PLAN REPORT

CITY OF SAN DIEGO
BICYCLE MASTER PLAN

alta
TRANSPORTATION CONSULTING

May 2002

Table of Contents

Appendix

Maps

Figures

Tables

Caltrans Bicycle Transportation Account Requirements			
Approved	**Requirement**	**Page(s)**	**Notes/Comments**
	Existing and future bicycle commuters	59-60	
	Description of existing and proposed land use patterns	11-12	
	Land use planning maps	13-19	
	Maps of existing and proposed bikeways	33-37, 63-67	
	Description of existing and proposed bikeways	32, 61-143	
	Maps of existing and proposed bicycle parking facilities	33-37, 63-67	
	Description of existing and proposed bicycle parking facilities	39-41, 79, 89	
	Maps of existing and proposed multi-modal connections	33-37, 63-67	
	Description of existing and proposed multi-modal connections	41, 79	
	Maps of existing and proposed changing and storage facilities	33-37, 63-67	
	Description of existing and proposed changing and storage facilities	41, 79	
	Bicycle safety education and enforcement programs	46-47, 91-92	

Caltrans **Bicycle Transportation Account Requirements**			
Approved	**Requirement**	**Page(s)**	**Notes/Comments**
	Citizen participation	50-56	
	Consistency with transportation, air quality and energy plans	3-5	
	Project descriptions/ priority listings	69-78, 89-143	
	Past expenditures and future financial needs	144-150	

INTRODUCTION

The City of San Diego recognizes that a safe and effective bikeway network enhances the quality of life for residents and visitors to City. San Diego and its residents have called for a comprehensive Bicycle Master Plan that will improve upon the heretofore-encouraging efforts on the part of the City to lay a more firm foundation for a bicycle-friendly environment to serve commuter and recreational riders.

This Master Plan serves as a policy document to guide the development and maintenance of a bicycle network, including other roadways that bicyclists have the legal right to use, support facilities and other programs for San Diego over the next 20 years. These policies address important issues related to San Diego's bikeways such as planning, community involvement, utilization of existing resources, facility design, multi-modal integration, safety and education, support facilities, as well as specific programs, implementation, maintenance, and funding.

The success of the plan will only be assured by continued support of City Staff, the bicycling community and other residents who recognize the benefits of cycling in their community.

Background

With 1,223,400 people in 2000 (U.S. Census), the City of San Diego is the second largest city in California. Most of its history has been influenced by the growth of the defense industry during and after World War II. The City has always had a strong military presence. Two of the military installations found in the City include Miramar Marine Corps Air Station and Fort Rosecrans Military Reservation. During the 1980s and 1990s, the City developed a more diverse employment base, with many new high-technology jobs being attracted to the San Diego area. Many of these businesses clustered around the University of California at San Diego to take advantage of cutting edge research being performed there, especially in the biotechnology field. The City experienced tremendous growth in its outlying regions during the last two decades, with new development emerging in areas such as Scripps Miramar Ranch, Carmel Valley, and Rancho Bernardo.

Transportation Access

The City of San Diego includes major transportation corridors that link with other cities in the County. The major link to the coastal suburbs and Orange County is the San Diego (I-5) Freeway. The Escondido (I-15) Freeway provides links to the north inland cities of Poway and Escondido as well as Riverside County. To the east, the cities of Lemon Grove, La Mesa, and El Cajon are accessed via the I-8 and Martin Luther King (SR-94) Freeways. Other major transportation corridors in the City include the I-805, SR-163, SR-52, SR-56, and SR-905 Freeways. The City has a developed network of arterial streets that connect various parts of San Diego and complements the freeway system.

Public transit services in the City are provided by the Metropolitan Transit Development Board (MTDB), which operates bus and Trolley services in the City of San Diego. Commuter rail service is also provided to and from the north coastal suburban cities by the North County Transit District's Coaster service. Amtrak service also provides inter-regional travel to Los Angeles to the north. There are currently three Coaster stations located in the City with one more planned in the University area. Amtrak also serves one of these stations, Downtown San Diego's Santa Fe Depot.

San Diego Trolley light rail service is also provided on three lines in the City. These are the Blue Line with its service from the Old Town Transit Center to the International border in San

Ysidro, the Orange Line with its service from the Bayside area of Downtown east to the eastern cities of Lemon Grove, La Mesa, El Cajon, and Santee, and the Mission Valley Line with its service from Old Town to Qualcomm Stadium and Mission San Diego. Currently, the Blue and Mission Valley lines operate as a single line through the Old Town station. An eastern extension of the Mission Valley line to San Diego State University and La Mesa is expected to be open for service in the year 2004.

San Diego Transit provides bus service throughout the City of San Diego. Local and express bus lines serve every part of the City. Some express lines reach out to other cities, and other transit services serve the City from outside, such as North County Transit District buses and County Transit services.

The Lindbergh Field San Diego International Airport is located near Downtown San Diego and provides domestic and international flights to destination around the country and to Mexico.

Reasons for the Plan

The increasing desire for travel of more and more people living in the City of San Diego brings with it traffic congestion for residents and visitors. If other alternatives were more convenient and accessible, more people would likely choose bicycling in the City's temperate climate to arrive at their destination. Having a planning document such as the Bicycle Master Plan (BMP) that identifies bicycle policies, routes, programs and facility priorities will enable the City and its communities to foster an attractive bicycling alternative.

Another reason to have a Bicycle Master Plan is the enjoyment and quality of life for the residents of San Diego. Bicycling is one of the most popular forms of recreational activity in the United States. A recent national survey conducted by the Bureau of Transportation Statistics showed that 20 percent of Americans bicycle once a month. Of those, approximately 54 percent rode for recreation. Assuming the national pattern holds true in San Diego, out of the 1,223,400 residents, approximately 244,680 of them would bicycle at least occasionally in San Diego purely for pleasure or exercise.

Safety is a primary reason to improve bicycling conditions in the City. Concern over safety is the single greatest reason people don't commute by bicycle, according to a 1991 nationwide Lou Harris Poll. Addressing those concerns for bicyclists through physical and program improvements is a major objective of this Bicycle Master Plan.

Safety, access, quality of life, and effective implementation are imperative elements for San Diego's success as a bicycle-friendly environment.

Access improvements for bicyclists are important to help improve the ability to take utilitarian trips to destinations such as work, shops and schools. The freeways of the county involve busy on and off ramps, forcing bicyclists to negotiate difficult interchanges. The most common access problem in San Diego is the lack of continuous and connected bikeways to the City's numerous destinations, including schools, parks, employment, and shopping areas.

Intent of the Plan

This Plan urges the City to take measurable steps toward the goal of improving every San Diego citizen's quality of life, creating a more sustainable environment, reducing traffic congestion, vehicle exhaust emissions, noise, and energy consumption. The importance of developing a bicycle system that is attractive and inviting is a key element in preserving San Diego as a place where people want to live, work, and visit. The attractiveness of the environment not only invites bicyclists to explore the City, but more importantly, a beautiful environment helps to improve everyone's positive feelings about the quality of life in San Diego.

Education, enforcement, engineering, and funding are the basic components of an effective implementation program for this Bicycle Master Plan. Education must be targeted to the bicyclist as well as to motorists regarding the rights and responsibilities of the bicyclists and automobile drivers. Comprehensive enforcement of existing traffic and parking laws coupled with the implementation of sound design and engineering principles for roadways is also critical. This plan proposes a systematic review of all new development projects, including public works efforts, to assure compliance with planning and building codes and the goals of this Bicycle Master Plan. Finally, this plan proposes an aggressive strategy for obtaining grants and competing for other funding sources in order to realize the physical improvements identified as the highest priorities.

The plan contains recommendations that, if implemented over the next 20 years, will make San Diego a national model for bicycling. The public has asked for a bold vision for San Diego that will improve conditions for those who choose to ride a bicycle for commuter and recreational use. The end result of this effort could be to dramatically increase the number of people bicycling for utilitarian trips such as work, school or shopping, as well as for recreational bicyclists. The BMP calls for a goal of increasing bicycle use for utilitarian trips from the current one percent to a targeted ten percent by the year 2020.

The specific recommendations of the San Diego BMP includes the completion of a comprehensive bikeway network and implementation of new educational and safety programs to be implemented over the 20-year life of the Plan.

Consistency with other Plans

This Bicycle Master Plan is consistent with the *Progress Guide and General Plan* (General Plan) and will become a part of the General Plan Transportation Element once it is adopted by the San Diego City Council. The Bicycle Master Plan is not intended to override the existing community plans or other existing plans, such as park master plans, natural resource management plans, or plans dealing with sensitive habitat. This Plan is also supportive of regional transportation goals, including those of the Regional Transportation Plan put forth by SANDAG (San Diego Association of Governments). This Plan is also consistent with the Air Pollution Control Board's plans to reduce mobile emissions. This Plan is also consistent with and provides linkages to the San Dieguito River Park Concept Plan. The primary goal of this Plan is to create a trail system, including the Coast-to-Crest Trail, a 55-mile long trail connecting Del Mar with Volcan Mountain.

This Plan also provides continuity with the bicycle planning efforts in neighboring cities and the County of San Diego. These cities are listed below with their specific linkages.

- Coronado
    - Existing Class I Bayshore Bikeway
    - Existing bicycle access on the Coronado Ferry links these with San Diego
- Chula Vista
    - Existing Class II bikeways along Broadway/Beyer Boulevard and Frontage Road (Bayshore Bikeway)
    - Existing Class III bikeways along 4th Avenue/Beyer Way and the I-805 Freeway
    - Proposed Class II or III bikeway along Hollister Street/Industrial Boulevard

- Del Mar
    - Existing Class II bikeways along Camino Del Mar/Torrey Pines Road and Via de La Valle
    - Existing Class III bikeway along Del Mar Heights Road
    - Proposed Class I bikeway along the San Dieguito River (Coast-to-Crest Trail)
    - Proposed Class II bikeway along Carmel Valley Road
- El Cajon
    - Existing Class II bikeway along Navajo Road
    - Existing Class III bikeway along Highwood Drive (Grossmont College)
- Escondido
    - Existing Class I bikeway adjacent to the I-15 Freeway north of Lake Hodges
    - Existing Class III bikeway on the I-15 Freeway
- Imperial Beach
    - Existing Class II bikeway along Palm Avenue
    - Existing Class III bikeway along Coronado Avenue
- La Mesa
    - Existing Class II bikeways along Baltimore Drive/Lake Shore Drive, Lake Murray Boulevard, and 70th Street
    - Existing Class III bikeways along Jackson Drive and Baltimore Drive
    - Proposed Class III bikeway along El Cajon Boulevard
    - Proposed Class II or III bikeways along University Avenue and Cowles Mountain Boulevard
- Lemon Grove
    - Existing Class II bikeway along Imperial Avenue/Lemon Grove Avenue
    - Proposed Class II bikeway along College Avenue
    - Proposed Class II or III bikeways along Federal Boulevard, Madera Street, and Skyline Drive
- National City
    - Existing Class II bikeways along Harbor Drive (Bayshore Bikeway)
    - Existing Class III bikeways along Euclid Avenue

  - Proposed Class II or III bikeways along Division Street, Paradise Valley Road, 18th Street/Potomac Street, 47th Street/Palm Avenue, 43rd Street/Highland Avenue, and Main Street

- Poway
  - Existing Class II bikeways along Pomerado Road, Scripps Poway Parkway, Poway Road, Camino del Norte, and Rancho Bernardo Road

- San Diego County
  - Existing Class II bikeways along San Dieguito Road, Rancho Bernardo Road
  - Proposed Class II or III bikeways along Jamacha Road and Paradise Valley Road

- Santee
  - Existing Class II bikeways along Mission Gorge Road and Mast Boulevard
  - Proposed Class I bikeway along the San Diego River

- Solana Beach
  - Existing Class II bikeway along Via de La Valle

Bicycle plans were collected from each of the cities that had them, and attempts were made to provide bikeway continuity into those other cities. For example, existing bikeways exist along Mission Gorge Road between San Diego and Santee. A proposed bikeway along El Cajon Boulevard would connect with a proposed bikeway along this street in La Mesa. A proposed bikeway along Carmel Valley Road would connect to a proposed bikeway along the same street in Del Mar. All of the bikeway connections with the City of Poway are continuous with bikeways continuing through the boundary between San Diego and Poway along Pomerado Road, Espola/Rancho Bernardo Roads, Poway Road, Camino del Norte, and Scripps Poway Parkway. Other continuity linkages exist with other cities.

The Implementation of Proposed Action

Every proposed action in this plan will be considered separately upon receiving funding and prior to implementation. Each project will have to comply with all applicable federal, state, and local environmental regulations and will be reviewed by the applicable community planning group.

Blank Page

∝ ∝ ∝

End of Chapter

GOALS, OBJECTIVES AND POLICY ACTIONS

Goals

Goals provide the context for the specific objectives and policy actions discussed in the Bicycle Master Plan. The goals provide the long-term vision and serve as the foundation of the plan. Goals are broad statements of purpose that do not provide specific descriptions. Objectives are more specific statements of purpose, and policy actions provide a bridge between general policies and actual implementation guidelines, which are provided in Chapters 7 and 8.

Goal 1: Promote Bicycle Transportation

Make bicycle travel an integral part of daily life in San Diego, particularly for trips of less than five miles, by implementing and maintaining a bikeway network, providing end-of-trip facilities, improving bicycle/transit integration, encouraging bicycle use, and making bicycling safer.

Goal 2: Increase Bicycle Transportation

Make San Diego a model community for alternative transportation by aiming for a 10 percent mode share of all utilitarian trips to be made by bicycling by the year 2020.

Goal 3: Improve the Local and Regional Bikeway Network

Identify an integrated system of bicycle lanes, routes and paths along with support facilities such as bicycle lockers and racks to serve local and regional commuting and recreational bicyclists.

Goal 4: Increase the Benefits of Bicycling

Identify and implement a network of bicycle facilities to accommodate non-motorized travel that will reduce vehicle use, improve air quality, and provide health benefits.

Objectives

The following objectives address these goals in detail. More detailed plans for implementation of these goals and objectives are contained in Chapters 6 and 7.

Objective A:
Implement the Bicycle Master Plan, which identifies existing and future needs, and provides specific recommendations for facilities and programs over the next 20 years.

Objective A Policy Actions

1. Fund and maintain the existing City bicycle project manager and bicycle coordinator positions and pursue adequate staff to ensure plan implementation.

2. Update the Plan periodically as required by Caltrans to reflect new policies and/or requirements for bicycle funding.

3. Coordinate with other cities, SANDAG, schools, and community organizations to review and comment on bicycle issues of mutual concern.

4. Regularly monitor bicycle-related accident levels, and seek a significant reduction in bicycle accident rates over the next twenty years.

5. Create a Bicycle Advisory Committee that will coordinate with various City agencies, schools, neighboring cities, San Diego Association of Governments and community organizations, and will advise on bicycle issues.

Objective B:
Identify and Implement a network of bikeways that are feasible, fundable, and that serve bicyclists' needs, especially for travel to employment centers, schools, commercial districts, transit stations, and institutions.

Objective B Policy Actions

1. Develop a bikeway network that is continuous, closes gaps in the existing system, and serves important destinations

2. Develop a bikeway network that provides connections to bikeways in other cities.

3. Expand upon the existing destination-based signage system for the bikeway network.

4. Coordinate and offer assistance to community planners and developers to ensure appropriate bicycle connections are planned, constructed, and maintained.

5. Evaluate the impacts on bicycle travel and integrate bicycle facility improvements into proposed roadway and development projects as part of the project review process.

6. Implement bicycle facilities based on a priority program that considers existing deficiencies, safety, commuting needs, connectivity of routes, and community input.

7. Identify a network of Class I bicycle facilities along public easements, railways, and utility easements that accommodate a wide range of user ages and abilities.

8. Recognize that bicyclists use all City roadways. Design future roadways to accommodate bicycle travel. Carry out routine maintenance of roadways, eliminate hazards to cyclists, and attempt to upgrade existing roadways to enhance bicycle travel, including upgrading on-demand traffic signals to detect bicycles.

9. The removal of any Class I, II, or III bikeway facility within the City of San Diego shall not occur once established unless a suitable alternative bikeway is established in its place.

Objective C:
Maintain and improve the quality, operation, and integrity of the San Diego bikeway network and roadways regularly used by bicyclists.

Objective C Policy Actions:

1. Undertake routine maintenance of bikeway facilities, such as sweeping streets regularly traveled by bicyclists and other designated bikeways. This will include paint and striping, signage, pavement surface maintenance, tree trimming, and other facets of maintaining the operational integrity of the bikeway network.

2. Coordinate roadway improvements to provide reasonable alternate routes if necessary and minimize disruption for cyclists.

3. Coordinate roadway improvements so that bicycle facilities are not reduced or eliminated in construction zones and are maintained or incorporated into future improvements in order to maintain the existing local and regional bicycle network or provide reasonable alternatives.

4. Ensure that detours through or around construction zones are designed safely and conveniently, and are accompanied with good signage for cyclists and motorists.

5. Develop a procedure to ensure that all trenchwork performed within City streets be inspected to ensure that pavement quality is restored to its original condition.

6. Employ effective traffic control devices, such as signal detectors, signage, and minimum green times along heavily used routes, in order to increase bicycle safety and facilitate ease of cycling.

Objective D:
Provide short- and long-term bicycle parking and other bicycle amenities in employment and commercial areas, in multifamily housing, at schools and colleges, and at transit facilities.

Objective D Policy Actions:

1. Impose bicycle parking requirements on new development projects as specified in the Municipal Code Sections 142.0525, 142.0530, and 142.0560 and any other applicable laws

2. Install short- and long-term bicycle parking in the public right-of-way.

3. Develop and adopt bicycle storage standards for implementation at major employment centers, schools, transit centers, park-and-ride lots, bus routes, shopping centers, stadiums, and public and semi-public recreational areas.

4. Include bicycling options in all Transportation Demand Management planning.

5. Support bicycle rental opportunities at San Diego and Mission Bays, Balboa Park, transit stations, key recreation destinations, and other locations.

6. Encourage and support bike stations and/or attended parking facilities at major events and destinations, such as transit stations, ballparks, concert venues, and convention facilities.

Objective E:
Increase the number of bicycle-transit trips.

Objective E Policy Actions:

1. Support and promote bicycle travel via the San Diego Transit bus system, the San Diego Trolley, the Coaster commuter rail service, Amtrak, and linkages with airports.

2. Coordinate with MTDB to provide and promote secure bicycle racks and lockers at transit stations.

3. Coordinate with MTDB to provide bicycle access both to transit facilities and on transit vehicles during the design of new transit facilities.

4. Encourage the operators of the Coronado Ferry to improve service during morning commute hours. Seek funds to expand this service.

Objective F:
Develop and implement education and encouragement plans aimed at youth and adults. Increase public awareness of the benefits of bicycling and of available resources and facilities.

Objective F Policy Actions

1. Develop and implement safe and effective adult and youth cycling programs.
2. Promote the health benefits of bicycling.
3. Promote and pursue funding programs for bicycle safety and education programs.
4. Support Transportation Demand Management programs at worksites to encourage commuters to bicycle to work.
5. Implement an effective bicycle registration program to deter bicycle theft.
6. Distribute a regularly updated San Diego Regional Bikeway map at local schools, bike shops, Chamber of Commerce, and other areas that will encourage cycling.

Objective G:
Increase government and public recognition of bicyclists' equal right to use public roadways.

Objective G Policy Actions

1. Provide bicycle education to City staff involved in decisions regarding transportation facilities. This would include, but not be limited to, traffic engineers, planners, field engineers, field inspectors, street maintenance personnel and parks and recreation staff.
2. Provide bicycle education for law enforcement personnel.
3. Seek funds for a public awareness campaign to increase public recognition and to educate the general public about the rights and responsibilities of bicyclists and motorists.

PLANNING BACKGROUND

Bicycle Planning History

Previous planning for bikeways and other bicycle infrastructure had been incorporated into the local Community Planning Areas. As outlined in the previous section, each Community Plan addressed bicycle transportation. Over the years, numerous bikeway projects have been implemented within the City, making San Diego a city with hundreds of miles of bikeways and several programs aimed at providing bicycle amenities, such as parking and access to transit. The City has also had a bicycle coordinator for over a dozen years. The San Diego Association of Governments' (SANDAG) Regional Transportation Plan (RTP) includes provisions for bicycle transportation in the form of a regional connected route system that serves the entire County as well as the City of San Diego. Planning efforts for bicycle improvements are included in the RTP along with transit and highway improvements. This illustrates the progressive nature of bicycle planning and implementation in a city with numerous bikeway facilities throughout its communities.

This Bicycle Master Plan attempts to centralize the bicycle planning process into a single document that will be coordinated with the local Community Planning Areas. The Master Plan is seen as a way to streamline the planning and implementation process for bicycle facilities and infrastructure in the City.

Existing and Proposed Land Use Patterns

The City of San Diego is one of the few major metropolitan areas built upon and around a canyon system. The city's urban form is loosely based upon a naturally connected system of open space, characterized by valleys, canyons, and mesas, and interrupted by human habitat and transportation corridors. Within this setting, San Diego has developed into a city of distinctive neighborhoods. Older urban neighborhoods, such as Mission Hills, Kensington, North Park, and Golden Hill, are characterized by interconnected streets, "main street" commercial districts, a rich architectural heritage, and variety of housing types. Newer communities, such as Carmel Valley, Rancho Bernardo, and Tierrasanta, are generally characterized by a cul-de-sac street system, large single-family subdivisions, a variety of commercial and employment centers, and excellent public facilities.

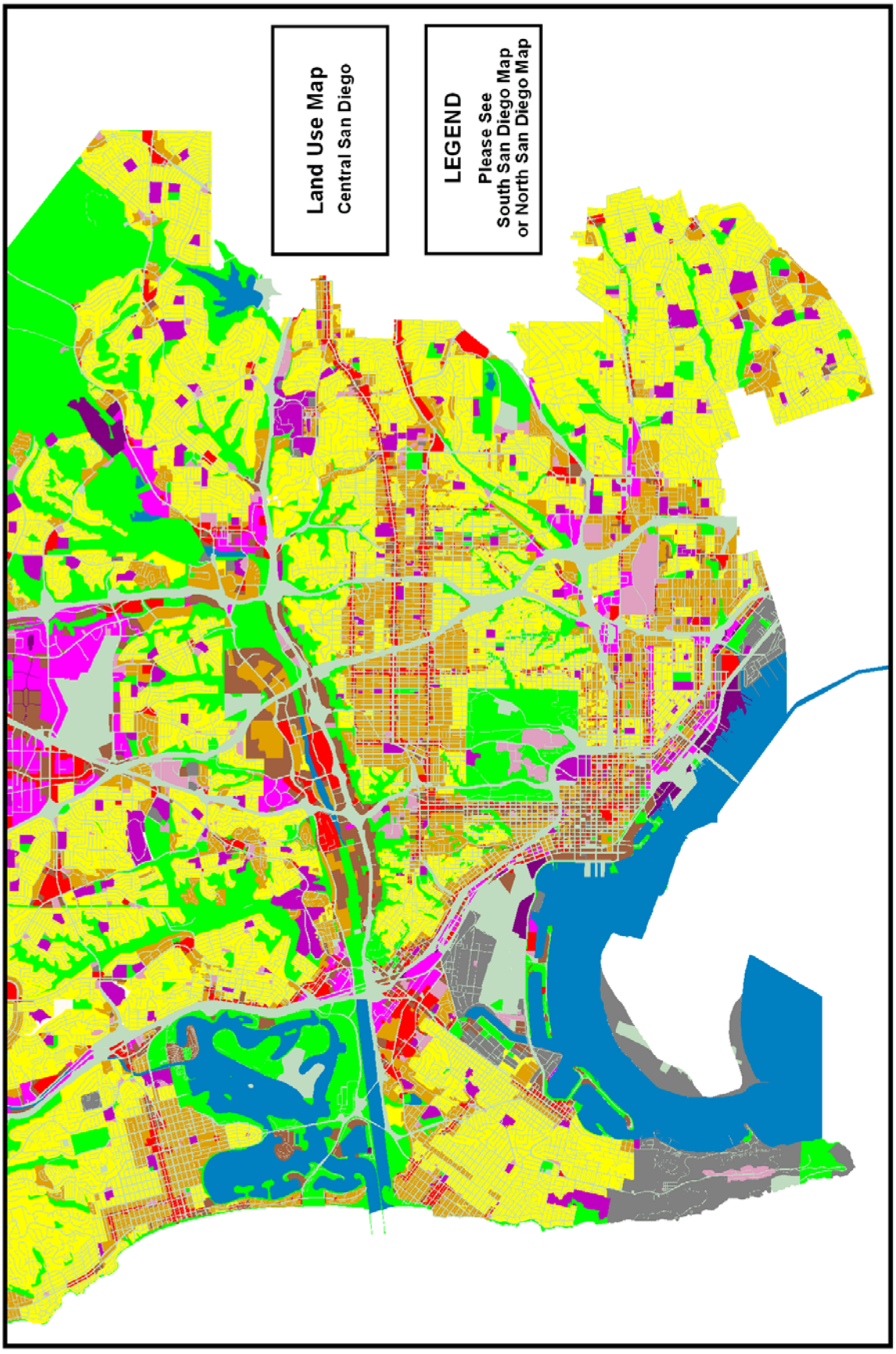
Major employment centers are located in Centre City, Kearny Mesa, Sorrento Valley, and University. The City is home to many military uses, including Fort Rosecrans on Point Loma and Miramar Marine Corps Air Station. Three air transportation facilities currently exist, including Montgomery Field in Kearny Mesa, Lindbergh Field near Downtown, and Brown Field in Otay Mesa. Open space reserves currently exist in the form of regional parks and preserves, including Los Penasquitos Canyon Preserve, Mission Trails Regional Park, and Tecolote Canyon Natural Park.

