not meet ADA requirements.

**Sorenson Street Pedestrian Bridge**. This plan recommends upgrading Sorenson Street Pedestrian Bridge to allow bicycle and wheelchair access.

### San Francisco Bay Trail

**Hayward Segment of the Bay Trail**. The Class I bicycle path portion of the

Bay Trail through Hayward will be developed by the East Bay Regional Park District. The proposed alignment of this trail is shown in Figure 6-1. As of June 2007, the Bay Trail Alignment at Eden Landing has been planned, approved and permitted. The alignment from Eden Landing south to Alameda Creek has a feasibility study completed, with the final alignment to be determined.

### Other Bikeway Projects:

*The Mission Boulevard Bicycle Path connects to Union City*

*Image: Alta Planning + Design*

**Centennial-Cannery Connector Bridge**. A Bicycle-Pedestrian Bridge is proposed to connect Centennial Park and the future Cannery Park over the train tracks.

**Eden Greenway Path**. A segment of the Eden Greenway between Soto Road and the Union Pacific Railroad Tracks is recommended. This trail would be developed by Hayward Area Recreation District.

**B Street Bike Lane – Amtrak to BART**. Bike lanes are recommended along B Street between the Amtrak Station and the Downtown Hayward BART Station.

**C Street Bicycle Lanes** Bicycle lanes are recommended on C Street the Hayward BART station and Cannery Park.

### Projects from the 1997 Bicycle Plan that have been Modified or Eliminated

The following project included in the 1997 Bicycle Master Plan was modified for this Bicycle Master Plan.

- Class I path connecting **Industrial Parkway bicycle path** to Garin Avenue was modified to reflect the Twin Bridges Construction. The current plan recommends extending the path along Industrial Parkway from the BART tracks to the intersection with Mission Boulevard, then constructing a path on the south side of Mission Boulevard, ending at the multiuse path constructed as part of the Twin Bridges Project.

## 6.3. COST BREAKDOWN

Cost estimates for the recommended bicycle network are provided in **Table 6-2** below. This plan recommends construction of approximately 1 mile of new Class I Bike Paths, 4 miles of new Class II bike lanes, and 2 miles of Class III Bike Routes.. The total cost of constructing the recommended projects is estimated to be $1.6 million dollars, with approximately $1.1 million due to the high cost of constructing off-street bike paths.

Unless otherwise noted, cost estimates are based on per mile averages of bikeway construction in California. Estimates include 12% for survey and design work, 25% for contingency and 10% for construction administration. Major projects include 7% for traffic control and mobilization and a 15% mark-up for ancillary related improvements. Cost estimates are planning level, and do not include feasibility or environmental clearance. Project-specific factors such as grading, landscaping, intersection modification and bridge construction may increase the actual cost of construction.

All the projects are recommended to be implemented over the next twenty years. However, due to the unpredictability of funding sources, economy and political support, some projects, especially those that require right-of-way purchase or coordination with multiple agencies, may not be completed within the next twenty years. A description of available funding sources is provided at the end of this chapter.

In addition to the bikeways listed in **Table 6-2**, which will are the responsibility of the City of Hayward, this plan supports the construction of bikeways within Hayward that will be developed by entities other than the City of Hayward. These bikeways are listed in **Table 6-1**. Construction of these bikeways would add an additional 9.1 miles of Class I Bike Paths to the Hayward bicycle network. Cost estimates are not provided for these bikeways.

**Table 6-1**

**Bicycle Paths to Be Developed by Other Entities**

| Location | From | To | Miles | Notes |
|---|---|---|---|---|
| East Bay Greenway - BART ROW | San Leandro Border | Downtown Hayward BART Station | 1.44 | Urban Ecology and BART to lead |
| Bay Trail | Route 92 | Union City Border | 3.84 | EBRPD is leading feasibility, planning, environmental, construction |
| Eden Greenway - West of Whitman Street | Berry Avenue | Whitman Street | 0.21 | Hayward Area Recreation District |
| Eden Greenway - Public Utilities ROW | Soto Road | Silverthorne Place | 0.15 | Hayward Area Recreation District |
| Eden Greenway - Public Utility Corridor | Hesperian Boulevard | Industrial Boulevard | 0.66 | Hayward Area Recreation District |
| Hayward Fault Trail | "E" Street | Harder Road | 1.51 | by others |
| Station Area Trail | Harder Road | Valle Vista Avenue | 1.71 | by others |
| | | **TOTAL** | **9.10** | |