The existing *Progress Guide and General Plan* established a system for phasing the development of new communities concurrent with public facilities. However, the City is now approaching build-out with less than ten percent of its area now available for development. In the future, the majority of new development in the City will occur through infill and redevelopment. The Strategic Framework Element, a new chapter of the General Plan, is currently being prepared to shift San Diego from a new growth to an infill-based growth management strategy. The City of Villages is the central concept drafted as part of this element. It calls for growth to occur as compact, mixed-use centers linked by mass transit. It encourages high quality infill development to enhance existing neighborhoods and meet future needs. "Villages" would be community-oriented centers where residential, commercial,

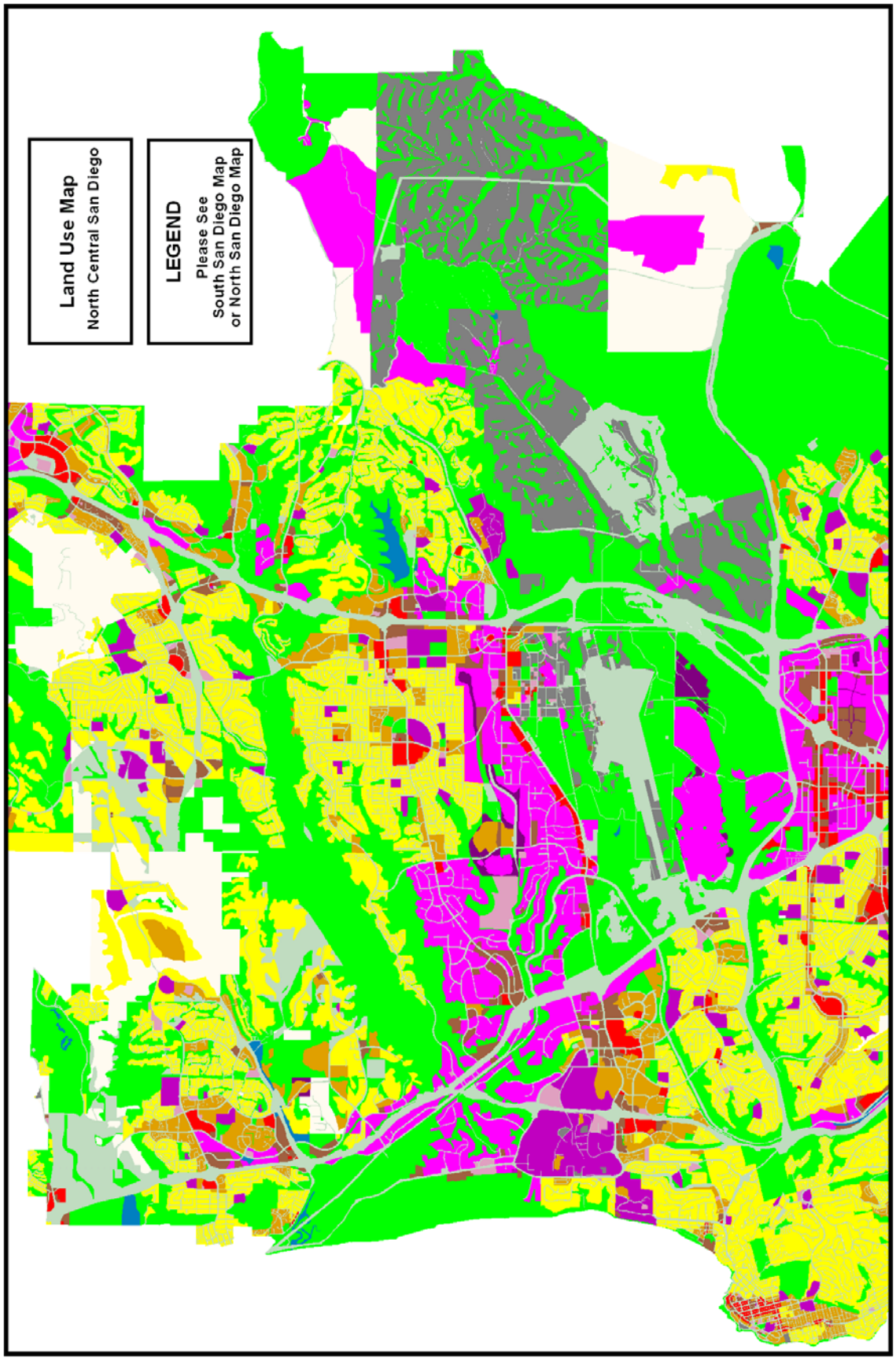
employment, and civic/educational uses are integrated. Villages are intended to be unique to the community, pedestrian- and bicycle-friendly, and have elements to promote neighborhood or civic gatherings. The land use mix includes public spaces and a variety of housing types and densities.

According to the City's General Plan Update statistics, San Diego's population is expected to grow from its current 1,277,168 to 1,537,168 by 2020, a 20 percent increase. San Diego will be one of the top 10 cities in the country for job growth through 2025. The fastest growing industries are expected to be telecommunications, software, and biotechnology. Land use planning maps are shown on pages 13-19.

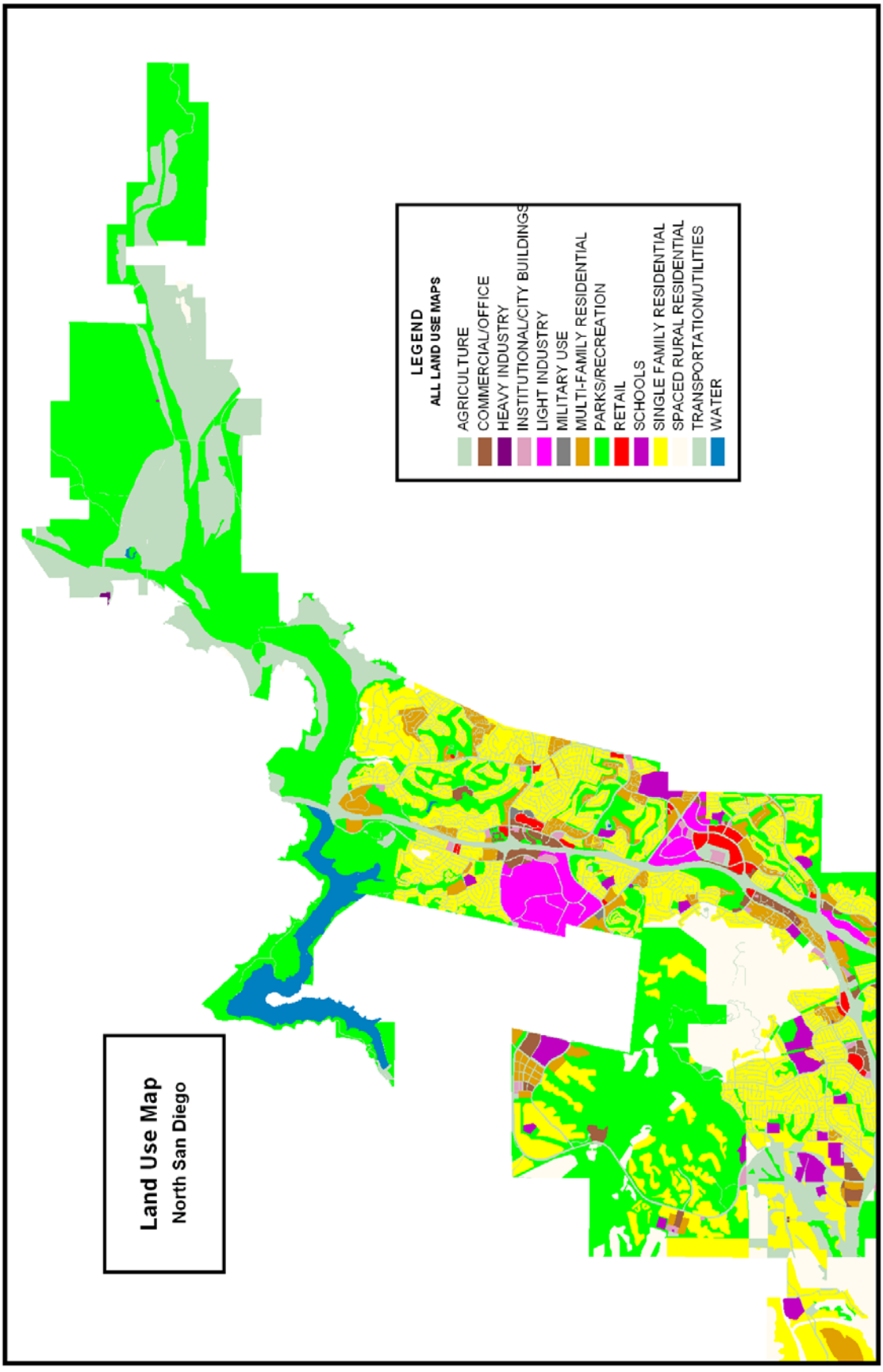
The regional transit planning entity (MTDB) is working on an initiative known as Transit First for the development of a high quality regional transit service for the region. The City of Villages and Transit First programs are outlined in more detail on page 80 of Chapter 6.


Land Use Map
Central San Diego
LEGEND
Please See
South San Diego Map
or North San Diego Map

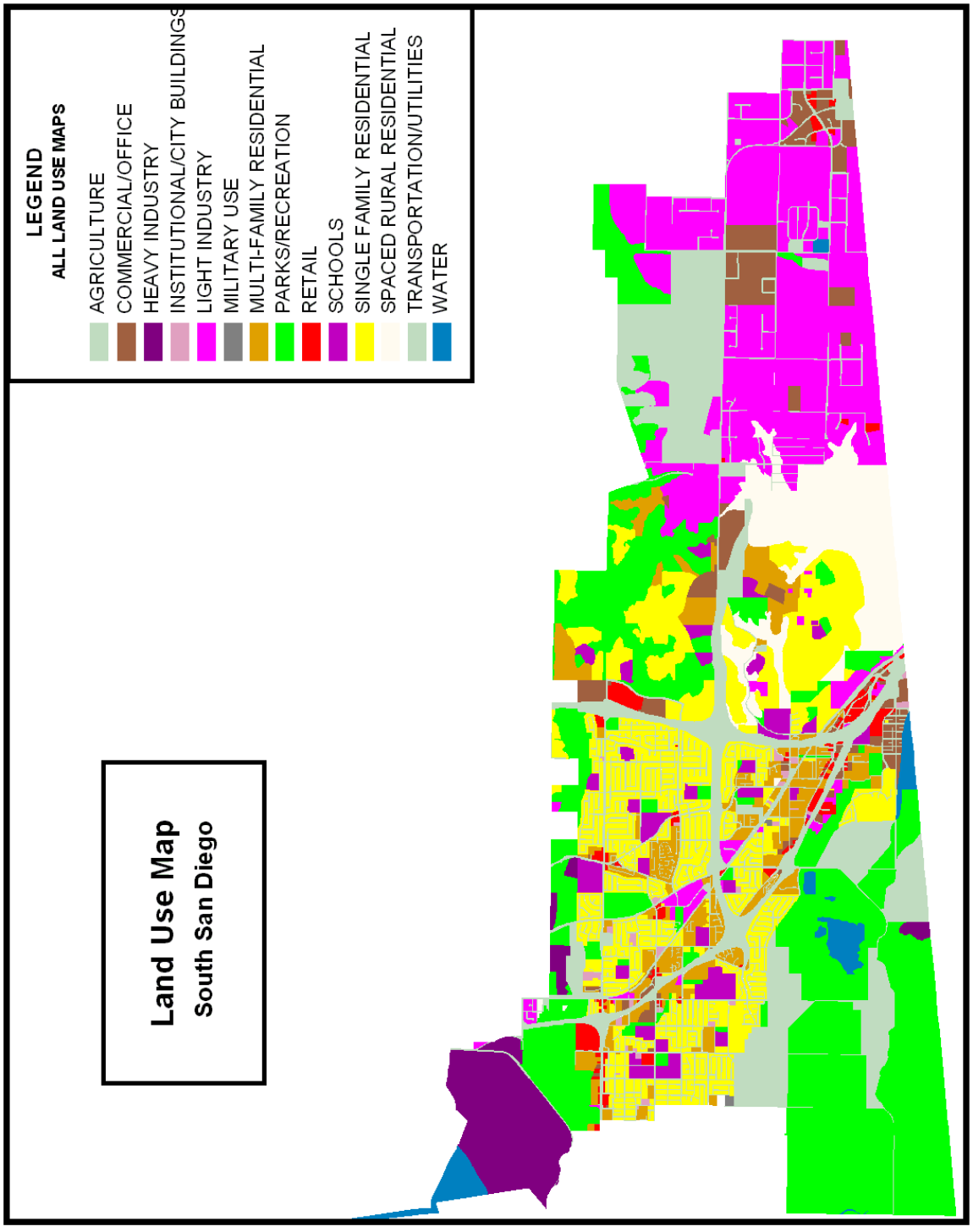
This page intentionally left blank.


Land Use Map
North Central San Diego
LEGEND
Please See
South San Diego Map
or North San Diego Map

This page intentionally left blank.


LEGEND
ALL LAND USE MAPS
AGRICULTURE
COMMERCIAL/OFFICE
HEAVY INDUSTRY
INSTITUTIONAL/CITY BUILDINGS
LIGHT INDUSTRY
MILITARY USE
MULTI-FAMILY RESIDENTIAL
PARKS/RECREATION
RETAIL
SCHOOLS
SINGLE FAMILY RESIDENTIAL
SPACED RURAL RESIDENTIAL
TRANSPORTATION/UTILITIES
WATER
Land Use Map
North San Diego

This page intentionally left blank.


LEGEND
ALL LAND USE MAPS
AGRICULTURE
COMMERCIAL/OFFICE
HEAVY INDUSTRY
INSTITUTIONAL/CITY BUILDINGS
LIGHT INDUSTRY
MILITARY USE
MULTI-FAMILY RESIDENTIAL
PARKS/RECREATION
RETAIL
SCHOOLS
SINGLE FAMILY RESIDENTIAL
SPACED RURAL RESIDENTIAL
TRANSPORTATION/UTILITIES
WATER
Land Use Map
South San Diego

This page intentionally left blank.

Community Plans

The City of San Diego is comprised of a number of communities that stretch from the coast to inland hills and mesas. These communities have developed over time and have different physical, community, or design characteristics that define one community from another. Each of these communities in the past has worked with City planners to develop a community plan to be used as a tool for planning development and public facilities in each community.

The following is a short summary of the goals of each community plan as they relate to bicycle facilities and a description of existing and proposed bicycle facilities at the time of the adoption of the community plan. Development of a system of bicycle facilities within this Master Plan will consider community goals, existing facilities, and future bicycle facilities for each community and as a regional network that provides continuity and connectivity.

Many of the community plans are old and some of the facilities mentioned in the plans have been installed since the plan was adopted. Existing facilities will be identified following the discussion of community plans. The Black Mountain Community Plan was the only plan that was unavailable at the time that this document was written.

The City of San Diego has several existing plans for parks and for natural resource management for canyons and river parks. These plans as well as plans dealing with sensitive biological habitat are a part of the Bicycle Master Plan and any projects proposed in these areas must be consistent with these plans. Such plans include Marian Bear Natural Resource Management Plan, Mission Trails Regional Park Master Plan, Mission Bay Park Master Plan, and Balboa Park Master Plan

Barrio Logan Community Plan

At the time the community plan was adopted in 1978, no bikeway facilities existed. Presently, there are a few Class III routes located along heavily traveled streets with on-street parking. A major north-south bicycle route exists along Harbor Drive. There are other routes on Main Street, National Avenue, Crosby Street, 32nd Street, and Vesta Street.

There are three non-motorized freeway crossings in this area: Interstate 5 at Beardsley Street, Dewey Street, and 30th Street. The completion of the Harbor Drive bikeway link and further development of other bikeway connections are suggested in the Plan. It is also recommended that future planning and design should include bikeways that would connect to open space areas and adjacent communities.

Carmel Valley Community Plan

This community was once called North City West. The Carmel Valley Community Plan identifies two types of bikeway systems. The first is a neighborhood bikeway system that is described as providing links between neighborhood parks, elementary schools, and commercial and residential areas. The second is the community bikeway system, which would link neighborhoods to large activity centers, secondary schools, and employment centers. The Plan recommends linking the community system to a citywide bicycle network. It recognizes the need for secure bicycle racks at areas such as transit stops, schools, parks, libraries, and in commercial areas. The Plan suggests that the bikeway systems should parallel but be physically separated from all major and collector streets. Additionally, street crossings on high volume roadways should be minimized and grade separated crossings utilized wherever possible.

Carmel Mountain Ranch Community Plan

A system of bicycle facilities has been planned for this community to link residences with community facilities, services, and open space, and to link neighborhoods together. The plan

recommends safe, accessible pathways within neighborhoods, through open spaces, public utility easements, and along roadways. The bikeway map primarily recommends Class II bicycle lanes along major corridors.

Centre City Community Plan

The Centre City Community Plan provides a map of existing and proposed bikeways in and around the Centre City area. Existing bikeways include those on portions of Pershing Drive, India Street, Ash Street, B Street, Pacific Highway, Harbor Drive, 4th Avenue, 5th Avenue, 6th Avenue, Juniper Street, and Laurel Street. Proposed bikeways are identified along portions of Harbor Drive, Kettner Boulevard, India Street, A Street, Broadway, Market Street, 1st Avenue, 2nd Avenue, 10th Avenue, 11th Avenue, 12th Avenue, State Street, Columbia Street, Grape Street, Hawthorne Street, 4th Avenue, 5th Avenue, Imperial Avenue, Park Boulevard, and National Avenue. Circulation in the Community Plan focuses on access via transit and pedestrian-oriented design.

The Centre City Community Plan is currently being updated. As part of this update, the current bicycle element will also be updated. Once this update is complete and adopted by the San Diego City Council, the Bicycle Master Plan will be updated to include the bicycle element for Centre City as proposed in the updated Centre City Community Plan.

Clairemont Mesa Community Plan

The Clairemont Mesa Community Plan states that its objective, along with most other Plans, is to create a system of bicycle lanes and paths to link parks, recreation areas, schools, and commercial areas throughout the community. Many Class I, II, and III bikeways are proposed with an emphasis on the development of those south of SR-52 and along Genesee Avenue. The San Clemente Canyon Bikeway (I-805 to I-5) is recommended along the northern boundary of Marian Bear Memorial Park in order to ensure that the bikeway will not interfere with biological resources in the canyon park. The Plan recommends that bikeway signs should include directional signage to lead bicyclists to their desired destinations. The plan also suggests that secure bicycle racks should be placed in visible locations near building entrances, and employers should provide bicycle lockers for employees that commute by bicycle. Bikeways in this area should be directed to serve future Trolley and bus transit stations with bicycle racks and lockers at each location.

College Area Community Plan

At the time this plan was adopted, 1993, the bikeway facilities consisted of Class II lanes and Class III routes. They follow some of the major streets in the community. The plan also recommends completion of the following bikeway facilities:

- Class II lanes on College Avenue
- Class II lane on El Cajon Boulevard, east from College Avenue
- Class III route along Alvarado Road from College Avenue to 70th Street
- Class II lane on 70th Street between Alvarado Road and Montezuma Road
- Class III route on Remington Drive west to Dover Drive
- Class III route along Plaza Drive right-of-way between College Avenue and 55th street
- Upgrade of the Class III route on Montezuma Road and Collwood Boulevard to Class II lanes

In addition, the plan recommends all bike facilities should include approved signage; all new commercial or multi-family developments should provide bicycle-parking facilities; and parking facilities should be provided at the SDSU transit center. Specific suggestions are made for the SDSU campus to provide more bicycle racks, lockers, and improved signage.

Fairbanks Country Club

This community plan briefly discusses the deeding of the river valley and adjacent slopes to the City of San Diego and utilizing the remaining open space for possible riding and/or hiking trails.

Golden Hill Community Plan

The Golden Hill Community Plan states that an extensive bikeway system for this area is not feasible based on topography. However, it does recommend that a bikeway system should be developed to provide access within the community, to regional destinations such as Balboa Park, adjacent communities, and four recreational areas (Grape Street picnic area, Golden Hill Park, the 28th Street Strip, and Golden Hill Community Center). The plan recommends extensive signing for bikeway users including destination plates, route signs, and arrows for users to ensure that they are able to follow the designated route. Bicycle parking facilities are recommended for major activity centers and transit centers. It has established the goal of reducing traffic in the community by encouraging alternative transportation, including bicycling.

Kearny Mesa Community Plan

According to the Kearny Mesa Community Plan, the high level of vehicular traffic on most streets does not encourage bicycling. Therefore, it recommends developing a community bikeway system, which includes covered parking and bicycle lockers at activity centers and commercial areas. The plan also suggests the inclusion of a Bicycle Commuting Encouragement Program in a future Transportation System Management Program. It recommends promoting bicycle commuting in this heavy commercial area and that employers provide parking and locker and shower facilities for commuting bicyclists.

La Jolla Community Plan

The La Jolla Community Plan recommends that priority be given to establishing bike paths in the community. It is also suggested that existing and proposed routes should be separated whenever possible for motor vehicle and bicycle safety. The plan specifically calls for modification of the intersection at Torrey Pines Road, Ardath Road, and La Jolla Shores Drive, to accommodate bicycles.

The community plan recommends utilizing the corridor from Nautilus Street to La Jolla Boulevard, now the Fay Avenue Bike Path, to be used as a non-permanent, multi-use, non-motorized pathway. The plan notes that this pathway could be used in the future for an "innovative transit system". However, the Plan recommends that the bike path not be eliminated should this occur.

There is also a recommendation for a bicycle path to be developed beginning at the intersection of Genter and Girard and extending to Via Del Norte.

Linda Vista Community Plan

According to the community plan for this area, the streets incur high traffic volumes and are not designed to accommodate bicycles. There is a completed 2.75-mile Class I bikeway along the south side of Friars Road between Fashion Valley Road and Sea World Drive. A Class II

bikeway has been established on Linda Vista Road between Mesa College Drive and Napa Street. The plan recommends bicycle improvements on West Morena Boulevard, Genesee Avenue, Mesa College Drive, and Napa Street.

Greater North Park Community Plan

The Greater North Park Community Plan, dated 1990, states that there are no bicycle lanes in this community. There is a designated bike route on Howard Avenue, from Park Boulevard to I-805, crossing into Mid-City to link with that community's only bike route.