**Table 6-2**

**Planning Level Cost Estimates for Recommended Bikeway Projects**

| Street | From | To | Miles | Estimated Cost |
|---|---|---|---|---|
| **Class I Bike Path** | | | | |
| Public ROW Valle Vista to Industrial Parkway | Valle Vista Avenue | Industrial Parkway | 0.38 | $596,100 |
| Industrial Parkway Path Extension | End of Industrial Pkwy Path at BART tracks | Garin Avenue | 0.51 | $500,000 |
| | | *TOTAL* | *.89* | *$1,096,100* |
| **Class II Bike Lane** | | | | |
| West A Street Extension | Current end of West "A" Street | Corsair Avenue | 0.56 | $326,800 |
| Corsair Avenue | West "A" Street Extension | West Winton Street | 0.82 | $39,200 |
| Skywest Drive | West "A" Street Extension | Hesperian Boulevard | 0.65 | $30,800 |
| Fletcher Lane | Watkins Street | Mission Boulevard | 0.06 | $2,900 |
| Foothill Boulevard | "D" Street | "A" Street | 0.30 | $14,300 |
| Main Street | "A" Street | "D" Street | 0.28 | $13,300 |
| B Street | Hayward BART Station | Amtrak Station | 0.55 | $26,200 |
| C Street | Hayward BART Station | Cannery Park | 050 | $23,800 |
| Watkins Street | "B" Street | Fletcher Lane | 0.46 | $21,900 |
| | | TOTAL | *3.66* | *$499,200* |
| **Class III Bike Route** | | | | |
| Montgomery Avenue | North City Limits | "B" Street | 0.66 | $17,900 |
| Main Street | "A" Street | Sunset Boulevard | 0.47 | $12,800 |
| Mission Boulevard | "A" Street | "D" Street | 0.27 | $7,300 |
| "C" Street | Foothill Boulevard | Hayward BART Station | *0.40* | *$10,900* |
| | | TOTAL | *2.32* | *$48,900* |
| | | **TOTAL NETWORK COST** | **6.87** | **$1,644,200** |

Note: Cost estimates are based on California averages. Actual costs may vary.

Cost estimates do not include feasibility, environmental clearance or right-of-way acquisition.

Cost estimates include 12% survey and design, 25% contingency, 10% construction administration. Major projects such as bike paths and road widening for bike lanes includes 7% for traffic control and mobilization and 15% markup for ancillary related improvements.

## 6.4. FUNDING

The primary funding sources for bicycle facilities in Hayward are state and federal Regional Bicycle and Pedestrian Program (RBPP) and Congestion Mitigation and Air Quality (CMAQ) funds, Alameda County Measure B countywide and local funds managed by Alameda County Transportation Improvement Agency, Transportation Funds for Clear Air (TFCA) managed by the Bay Area Air Quality Management District and the Alameda County Congestion Management Agency and Transportation Development Act (TDA) funds managed by Alameda County. Hayward is also eligible for competitive grants including Transportation for Livable Communities, Safe Routes to Transit or Bicycle Transportation Account funds.

This section covers regional, state and federal sources of bicycle funding, as well as some non-traditional funding sources that have been used by local agencies to fund bicycle infrastructure and programs. A matrix of funding sources is provided on the next page. Each source is described in more detail after the matrix.

### REGIONAL, STATE AND FEDERAL FUNDING

The primary federal source of surface transportation funding—including bicycle and pedestrian facilities—is SAFETEA-LU, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users. SAFETEA-LU is the fourth in a series of Federal transportation funding bills. The $286.5 billion SAFETEA-LU bill, passed in 2005, authorizes federal surface transportation programs for the five-year period between 2005 and 2009.

SAFETEA-LU funding is generally administered through the State (Caltrans and Resources Agency) and regional planning agencies. Most, but not all, of these funding programs are oriented toward transportation versus recreation, with an emphasis on reducing auto trips and providing inter-modal connections. Some federal programs require the project sponsor to apply to the federal government.

Regional bicycle and pedestrian grant programs come from a variety of sources, including SAFETEA-LU, the State budget, vehicle registration fees and bridge tolls. Although most regional funds are allocated by regional agencies such as the Metropolitan Transportation Commission (MTC), the Bay Area Air Quality Management District (BAAQMD) and the Association of Bay Area Governments (ABAG), some (such as a portion of the regional Bicycle and Pedestrian Program) flow to county congestion management agencies, such as the Alameda County Congestion Management Agency (ACCMA), which allocate funds to project sponsors.

**Table 6-3**
**Available Funding Sources through 2030**

| Source | Administering Agency | Available Funding | Notes/ Assumptions |
|---|---|---|---|
| Regional Bicycle Pedestrian Program County Share (75%) | ACCMA | 15,750,000 (Alameda Co.) | Competitive. $150 million available region-wide, of which Alameda Co. would receive ~21% ($31,500,000). |
| Regional Bicycle Pedestrian Program Regional Competitive (25%) | MTC | 5,250,000 (Alameda Co.) | Competitive. $50 million available region-wide, of which Alameda Co. would receive ~21% ($10,500,00) |
| Measure B Bicycle and Pedestrian Local Pass-Through (75%) | ACTIA | 40,500,000 (Alameda Co.) | Dedicated. $81 million in Alameda Co. through 2022, half for bicycle projects. Allocated to cities based on population. Hayward received $382,733 in FY 05/06 |
| Measure B Bicycle and Pedestrian County Discretionary (25%) | ACTIA | 13,500,000 (Alameda Co.) | Competitive. $27 million in Alameda Co., half for bicycle projects. |
| Transportation Development Act Article 3 | Alameda County | 14,125,000 (Alameda Co.) | Competitive. $28,250,000 available in Alameda Co., half for bicycle projects |
| Transportation Fund for Clean Air Program Manager Fund (40%) | ACCMA | 37,500,000 (Alameda Co.) | Competitive. $1.5 million per year for 25 years. Projects must support smart growth/traffic calming, resulting in reduction of motor vehicle emissions. |
| Transportation Fund for Clean Air Regional Fund (60%) | BAAQMD | 50,000,000 (Alameda Co.) | Alameda Co. could compete for $50 million over 25 years. In '04/05 program, Alameda Co. accounted for $5 million in projects, of which about 7% were directly related to bicycles. |
| Transportation for Livable Communities Regional | MTC | 94,500,000 (Alameda Co.) | $450 million available region-wide, of which Alameda Co. would receive ~21%. |

**Table 6-3**
**Available Funding Sources through 2030**

| Source | Administering Agency | Available Funding | Notes/ Assumptions |
|---|---|---|---|
| Capital Program | | | |
| Transportation for Livable Communities County Capital Program | MTC/ACCMA | 56,000,000 (Alameda Co.) | $56 million available in Alameda Co. based on continuation of current 3-year program of $7 million or an equivalent. These funds can only be used for bicycle projects in TOD zones. |
| Safe Routes to Transit | TALC and EBBC on behalf of MTC | 19,000,000 (Alameda Co.) | Competitive. Assumes $50 million is available region-wide, of which Alameda Co. would compete for 35%. |
| Bicycle Transportation Account | Caltrans | 3,125,000 (Hayward) | Competitive. Assumes $5 million available statewide each year for 25 years. Grant recipients are limited to 25% of total funds. |
| STP/Local Streets and Roads | ACCMA | 108,000,000 (Alameda Co.) | Competitive. Estimate is based on current 2-year cycle of $9 million continuing for 12 cycles and that 2% will include new bicycle projects. |
| Safe Routes to School | Caltrans | 2,380,000 (Hayward) | Competitive. $68 million available statewide to between 2005 to 2010. Assumes federal SR2S funding continues through 2030 at same level ($340 million), 70% dedicated to infrastructure projects ($238 million), and Hayward competing for 1%. |
| San Francisco Bay Trail Project | San Francisco Bay Trail Project/ABAG | varies | Competitive. Funds trail planning and construction projects to complete gaps in the Bay Trail. Contact Lee Huo: leeh@abag.ca.gov |

*Source: Countywide Bicycle Plan, Alameda County Congestion Management Agency, 2006.*

## FUNDING SOURCES AVAILABLE TO HAYWARD

### Regional Bicycle and Pedestrian Program (RBPP)

The RBPP was created in 2003 as part of the long range Transportation 2030 Plan developed by the Bay Area Metropolitan Transportation Commission. The program—currently funded with Congestion Mitigation and Air Quality funds—funds regionally significant bicycle and pedestrian projects, and bicycle and pedestrian projects serving schools or transit. $200 million dollars are committed to this program over the 25-year period. Seventy five percent of the total funds are allocated to the county congestion management agencies based on population (County Share). The remaining 25 percent of funds are regionally competitive, with the county CMAs recommending the projects to be submitted to MTC for funding consideration (Regional Competitive).