The Plan suggests implementing an extensive bikeway system with access not only to points within the community, but to regional destinations such as Balboa Park and adjacent communities. There are recommendations for bicycle racks and lockers to be placed in visible locations with appropriate signage. The following roadways are cited as those that should be included in a comprehensive bikeway system:

- Howard Avenue
- Adams Avenue
- Landis Street
- Morley Field Drive
- Upas Street
- Thorn Street
- Juniper Street
- Park Boulevard
- Louisiana Street
- Texas Street
- 28th Street
- Utah Street
- Boundary Street
- Niles Street
- University Avenue at Lincoln Avenue

The inclusion of these roadways would accommodate commuters to the Central Business District as well as to other neighborhoods within the City.

Midway/Pacific Highway Corridor Community Plan

This community plan sets out a policy to "promote access to commercial centers, employment sites, and coastal and recreational areas by providing bicycle access along major public thoroughfares". Additionally, the Plan sets out an Action Plan for implementation of the recommended bicycle facilities. As of the date of adoption (1991), there was one bikeway facility that was existing, Class II bike lanes on Pacific Highway. Class II bikeways are proposed along Rosecrans Street, Midway Drive, and Sports Arena Boulevard. Class III bikeway facilities are proposed along Kettner Boulevard, Laurel Street, and Lytton Street.

Mid-City Communities Plan

A vision statement of the Mid-City Community Plan is to "encourage and enhance pedestrian and bicycling as effective modes of personal transportation". The approved bicycle system identifies primarily Class II bicycle lanes along the major roadways including Fairmont Avenue, 54th Street, Chollas Parkway, College Grove, Federal Boulevard, and Montrol Avenue, and Monroe Avenue.

Mira Mesa Community Plan

The Mira Mesa Community Plan identifies a system of bikeways and standards. Class II bicycle lanes are recommended along major roadways including Carroll Canyon Road, Carroll Road, Miramar Road, Mira Mesa Boulevard, Sorrento Valley Road, Black Mountain Road, Camino Ruiz, and Camino Sante Fe. Most of these facilities have been developed since this community plan was adopted. Also since that time, the City has planned to close gaps in the Mira Mesa Boulevard Class II facility through the community.

Mission Beach Precise Plan

The Mission Beach Precise Plan identifies an integral part of the overall regional bikeway network in the north-south bikeway along the San Diego coastline. Due to traffic congestion and lack of parking, biking is a convenient form of transportation in this area. Bicycle activity primarily occurs along a 2-mile stretch along the beach known as the Ocean Front Walk. The Bayside Walk is also a popular multi-use pathway along the shores of Mission Bay. The Plan recommends widening both Ocean Front Walk and the Bayside Walk in order to accommodate the demand for these frequently used multi-use pathways. The plan recommends bike routes should be extend the entire length of the community. A study is currently underway to determine the best way to widen the Ocean Front Walk.

Mission Valley Community Plan

An objective of the plan is to "create an intra-community bikeway system which would provide access to the various land use developments within the Valley and connect to the regional system" and to "encourage bicycle use in the Valley". The plan identifies a bicycle system that utilizes major roadways and offers Class I paths where they can be accommodated. The key components of the bikeway system include connections to Mission Bay, activity centers within Mission Valley, and Mission Hills. The plan recommends support bicycle facilities including installing bicycle sensitive signal detectors at signalized intersections, requiring development fees to improve bicycle facilities, and providing lockers, showers, and changing facilities at major developments in order to encourage bicycling as a convenient mode of transportation.

Since this community plan was adopted, Mission Valley has had an extensive system of Class I bikeways developed. Class I facilities now exist on both sides of the San Diego River. Plans are to close gaps in the existing network and extend it easterly into the Navajo community to connect to Mission Trails Regional Park and eventually to the Santee city limit. The City of San Diego plans to eliminate grade crossings at major intersections with bridges.

Navajo Community Plan

At the time of its adoption, this community plan identified existing Class II bicycle lanes along Navajo Road and Lake Murray Boulevard. Proposed bicycle facilities include:

- Regional Class I bike route from the beach through Mission Valley to Mission Trails Regional Park along the San Diego River.
- A 2.0 mile bicycle route along Del Cerro Boulevard.

- A 2.0 mile bicycle route connecting the Allied Gardens bicycle route and the proposed San Diego River route in the vicinity of Zion Avenue.
- An extension of the Jackson Drive route connecting to the San Carlos Community Center.
- A route along Lake Murray Boulevard from Grossmont Community to residential areas.

Since the time of this Plan's adoption, three bikeway facilities have been developed, including Class II lanes on Mission Gorge Road, Jackson Drive, and West Hills Parkway.

Ocean Beach Local Coastal Program

At the time of adoption of the LCP in 1986, there were a limited number of bikeway facilities in Ocean Beach. Now Class III bikeways exist on Voltaire, Abbot, Newport, Cable, and Orchard Avenues, and Sunset Cliffs Boulevard. The plan recognizes that bicycling is an important mode of transportation for short trips to stores and to the beach. The Plan sets the goal to develop a system of bikeways that links Ocean Beach to surrounding bicycle facilities and to develop an intra-community bikeway network that links various activity centers within Ocean Beach. The Plan identifies as a priority a north-south bikeway through Ocean Beach along the coastline. According to the Plan, developing bicycle facilities should minimize potential conflicts between bicycles and cars, both moving and parked. Since this Plan was adopted, the Ocean Beach Class I path along the San Diego River has been extended to Pacific Highway.

Old Town San Diego Community Plan

The Plan recommends implementing a design for bikeway corridors along Taylor Street and Pacific Highway. The route is recommended as a Class I bicycle path to provide the safety along these high traffic areas. Class III bikeways along other streets are recommended instead of Class II lanes due to the existence of narrow street widths and on-street parking.

Otay Mesa Community Plan

One of the goals of the Otay Mesa Community Plan is to diversify the modes of transportation used in the community. The Plan recommends that land use planning assist in this goal. Bikeways should be considered as separate, but integral parts of the transportation network. The following is a list of some of the elements of the bicycle section of the Community Plan:

Neighborhood bikeway systems should link neighborhood parks, elementary schools, and convenience commercial with residential area. Street crossings should be minimized.

Community bikeways should link neighborhoods with major activity centers, such as the town center, community parks, junior and senior high schools, and employment centers. This network of bikeways should tie into the city-wide network of bikeways. The community network should utilize exclusive rights-of-way and grade-separated crossings as much as possible.

Lockable bicycle racks should be provided at activity centers that receive significant bicycle traffic, such as transit stops, schools, parks, libraries, and commercial areas.

Parking should be prohibited on any major street with a Class II bikeway.

Otay Mesa-Nestor Community Plan

A bicycle system adopted in 1979 identifies the Bayshore Bikeway project, which is currently a funded project to extend the Class I bikeway north through the cities of Chula Vista and

National City and will connect with the Silver Strand Bikeway and Coronado to the west. The Bayshore Bikeway currently takes bicyclists south from Chula Vista through the Otay River floodplain and along Saturn Boulevard to Palm Avenue. Otay Mesa Road is planned to be reclassified as a Class III facility (from its current Class II designation) until the SR-125 toll road project is completed. At that time, Otay Mesa Road is planned to be reclassified as a Class II facility when most truck traffic is expected to be diverted onto the new SR-125 facility.

Pacific Beach Community Plan and Local Coastal Program Land Use Plan

Pacific Beach identifies a bikeway system for both commuter-oriented use and recreational use consisting of Class I, II, and III facilities. The Plan encourages bicycle usage for both leisure and work trips. Developed within a grid roadway network, Pacific Beach lends itself to bicycle commuting. Existing bikeways consists of a Class I bikeway around Sail Bay (Sail Bay Bikeway Path) that continues around Crown Point at which point bicyclists are directed to a Class II bike lane on Crown Pointe Drive. Other Class I pathways include the very popular Ocean Front Walk along the beach and the Rose Creek Bike Path, which is a regional route linking to University City and the UCSD area to the north.

There is one existing Class II facility shown in the Pacific Beach Community Plan along Soledad Mountain Road. Future Bikeway maps in the Plan identify future bike lanes along Grand Avenue, connecting the Ocean Front Walk to the Rose Creek Bike Path. Portions of this facility have been built east of Balboa Avenue. Other Class III bike routes are proposed along Loring Street, Cass Street, Mission Boulevard, Pacific Beach Drive, Jewel Street, and Lamont Street. One Class III facility currently exists along Hornblend Avenue and serves as an alternate to Garnet and Grand Avenues.

Peninsula Community Plan

The Peninsula Community Plan states that efforts should be made to encourage and facilitate the use of public transportation as an alternative to the automobile. The plan recommends that a bikeway system be developed that provides a systematic network of bikeways between major activity centers focusing, where practical, on less traveled streets. The Plan also recommends that bicycle parking facilities be located at businesses and retail centers and at heavily used beach front and bay front areas. A system of bikeways is identified which includes major streets such as Rosecrans Street, Chatsworth and Nimitz Boulevards, and Canon Street. The Plan recommends exploration of a bikeway to connect to the Sunset Cliffs corridor. Since the adoption of this Plan, existing in this community are Class II bikeways along Nimitz Boulevard, Cabrillo Monument Road, and the southern portion of Rosecrans Street. Other Class III facilities are located along Catalina Boulevard and several streets near Point Loma College.

Rancho Bernardo Community Plan

Recognizing the increased usage of bicycles throughout San Diego, this Community Plan identifies a system of existing and proposed bikeways. Many of the major roadways in Rancho Bernardo already include Class II lanes, such as Rancho Bernardo Road, Bernardo Center Drive, Camino Del Norte, West Bernardo Drive, and Pomerado Road. Class II lanes are proposed along Bernardo Heights Parkway. Currently, there is no parallel roadway connecting the community of Rancho Bernardo to the City of Escondido other than Interstate 15. Bicyclists are permitted on the freeway shoulders to cross Lake Hodges between West Bernardo Drive/Pomerado Road and Via Rancho Parkway. However, a funded project is currently in development to link Rancho Bernardo and Escondido via a new bridge crossing of Lake Hodges. Throughout the community, Class III bikeways are proposed for most of the community's street network. The Plan identifies the need for bicycle parking facilities and bicycle lockers for employees arriving at major activity centers.

Rancho Penasquitos Community Plan

The Rancho Penasquitos Community Plan recommends that a bikeway system provide access from residential areas to public facilities, commercial destinations, and link neighborhoods. The plan recommends implementing Class II lanes on all major streets and Class I paths along the County Water Authority's right-of-way and through public parklands including Black Mountain Park and Los Penasquitos Canyon Preserve. In addition, the Plan recommends that bike lockers and locking racks be located at major activity and transit centers. A Class I bikeway currently exists along the southern edge of the SR-56 freeway from I-5 to Carmel Country Road and from Black Mountain Road to I-15. The segment between these two path segments is currently under construction. An extension of this bikeway is planned to connect to the Carmel Valley SR-56 bikeway via the route of the SR-56 freeway when it is constructed. The City also plans to grade separate the Class I bikeway at the SR-56 Freeway interchanges, including those at Black Mountain Road, Camino Ruiz, and Camino Santa Fe. It is intended that this bikeway will be the equivalent of a "bicycle freeway" for bicycle travel between Rancho Penasquitos and Carmel Valley.

Sabre Springs Community Plan

This Community Plan identifies a number of bikeways to provide internal circulation within Sabre Springs and connections to surrounding communities. An existing Class I bicycle path is located adjacent to I-15 from Poway Road to north of Mira Mesa Boulevard. A planned Class I facility would serve the park south of Penasquitos Creek. Bicycle lanes are provided along Poway Road and Sabre Springs Parkway.

San Pasqual Valley Plan

The existing bikeway system in the San Pasqual Valley is limited to a bicycle route along the shoulders of I-15 connecting Rancho Bernardo with the City of Escondido. The community plan identifies goals that support a bicycle circulation system throughout the Valley with connections to bikeways in adjacent communities. The future widening of major two-lane roads in the community will facilitate bicycle lane improvements. Via Rancho Parkway, Cloverdale Road, San Pasqual Road, and Highland Valley Road are designated to be widened to include bicycle lanes. The Plan includes a proposed Class I path along the San Dieguito River climbing through a finger canyon along the steep south slope of the Valley. Also planned and funded is a separate bridge across Lake Hodges that would connect Rancho Bernardo with Escondido where a freeway shoulder crossing currently exists.

San Ysidro Community Plan

There are currently three existing bikeway facilties in the San Ysidro Community. These include sections of Otay Mesa Road, Smythe Avenue, and Dairy Mart Road. Three goals for bicycling are identified in the Community Plan:

Increase bicycle accessibility throughout the community.

Minimize bicycle/automobile conflicts on major streets throughout the community.

Increase the use of bicycles in San Ysidro to reduce dependence on the single-occupant vehicle user mode.

The Plan recommends a number of streets to be included as part of a future bikeway netork, including Dairy Mart Rd, East Beyer Blvd, Smythe Ave, Willow Rd, Beyer Blvd, Otay Mesa Rd, San Ysidro Blvd, Tia Juana St, Border Village Rd, Camiones Wy, and Virginia Ave. Other recommendations include providing an exclusive bicycle lane at the border crossing to ease congestion, identify and provide signage for the San Ysidro segment of the Pacific Coast

Bicentennial Bike Route, and integrate bicycle facilities with bicycle-sensitive loop detectors and parking facilities at activity centers.

Scripps Miramar Ranch Community Plan

The Scripps Miramar Ranch Community Plan states that non-motorized transportation be accommodated through the development of accessible pathways and/or sidewalks and bikeways along parking strips and sidewalks in all residential areas. A Non-Motorized Circulation Element included in the Plan identifies a system of bikeways and hiking and equestrian trails. The bikeways include the highly used Class I bikeway around Miramar Reservoir and along Interstate 15, which connects with Poway Road to the north. Class II bikeways are identified along the major roads including Carroll Canyon Road, Mira Mesa Boulevard, and Scripps Lake Drive. Class III routes are identified on Mesa Madra Drive,Sunset Ridge Drive, Spring Canyon Road, Pomerado Road, and Avenida Magnifica.

Serra Mesa Community Plan

The Serra Mesa Community Plan states that a community bikeway system should be designated as reflected on the Bikeways Map shown in the Plan. The bikeway system identifies three access routes to connect to Mission Valley and Murphy Canyon. The routes should follow Mission Center Road, Aero Drive, and serve Mission Village. The alignment for the Mission Village bikeway has not yet been determined. The Plan also suggests improving vehicular/bicycle connections through the use of "bicycle park-bus ride" and "piggy-back" bicycle bus transportation concepts.

Skyline-Paradise Hills Community Plan

This Plan identifies a system of bicycle facilities although none of the facilities at the time of the adoption (1987) of the Community Plan had been implemented. The proposed bikeway system identifies the development of Class I paths within the Encanto open space area and along Jamacha Road to accommodate both alternative modes of transportation and passive recreational use. Bicycle lanes are identified on Paradise Valley Road and Skyline Drive. Class III bikeway facilities are located along streets such as Potomac Street, Parkside Avenue, Alta View Drive, and Woodman Street.

Sorrento Hills Community Plan

The Sorrento Hills Community Plan proposes a network of bicycle facilities through Sorrento Hills. These bikeways include Carmel Mountain Road, El Camino Real, Vista Sorrento Parkway, Arroyo Sorrento Road and Carmel Creek Road. The Plan also recommends a bikeway along C Street to connect to the Community Sports Park. All streets designated as major streets are proposed to have Class II bicycle lanes with the exception of Vista Sorrento Parkway, south of the Penasquitos Creek crossing. A Class III bicycle route is recommended for this segment. The Plan recommends developing a system of bikeways, which includes bicycle storage facilities, which ties into the regional bicycle network.

Southeast San Diego Community Plan

This Community Plan notes that the surface streets provide excellent access to San Diego Bay, Balboa Park and downtown for both recreational and commuter bicyclists, and most of the roadways are proposed as Class III bicycle routes. On-street bicycle routes have been designated for 28th Street, L Street, Ocean View Boulevard, and Alpha Street. According to the Plan, two Class I bicycle paths are located in this area: one parallel to I-805 between Hilltop Drive and the railroad tracks and one parallel to SR-94 between Kelton Road and 60th Street.

The Community Plan supports bicycle circulation by improving and enhancing its designated bicycle routes.

Tierrasanta Community Plan

Personal health and the environment are the reasons for bicycling according to the Tierrasanta Community Plan. In response, the Plan encourages alternative forms of transportation and a bikeway system for both community and regional needs. The bikeway plan identifies Class II lanes along Clairemont Mesa Boulevard, Tierrasanta Boulevard, and Spring Canyon Road. A feasibility study has recently been completed for a Class I path to close the gap between Tierrasanta Boulevard and Mission Gorge Road. Funding for the design of this project has already been secured.

University Community Plan

As of the date of adoption of the community plan (1990), a system of bikeways was already established. Class I bikeways include the Rose Canyon Bikeway and portions along North Torrey Pines Road. Class II bicycle lanes include the La Jolla colony Drive, Palmillas Drive, Arriba Street, Governor Drive, Genesee Avenue, Gilman Drive, Miramar Road, Eastgate Mall, North Torrey Pines Road, and Nobel Drive. Since there is no parallel roadway from Sorrento Valley Road to Genesee Avenue, bicyclists are permitted to utilize the shoulder of Interstate 5 between these two freeway exits. The proposed Coastal Rail Trail project will traverse the University Community. Its route is planned for Genesee Avenue from Rose Canyon to north of Eastgate Mall where a Class I path is planned to connect to Sorrento Valley Road.

Uptown Community Plan

Uptown is a popular cycling area due to its proximity to major employment centers and recreation areas. The community is easily accessible to downtown San Diego, Balboa Park, Old Town, and the Embarcadero. Recognizing the advantages of the community to these areas, an objective of the Plan is to:

> "Develop a comprehensive bikeway system which would not only provide a safe connection between neighborhoods, schools and commercial areas, but which would connect with bikeways in neighboring communities and Centre City."

East-west Class III bikeways are identified along streets including Presidio Park and Fort Stockton Drives, University Avenue, Third Avenue, and Upas Street. Existing north-south Class III routes include Goldfinch Street, Reynard Way, Fourth and Sixth Avenues south of Upas Street, and Fifth Avenue south of Juniper Street. The proposed bikeway system includes additional linkages to Old Town, Centre City, and the Middletown area. The Plan states that, whenever possible, bicycle lockers or specified areas for bicycle parking should be provided to cycling employees. Employer incentives that allow flexible hours for bike commuters should be considered.

EXISTING CONDITIONS

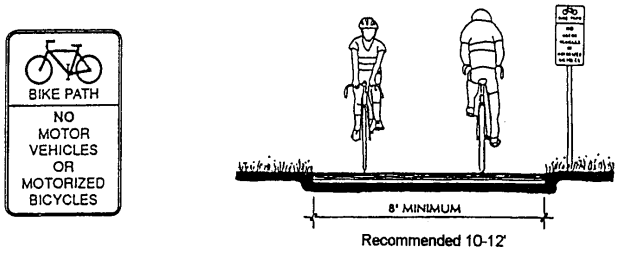
Bicycle Facilities and Programs

1. Bikeways

Bikeways can be classified into four types in accordance with Chapter 1000 of the Caltrans Highway Design Manual:

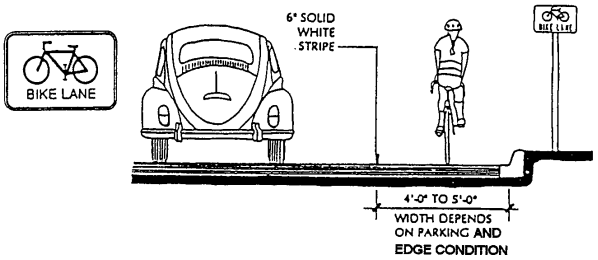
- Class I Bike Path – Typically called a bike path, this provides for bicycle travel on a paved right-of-way completely separated from any street or highway.

Class I Bike Path



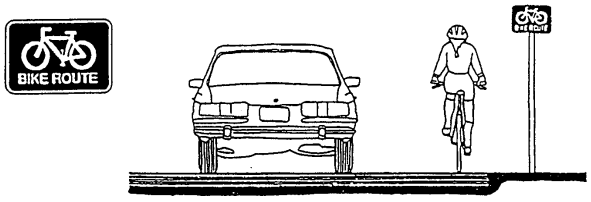
- Class II Bike Lane – These facilities are often referred to as bike lanes. Bike lanes provide a striped and stenciled lane for one-way travel on a street or highway. When properly designed, bike lanes help improve the visibility of bicyclists.

Class II Bike Lane



- Class III Bike Route – Generally referred to as a bike route, it provides for shared use with pedestrian or motor vehicle traffic and is identified only by signing. This is recommended when there is enough right-of-way for bicyclists and motorists to safely pass.

Class III Bike Route



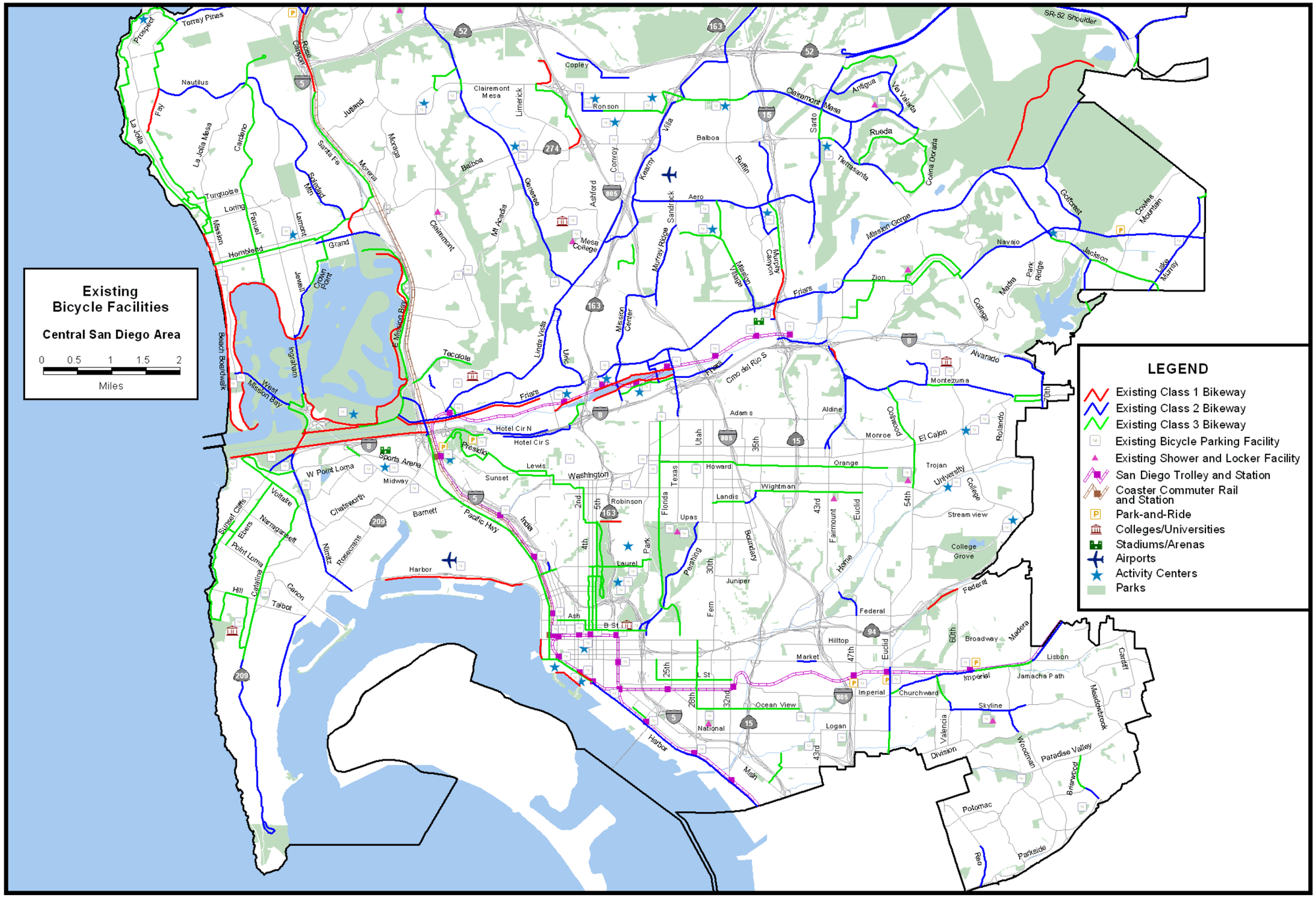
- Shared Roadway (No Bikeway Designation). Most bicycle travel in the State now occurs on streets and highways without bikeway designations. This probably will be true in the future as well. In some instances, entire street systems may be fully adequate for safe and efficient bicycle travel, and signing and striping for bicycle use may be unnecessary. In other cases, routes may be unsuitable for bicycle travel, and it would be inappropriate to encourage additional bicycle travel by designating the routes as bikeways. Finally, routes may not be along high bicycle demand corridors, and it would be inappropriate to designate bikeways regardless of roadway conditions (e.g., on minor residential streets).