*The Metropolitan Transportation Commission administers regional TDA Article 3 and RBPP bikeway funds*

*Image: MTC*

**Metropolitan Transportation Commission, RBPP Program**:
www.mtc.ca.gov/planning/bicyclespedestrians/regional.htm#bikepedprog

### ACTA/ACTIA Bicycle and Pedestrian Measure B Funding

Measure B is a sales tax measure reauthorized by Alameda County voters in 2000. It allows the collection of a ½-cent sales tax devoted to transportation projects and programs, to be collected from 2002 through 2022. The portion of Measure B funding devoted to bicycle and pedestrian improvements totals approximately $100 million, or five percent of all Measure B funding. Of this amount, 75 percent is "pass-through" funding distributed to the cities and the County according to population, and may be used for locally prioritized bicycle or pedestrian projects, programs and plans. The remaining 25% is available to cities and counties as regionally competitive funding. Hayward received $382,733 in Measure B Local Pass-Through funds in fiscal year 2005/2006.

*Alameda County Transportation Authority and Alameda County Transportation Improvement Authority administer County Measure B bicycle funds*

*Image: ACTA/ACTIA*

**ACTIA Measure B Bicycle and Pedestrian Program:**
http://www.acta2002.com/bikeped.html

### TDA Article 3

Transportation Development Act (TDA) Article 3 funds are available for transit, bicycle and pedestrian projects in California. According to the Act, pedestrian and bicycle projects are allocated two percent of the revenue from a ¼ cent of the general state sales tax, which is dedicated to local transportation. These funds are collected by the State, returned to each county based on sales tax revenues, and typically apportioned to areas within the county based on population. Eligible bicycle and pedestrian projects include construction and engineering for capital projects; maintenance of bikeways; bicycle safety education programs; and development of comprehensive bicycle or pedestrian facilities plans. Cities must submit claims to the county congestion management agency, which then submits all claims to the MTC. A city or county is allowed to apply for funding for bicycle or pedestrian plans not more than once every five years. These funds may be used to meet local match requirements for federal funding sources. $1.4 million of TDA Article 3 funds were allocated in Alameda

County in 2006/07. The City of Hayward's priority for TDA funds has been installation of ADA-accessible curb ramps throughout the city.

**Metropolitan Transportation Commission, TDA Funding Program**:
www.mtc.ca.gov/funding/STA-TDA/index.htm

### Transportation Fund for Clean Air Program (TFCA)

TFCA funds are generated by a four-dollar surcharge on automobile registration fees in the nine-county Bay Area. Approximately $20 million is collected annually, which funds two programs: 60 percent of the TFCA monies go to the Regional Fund and 40 percent go to the County Program Manager Fund. In Alameda County, 70 percent of the Program Manager Funds are distributed to cities based on population. The remaining 30 percent are competitive funds available to transit agencies.

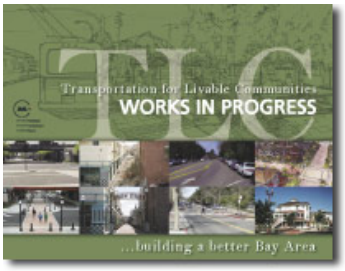
*BAAQMD's Transportation Fund for Clean Air may fund bicycle facilities*
*Image: BAAQMD*

The Regional Fund is administered by the Bay Area Air Quality Management District (BAAQMD). In Alameda County, the Program Manager Fund is administered by the ACCMA. Bicycle facility improvements such as bike lanes, lockers and racks are eligible for funding.

**BAAQMD, TFCA Program**:
www.baaqmd.gov/pln/grants_and_incentives/tfca/

### Transportation for Livable Communities (TLC)

MTC offers two kinds of assistance through the TLC program: capital and planning. TLC funds small-scale transportation improvements that are designed to make a big difference in a community's vitality. Eligible projects include streetscape improvements, and transit-, pedestrian-, and bicycle-oriented developments. Successful projects bring new vibrancy to downtown areas, commercial cores, and neighborhoods, making them places where people want to live, work and visit. The annual allocation to the TLC Program is $27 million.




*Transportation for Livable Communities funds community-based bicycle capital and planning projects*
*Image: MTC*

**Metropolitan Transportation Commission, TLC Grant Program:**
www.mtc.ca.gov/planning/smart_growth/tlc_grants.htm

### Safe Routes to Transit (SR2T)

Regional Measure 2 (RM2), approved in March 2004, raised the toll on seven state-owned Bay Area bridges by one dollar for 20 years. This fee increase funds various operational improvements and capital projects, which reduce congestion or improve travel in the toll bridge corridors.

*Safe Routes to Transit funds bicycle access to transit stops*
*Image: TALC*

Twenty million dollars of RM2 funding is allocated to the Safe Routes to Transit Program, which provides competitive grant funding for capital and planning projects that improve bicycle and pedestrian access to transit facilities. Eligible projects must be shown to reduce congestion on one or more of the Bay Area's toll bridges. The competitive grant process is administered by the Transportation and Land Use Coalition and the East Bay Bicycle Coalition.

Competitive funding is awarded in five $4 million grant cycles. The first round of funding was awarded in December 2005. Future funding cycles will be in 2007, 2009, 2011 and 2013.

**Transportation and Land Use Coalition, SR2T Program:**
www.transcoalition.org/c/bikeped/bikeped_saferoutes.html

### Bicycle Transportation Account

The State Bicycle Transportation Account (BTA) is an annual statewide discretionary program that is available through the Caltrans Bicycle Facilities Unit for funding bicycle projects. Available as grants to local jurisdictions, the emphasis is on projects that benefit bicycling for commuting purposes. In funding cycle 2007/2008, there is $5 million in statewide BTA funds available. The local match must be a minimum of 10% of the total project cost.

*Caltrans Bicycle Transportation Account funds bikeways*
*Image: Caltrans*

**Caltrans Bicycle Transportation Account:**
http://www.dot.ca.gov/hq/LocalPrograms/bta/btaweb%20page.htm

### Safe Routes to School (SR2S)

The passage of SAFETEA-LU in 2005 established $612 million for Safe Routes to Schools programs across the nation. The program is intended to encourage children to walk and bicycle to school, improve the safety of walking and bicycling and facilitate the planning, development, and implementation of projects and activities that will reduce traffic in the vicinity of schools. In California, the federal funds are administered by Caltrans. The federally funded SR2S program is replacing California's prior state-funded SR2S program. California expects to receive $68 million in federal SR2S funds between 2005 and 2010.

*California's Safe Routes to School Program funds bicycle programs and facilities that encourage children to bike to school*
*Image: Caltrans*

**Caltrans, SR2S Program:**
www.dot.ca.gov/hq/LocalPrograms/saferoute2.htm

### The Bay Trail Project

The Bay Trail Grant program offers competitive grants to local governments, special districts and qualified nonprofit groups to build or design new Bay Trail segments. The program is structured to speed Bay Trail construction by targeting high-priority, ready to build sections and closing critical gaps; leverage state dollars with significant matching funds and in-kind contributions; foster partnership by encouraging cooperative partnerships and creative design solutions; and employ the California Conservation Corps for construction, landscaping and maintenance where possible. The amount of available funding varies, depending on State bonds and grants to the Bay Trail Project.

*ABAG's Bay Trail Grant Program funds new Bay Trail Projects*
*Photo: ABAG*

**Bay Trail Project Grant Program:**
www.baytrail.org

# APPENDIX A: COMPLIANCE WITH BTA REQUIREMENTS

The following table is provided for the convenience of Caltrans Staff, to outline the elements within the Hayward Bicycle Master Plan that comply with the Bicycle Transportation Account (BTA) requirements. Caltrans Bicycle Transportation Account (BTA) is a significant source of funding for bicycle facility construction. To become eligible for such funding, a jurisdiction must adopt a bicycle plan that meets certain BTA requirements. The following table briefly answers the required elements of the BTA and provides references to relevant tables, figures and sections within the Hayward Bicycle Master Plan. In cases where the BTA requirement is not applicable, that is noted below.