Existing Bikeways

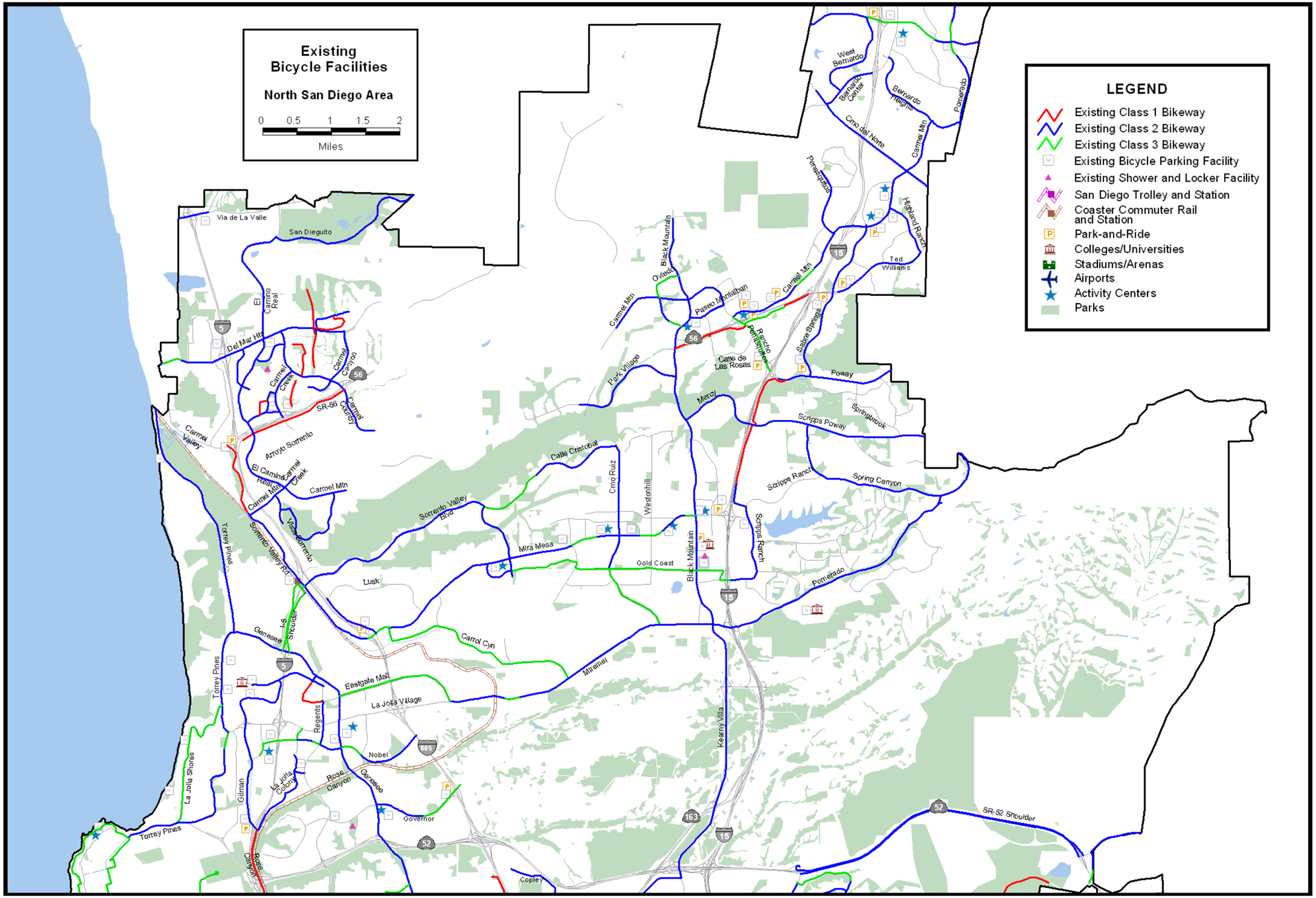
The City of San Diego has a developed network of designated Class I, II, and III bikeways. The maps on pages 33-37 show the existing network of designated bikeways within the City. Many Class I paths are located in Mission Valley, Mission Bay Park, and along the beachfronts in Pacific Beach and Mission Beach. Other Class I facilities of significant length can be found in Carmel Valley, Rancho Penasquitos, Mira Mesa, Rose Canyon, near the San Diego Airport, and in the Mission Trails Park. In San Diego, many Class I bikeways provide critical links between communities that would otherwise be totally separated for bicyclists. Two examples of these critical links are the Rose Canyon and Murphy Canyon paths, which provide for convenient bicycle travel in areas with no other alternative route adjacent to busy freeways.

Most of the Class II bike lane facilities are located in areas of the City developed within the last 30 years and include Rancho Bernardo, Rancho Penasquitos, Sabre Springs, Mira Mesa, University City, Carmel Valley, and Tierrasanta. Some important Class II bikeways of significant length include Genesee Avenue, Linda Vista, Kearny Villa, and Black Mountain Roads, Aero and Harbor Drives, Friars and Mission Gorge Roads, Nimitz and Beyer Boulevards, and Carmel Mountain, Torrey Pines, and Otay Mesa Roads.

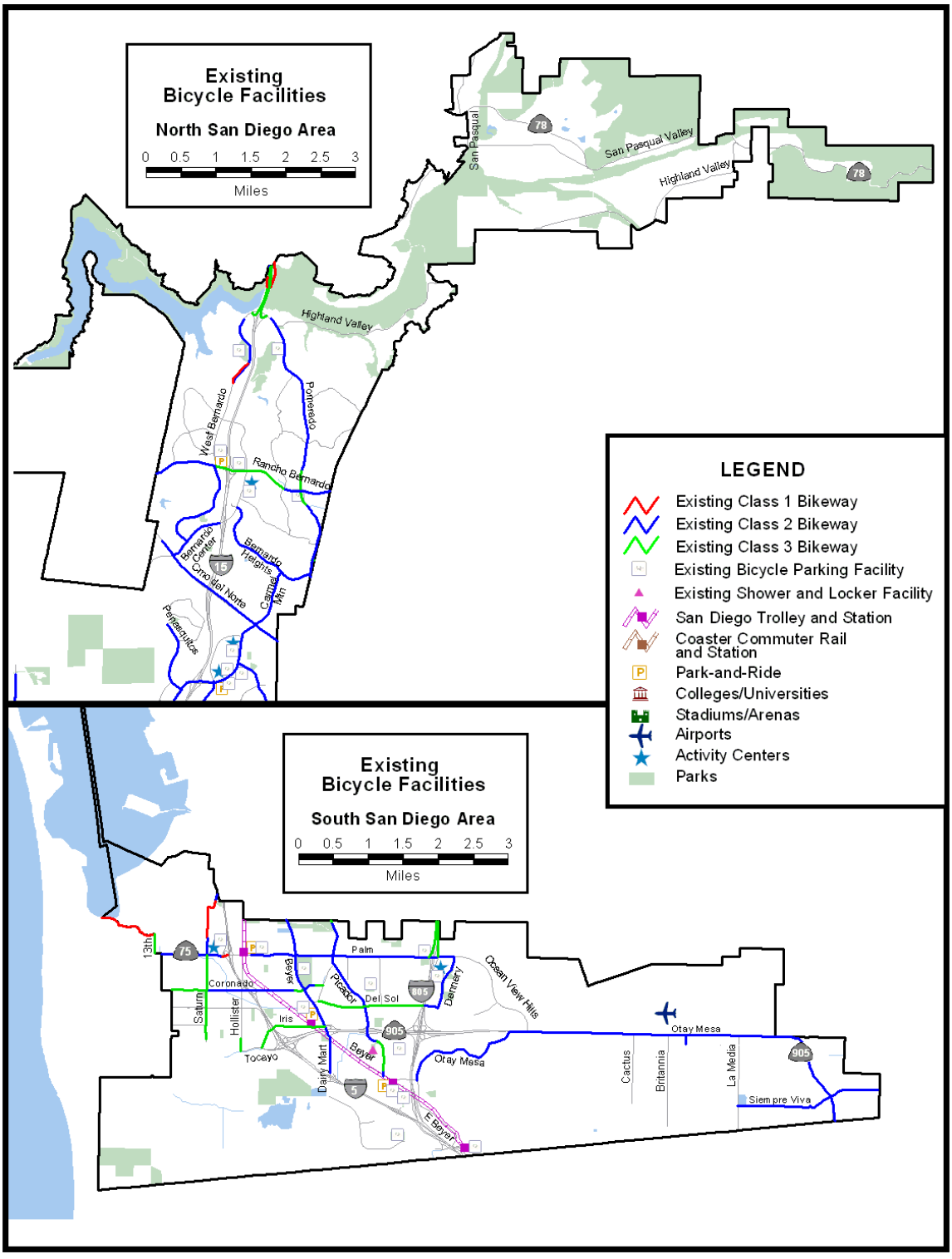
Class III bikeways are located both along major arterials and along quiet neighborhood streets. Arterial Class III facilities are located along such streets as Miramar Road, Rancho Penasquitos Boulevard, Pacific Highway, 4th, 5th, and 6th Avenues, Camino Ruiz, and Saturn and Del Sol Boulevards. Neighborhood Class III routes are located along streets such as Orange Avenue in City Heights, Gold Coast Drive in Mira Mesa, Fort Stockton Drive in Mission Hills, Hornblend Avenue in Pacific Beach, L Street near Golden Hill, and Iris Avenue in Otay Mesa-Nestor.


Existing
Bicycle Facilities
Central San Diego Area
0 0.5 1 1.5 2
Miles
LEGEND
Existing Class 1 Bikeway
Existing Class 2 Bikeway
Existing Class 3 Bikeway
Existing Bicycle Parking Facility
Existing Shower and Locker Facility
San Diego Trolley and Station
Coaster Commuter Rail and Station
Park-and-Ride
Colleges/Universities
Stadiums/Arenas
Airports
Activity Centers
Parks
SR-52 Shoulder
Torrey Pines
Prospect
Nautilus
La Jolla
Fay
La Jolla Mesa
Cardeno
Turquoise
Loring
Mission
Hornblend
Fanuel
Lamont
Grand
Jewell
Soledad Mtn
Santa Fe
Moraga
Morena
Rose Canyon
Clairemont Mesa
Clairemont
Balboa
Genesee
Mt Acadia
Limerick
Copley
Ronson
Mesa College
Ashford
Convoy
Kearny
Villa
Balboa
Aero
Sandrock
Murray Ridge
Ruffin
Santo
Clairemont Mesa
Antigua
Via Valarta
Rueda
Tierrasanta
Colina Dorada
Golfcrest
Cowles Mountain
Lake Murray
Jackson
Navajo
Park Ridge
Madra
College
Alvarado
Montezuma
Mission Gorge
Murphy Canyon
Mission Village
Zion
Friars
Cmo del Rio S
Mission Center
Linda Vista
Tecolote
Grand
Crown Point
E Mission Bay
Ingraham
West Mission Bay
Beach Boardwalk
Hotel Cir N
Hotel Cir S
Presidio
Sports Arena
Midway
W Point Loma
Sunset
Lewis
Washington
Adams
Aldine
Utah
35th
Monroe
Orange
Howard
Wightman
Landis
Upas
Florida
Texas
Robinson
2nd
5th
4th
Park
Laurel
Pacific Hwy
India
Barnett
Chatsworth
Voltaire
Narragansett
Sunset Cliffs
Ebers
Point Loma
Catalina
Nimitz
Rosecrans
Harbor
Hill
Canon
Talbot
Ash
B St
L St
25th
28th
32nd
Ocean View
National
Harbor
Main
Logan
43rd
Fern
Pershing
30th
Juniper
Boundary
Fairmount
Euclid
Hilltop
Market
47th
54th
Federal
Imperial
Churchward
El Cajon
Calvocord
Rolando
University
College
Stream view
College Grove
Trojan
Skyline
Jamacha Path
Lisbon
Broadway
Madera
60th
Cartier
Meadowbrook
Paradise Valley
Brentwood
Woodman
Valencia
Division
Potomac
Parkside
Reo
Olivet
Euclid

This page intentionally left blank.


Existing
Bicycle Facilities
North San Diego Area
0 0.5 1 1.5 2
Miles
LEGEND
Existing Class 1 Bikeway
Existing Class 2 Bikeway
Existing Class 3 Bikeway
Existing Bicycle Parking Facility
Existing Shower and Locker Facility
San Diego Trolley and Station
Coaster Commuter Rail and Station
Park-and-Ride
Colleges/Universities
Stadiums/Arenas
Airports
Activity Centers
Parks
Via de La Valle
San Dieguito
El Camino Real
Del Mar Hts
Carmel Creek
Carmel Canyon
SR-56
Carmel Valley
Arroyo Sorrento
El Camino Real
Carmel Mtn
Torrey Pines
Sorrento Valley Rd
Vista Sorrento
Carmel Mtn
Serrento Valley Blvd
Calle Cristobal
Cmo Ruiz
Westonhill
Mira Mesa
Lusk
Gold Coast
Black Mountain
Scripps Ranch
Pomerado
Genesee
I-5 Shoulder
Carrol Cyn
Eastgate Mall
La Jolla Village
Regents
Nobel
Miramar
Kearny Villa
La Jolla Shores
Gilman
La Jolla Colony
Rose Canyon
Governor
Torrey Pines
Rose Canyon
Copley
SR-52 Shoulder
Spring Canyon
Scripps Ranch
Scripps Poway
Springbrook
Poway
Mercy
Park Village
Calle de Las Rosas
Paseo Montalban
Rancho Penasquitos
Penasquitos
Sabre Springs
Carmel Mtn
Ovilete
Black Mountain
Ted Williams
Highland Ranch
Carmel Mtn
West Bernardo
Bernardo Center
Bernardo Heights
Cmo del Norte
Pomerado

This page intentionally left blank.


Existing
Bicycle Facilities
North San Diego Area
0 0.5 1 1.5 2 2.5 3
Miles
San Pasqual
San Pasqual Valley
Highland Valley
Highland Valley
West Bernardo
Pomerado
Rancho Bernardo
Bernardo Center
Bernardo Heights
Camino Del Norte
Camino Del Norte
Pomerado
LEGEND
Existing Class 1 Bikeway
Existing Class 2 Bikeway
Existing Class 3 Bikeway
Existing Bicycle Parking Facility
Existing Shower and Locker Facility
San Diego Trolley and Station
Coaster Commuter Rail and Station
Park-and-Ride
Colleges/Universities
Stadiums/Arenas
Airports
Activity Centers
Parks
Existing
Bicycle Facilities
South San Diego Area
0 0.5 1 1.5 2 2.5 3
Miles
13th
Palm
Coronado
Saturn
Hollister
Iris
Tocayo
Dairy Mart
Beyer
Picador
Del Sol
Otay Mesa
Otay Mesa
Ocean View Hills
Cactus
Britannia
La Media
Siempre Viva
E Beyer

This page intentionally left blank.

There are four segments of the freeway system within the City that are open for travel by bicyclists. These freeway bikeway links are in areas where there is no viable alternative for bicycle travel. The following segments of the freeway system are open for travel by bicyclists within the City of San Diego:

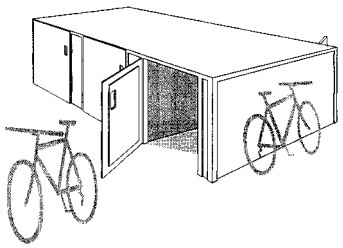
- I-5 between Sorrento Valley Road and Genesee Avenue
- I-15 between Via Rancho Parkway and West Bernardo Drive/Pomerado Road
- SR-52 between Santo Road and Mast Boulevard
- I-805 between Palm Avenue and Otay Valley Road

In these areas, bicyclists are permitted to ride the shoulder of the freeways. In some cases, the shoulders have signage and destination signs, and in other cases, there is no signage informing bicyclists as to the availability of the freeway route.

There are several bikeway projects that are currently in various stages of development. These are listed below.

- Ocean Beach-Mission Valley Class I extension to Hotel Circle Place
- Mission Valley San Diego River Class I from Qualcomm Way to Qualcomm Stadium
- Class I along the San Diego River from Qualcomm Stadium to Zion Avenue
- Class I along the San Diego River from Zion Avenue to Princess View Drive
- Class I Bayshore Bikeway in Otay Mesa-Nestor
- Coastal Rail Trail from Downtown San Diego to Del Mar
- Class I connection between Tierrasanta Boulevard to Princess View Drive
- Class I Lake Hodges crossing
- Class I along the SR-56 Freeway alignment
- Rose Creek Bridge in Mission Bay Park
- SR-15 Bike Path in Kensington-Talmadge

2. Parking



Bicycle parking accommodation is an important component in planning bicycle facilities and encouraging widespread use. Bicycles are one of the top stolen items in all communities, with components being stolen even when a bicycle is securely locked. Because today's bicycles often cost between $350 to over $2,000, many people won't use a bicycle unless they have secure parking available.

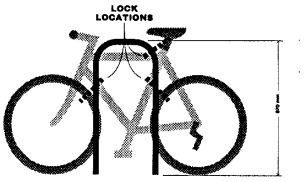
Bicycle parking requirements specified in the Municipal Code Sections 142.0525, 142.0530, and 142.0560 and any other applicable regulations will be imposed upon all new development projects.

In California, parking facilities are classified as follows:

- Class I bicycle parking facilities -- accommodate employees, students, residents, commuters, and others expected to park more than two hours. This parking is to be provided in a secure, weather-protected manner and location. Class I bicycle parking will be either a bicycle locker or a secure area like a 'bike corral' that may be accessed

only by bicyclists. The new "day locker" locker (bike lid, eLocker, etc.) is a new bicycle locker concept that has also gained popularity recently. These type of lockers allow for multiple users in the same day, therefore allowing these "lockers" to function similar to racks.

- Class II bicycle parking facilities -- best used to accommodate visitors, customers, messengers, and others expected to depart within two hours. Bicycle racks provide support for the bicycle but do not have locking mechanisms. Racks are relatively low-cost devices that typically hold between two and eight bicycles, allow bicyclists to securely lock their frames and wheels, are secured to the ground, and are located in highly visible areas. It is recommended that racks not be of a design that may damage the wheels by causing them to bend. Bike racks should be located at schools, commercial locations, and activity centers such as parks, libraries, retail locations, and civic centers, or anywhere someone's personal or professional business takes place.



Existing

The City of San Diego has an abundance of bicycle parking facilities located in all communities. The maps on pages 33-37 show existing parking locations in the City. Bicycle parking accommodations are provided at the following locations:

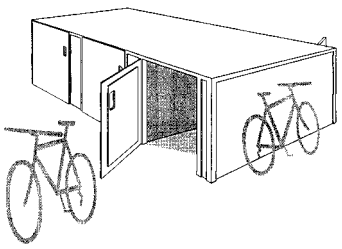
- Municipal and state parks
- Municipal and state beaches
- Colleges and universities
- Museums and facilities at Balboa Park
- Municipal libraries
- Shopping centers
- Regional shopping malls
- Government offices and buildings
- Retail and tourist locations in the downtown business and shopping district
- Qualcomm Stadium

The City of San Diego has an existing bicycle parking ordinance that requires bicycle parking to be provided for various types of new development in the City. Bicycle parking requirements specified in the Municipal Code Sections 142.0525, 142.0530, and 142.0560 and any other applicable regulations will be imposed upon all new development projects. The existing facilities map shows existing parking locations.

3. Amenities

Existing

In addition to parking accommodations, some local employers, health clubs, colleges, and universities provide shower and clothing locker facilities that may be used by bicyclists at the end of their trips to work or school. These amenities make bicycle commuting a viable option for many bicyclists and contribute to the viability of bicycling as a realistic commute option. The City of San Diego also maintains



13 public pools that include shower and locker facilities that are available to the public. These may be found on the maps on pages 33-37 and include the following locations:

- Allied Gardens
- Bud Kearns Memorial (Morley Field)
- Carmel Valley
- City Heights
- Clairemont
- Colina del Sol (East San Diego)
- Kearny Mesa
- Martin Luther King, Jr. (Southeast San Diego)
- Memorial
- Ned Baumer Miramar College
- Swanson Memorial (University City)
- Tierrasanta
- Vista Terrace (San Ysidro)

4. Multi-Modal Connections

Improving the bicycle-transit link is an important part of making bicycling a part of daily life in San Diego. Linking bicycles with mass transit (bus, trolley, commuter rail, and ferry) overcomes such barriers as lengthy trips, personal security concerns, and riding at night, in poor weather, or up hills. Park-and-ride locations provide for intermodal travel by bicyclists to carpools and vanpools. Bicycle parking facilities should be placed at these locations and would facilitate links to ride-sharing activities. Additionally, bicycling to transit instead of driving benefits communities by reducing taxpayer costs, air pollution, demand for park-and-ride land, energy consumption, and traffic congestion with relatively low investment costs.

There are four main components of bicycle-transit integration:

- Allowing bicycles on transit
- Offering bicycle parking at transit locations
- Improving bikeways to transit
- Encouraging usage of bicycle and transit programs

<u>Existing</u>

Currently, all San Diego Transit buses are equipped with state-of-the-art bicycle racks located on the front of each bus. Up to two bicycles per car may be brought on board the San Diego Trolley. Capacity restraints are a primary issue regarding the San Diego Trolley, especially during peak periods of the day. The maps on pages 33-37 show the locations of transit stations in the City. Except for the Santa Fe Depot Station, all existing Coaster, and Trolley stations currently have bicycle parking facilities available. These include the following locations:

Coaster

- Old Town
- Sorrento Valley

Trolley

- Mission San Diego
- Qualcomm Stadium
- Fenton Parkway
- Rio Vista
- Mission Valley Center
- Hazard Center
- Fashion Valley
- Morena/Linda Vista
- Old Town
- Washington Street
- Middletown/Palm
- County Center/Little Italy
- Gaslamp Quarter
- Convention Center
- Seaport Village
- American Plaza
- Civic Center
- 5th and C Street
- City College
- 12th and Market
- 12th and Imperial
- 25th and Commercial
- 32nd and Commercial
- 47th Street
- Euclid Avenue
- Encanto/62nd Street
- Barrio Logan
- Harborside
- Palm Avenue
- Iris Avenue
- Beyer Boulevard
- San Ysidro

Numerous park-and-ride locations in the City offer intermodal connections for bicyclists to carpools and vanpools. Most of these locations are near freeways for those making longer distance trips, and several are located near the northern terminus of the I-15 Carpool/Fastrak lanes in order to facilitate use of the express lanes for carpooling commuters. Bicycle park-and-ride facilities are found at the following locations:

- Mira Mesa Blvd at I-15
- Black Mountain Rd at Miramar College
- Vista Sorrento Pkwy
- Taylor St
- Governor Dr at I-805
- Carmel Valley Rd at Sorrento Valley Rd
- 47th Street at Castana St
- 62nd Street at Akins Ave
- Palm Ave at Hollister Ave
- 30th Street at Iris Ave
- Market St at Euclid Ave
- Seaward Ave
- Carmel Mountain Rd at Freeport Rd
- Sabre Springs Pkwy at Poway Rd
- Sabre Springs Pkwy at Ted Williams Pkwy
- Carmel Mountain Rd at Rancho Carmel Dr
- Rancho Carmel Rd near Provencal Pl
- Gilman Dr at I-5
- Navajo Rd at Cowles Mountain Blvd
- Carmel Mountain Rd at Paseo Cardiel
- Carmel Mountain Rd at Stoney Creek Rd
- Rancho Bernardo Rd at I-15
- Rancho Penasquitos Blvd at I-15

The Coronado Ferry currently allows bicycles on board for the trip from downtown San Diego to Coronado Island for an additional 50 cents over the normal fare. The Ferry starts running from San Diego at 9 am and operates hourly until 9 pm on weekdays, and 10 pm on weekends. It's first trip into San Diego in the morning starts at 9:30 am. It runs hourly from then until 9:30 pm on weekdays, and 10:30 pm on weekends. The City of Coronado also funds additional commuter service during peak hours. Hourly service begins at 5:45 am in the morning and ends at 6:55 in the evening for commuting cyclists.

Constraints and Opportunities

With its many ridges, mesas, and canyons, San Diego's topography presents both constraints and opportunities for bicyclists in the City. The many hilly areas of the City can be a hindrance to many commuting and recreational cyclists, and the narrow canyons can create chokepoints where automobile traffic becomes concentrated, such as at the I-5/I-805 merge or in the I-15

corridor north of Mira Mesa. Many of these chokepoints have bikeway alternatives, such as the Rose Canyon path parallel to I-5, and bicycles have been permitted use of the freeway shoulders in some areas, such as along I-5 between Sorrento Valley Road and Genesee Avenue.

The freeways themselves can present obstacles to a direct travel path for bicyclists. Many arterial streets are not continuous through an area where the freeway has been designated the primary automobile route. Examples include Murphy Canyon along I-15 between Aero Drive and Friars Road, along SR-94 east of Kelton Avenue, and near the interchange of SR-94 and Home Avenue. In Murphy Canyon and along SR-94 near Kelton, Class I paths have been built to connect a vital accessible bicycle link, but near SR-94 and Home Avenue, no such link exists to provide a through connection from Home Avenue to points west.

Class I bikeways have been built along many sections of the freeway system to provide critical bicycle links where the freeway has been designated the primary automobile route. These include I-15 between Mira Mesa and Sabre Springs, and adjacent to the western and eastern portions of the yet-unfinished SR-56 Freeway. One project, which is in design at the present time, will provide a critical link adjacent to SR-15 between Mission Valley and the Normal Heights and City Heights areas.

The City's canyons provide opportunities for Class I bikeway facilities in many locations. Many canyon corridors can provide for long stretches of bikeway uninterrupted by busy arterial streets. Such opportunities for canyon corridor bikeways include San Clemente Canyon, Rose Canyon east of Gilman Drive, Tecolote Canyon, Chollas Canyon, and other small canyons that could provide intra-neighborhood linkages in older parts of the City.

The City's bikeway system reveals that many areas of the City have numerous designated bikeway facilities and others that have very few. Generally, older sections of the City have less bikeway infrastructure than newer areas. Nonetheless, bicyclists may travel on any roadway without a designated bikeway except those sections of freeways where they are prohibited. Some areas of the City that appear to be lacking designated bikeway facilities include Southeast San Diego, Paradise Hills, City Heights, the College Area, North Park, Kensington/Normal Heights, Hillcrest, Midway, Kearny Mesa, and Clairemont. One of the reasons why some of these older areas of the City have fewer bikeways is due to the narrowness of the curb-to-curb street widths that do not allow for the inclusion of bike lanes or provide adequate room for bicycles in a wide curb lane. Most of the streets in these areas also have curbside parking permitted, which can be an obstacle to the implementation of bikeways on these streets.

Most areas of the City could benefit from an increase in bikeway mileage, and there are numerous gaps in the existing system. Many bikeways are discontinuous, and others have discontinuous links along a route that is otherwise a bikeway corridor, such as along Friars Road near SR-163. Although San Diego has a lot of bikeway mileage, more is needed in underserved areas and where there are obvious gaps in the network.

Relevant Legislation and Policies

Aside from the City's own General Plan which identifies specific goals and policies that are relevant to the bicycle master plan, there are several other city, state, regional, and federal requirements for master plans which are primarily related to funding.

The San Diego Bicycle Master Plan will be consistent with the San Diego Association of Government's Regional Transportation Plan, which outlines future transportation improvements that are eligible for federal funding in San Diego County.

On a state level, according to the California Bicycle Transportation Act (1994), all cities and counties should have an adopted bicycle master plan in order to qualify to apply for the Bicycle Transportation Account funding source. A bicycle master plan must contain the following elements:

- An estimated number of existing and future bicycle commuters
- Description and maps of existing and proposed land uses
- Description and maps of the existing and proposed bikeway system
- Description and maps of existing and proposed bicycle parking facilities
- Description and maps of existing and proposed multi-modal connections
- Description and maps of existing and proposed facilities for changing and storing clothes and equipment
- Bicycle safety and education programs
- Citizen and community participation
- Consistency with transportation, air quality, and energy plans
- Project descriptions and priority listings
- Past expenditures and future financial needs

In addition to these required elements, the Caltrans Highway Design Manual contains specific design guidelines, which must be adhered to in California. 'Chapter 1000: Bikeway Planning and Design' of the Manual sets the basic design parameters of on-street and off-street bicycle facilities, including mandatory design requirements.

Bicycle Accident and Safety Education Program Analysis

Bicycle Accidents

Table 4.1
Bicycle Involved Collisions: 1997-1999

Jurisdiction	1997 Collisions (SWITRS 1997)		1998 Collisions (SWITRS 1998)		1999 Collisions (SWITRS 1999)		Total Injury Collisions	Average Injury Collisions per Year	2000 Population (US Census)	Collisions per 1000 people per year	Index (relative to state avg. of 0.37/1000)
	Fatality	Injury	Fatality	Injury	Fatality	Injury					
San Diego	1	528	2	451	2	474	1458	486	1223400	0.40	1.07

The table above shows the number and rate of accidents involving bicyclists in San Diego for the three most recent years: 1997, 1998, and 1999. This information was gathered from the California Highway Patrol's SWITRS website, which provides accident information by jurisdiction. As the above table shows, San Diego had a slightly higher bicycle accident rate than the state average. Overall, accident rates seemed to be relatively constant over the three-year period for San Diego, with a possible reduction trend emerging. While there was a significant reduction in the number of collisions from 1997 to 1998, there was a small increase again from 1998 to 1999, indicating that no real trend can be asserted.

Bicycle Safety Education Program

For the last half of 1999 and 2000, Safe Moves has been contracted by the City of San Diego to conduct bicycle and pedestrian safety education in public schools. The 18-month program was carried out in elementary schools. It is designed to create positive attitudes towards cycling while teaching personal traffic safety. The program consisted of workshops, rodeos and a helmet program.

Altogether, the safety education program reached kids through 1,000 classroom workshops at elementary, middle and high schools. The bicycle portion of the course taught:

- Helmet use
- Choosing the right bike
- Proper bicycling clothing
- Recognition and avoidance of common bicycle collisions
- Bicycle maintenance and repair
- Rules, regulations and ordinances that govern bicyclists
- Bicycle registration
- Using safe bike routes to and from school
- Consequences of unsafe bicycle use

Safe Moves also conducted 50 bicycle rodeos at elementary, middle and high schools designed to develop the following bicycle handling skills:

- Proper braking techniques for hills, wet pavement, sand, rain gutters, debris, car doors
- Proper mounting and dismounting techniques
- Left and right hand turns
- Left hand shoulder check
- Proper turning techniques and avoiding hazards

The third component of the San Diego safety education program consisted of a helmet program. Approximately 3,000 helmets were given away to school-aged children.

Last, Safe Moves conducted 24 traffic safety rodeos in high-volume traffic neighborhoods. The target audience for these rodeos was families with school-aged children and neighborhood residents who drive in the area.

Bicycle safety education also includes such initiatives as public service announcements on television, radio, and on billboards. Brochures and presentations by staff to various organizations are also made in order to add to the level of information and education that can be broadcast to motorists as well as bicyclists in the City.

Police Department Enforcement

The San Diego Police Department enforces all traffic laws, for bicycles and motor vehicles as part of their regular duties. They ticket violators as they see them. This includes bicyclists who break traffic laws, as well as motorists who disobey traffic laws and make the cycling environment less safe. The level of enforcement depends on the availability of officers. The Police Department also responds to particular needs and problems as they arise. The Police Department is also involved in the review of the Bicycle Master Plan.

The Police Department also dispatches a fleet of 49 bicycle-mounted officers. These officers have had special training in bicycle safety and assist in enforcing traffic laws. They are especially qualified to enforce laws as they pertain to bicycles.

It is inconclusive to determine whether San Diego's bicycle safety education program and police enforcement have had any effect on the number of bicyclists involved in accidents based on the data obtained. The primary safety program, safety education, was only in place the last six months of the accident reporting period. The accident rate was slightly higher than the state average. San Diego has ideal bicycling weather as well as a significant tourist population during many parts of the year. These two factors combined could explain the higher number of accidents in that city as compared to the state average, although many other factors may account for the difference.

Blank Page

∝ ∝ ∝

End of Chapter

NEEDS ANALYSIS

The purpose of reviewing the needs of bicycle users is twofold: (1) it is instrumental when planning a system that must serve all user groups, and (2) it is useful when pursuing competitive funding and attempting to quantify future usage and benefits to justify future expenditures of limited resources.

Needs of Bicyclists

Commuter Bicyclists

Commuter bicyclists in the City of San Diego range from employees who ride to work to children who ride to school. Millions of dollars nationwide have been spent attempting to increase the number of people who ride to work or school, with some success.

Although different parts of the City vary in geography, demographics and topography, San Diego still lends itself to having the potential for commuter and recreational bicyclists because of:

- Favorable climate throughout most of the year
- Sections of the City that are scaled to the bicycle
- There are accessible parks and some water channels that show potential for off-road bike paths

In addition to the reasons why there is a potential for commuter bicycling, there is a population in the area that is prime for bicycle commuting. The type of commuter bicyclists and the characteristics of their cycling are summarized below.

- Commuter bicyclists typically fall into one of three categories: (1) adult employees, (2) students, and (3) shoppers.
- Commuter trips usually range from several blocks to ten miles.
- Commuters typically seek the most direct and fastest route available, with regular adult commuters often preferring to ride on arterials rather than side streets.
- Commute periods typically coincide with peak traffic volumes and congestion, increasing the exposure to potential conflicts with vehicles.
- Places to safely store bicycles are of paramount importance to all bicycle commuters.
- Major commuter concerns include changes in weather (rain), riding in darkness, personal safety, and security.
- Rather than be directed to side streets, most commuting adult cyclists would prefer to be given bike lanes or wider curb lanes on direct routes, which are often arterial streets.
- Intersections are a primary concern for bicyclists.
- Commuters generally prefer routes where they are required to stop as few times as possible, thereby minimizing delay.
- Many younger students (ages 7-11) use sidewalks for riding to schools or parks, which is acceptable in areas where pedestrian volumes are low and driveway visibility is high. Older students (ages 12-14) who consistently ride at speeds over 10 mph should be directed to riding on streets wherever possible.

- Signal controls that function for bicyclists are of significant concern for bicyclists.
- Facilities maintenance has also been identified numerous times as a significant concern for bicyclists.

Recreational Bicyclists

The needs of recreational bicyclists in the City of San Diego must be considered, as they are often different from commuter bicycling. San Diego currently has a high level of recreational cycling, but strong potential exists for increasing this activity in the City. A large number of school-aged people, adults, and retired people enjoy cycling. Additionally, during tourist season, many tourists in the area enjoy taking to a bicycle to exercise in the pleasant weather. Specific needs and patterns for recreational bicyclists are:

- Recreational bicycling typically falls into one of four categories: (1) exercise, (2) non-work destinations such as parks, (3) touring, long distance treks or events, or (4) sight-seeing.
- Recreational users range from adults to children to senior citizens. Each group has their own abilities, interests, and needs.
- Directness of the route is typically less important than routes with less traffic conflicts. Visual interest, shade, protection from weather, moderate gradients or other "comfort" features are also very important.
- People exercising or touring often prefer a loop route rather than having to retrace their route.
- Adjacent vehicle speeds and the number of driveways are also important factors to be taken into consideration, especially along Class III bike routes.

Public Input

Public Workshops

The first of two public workshops were held in the City of San Diego on May 21, 2001. At this first workshop, attendees were asked to identify their bicycle needs and to draw their route preferences and problem areas on a map. Approximately 60 people attended the workshop. Some of the most common needs and problems identified are listed below. Items with asterisks next to them indicate that this issue was identified more than once.

- ****Barnett/Pacific Highway merge needs significant improvement
- **Fairmount-Montezuma-Camino del Rio North connections made easier
- **Morena to Santa Fe – need connection, perhaps a bridge over the railroad tracks
- **Carmel Valley Road – need bike lanes
- **San Clemente Canyon Class I needed to connect with Rose Canyon path, Regents, and Genesee
- *Connect Mission Valley Path under 163
- *SR-56 Bikeway needs to cross I-5 to the west
- *Coronado Bridge bike lanes needed
- *Balboa/I-5/Morena interchange needs improvement
- *Miramar Road - bad surface and disappearing bike lanes

- *Texas Street from Mission Valley to University Heights – need better maintenance and pavement quality
- *Gilman/I-5 interchange traffic backs up at peak periods
- *SR-56 Inland-Coastal bikeway needs to be completed
- Harbor Drive s/o Downtown – rough shoulders
- Mission Valley Path – bridge over street crossings needed
- Fay Avenue Path – need better signage
- Rose Canyon Path to Mission Bay – make a Class I connection
- Rail Trail is a good idea
- Mission Bay-to-San Diego Bay link is a good idea
- Harbor Drive near Airport – need improvements
- Beach Path in Pacific Beach – improve northern terminus, car conflicts
- I-8 gap between Fairmount and College
- Qualcomm Stadium needs better access
- Mesa College – signs say "no bikes" on streets
- Ardath connection from Rose Canyon to La Jolla needed
- I-805 connection needed between Sorrento Valley and La Jolla Village
- I-805 at Mira Mesa interchange needs improvement
- Friars Road at 163 interchange needs improvement
- Aldine Drive blind curve and no space for bikes
- Morena Blvd across San Diego River/Friars needs pavement rehab
- Torrey Pines at Genesee – need bike sensors and better bicycle guidance through the intersection

Some more general statements from the public about bicycling conditions in the City are summarized in the list below. Items with asterisks next to them indicate that this issue was identified more than once.

- **Sweeping and resurfacing needed in many areas of the City
- **Trenching, construction treatments, and compaction need to be done to standard and in a way that ensures smoothness
- Transit should be more bike-friendly – especially the Trolley
- Education of motorists and bicyclists is badly needed
- Better coordination among agencies and different jurisdictions is needed
- Traffic calming and bike boulevards should be experimented with in order to make cycling safer
- Educate the Police about bicyclists' rights and legitimacy on the road
- Bikeway continuity problems are a serious concern in the City
- Freeway on-ramp queues are a big problem for bicyclists

The second public meeting, held August 16, 2001, drew 21 people. Most of the comments were very supportive of the Plan recommendations. Some of the comments are listed below.

- Add Mission Bay Drive as a bikeway project
- Add Harbor Drive as a Class I bikeway project
- Substitute 3rd Avenue for 5th Avenue south of Laurel Street in the 4th-5th Avenues Project
- Downtown bikeway network is a good idea
- Add a metered signal to the Barnett Avenue merge onto Pacific Highway
- Narrow the number of lanes merging from Barnett Avenue to Pacific Highway from two to one
- Add a convex mirror to improve sight at the Barnett/Pacific Highway merge
- Add safety as one of the criterion for determining the prioritization of bikeway projects
- Add Mira Mesa Boulevard between Parkdale Avenue and Reagan Road as a bikeway project
- Elaborate and provide more detail in the section discussing the bicycle safety education program
- Field inspection of maintenance and construction projects is a critical issue
- Utility companies should coordinate schedules when trenching projects occur
- Require an analysis of striping plans when a street is resurfaced

Public comments were taken into consideration with the development of this Plan. Many of the improvements suggested at both meetings have been incorporated into the Bicycle Master Plan.

Surveys

Bicycle survey forms were distributed through the San Diego County Bicycle Coalition and at 19 bicycle shops in various areas throughout the City of San Diego. Approximately 750 surveys were delivered to bicycle shops for interested persons to fill out and return via fax or mail. A total of 91 surveys were returned and analyzed. The responses that were analyzed included those that pertained to the following questions.

- Does the bicyclist prefer to ride on off-street bike paths, on-street bike lanes, or bike routes on neighborhood streets?
- How often does the bicyclist ride a bicycle?
- How far from work or school does the bicyclist live?
- What are the most typical destinations that the bicyclist uses a bicycle to access?
- What are some reasons why the bicyclist doesn't ride more often in San Diego?

The tables and charts below summarize the responses to the questions posed above. Table 5.1 shows that people overwhelmingly preferred off-street paths and on-street bike lanes to signed routes with no dedicated riding space or routes that utilize quiet neighborhood streets. This may reflect the desire for more direct routes for commuting (on arterial bike lanes) as well as a desire for more recreational paths for the large number of people who stated that they ride a bicycle primarily for exercise and recreation.

Table 5.1
Bikeway Facilities Cyclists Prefer

What type of bikeway facility do you prefer?		
Response	Total	%
Off-street paths	44	48.9%
On-street lanes	38	42.2%
On-street neighborhood routes	8	8.9%
TOTAL	**90**	

Figure 5.1 shows that the most common reasons for making a bicycle trip were for recreation/exercise and commuting.

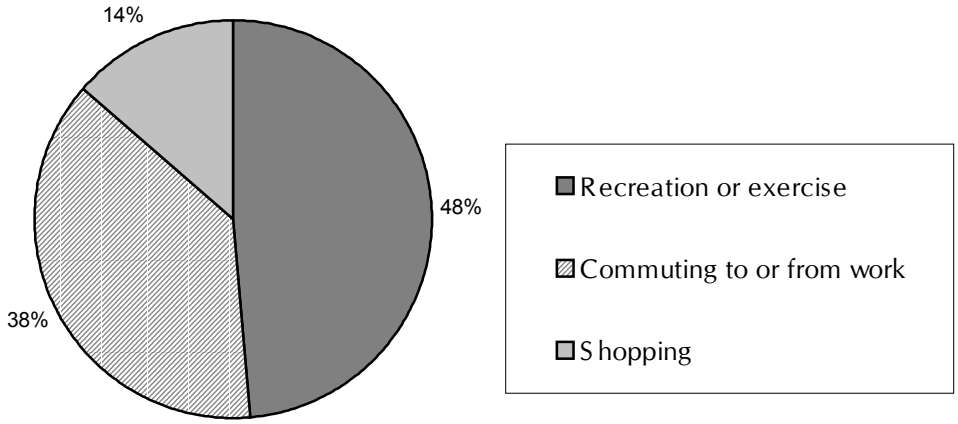


Figure 5.1
Typical Reasons for Making a Bicycle Trip

Figure 5.2 illustrates that the most frequently cited issues were concerns about safety and the lack of bikeway facilities. The presence of high-speed traffic on many arterial streets and the many merging freeway ramps probably contribute to this sense of lack of security when riding a bicycle in the City. Consistent with other surveys conducted in previous studies, it could be speculated that the existence of more bikeway facilities would increase the sense of safety and provide bicyclists with a sense of legitimacy on the roads. Increased safety and the existence of bikeway facilities may be correlated.

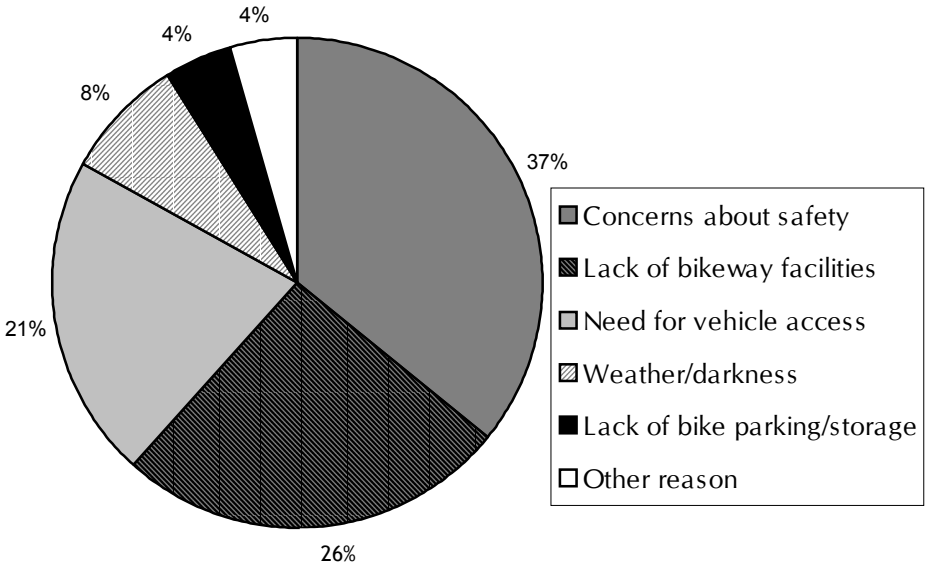


Figure 5.2
Reasons Why People Don't Ride Their Bicycles More Often

Tables 5.2 and 5.3 show the results from questions posed regarding frequency of cycling and the distance people live from their place of work or school.

Table 5.2
Survey Responses

How often do you ride a bicycle?		
Response	Total	%
At least once a day	23	25.6%
1 - 6 times per week	60	66.7%
1 - 3 times per month	7	7.8%
TOTAL	**67**	

Table 5.3
Survey Responses

How far from work or school do you live?		
Response	Total	%
0 - 5 miles	21	24.1%
6 - 10 miles	31	35.6%
>11 miles	35	40.2%
TOTAL	**87**	

Respondents were also asked to list five problem areas or constraints that currently exist for bicyclists in the City. They were also asked to suggest improvements that could be made in the San Diego bicycling environment in the future. The items listed below include many of the problem areas identified by bicyclists in the survey.

- The intersection of La Jolla Shores Drive and Torrey Pines Road
- Torrey Pines Road at Genesee Avenue
- Gilman Drive at I-5
- Nobel Drive at I-5
- Miramar Road
- Miramar Road at Kearney Villa Road
- Mission Bay Drive at Sea World Drive
- Nimitz Boulevard
- Harbor Drive in Downtown
- Lack of safe bicycle routes in Downtown
- Friars Road at Qualcomm Stadium

- Texas Street
- University Avenue
- Washington Street
- Mission Gorge Road
- Carmel Valley Road between Torrey Pines Road and El Camino Real
- Genesee at I-5
- Sorrento Valley Road at I-5
- Sorrento Valley Road/ Mira Mesa Blvd. at I-805
- Coaster Station in Sorrento Valley
- Mira Mesa Blvd.
- Pomerado Road through Scripps Ranch (Between Poway and Miramar)
- Lusk Boulevard

In addition to problem areas, the respondents also provided suggested bikeways for the City. Some of these suggestions are listed below.

- Continuous San Diego Bay bikeway
- Extension of the San Diego River bikeway
- Completion of the Silver Strand path
- Coronado Bridge
- A link from Old Town to Mission Bay

Many cyclists offered their opinions on what could be done to enhance the quality of cycling in San Diego. Most often cited were:

- A maintenance program to remove debris from bike lanes and paths
- Programs to educate motorists about sharing the road
- The installation of bicycle loop detectors at intersections
- The elimination of permit requirements to board the Trolley with bicycles. (This last suggestion was submitted before implementation of this change in MTDB policy in July 2001.)

An overwhelming number of respondents noted that they incurred obstacles to cycling due to construction activity. Suggestions that could improve cycling during roadway construction would be a system to notify cyclists of upcoming construction activities, possibly through a website. Many respondents wanted a policy put into place where construction signs are appropriately placed that do not block bicycle access and that at the completion of construction activities bicycle lanes are restored to their previous conditions or better.