**Table A-1**
**BTA Compliance Table for the Hayward Bicycle Master Plan Update**

| BTA 891.2 | Required Plan Elements | Description of Compliance | Location |
|---|---|---|---|
| (a) | *The estimated number of existing bicycle commuters in the plan area and the estimated increase in the number of bicycle commuters resulting from implementation of the plan.* | | |
| | Existing Bicycle Commuters | According to the 2000 Census, 218 Hayward residents bicycled to work. This represents a 0.36% mode share. Census data is listed in Table 5-1: Journey to Work Data. | Chapter 5 Needs Analysis<br>Pgs 5-1 to 5-3. |
| | Estimated Increase in Bicycle Commuters | Based on data from the 2000 Census, it is estimated that there are 2,386 potential bicycle commuters in Hayward. It is estimated that with implementation of this plan's recommendations, 25% of these commuters can be captured, bringing the total number of bicycle commuters to 815 and increasing the bike-to-work mode share to 1.6%. Calculations and model assumptions are discussed in Chapter 5: Needs Analysis and presented in Table 5-3: Bicycle Commute and Air Quality Projections on pages 5-6 to 5-7. | Chapter 5 Needs Analysis<br>Pgs 5-1 to 5-7. |

| BTA 891.2 | Required Plan Elements | Description of Compliance | Location |
|---|---|---|---|
| (b) | *A map and description of existing and proposed land use and settlement patterns which shall include, but not be limited to, locations of residential neighborhoods, schools, shopping centers, public buildings, and major employment centers.* | | |
| | Map and description of existing land use and settlement patterns | Most of the available land in Hayward has been developed for commercial, residential, industrial or other urban uses. The majority of Hayward's single-family homes were built between 1950 and 1960. Most multi-family homes were built between 1960 and 1990. Hayward experienced a boom in commercial and industrial construction during the late 1990's | Chapter 3: Existing Conditions. Pgs 3-1 to 3-20<br><br>Page 3-2 Land Uses<br><br>Figure 3-1 Land Use Map pg 3-3 |
| | Map and description of proposed land use and settlement patterns | Relatively little land is left in Hayward for future development. Instead, the City of Hayward outlines the following five focus areas as appropriate for smart growth: Downtown Area, South Hayward BART Area, Mission Boulevard Corridor, Older Industrial Area, and Industrial Area. | Pgs 3-2 to 3-3 |
| | Locations of residential neighborhoods | Residential neighborhoods are located throughout Hayward, primarily east of Industrial Boulevard. | Page 3-2 Land Uses |
| | Locations of schools | Schools are scattered throughout the neighborhoods. Please also see Table 3-1 Public Elementary and Middle Schools in Hayward on page 3-4 for specific locations of schools. Schools are also indicated in Figure 3-3 Existing Bikeways City of Hayward 2007. | Table 3-1 Public Elementary and Middle Schools Pg 3-4<br>Figure 3-3 Existing Bikeways City of Hayward 2007 Pg 3-9 |
| | Locations of shopping centers | Hayward is home to the Southland Mall, a regional shopping center. Other shopping centers are located in downtown Hayward and off of Mission Blvd. | Figure 3-3 Existing Bikeways City of Hayward 2007 Pg 3-9 |
| | Locations of public buildings | Government buildings are located in downtown Hayward and just west of downtown along West Winton Avenue. | Figure 3-3 Existing Bikeways City of Hayward 2007 Pg 3-9 |
| | Locations of major employment centers | Please see Table 3-5: Bicycle Racks and Support Facilities at Selected Hayward Employers on page 3-18 and Figure 3-3 Existing Bikeways City of Hayward 2007 on page 3-9 for locations of major employers in Hayward. | Table 3-5: Bicycle Racks and Support Facilities at Selected Hayward Employers Pg 3-18<br><br>Figure 3-3 Existing Bikeways City of Hayward 2007 Pg 3-9 |
| (c) | *A map and description of existing and proposed bikeways.* | | |
| | Map of existing bikeways | The existing bikeways map is shown on page 3-9. | Figure 3-3 Existing Bikeways City of Hayward 2007 Pg 3-9 |
| | Description of existing bikeways | Hayward has 7 miles of off-street paths, 22 miles of bike lanes and 32 miles of bike routes. For a detailed list of existing off- | Pgs. 3-14 through 3-15 |

| BTA 891.2 | Required Plan Elements | Description of Compliance | Location |
|---|---|---|---|
| | | street bike paths and on-street bike lanes, please see tables 3-2, 3-3, and 3-4 starting on page 3-14<br>Table 3-2: Index of Existing City of Hayward Class I Bike Paths<br>Table 3-3: Index of Existing City of Hayward Class II Bike Lanes<br>Table 3-4: Index of Existing City of Hayward Class III Bike Routes | <br><br>Pg 3-14<br><br>Pg 3-14<br><br>Pg 3-15 |
| | Map of proposed bikeways | A map of the Proposed Bikeways for Hayward is located on page 6-3. | Figure 6-1: Proposed Bikeways<br>Pg 6-3 |
| | Description of proposed bikeways | The Bicycle Master Plan proposes that Hayward develop 1 mile of bicycle paths, 3 4 miles of bicycle lanes and 2 miles of bicycle routes. In addition to these projects to be funded and constructed by the City ofHayward, the plan recommends that Hayward support the construction of 9 miles of bicyle paths by other agencies. The recommended bikeways are described in detail in Section 6.2, starting on page 6-1. | Section 6.2 Project Descriptions<br>Pgs 6-1 to 6-8<br><br>Table 6-1 Bicycle Paths to be Developed by Other Entities<br>Pg 6-7<br><br>Table 6-2 Planning Level Cost Estimates for Recommended Bikeway Projects<br>Pg 6-8 |

(d) *A map and description of existing and proposed end-of-trip bicycle parking facilities. These shall include, but not be limited to, parking at schools, shopping enters, public buildings, and major employment centers.*

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|---|---|---|---|
| | Map and description of existing end-of trip bicycle parking facilities | A variety of existing bicycle parking facilities are located throughout Hayward, at locations such as civic buildings, schools, parks and commercial centers. Parks and other recreation facilities can also provide bicycle racks, restrooms and changing facilities. Table 3-5 on page 3-18 shows Hayward's major employers and the bicycle support facilities offered by each. | Table 3-5 Bicycle Racks and Support Facilities at selected Hayward Employers<br>Pg 3-18 |
| | Map and description of proposed end-of-trip bicycle parking facilities | Bicycle parking facilities should be provided in commercial areas in Hayward, especially downtown, at the Southland Mall and at businesses along Mission Boulevard. A systematic program to improve the quality and increase the quantity of bicycle end-of-trip facilities should be implemented in Hayward. The City of Hayward Municipal Code requires bicycle parking to be included in developments over 50 units. Bicycle parking is regularly required as part of the development review process. | |

| BTA 891.2 | Required Plan Elements | Description of Compliance | Location |
|---|---|---|---|
| (e) | *A map and description of existing and proposed bicycle transport and parking facilities for connections with and use of other transportation modes. These shall include, but not be limited to, parking facilities at transit stops, rail and transit terminals, ferry docks and landings, park and ride lots, and provisions for transporting bicyclists and bicycles on transit or rail vehicles or ferry vessels.* | | |
| | Map and description of existing bicycle facilities for connections with other modes | BART, AC Transit, and Amtrak, allow bicycles on transit vehicles. Bicycle parking is available at Hayward's two BART stations. South Hayward BART station provides a total of four wave racks with room for four bikes each and 30 locker spaces. Hayward BART Station has 20 locker spaces. Each AC Transit bus can accommodate two bicycles, and cyclists may ride with their bicycles without additional fee or permit. Riders may reserve a space in a bicycle rack for a fee when booking their ticket. Fees range from $5 to $10. | Section 3.6 Multi-modal Connections Pgs 3-19 to 3-20 |
| | | See Figure 3-3 Existing Bikeways City of Hayward 2007 on page 3-9, for locations of transit stops. | Figure 3-3 Existing Bikeways City of Hayward 2007 Pg 3-9 |
| | Map and description of proposed bicycle facilities for connections with other modes | The City of Hayward, in collaboration with BART, has developed a Station Area plan for the South Hayward BART. This plan includes recommendations for transit-oriented development, a Class I bicycle path, a bicycle-pedestrian bridge, and street improvements in the vicinity of the BART station. The bicycle facilities recommended by this plan have been incorporated into the Hayward Bicycle Master Plan. | Section 4.1 Local Plans and Policies pg. 4-4 |
| (f) | *A map and description of existing and proposed facilities for changing and storing clothes and equipment. These shall include, but not be limited to, locker, restroom, and shower facilities near bicycle parking facilities.* | | |
| | Map and description of existing end-of-trip facilities | Table 3-5 on page 3-18 shows major Hayward employers and the bicycle support facilities offered by each. Public parks and civic buildings also serve as rest stops offering water, a place to sit or rest, and restroom facilities. Please also see pages 3-16 to 3-17 for a description of Bicycle Support Facilities. | Table 3-5 Bicycle Racks and Support Facilities at selected Hayward Employers Pg 3-16<br><br>Pages 3-15 |
| | Map and description of proposed end-of-trip facilities | It is recommended that the City work with employers to encourage the provision of bicycle lockers, bicycle racks, changing and showering facilities. | |
| (g) | *A description of bicycle safety and education programs conducted in the area included within the plan, efforts by the law enforcement agency having primary traffic law enforcement responsibility in the area to enforce provisions of the Vehicle Code pertaining to bicycle operation, and compile existing data on the resulting effect on accidents involving bicyclists.* | | |
| | Description of bicycle safety and education programs | The City does not currently have any bicycle education programs. In the late 1990's the City of Hayward's Police Department developed a traffic safety program and that | Section 3.5 Education and Enforcement Programs Pg 3-19 |