Bicycle Counts

The San Diego Association of Governments (SANDAG) conducts bicycle counts as part of their Regional Bicycle Counting program intended to identify bicycle volumes at specified street intersections in the San Diego region. The information is intended for use by local agencies in planning for future bicycle facilities. Since 1980, SANDAG has been conducting bicycle counts every four years at 18 master sites throughout the San Diego region. Master sites are those that

SANDAG has identified to be critical locations, such as near colleges, universities, beaches, and major employment centers, and/or those that are representative of bicycling conditions in the County. Additional count locations are selected based on demand or request.

Traffic counts are gathered during the months of September and October in order to include students while school is in session and include the period of time when there is adequate daylight to capture a reasonable number of bicyclists. Counts are conducted from 6 a.m. to 9 a.m. and from 3 p.m. to 6 p.m. Monday through Thursday.

For the period from 1987 through 1997, bicycle counts were conducted at 14 locations in the City of San Diego. The 1997 counts have been identified as suspect due to the unusual weather patterns that occurred during that year. These unusual conditions may have had an effect on the number of bicyclists that were counted.

The following table represents a 10-year period, from 1987 to 1997, of bicycle counts at fourteen locations in the City of San Diego.

Table 5.4
Bicycle Counts in San Diego

	Number of Bicyclists (6-9 am, 3-6 pm)				Percentage Change			
Location	1987	1990	1993	1997	1987-1990	1990-1993	1993-1997	1987-1997
Laurel St / 6th Ave	152	162	107	99	6.6%	-34.0%	-7.5%	-34.9%
Harbor Dr / Ferry Landing	116	222	199	197	91.4%	-10.4%	-1.0%	69.8%
Imperial Ave / Euclid Ave	68	71	58	36	4.4%	-18.3%	-37.9%	-47.1%
Howard Ave / Idaho St	104	113	70	42	8.7%	-38.1%	-40.0%	-59.6%
Harbor Dr / 28th Street	146	137	95	93	-6.2%	-30.7%	-2.1%	-36.3%
Paradise Valley Rd / Woodman St	49	66	35	18	34.7%	-47.0%	-48.6%	-63.3%
Camino del Rio South / Fairmount Ave	204	195	66	34	-4.4%	-66.2%	-48.5%	-83.3%
Montezuma Rd / College Ave	1175	712	495	342	-39.4%	-30.5%	-30.9%	-70.9%
Torrey Pines Rd / Genesee Ave	330	206	175	192	-37.6%	-15.0%	9.7%	-41.8%
East Mission Bay Dr / Clairemont Dr	290	205	94	154	-29.3%	-54.1%	63.8%	-46.9%
Balboa Ave / Genesee Ave	344	138	72	81	-59.9%	-47.8%	12.5%	-76.5%
Rose Canyon Bike Path / Gilman Dr	209	227	196	129	8.6%	-13.7%	-34.2%	-38.3%
Black Mountain Rd / Mira Mesa Blvd	265	239	134	136	-9.8%	-43.9%	1.5%	-48.7%

Location	Number of Bicyclists (6-9 am, 3-6 pm)				Percentage Change			
	1987	1990	1993	1997	1987-1990	1990-1993	1993-1997	1987-1997
Dairy Mart Rd / Beyer Blvd	163	92	66	79	-43.6%	-28.3%	19.7%	-51.5%
TOTAL	**3,615**	**2,785**	**1,862**	**1,632**	**-23.0%**	**-33.1%**	**-12.4%**	**-54.9%**

Overall, the bicycle count data suggest a continuous decline in bicycle ridership between 1987 and 1997. However, SANDAG has stated that the methodology used to collect the data may have varied year to year, and unusual weather patterns may have also affected the number of bicyclists observed in 1997. Because of these caveats and the fact that a comprehensive effort to perform bicycle counts at more locations was not performed, it is difficult to draw significant conclusions from the data presented here.

City of San Diego Bicycle Count Methodology

The City of San Diego currently performs bicycle counts along with peak-hour vehicle counts. These are performed at various intersections within the City every year. In order to compare count data from year to year and take a consistent measurement of bicycle use in the City, a new count program should be developed. Bicycle counts should utilize the same locations so that a measurement of use can be determined in future planning efforts for new bikeway projects, and so that a trend in bicycling can be measured. This new count methodology should have the following components:

- Count bicyclists at the same intersections approximately every three years.
- Approximately 40 count locations should be identified and should be representative of the City. Areas to be included are:
    - Downtown
    - University areas
    - Beaches
    - Parks
    - Near schools
    - Employment centers
    - Shopping areas
    - Other representative areas of San Diego
- Most of the counts should be along bikeways, including Class I, II, and III facilities, and the others should consist of other street locations. This would be coordinated with existing manual count locations at other requested intersections.
- Counts should be conducted during the same week each year on Tuesday, Wednesday, Thursday, and Friday to capture commute and utilitarian trips.
- Counts should be conducted on consistent weekend days to capture recreational trips on bikeways that are primarily more recreational in nature.
- Ideally, counts should be conducted from 6 a.m. until 8 p.m., but a more limited timeframe could be 6 a.m.-9 a.m. and 3 p.m.-6 p.m.
- Count days would be changed to account for days with bad weather, such as rain.
- For new bikeway projects, before and after counts should be employed to see if the new bikeway project yielded new riders at a particular location.

- Installing loop detectors to count bicycles on Class I facilities, such as the Mission Bay bikeway or the Mission Valley Path.
- Tallying the characteristics of bicyclists as they are counted. These may include helmet use and approximate age and gender of the riders.

Implementing a comprehensive bicycle count methodology could assist the bicycle planning process in determining where new bikeway facilities should be constructed in the future. It could also provide data to compare rates of bicycle use when new projects are implemented to expand the existing bikeway network in San Diego. Moreover, it could help the City assess the cost effectiveness of facilities and assist the City's planning efforts in the future.

Existing Bicycle Commuters and Commuter Ridership Forecast

Table 5.5 Ridership Forecast and Air Quality Analysis

	Forecast Parameters	San Diego	Methodology Notes
1	Population	1,277,168	2000 US Census
2	# of Employed Persons	645,068	1990 US Census extrapolated empolyed persons to 2001
3	# Bicycle-to-Work Commuters	7,028	1990 US Census extrapolated bike to work consistent with population growth
4	Bicycle-to-Work Mode Share	1.09%	Work commuters (including bike-transit users) x 7 miles + college and school students x 1 mile (round trip)
5	Population: Ages 6-14 years	140,647	1990 US Census extrapolated consistent with population growth
6	# of College Students	151,603	1990 US Census extrapolated consistent with population growth
7	# of Daily Bike-Transit Users	2,679	San Diego Regional Transit Bike Rack Counts for San Diego Transit, extrapolated for San Diego Trolley
8	**Total # of Bicycle Commuters**	**31,899**	**assumes 5% of school students and 10% of college students commute by bicycle - from national studies and estimates**
9	# Miles Ridden by Bicycle Commuters per Weekday	90,141	work commuters (including bike-transit users) x 7 miles + college and school students x 1 mile (round trip)
10	**# of Future Daily Bicycle Commuters**	**89,000**	**estimated using increase to 279% of baseline from 2000 LACMTA study by Alta Transportation**
11	Future # Miles Ridden by Bicycle Commuters per Weekday	251,492	estimated using increase to 279% of baseline from 2000 LACMTA study by Alta Transportation
12	Reduced Vehicle Miles per Weekday	161,352	future bicycle miles traveled (row 10) minus existing bicycle miles ridden (row 8)
13	Reduced PM10 (lbs/weekday)	2,968.87	(.0184 tons per reduced mile)
14	Reduced NOX (lbs/weekday)	8,048.22	(.04988 tons per reduced mile)
15	Reduced ROG (lbs/weekday)	11,714.13	(.0726 tons per reduced mile)
16	Reduced Vehicle Miles per Year	38,286,945	180 days for students, and 256 days for employed persons
17	Reduced PM10 (lbs/year)	704,480	(.0184 tons per reduced mile)
18	Reduced NOX (lbs/year)	1,909,753	(.04988 tons per reduced mile)
19	Reduced ROG (lbs/year)	2,779,632	(.0726 tons per reduced mile)

(NOX are nitrogen oxides, PM-10 are particulate matter of diameter less than 10 microns, ROG are reactive organic gases.)

Table 5.5 shows the projected mode share of bicycling for the City of San Diego. This forecast is based on census data and a methodology developed by Alta Transportation to estimate the number of bicycle commuters if an expanded bikeway network were to be implemented. Much of the census-based information is extrapolated from the 1990 U.S. Census consistent with population growth during the period 1990-2000.

As the table shows, the estimated number of future miles ridden by bicycle for San Diego is 251,492 per weekday. This would result in a reduction of 161,352 vehicle miles traveled each weekday. This reduction would in turn result in an air quality improvement of reduced emissions of unhealthful gases and particulates shown in the last column in rows 13-15. These reduced emissions would amount to 704,480 pounds per year of PM-10 (particulate matter of diameter less than 10 microns), 1,909,753 pounds per year of NOX (nitrogen oxides), and 2,779,632 pounds per year of reactive organic gases (ROG).

RECOMMENDATIONS

This Bicycle Master Plan recognizes that bicyclists use all City roadways. Under the California Vehicle Code, bicyclists have all of the rights and responsibilities that motorists have. The development of a bikeway system is meant to facilitate bicycle use for all levels of cyclists and enhance the environment for cycling, keeping in mind that bicyclists will travel all roadways where they are not prohibited from doing so.

Proposed Bikeway Projects

Proposed bikeway projects are selected and ranked by priority using several criteria. These include:

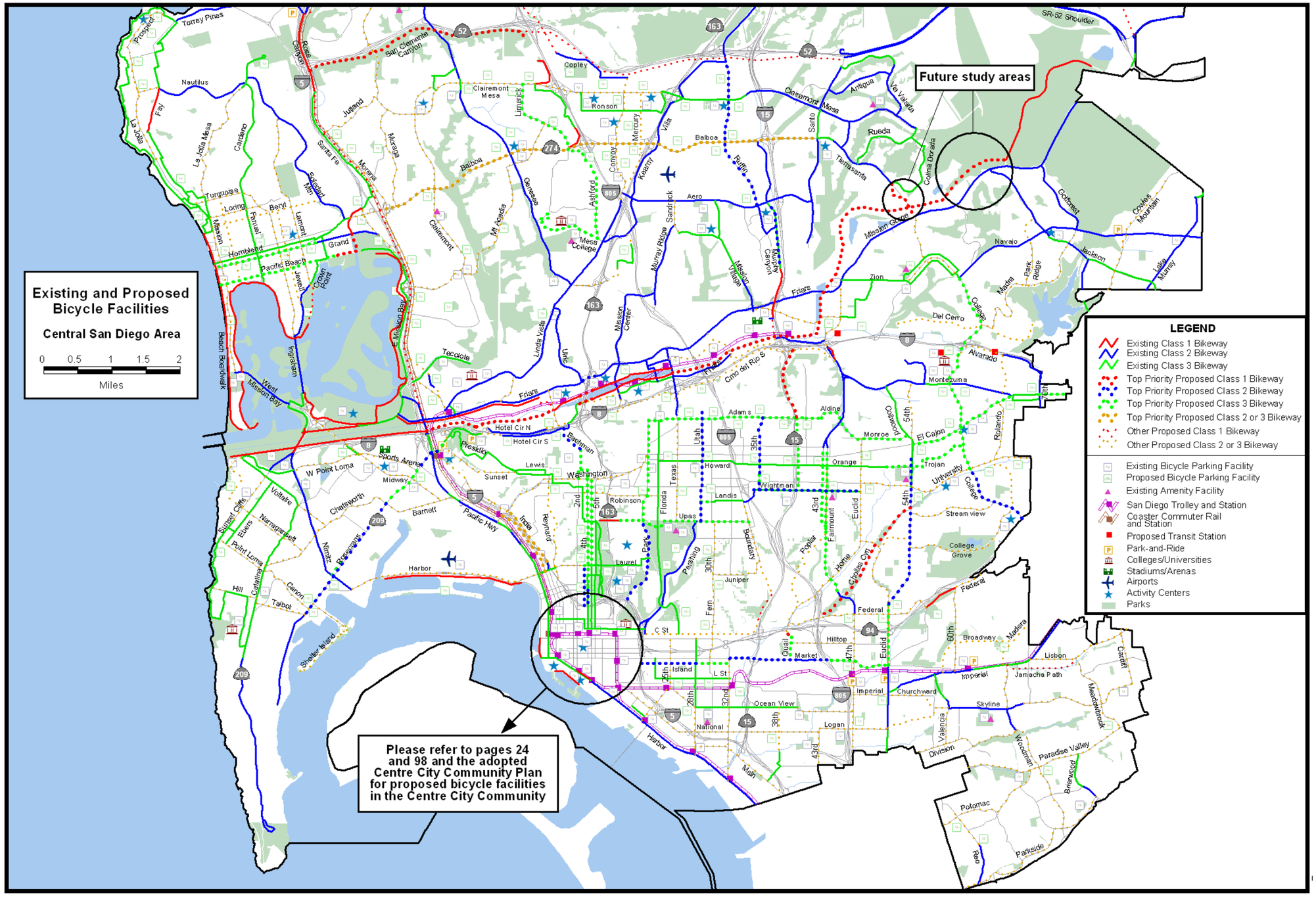
- Regional connectivity
- Closing gaps in the bikeway network
- Connections with major destinations, such as SDSU, UCSD, Mission Bay, Balboa Park, employment centers, major shopping centers, and transit centers
- Completion of the bikeway network
- Bicyclist safety
- Availability of street width or right-of-way
- Existing plans the City has to improve and/or widen streets

The following pages include maps of existing and proposed designated bicycle facilities included in the Bicycle master Plan. The facilities represented on the maps include existing and proposed bikeways, parking locations, transit connections, and activity centers. Following the facilities maps are tables that list the proposed bikeway projects included in the maps.

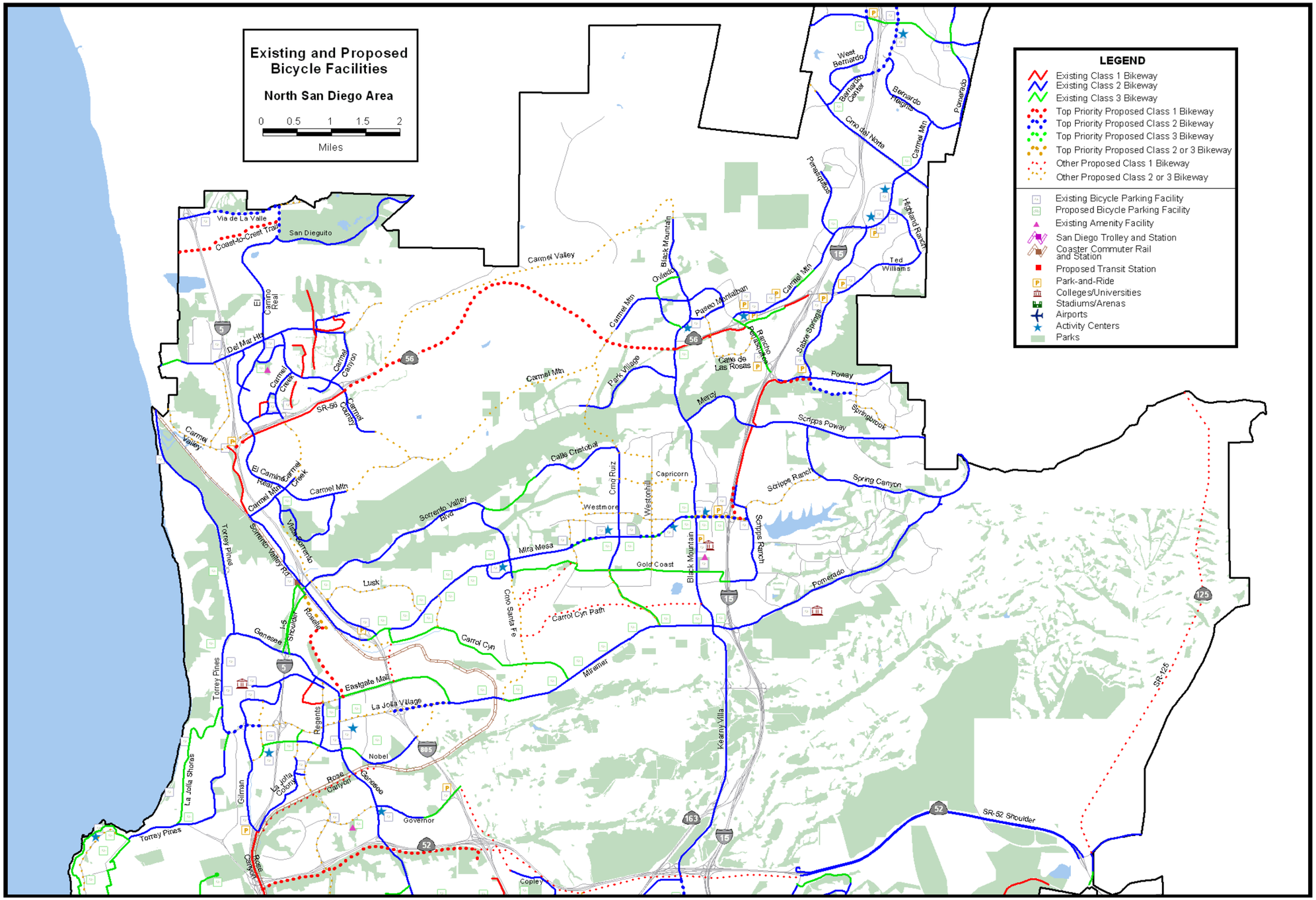
The projects are ranked into four categories. Programmed projects are those that have already been funded and may be going into the design or construction phase currently. Top priority project costs are based on past expenditures for bikeways throughout California. Costs for individual projects will vary by location and complexity of the project. Class I projects are estimated at $1,000,000 per mile, Class II projects are estimated at $50,000 per mile, and Class III projects are estimated at $10,000 per mile. Second and third priority projects are listed in the last two tables. More detailed project sheets on each top priority project can be found in the Implementation chapter, Chapter 7.

At the request of the City Council, connections between the Naval Training Center and Mission Bay Park as a part of the "Bay to Bay" link and around the channel of the Naval Training Center will be explored in the future. These connections will be consistent with environmental review and community input.

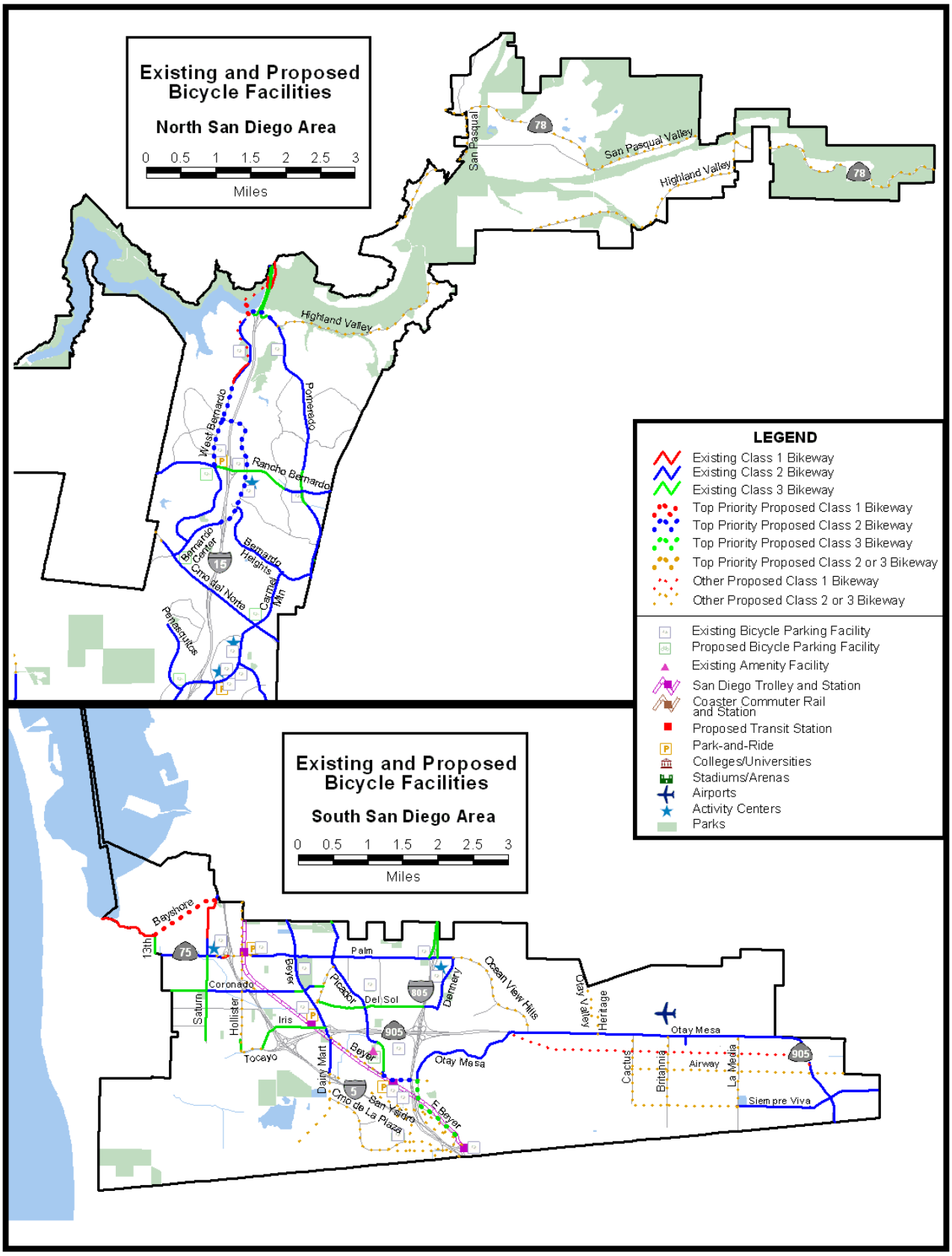
This page intentionally left blank.


Existing and Proposed Bicycle Facilities
Central San Diego Area
0 0.5 1 1.5 2
Miles
Future study areas
Please refer to pages 24 and 98 and the adopted Centre City Community Plan for proposed bicycle facilities in the Centre City Community
LEGEND
Existing Class 1 Bikeway
Existing Class 2 Bikeway
Existing Class 3 Bikeway
Top Priority Proposed Class 1 Bikeway
Top Priority Proposed Class 2 Bikeway
Top Priority Proposed Class 3 Bikeway
Top Priority Proposed Class 2 or 3 Bikeway
Other Proposed Class 1 Bikeway
Other Proposed Class 2 or 3 Bikeway
Existing Bicycle Parking Facility
Proposed Bicycle Parking Facility
Existing Amenity Facility
San Diego Trolley and Station
Coaster Commuter Rail and Station
Proposed Transit Station
Park-and-Ride
Colleges/Universities
Stadiums/Arenas
Airports
Activity Centers
Parks

This page intentionally left blank.


Existing and Proposed Bicycle Facilities
North San Diego Area
0 0.5 1 1.5 2
Miles
LEGEND
Existing Class 1 Bikeway
Existing Class 2 Bikeway
Existing Class 3 Bikeway
Top Priority Proposed Class 1 Bikeway
Top Priority Proposed Class 2 Bikeway
Top Priority Proposed Class 3 Bikeway
Top Priority Proposed Class 2 or 3 Bikeway
Other Proposed Class 1 Bikeway
Other Proposed Class 2 or 3 Bikeway
Existing Bicycle Parking Facility
Proposed Bicycle Parking Facility
Existing Amenity Facility
San Diego Trolley and Station
Coaster Commuter Rail and Station
Proposed Transit Station
Park-and-Ride
Colleges/Universities
Stadiums/Arenas
Airports
Activity Centers
Parks
Via de La Valle
Coast-to-Crest Trail
San Dieguito
Carmel Valley
El Camino Real
Del Mar Hts
Carmel Creek
Carmel Canyon
SR-56
Carmel Mtn
Black Mountain
Ovilect
Paseo Montalban
Park Village
Calle de Las Rosas
Rancho Penasquitos
Sabre Springs
Poway
Mercy
Springbrook
Scripps Poway
Calle Cristobal
Capricorn
Cmo Ruiz
Westonhill
Scripps Ranch
Spring Canyon
Westmore
Serrento Valley Blvd
Mira Mesa
Gold Coast
Black Mountain
Scripps Ranch
Pomerado
Torrey Pines
Sorrento Valley Rd
Vista Sorrento
Lusk
Cmo Santa Fe
Carrot Cyn Path
Carrot Cyn
Miramar
Genesee
I-5 Shoulder
Rosecrest
Eastgate Mall
La Jolla Village
Regents
Nobel
Rose Canyon
Governor
Kearny Mesa
SR-52 Shoulder
SR-125
Copley
West Bernardo
Bernardo Center
Bernardo Heights
Cmo del Norte
Carmel Mtn
Penasquitos
Highland Ranch
Ted Williams

This page intentionally left blank.


Existing and Proposed Bicycle Facilities
North San Diego Area
0 0.5 1 1.5 2 2.5 3
Miles
San Pasqual
San Pasqual Valley
Highland Valley
78
Highland Valley
West Bernardo
Pomerado
Rancho Bernardo
Bernardo Center
Bernardo Heights
Camino del Norte
Carmel Mtn
Penasquitos
15
LEGEND
Existing Class 1 Bikeway
Existing Class 2 Bikeway
Existing Class 3 Bikeway
Top Priority Proposed Class 1 Bikeway
Top Priority Proposed Class 2 Bikeway
Top Priority Proposed Class 3 Bikeway
Top Priority Proposed Class 2 or 3 Bikeway
Other Proposed Class 1 Bikeway
Other Proposed Class 2 or 3 Bikeway
Existing Bicycle Parking Facility
Proposed Bicycle Parking Facility
Existing Amenity Facility
San Diego Trolley and Station
Coaster Commuter Rail and Station
Proposed Transit Station
Park-and-Ride
Colleges/Universities
Stadiums/Arenas
Airports
Activity Centers
Parks
Existing and Proposed Bicycle Facilities
South San Diego Area
0 0.5 1 1.5 2 2.5 3
Miles
Bayshore
13th
75
Palm
Coronado
Saturn
Hollister
Iris
Tocayo
Beyer
Picador
Del Sol
805
Dennery
Ocean View Hills
Otay Valley
Heritage
Otay Mesa
905
Dairy Mart
Otay Mesa
Cactus
Britannia
Airway
La Media
Siempre Viva
Camino de La Plaza
San Ysidro
E Beyer

This page intentionally left blank.

Table 6.1
Programmed Bikeway Projects

Class	Street/Path	From	To	Estimated Cost	Estimated Completion Date
I	Access Ramps	Pacific Highway	Friars Road	$198,000	June 2003
I	Bayshore Bikeway	13th Street	Main Street/ Frontage Road	$1,500,000	Sept 2003
I	Coastal Rail Trail	Del Mar city limit	Downtown San Diego	$713,000 (Design)	Sept 2002
I	Coast-to-Crest Trail	Del Mar City Limit	El Camino Real	$1,538,000	2004
I	Grade Separation	SR-56 Bikeway	Black Mountain Road	$150,000 (Study)	June 2002
I	Grade Separation	SR-56 Bikeway	Camino Ruiz		
I	Grade Separation	SR-56 Bikeway	Camino Santa Fe		
I	Home Avenue/ C Street Path	Home Avenue/ Federal Boulevard	C Street	$63,000	June 2003
I	Lake Hodges Bridge	West Bernardo Road	Path n/o Lake Hodges	$3,061,000	Fall 2003
I	Rose Creek Bridge	1/4-mile w/o Rose Creek	Mission Bay Drive	$2,000,000	Sept 2003
I	San Diego River Path	Pacific Highway	Hotel Circle Place	$300,000 (Design)	Jan 2003
I	San Diego River Path	Avenida del Rio	e/o SR-163 Freeway	$184,000	June 2002
I	SR-15 Path	Camino del Rio South	Wightman Street	$2,500,000	June 2003
I	SR-56 Path	SR-56 west segment	SR-56 east segment	Concurrent with Freeway Construction	July 2004
I	Tierrasanta Path Connector*	Tierrasanta Boulevard	Mission Gorge Road	$410,000 (Design)	Jan 2003
II	Camino Santa Fe	Sorrento Valley Boulevard	Lopez Canyon	$177,000	Dec 2002
II	El Camino Real	Via de La Valle	San Dieguito Road	$1,587,000	
II	La Jolla Village Drive	Torrey Pines Road	Gilman Drive	$6,700,400	Late 2003
II	Miramar Road	I-805 Freeway	Eastgate Mall	$3,800,000	Summer 2005 or FY 2006
II	Via de La Valle	San Andreas Drive	El Camino Real	$600,000	June 2003

*This project would require recommendations from Tierrasanta Community Council, Mission Trails Regional Park Citizen Advisory Committee, Mission Trails Regional Park Task Force, and the San Diego River Park Coalition as it progresses

Table 6.2
Top Priority Proposed Bikeway Projects

Class	Street/Path	From	To	Mileage	Cost	Destinations
II	4th Avenue	Grape Street	I-5 Freeway	3.00	$70,000	Commercial and Retail, Destinations, Uptown, Hillcrest
II	3rd Avenue	Laurel Street	I-5 Freeway			
III	4th Avenue	Washington Street	Grape Street			
III	5th Avenue	Washington Street	I-5 Freeway			
II	Park Boulevard	I-5 Freeway	Upas Street	8.75	$137,500	Balboa Park, San Diego Zoo, Hillcrest, University Heights, Old Trolley Barn Park, Normal Heights, Adams Avenue Park, Kensington, College Area
III	Park Boulevard	Upas Street	Adams Avenue			
III	Adams Avenue	Park Boulevard	Van Dyke Avenue			
III	Aldine Drive	Adams Avenue	Monroe Avenue			
III	Monroe Avenue	Aldine Drive	Collwood Boulevard			
III	El Cajon Boulevard	54th Street	Montezuma Road			
III	El Cajon Boulevard	70th Street	La Mesa city limit			
II	Island Avenue	I-5 Freeway	28th Street	3.55	$115,000	Centre City, Euclid Trolley Station
II	Market Street	32nd Street	40th Street			
II	Market Street	42nd Street	I-805 Freeway			
III	Island Avenue	28th Street	32nd Street			
III	Market Street	I-805 Freeway	Euclid Avenue			
II	College Avenue	University Avenue	city limit	4.50	$95,000	SDSU, College Grove Mall
III	College Avenue	Navajo Road	University Avenue			
II	54th Street	Trojan Avenue	Euclid Avenue	3.25	$122,500	College Area
III	Euclid Avenue	54th Street	Market Street			
II or III	Kettner Boulevard	Washington Street	Laurel Street	2.00	$20,000-$100,000	Centre City, Santa Fe Depot, Little Italy, Middletown
II or III	San Diego Avenue/ India Street	Washington Street	I-5 Freeway			
III	Upas Street	Vermont Avenue	Park Boulevard	2.00	$20,000	Hillcrest, Balboa Park, North Park, Morley Field
III	Morley Field Drive/ Upas Street	Park Boulevard	Boundary Street			
II	Wightman Street	Swift Avenue	Euclid Avenue	2.5	$85,000	City Heights Community Park
III	Landis Street	Utah Street	30th Street			
II	Bernardo Center Drive	West Bernardo Drive	Rancho Bernardo Road	3.00	$150,000	Rancho Bernardo Town Center, The Mercado
II	West Bernardo Drive	Aguamiel Road	Rancho Bernardo Road			
II	Bachman Place	Hotel Circle South	1/2 mile s/o Hotel Circle South	1.00	$30,000	UCSD Medical Center, Hotel Circle, Hillcrest
III	Bachman Place/ Lewis Street/ 1st Avenue, 4th Avenue	1/2 mile s/o Hotel Circle South	Washington Street			

Top Priority Proposed Bikeway Projects (continued)						
Class	**Street/Path**	**From**	**To**	**Mileage**	**Cost**	**Destinations**
II	Rosecrans Street	Talbot Street	Nimitz Boulevard	3.25	$122,500	Loma Portal, Loma Square, Midway, Old Town
II NB III SB	Rosecrans Street	Nimitz Boulevard	Russell Street			
II	Rosecrans Street	Russell Street	Lytton Street			
II	Rosecrans Street	Lytton Street	Sports Arena Boulevard			
II	Rosecrans Street/ Taylor Street	Sports Arena Boulevard	Congress Street			
III	Taylor Street	Congress Street	Morena Boulevard			
II	Mira Mesa Boulevard	Parkdale Avenue	Reagan Road	1.75	$87,500	Mira Mesa Mall, Mira Mesa Park, Mira Mesa Square, Scripps Mesa Village, Park and Ride
II	Mira Mesa Boulevard	New Salem Street	Greenford Drive			
II	Mira Mesa Boulevard	Rickert Road	Scripps Ranch Boulevard			
I	I-15 Path Extension South	Scripps Vista Way	Mira Mesa Boulevard	1.00	$1,500,000	Sabre Springs, Scripps Ranch, Mira Mesa
I	I-15 Path Extension North	current northern terminus at Poway Road	Sabre Springs Parkway			
II	Beyer Boulevard	Smythe Avenue	Otay Mesa Road	1.75	$62,500	San Ysidro, International Border, San Ysidro Trolley Station
III	East Beyer Boulevard	Otay Mesa Road	San Ysidro Trolley Station			
II	Ruffin Road	Kearny Villa Road	Aero Drive	3.25	$162,500	Kearny Mesa employment center, Ruffin Village, Stonecrest Mall
II	Murphy Canyon Road	Aero Drive	Murphy Canyon Path			
I	Rose Creek Bike Path	Grand Avenue	Mission Bay Drive	0.25	$250,000	Mission Bay
I	San Clemente Canyon	Rose Canyon Path	I-805 Freeway	3.50	$4,000,000	Marian Bear Park
I	San Diego River Path	Hotel Circle Place	Fashion Valley Road	7.75	$10,000,000	Fashion Valley Mall, Hotel Circle, Mission Valley, Qualcomm Stadium, Mission Trails Park
I	San Diego River Path	Qualcomm Way	Father Junipero Serra Trail			

Top Priority Proposed Bikeway Projects (continued)						
Class	**Street/Path**	**From**	**To**	**Mileage**	**Cost**	**Destinations**
I	Chollas Creek	Federal Boulevard/ I-805	54th Street	2.00	$2,000,000	College Area, Chollas Canyon
II	35th Street	Adams Avenue	Wightman Street	1.00	$50,000	Normal Heights, Adams Avenue Park, City Heights
II	Friars Road	Ulric Street	e/o SR-163 Freeway	0.25	$12,500	Mission Valley
III	Grand Avenue	Mission Boulevard	Olney Street	1.50	$15,000	Mission Beach, Pacific Beach
II	Sabre Springs Parkway	Poway Road	Springbrook Drive	1.00	$50,000	Neighborhood Connector
II	Utah Street	Collier Avenue	Upas Street	1.75	$87,500	North Park, Normal Heights
III	C Street/Quail Street	C Street end	Market Street	0.50	$5,000	Home Avenue, Southeast San Diego
III	Limerick Avenue/ Chandler Drive/ Charger Boulevard/ Echstrom Avenue/ Ashford Street	Clairemont Mesa Boulevard	Mesa College Drive	3.00	$30,000	Clairemont Neighborhoods, Mesa College
III	Marlesta Drive/ Mesa College/ Mesa College Drive	Genesee Avenue	Linda Vista Road	1.50	$15,000	Mesa College
III	Orange Avenue/ Sharron Place/ Trojan Avenue/ 60th Street/ Adelaide Avenue	Altadena Street	College Avenue	1.25	$12,500	East San Diego Neighborhoods, Colina del Sol Community Park
III	Pacific Beach Drive	Mission Beach Boardwalk	1/4-mile w/o Rose Creek	1.50	$15,000	Pacific Beach, Mission Bay
II or III	Balboa Avenue/ Tierrasanta Boulevard	Morena Boulevard	Santo Road	6.75	$67,500 - $337,500	Clairemont, Kearny Mesa, Genesee Plaza, Tierrasanta
I	SR-56 Path Feasibility Study	I-5 Freeway	Sorrento Valley Road	0.25	$25,000	Carmel Valley
	Fairmount Avenue/ I-8/Camino del Rio North	Intersection Improvement			$16,000 - $118,000	Mission Valley
	Pacific Highway/ Barnett Street	Intersection Improvement			$151,500 - $175,500	Middletown

Table 6.3 Second Priority Proposed Bikeway Projects

Class	Street/Path	From	To
I	Delevan-Boundary Path	Delevan Street	Boundary Street
I	Friars-Fashion Valley Path	Friars Road	Fashion Valley Road/ San Diego River Path
I	Jamacha Path	Imperial Avenue	Jamacha Road
I	Jutland Bridge	Santa Fe Street	Morena Boulevard
I	Lake Hodges Connector Trail	Lake Hodges Bridge	I-15 Undercrossing
I	Rattlesnake Canyon Path	Camino Santa Fe	Flanders Drive
I	West Bernardo Drive Path	Lake Hodges Bridge Path	Existing Path
II or III	25th Street/Crosby Street	C Street	Harbor Drive
II or III	26th Street	Pershing Drive	C Street
II or III	28th Street	C Street	Broadway
II or III	30th Street/Fern Street	Upas Street	Island Avenue
II or III	35th Street	Adams Avenue	Wightman Street
II or III	35th Street	University Avenue	Polk Avenue
II or III	38th Street	Ocean View Boulevard	Z Street
II or III	43rd Street	Logan Avenue	National City city limit
II or III	54th Street	Collwood Boulevard	Montezuma Road
II or III	Alvarado Road	College Avenue	Reservoir Drive
II or III	Aquarius Drive/Westonhill Drive	Camino Ruiz	Gold Coast Drive
II	Bayshore Bikeway Rehabilitation (Harbor Drive)	8th Avenue	National City city limit
II or III	Boundary Street	Landis Street	end
II or III	C Street	I-5 Freeway	32nd Street
II or III	C Street/Delevan Drive	30th Street	end
II or III	Camino del Rio North	Mission City Parkway	I-15 Freeway
II or III	Camino de La Plaza	Dairy Mart Road	San Ysidro Boulevard
II	Camino Ruiz	Gold Coast Drive	Miramar Road
II or III	Camiones Way	Camino de La Plaza	International Border
II or III	Capricorn Way	Camino Ruiz	Black Mountain Road
II or III	Carmel Valley Road	Del Mar city limit	El Camino Real
II or III	Cass Avenue	Turquoise Street	Mission Bay Path
II or III	Chatsworth Boulevard/ Lytton Street/Barnet Avenue	Catalina Boulevard	Pacific Highway
II or III	Clairemont Drive	Clairemont Mesa Boulevard	East Mission Bay Drive
II or III	Congress Street/San Diego Avenue	TaylorStreet	Washington Street
II or III	Convoy Street	SR-52 Freeway	I-805 Freeway

2nd Priority Proposed Bikeway Projects (continued)			
Class	**Street/Path**	**From**	**To**
II or III	Dairy Mart Road	I-5 Freeway	Monument Road
II or III	Eastgate Mall	Regents Road	Genesee Avenue
II or III	El Camino Real/ Carmel Mountain Road	Carmel Valley Road	Carmel Country Road
II or III	Euclid Avenue	54th Street	Market Street
II or III	Federal Boulevard/60th Street	Lemon Grove city limit	Imperial Avenue
II or III	Federal Boulevard/ Bayview Heights Drive/Kelton Road	Home Avenue	Kelton-Federal Path
II or III	Goldfinch Street/ Reynard Way/State Street	Fort Stockton Drive	I-5 Freeway
II or III	Governor Drive	Regents Road	Genesee Avenue
II or III	Harbor Drive	Nimitz Boulevard	Laurel Street
II or III	Hilltop Drive	39th Street	47th Street
II or III	Hollister Avenue	Coronado Avenue	Tocayo Avenue
II or III	Hollister Avenue/Outer Road	Chula Vista city limit	Coronado Avenue
II or III	Home Avenue	Federal Boulevard (south)	Fairmount Avenue
II or III	Hotel Circle Place	end	Hotel Circle North
II or III	Hotel Circle South	Hotel Circle Place	¼ mile e/o Hotel Circle Place
II or III	Imperial Avenue	47th Street	Euclid Avenue
II or III	National Avenue/Logan Avenue	16th Street	Euclid Avenue
II or III	Jutland Drive/Luna Drive	Morena Boulevard	Clairemont Mesa Boulevard
II or III	La Jolla Boulevard/Camino de La Costa	Prospect Street	La Jolla Hermosa Ave
II or III	La Jolla Village Drive	Villa La Jolla Drive	Towne Center Drive
II or III	Laurel Street	Harbor Drive	4th Avenue
II or III	Lisbon Street/Jamacha Road	Imperial Avenue	city limit
II or III	Main Street	28th Street	National City city limit
II or III	Mercury Street/Kearny Mesa Road	Clairemont Mesa Boulevard	Convoy Street
II or III	Mira Mesa Boulevard	Parkdale Avenue	Reagan Road
II or III	Mission Bay Drive	Damon Avenue	East Mission Bay Drive
II or III	Mission Boulevard	Beryl Street	West Mission Bay Drive
II or III	Moraga Avenue	Clairemont Mesa Boulevard	Balboa Avenue
II or III	Morena Boulevard	Jutland Drive	Taylor Street
II or III	Nobel Drive	I-805	Miramar Road
II or III	Noell Street/Hancock Street	San Diego Avenue	Washington Street
II or III	Ocean View Boulevard/28th Street	Commercial Street	Harbor Drive
II	Pacific Highway	Gap Closures	Gap Closures
II or III	Paradise Valley Road	National City city limit	county limit

2nd Priority Proposed Bikeway Projects (continued)			
Class	**Street/Path**	**From**	**To**
II or III	Point Loma Avenue/Canon Street	Sunset Cliffs Boulevard	Rosecrans Street
II or III	Poplar Street	Violet Street	Fairmount Avenue
II or III	Prospect Street	La Jolla Boulevard	Torrey Pines Road
II or III	Regents Road	Genesee Avenue	Eastgate Mall
II or III	Regents Road/ Clairemont Mesa Boulevard	Nobel Drive	SR-163 Freeway
II or III	Robinson Avenue	3rd Avenue	Florida Street
II or III	Salmon River Road/ Calle de Las Rosas	Paseo Montalban	Rancho Penasquitos Boulevard
II or III	Sandrock Road	Aero Drive	Gramercy Drive
II or III	San Ysidro Boulevard	Dairy Mart Road	San Ysidro Trolley Station
II or III	Scripps Ranch Boulevard	Erma Road	Spring Canyon Road
II or III	Taylor Street	Congress Street	Morena Boulevard
II or III	Turquoise Street/ Foothill Boulevard/Ingraham Street	La Jolla Boulevard	Crown Point Drive
II or III	University Avenue	Euclid Avenue	La Mesa city limit
II or III	Villa La Jolla Drive	Nobel Drive	Gilman Drive
II or III	Violet Street/Pepper Drive/ Tulip Street/Ralene Street/ Midvale Drive/Gateway Drive	Poplar Street	Home Avenue
II or III	Vista Sorrento Parkway	Rose Coral Row	Lusk Boulecard
II or III	Washington Street	Harbor Drive	Park Boulevard
II or III	West Mission Bay Drive/ Sports Arena Boulevard	Ingraham Street	Midway Drive
II or III	West Point Loma Boulevard/ Sports Arena Boulevard	Nimitz Boulevard	Rosecrans Street
II or III	Woodman Street	Plaza Boulevard	SR-54 Freeway
II or III	Woodman Street	Imperial Avenue	Skyline Drive
I	SR-52 Connection to the Beach	Feasibility Study	
Bicycle Boulevard Study		Feasibility Study	

Table 6.4 Third Priority Proposed Bikeway Projects

Class	Street/Path	From	To
I	Carroll Canyon	Camino Santa Fe	Black Mountain Road
I	I-805 Path 1	Mira Mesa Boulevard	Eastgate Mall
I	I-805 Path 2	Copley Drive	Governor Drive
I	Mission Bay Path	La Mancha Drive	Lamont Street
I	Murphy Canyon	current end of path	Rancho Mission Road
I	Rose Canyon	Gilman Drive	Genesee Avenue
I	SR-125 Path	Poway city limit	SR-52/Mast Boulevard
I	SR-52 Path	I-805 Freeway	Santo Road
I	SR-905 Path	Otay Mesa Road	Harvest Road/SR-905
II or III	32nd Street	Market Street	Harbor Drive
II or III	Acama Ct/Acama Street/ Montongo Street/New Salem Street/Parkdale Avenue	Calle Cristobal	Flanders Drive
II or III	Airway Road	Cactus Road	SR-905
II or III	Balboa Avenue	Rose Creek	Morena Boulevard
II or III	Berger Avenue	Kearny Villa Road	Frost Street
II or III	Beryl Street	Mission Boulevard	Soledad Mountain Road
II or III	Beyer Boulevard	Otay Mesa Road	end
II or III	Border Village Road	San Ysidro Boulevard	San Ysidro Boulevard
II or III	Britannia Boulevard	Otay Mesa Road	Siempre Viva Road
II or III	Burgener Boulevard/Mount Acadia Boulevard/Mount Alifan Drive/Mount Abernathy Avenue	Clairemont Drive	Chandler Drive
II or III	Cactus Road	Otay Mesa Road	Siempre Viva Road
II or III	Camino de La Reina	SR-163	Mission Center Drive
II or III	Camino Ruiz	Carmel Mountain Road	Calle Cristobal
II or III	Camino Santa Fe	Flanders Drive	Miramar Road
II or III	Carmel Mountain Road	current end of street	Camino Ruiz
II or III	Carmel Creek Road	current end of street	SR-56 Freeway
II or III	Carmel Valley Road/ Black Mountain Road	Black Mountain Road	Carmel Valley Road/SR-56
II or III	Chollas Road/Colura Street /Redwood Street	Euclid Avenue	54th Street
II or III	Churchward Street/Las Flores Terrace/Skyline Drive	Euclid Avenue	Valencia Parkway
II or III	Cloverdale Road	San Pasqual Valley Road (SR-78)	city limit
II or III	College Grove Drive	54th Street	College Avenue

3rd Priority Proposed Bikeway Projects (continued)			
Class	**Street/Path**	**From**	**To**
II or III	Cowles Mountain Boulevard	Acuff Drive	La Mesa city limit
II or III	Del Cerro Boulevard	western terminus	eastern terminus
II or III	Del Mar Heights Road/ Black Mountain Road	Carmel Canyon Road	Carmel Valley Road
II or III	Division Street	Main Street	National City city limit
II or III	Division Street/Plaza Boulevard	National City city limit	Woodman Street
II or III	Euclid Avenue	Euclid Avenue/Home Avenue	54th Street
II or III	Euclid Avenue/Home Avenue	Monroe Avenue	Fairmount Avenue
II or III	Fashion Valley Road	Friars Road	Hotel Circle North
II or III	Genesee Avenue/Starling Drive/ Meadowlark Drive	Linda Vista Road	Vista Hill Avenue
II or III	Highland Valley Road	Pomerado Road	San Pasqual Valley Road (SR-78)
II or III	Hill Street	Sunset Cliffs Boulevard	Cornish Drive
II or III	Hill Street	Tarento Drive	Catalina Boulevard
II or III	Hotel Circle North	I-8 Ramps	Hotel Circle South
II or III	Jewell Street/Moorland Drive	Beryl Street	Crown Point Drive
II or III	Juan Street/Sunset Boulevard	Taylor Street	Fort Stockton Drive
II or III	Juniper Street/ Commonwealth Avenue	Fern Street	Boundary Street
II or III	La Jolla Mesa Drive/ La Jolla Rancho Road/ La Jolla Scenic Drive South	Agate Street	Nautilus Street
II or III	La Media Road	Otay Mesa Road	Siempre Viva Road
II or III	Lebon Drive	Palmilla Drive	Nobel Drive
II or III	Loring Street	Mission Boulevard	Foothill Boulevard
II or III	Lusk Boulevard	Vista Sorrento Parkway	Mira Mesa Boulevard
II or III	Murray Park Drive/ Madra Avenue	Jackson Drive	Del Cerro Boulevard
II or III	Madera Street/66th Street	Lemon Grove city limit	Imperial Avenue
II or III	Meadowbrook Drive	Jamacha Road	Paradise Valley Road
II or III	Merlin Drive/Broadway	Imperial Avenue	Madera Street
II or III	Midway Drive	Sports Arena Boulevard	Barnett Avenue
II or III	Mission Center Drive/ Camino del Rio South	Mission Center Drive/Camino del Rio North	Fairmount Avenue
II or III	Mission City Parkway	Friars Road	Camino del Rio South
II or III	Mission Gorge Road	Friars Road	I-8 Freeway
II or III	Murphy Canyon Road	Balboa Avenue	Clairemont Mesa Boulevard
II or III	Nautilus Street	La Jolla Boulevard	Fay Avenue