| BTA 891.2 | Required Plan Elements | Description of Compliance | Location |
|---|---|---|---|
| | | included bicycle education and helmet programs. However, these programs were discontinued due to lack of funding. | |
| | Law enforcement of Vehicle Code provisions pertaining to bicycle operations | The City of Hayward Police Department enforces California Vehicle Code for bicyclists and vehicle drivers. | |
| | Effect of programs on accidents involving cyclists | Data has not been collected regarding the effects of educational programs and law enforcement on bicycle-related accidents. | |
| (h) | *A description of the extent of citizen and community involvement in development of the plan.* | | |
| | Description of public involvement in developing the plan | A public meeting was conducted following publication of the Draft Bicycle Master Plan in order to obtain input from local residents and other stakeholders. | Section 5.6 Citizen and Community Involvement Pg 5-12 |
| (i) | *A description of how the bicycle transportation plan has been coordinated and is consistent with other local or regional transportation, air quality, or energy conservation plans, including, but no limited to, programs that provide incentives for bicycle commuting.* | | |
| | Description of coordination and consistency with other local and regional plans | Chapter 4: Planning and Policy Context provides an overview of relevant local and regional plans and demonstrates consistency between existing plans and policies and this Master Plan. Many of the new projects included in this update of Hayward's Bicycle Master Plan have been taken from regional and local planning documents, including the South Hayward BART Concept Design Plan, the Route 238 Corridor Improvement Project, the Alameda County Congestion Management Agency Bicycle Plan, the Alameda County Bicycle Master Plan for Unincorporated Areas and the Regional Bicycle Plan for the San Francisco Bay Area. | Chapter 4: Planning and Policy Context Pgs 4-1 to 4-12 |
| | Programs that provide incentives for bicycle commuting | City of Hayward should work with the Hayward Police Department to establish a secure funding source to reinstitute bicycle safety classes. | |
| (j) | *A description of the projects proposed in the plan and a listing of their priorities for implementation.* | | |
| | Description of proposed projects | Proposed projects are described in Section 6.2 Project Descriptions, starting on page 6.1 Please also see Table 6-2 Planning Level Cost Estimates for Recommended Bikeway Projects on page 6-8. | Table 6-2 Planning Level Cost Estimates for Recommended Bikeway Projects Pg 6-8 |
| | Priority list of proposed projects | Please see Table 6-2 Planning Level Cost Estimates for Recommended Bikeway Projects on page 6-8. | Table 6-2 Planning Level Cost Estimates for Recommended Bikeway Projects Pg 6-8 |

| BTA 891.2 | Required Plan Elements | Description of Compliance | Location |
|---|---|---|---|
| (k) | *A description of past expenditures for bicycle facilities and future financial needs for projects that improve safety and convenience for bicycle commuters in the plan area.* | | |
| | Description of past expenditures | Between 2002 and 2006, the City of Hayward spent $1,122,000 on bikeway projects. An annual breakdown of expenditures is provided in Table 3-6 Past Bicycle Program Expenditures on page 3-19. | Table 3-6 Past Bicycle Program Expenditures on pg 3-19. |
| | Estimated future financial needs | The total cost of the recommended projects is estimated to be about $2.2 million. Construction of Class I projects is estimated at $1,096,100, Class II Bike Lane projects at $474,400 and Class III Bike Routes at $63,000. Cost estimates are in 2006 dollars and include estimated cost of construction, administration and engineering design, utilities relocation, and environmental document and mitigation. Planning Level Cost Estimates for Recommended Bikeway Projects are listed in Table 6-2 on page 6-8. | Table 6-2 Planning Level Cost Estimates for Recommended Bikeway Projects Pg 6-8 |