3rd Priority Proposed Bikeway Projects (continued)			
Class	**Street/Path**	**From**	**To**
II or III	Ocean View Boulevard	40th Street	47th Street
II or III	Pacific Heights Boulevard	Mira Mesa Boulevard	Carroll Canyon Road
II or III	Park Ridge Boulevard	Jackson Drive	Murray Park Drive
II or III	Portofino Drive	Del Mar Heights Road	Carmel Valley Road
II or III	Potomac Street	National City city limit	Paradise Valley Road
II or III	Princess View Drive	Mission Gorge Road	Waring Road
II or III	Reo Road	Potomac Street	Rancho Hills Road
II or III	Reservoir Drive	Alvarado Road	Montezuma Road
II or III	Rio San Diego Drive	Camino del Este	Mission City Parkway
II or III	Rolando Boulevard	El Cajon Boulevard	University Avenue
II or III	Rolando Boulevard/Vista Grande Drive/Racine Road	University Avenue	College Avenue
II or III	San Diego Mission Road/ Twain Avenue	Mission Village Drive	Mission Gorge Road
II or III	San Pasqual Road	San Pasqual Valley Road (SR-78)	city limit
II or III	San Pasqual Valley Road (SR-78)	western city limit	eastern city limit
II or III	Shelter Island Drive	Rosecrans Street	end
II or III	Siempre Viva Road	Cactus Road	La Media Road
II or III	Skyline Drive/Cardiff Street	Brandywood Street	Lemon Grove city limit
II or III	Smythe Avenue	South Vista Avenue	San Ysidro Boulevard
II or III	Soledad Road/Lamont Street	Soledad Mountain Road	Crown Point Drive
II or III	Sorrento Valley Road	I-805 SB Off-ramp	Carroll Canyon Road
II or III	Springbrook Drive	Poway Road	Scripps Poway Parkway
II or III	Streamview Drive	54th Street	College Avenue
II or III	Talbot Street	Catalina Boulevard	Rosecrans Street
II or III	Texas Street	Upas Street	Madison Avenue
II or III	Tia Juana Street	Camino de La Plaza	Virginia Avenue
II or III	Valencia Parkway	Skyline Drive	Division Street
II or III	Via de La Valle	El Camino Real	city limit
II or III	Via Las Cumbres	Linda Vista Road	Friars Road
II or III	Virginia Avenue	Camino de La Plaza	International Border
II or III	Voltaire Street	Catalina Boulevard	Chatsworth Boulevard
II or III	Waring Road	Zion Avenue	Navajo Road

3rd Priority Proposed Bikeway Projects (continued)			
Class	**Street/Path**	**From**	**To**
II or III	West Point Loma Boulevard/ Spray Street/Brighton Avenue/ Bacon Street/ Narragansett Avenue	Voltaire Street	Chatsworth Boulevard
II or III	Westmore Drive	Montongo Street	Mira Mesa Boulevard
II or III	Willow Road, Calle Primavera, Via de San Ysidro	Tia Juana Street	San Ysidro Boulevard

Proposed Bicycle Parking

Additional parking facilities are proposed in new and existing commercial, retail, and employment areas under a public bicycle parking program. This program is outlined in Chapter 7. Please see Project 2 on page 90 for more information on a proposed bike station at the International Border crossing at San Ysidro.

Bicycle parking requirements specified in the Municipal Code Sections 142.0525, 142.0530, and 142.0560 and any other applicable regulations will be imposed upon all new development projects. The maps on pages 63-67 show the locations of proposed parking facilities.

Proposed Bicycle Amenities

The City will continue to implement its requirements for showers and lockers specified in the Municipal Code Sections 142.0530, and these shall be imposed upon all new development projects. The maps on pages 63-67 do not show specific locations of proposed bicycle amenities. Future amenities locations will be identified as the municipal code is enforced on individual development projects.

Proposed Multi-Modal Connections

Additional bicycle parking facilities will be established at all of the new Mission Valley East Trolley stations, once the new line opens for service in 2004. These stations include the following within the City of San Diego:

- Grantville
- SDSU
- Alvarado

The maps on pages 63-67 show the locations of proposed transit stations.

The City of San Diego should seek funds to expand Coronado Ferry service by extending evening service and providing more frequent service to allow bicycle commuters improved access.

The City should consider and seek funding for bike stations at transit centers and busy activity centers. Some of these might have attendant parking for bicycles.

Proposed Bicycle Safety Education Program

A good bicycle safety education is an important aspect of the City's overall bicycle program. Details outlining the proposed program can be found under Project 3 in the following chapter.

Proposed Integration into the City of Villages Strategy

The City of San Diego's City of Villages Strategy includes a blueprint for the development of concentrated urban villages spread across the City in existing and newly planned centers. This strategy builds upon San Diego's strengths of its natural environment, neighborhoods, commercial centers, institutions, and employment centers. The strategy focuses on the long-term economic, environmental, and social health of San Diego and its many communities. It is an attempt to consciously determine where and how new growth should occur, and to require new public facilities to be in place as growth occurs, but is not linked to a particular rate of growth. The strategy reinforces existing patterns of development by utilizing community nodes or centers for further intensification and enhancement.

The City of Villages strategy represents a comprehensive approach to guiding further development. Seven issues that form the basis for the strategy are outlined in the City's Strategic Framework Element Draft (January 2002). These issues are listed below.

Urban Form and Neighborhood Quality

Historic Preservation

Infrastructure/Public Facilities/Schools

Conservation

Mobility

Housing Affordability

Economic Prosperity and Regionalism

This Bicycle Master Plan is consistent with and integrated into the Draft City of Villages strategy. Bikeways are planned that will serve every village in the City, and bikeways will serve to further the goals of the City of Villages strategy. The maps on pages 83-87 show how the bikeway network will serve the planned villages as proposed in the Draft City of Villages Strategy.

Proposed Connectivity with MTDB's Transit First Initiative

The Metropolitan Transit Development Board (MTDB) has outlined a far-reaching transit initiative for an expanded public transit role for the year 2020, the target year for the planning initiative. It is called Transit First, which provides for a tiered system of transit services designed to serve several travel markets and connecting residential, commercial, recreational, and employment areas of the city. The four types of transit service envisioned are the following:

Green Car – Aimed at community-level tripmaking

Blue Car – Aimed at serving short-distance trip needs (0-5 miles), primarily as part of a network of basic mobility services

Red Car – Aimed at serving medium-distance tripmaking (1-9 miles)

Yellow Car – Aimed at serving longer-distance trips (6+ miles)

The Transit First plan would provide for a high level of service and regional connectivity throughout the day and throughout most parts of the city. Significant attention would be paid to the overall transit experience for transit users and to the pedestrian environment around transit stops and stations as well as overall pedestrian access to transit. All stations would have design elements that make transit a focal point of activity within the community.

This Bicycle Master Plan fits well within the Transit First initiative. Bicycle access to transit stations is very important to making a successful multi-modal transportation system. The network of proposed bikeways in San Diego serves the proposed transit stations and stops very well. Bicycle access to these points of multi-modal access will be provided and enhanced as the bikeway network is expanded and the Transit First system is developed. The maps on pages 83-87 show the proposed Transit First stations and the existing and proposed bikeway network in the City of San Diego.

There are two proposed top priority bikeway projects that could conflict with the proposed Transit First demonstration program, which includes four initial transit routes. These include the Centre City bikeway network project and the Rosecrans Street bikeway project. To eliminate this potential conflict, the following options may be considered:

Where space exists, provide a bike lane to the left of the transit-only lane

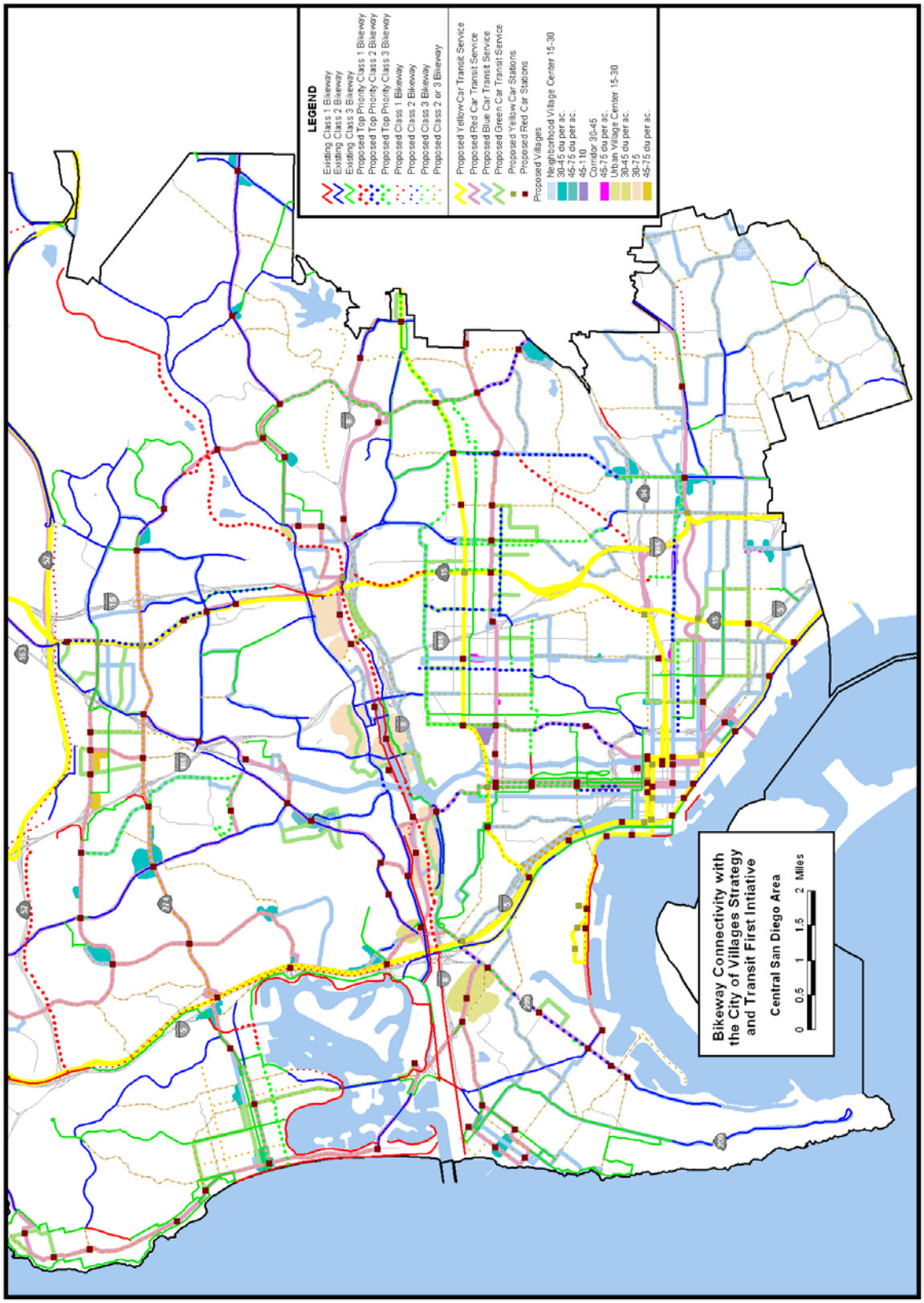
Provide a shared bike-transit lane of width at least 14 feet

Provide for a wide right lane for a Class III bikeway facility

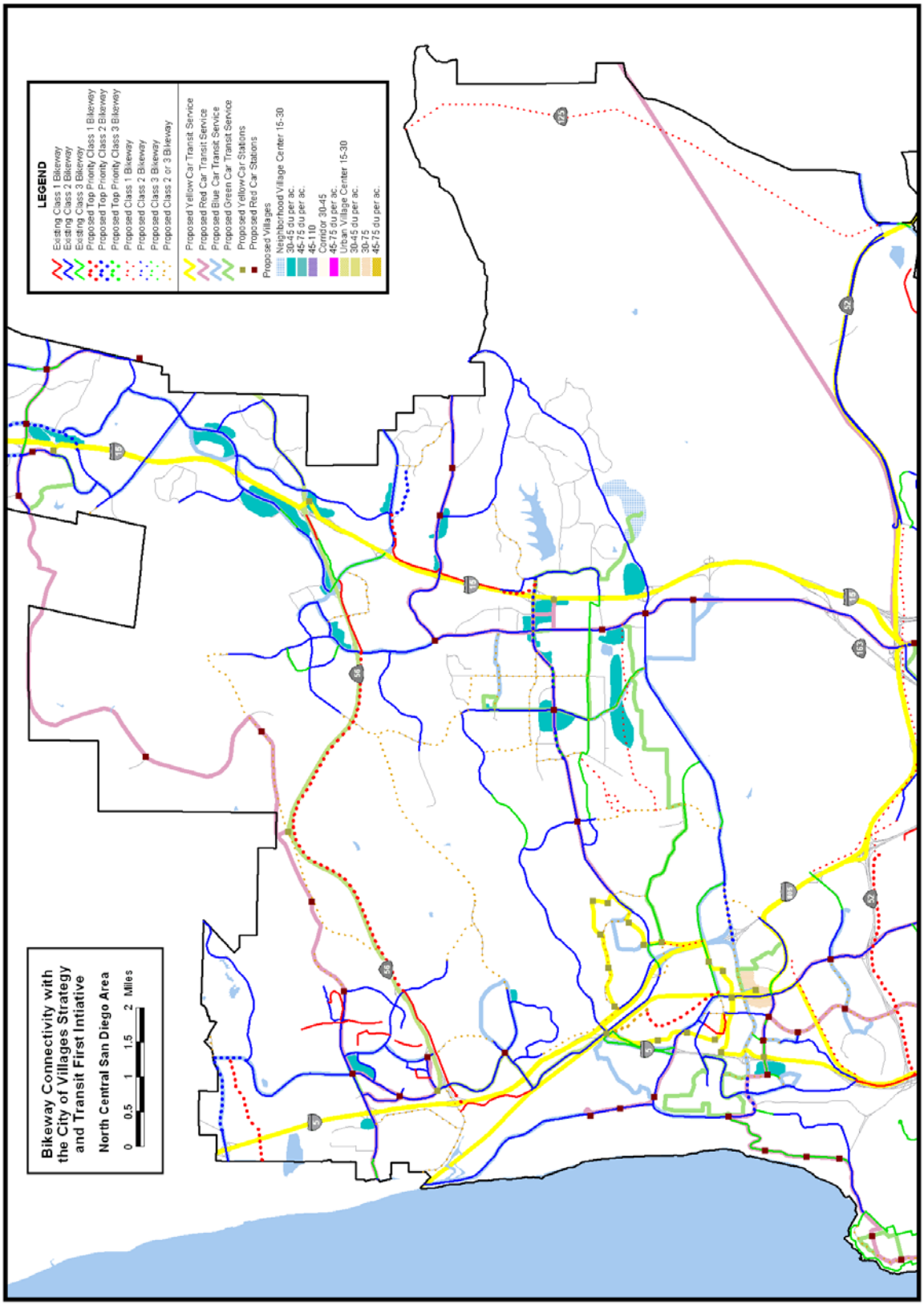
Details regarding the proposed bikeway and transit service improvements are outlined under the appropriate project sheets in Chapter 7.

Because both the proposed bikeway network and the proposed Transit First network are comprehensive, there is much overlap between existing and proposed bikeways and proposed transit routes. This is shown on the maps on pages 83-87. Except for the two projects mentioned above, it is not likely that this overlap will pose a problem for the implementation of either the Bicycle Master Plan or the Transit First Plan.

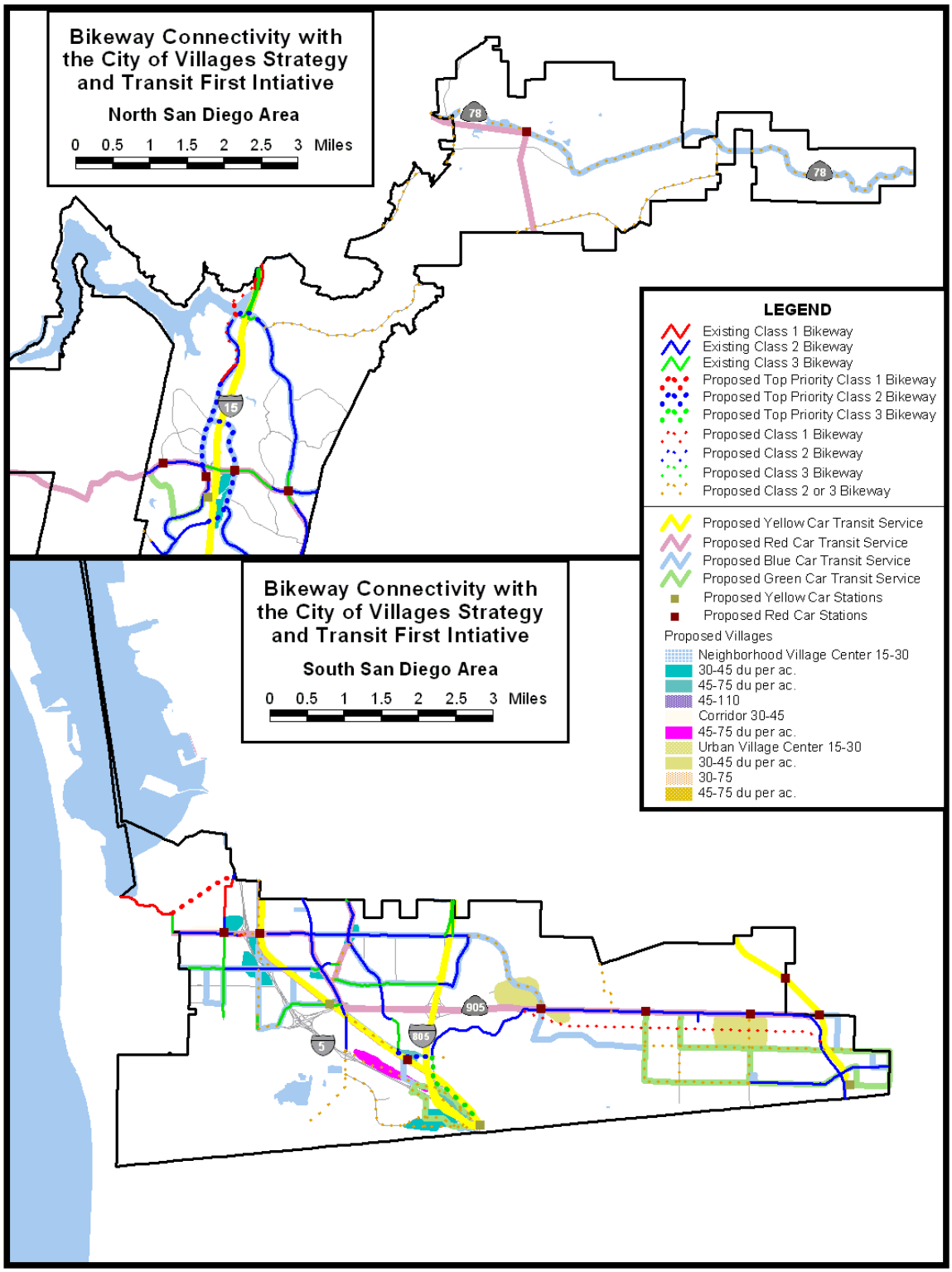
This page intentionally left blank.


LEGEND
Existing Class 1 Bikeway
Existing Class 2 Bikeway
Existing Class 3 Bikeway
Proposed Top Priority Class 1 Bikeway
Proposed Top Priority Class 2 Bikeway
Proposed Top Priority Class 3 Bikeway
Proposed Class 1 Bikeway
Proposed Class 2 Bikeway
Proposed Class 3 Bikeway
Proposed Class 2 or 3 Bikeway
Proposed Yellow Car Transit Service
Proposed Red Car Transit Service
Proposed Blue Car Transit Service
Proposed Green Car Transit Service
Proposed Yellow Car Stations
Proposed Red Car Stations
Proposed Villages
Neighborhood Village Center 15-30
30-45 du per ac.
45-75 du per ac.
45-110
Corridor 30-45
45-75 du per ac.
Urban Village Center 15-30
30-45 du per ac.
30-75
45-75 du per ac.
Bikeway Connectivity with the City of Villages Strategy and Transit First Initiative
Central San Diego Area
0 0.5 1 1.5 2 Miles

This page intentionally left blank.


LEGEND
Existing Class 1 Bikeway
Existing Class 2 Bikeway
Existing Class 3 Bikeway
Proposed Top Priority Class 1 Bikeway
Proposed Top Priority Class 2 Bikeway
Proposed Top Priority Class 3 Bikeway
Proposed Class 1 Bikeway
Proposed Class 2 Bikeway
Proposed Class 3 Bikeway
Proposed Class 2 or 3 Bikeway
Proposed Yellow Car Transit Service
Proposed Red Car Transit Service
Proposed Blue Car Transit Service
Proposed Green Car Transit Service
Proposed Yellow Car Stations
Proposed Red Car Stations
Proposed Villages
Neighborhood Village Center 15-30
30-45 du per ac.
45-75 du per ac.
45-110
Corridor 30-45
45-75 du per ac.
Urban Village Center 15-30
30-45 du per ac.
30-75
45-75 du per ac.
Bikeway Connectivity with the City of Villages Strategy and Transit First Intiative
North Central San Diego Area
0 0.5 1 1.5 2 Miles

This page intentionally left blank.


Bikeway Connectivity with the City of Villages Strategy and Transit First Intiative
North San Diego Area
0 0.5 1 1.5 2 2.5 3 Miles
78
78
15
Bikeway Connectivity with the City of Villages Strategy and Transit First Intiative
South San Diego Area
0 0.5 1 1.5 2 2.5 3 Miles
905
805
5
LEGEND
Existing Class 1 Bikeway
Existing Class 2 Bikeway
Existing Class 3 Bikeway
Proposed Top Priority Class 1 Bikeway
Proposed Top Priority Class 2 Bikeway
Proposed Top Priority Class 3 Bikeway
Proposed Class 1 Bikeway
Proposed Class 2 Bikeway
Proposed Class 3 Bikeway
Proposed Class 2 or 3 Bikeway
Proposed Yellow Car Transit Service
Proposed Red Car Transit Service
Proposed Blue Car Transit Service
Proposed Green Car Transit Service
Proposed Yellow Car Stations
Proposed Red Car Stations
Proposed Villages
Neighborhood Village Center 15-30
30-45 du per ac.
45-75 du per ac.
45-110
Corridor 30-45
45-75 du per ac.
Urban Village Center 15-30
30-45 du per ac.
30-75
45-75 du per ac.

This page intentionally left blank.

IMPLEMENTATION

The following project description sheets include those projects designated as top priority projects listed in Table 6.2 of this Plan. All of the projects in this chapter are top priority projects, and there is no further ranking among them here.

Project 1: Bicycle Parking Program

- **Existing Problem: Lack of bicycle parking in some commercial districts, at some schools, parks and civic locations**
- **Estimated Cost: $500,000 for ten years**

With nearly all utilitarian and many recreational bicycle trips, users need secure, well-located bicycle parking. The lack of parking is a major obstacle to using a bicycle. A large number of locations in the City of San Diego have adequate bicycle parking, however there are still many locations where parking is either insufficient or lacking. A comprehensive bicycle parking program is one of the most important strategies that jurisdictions can apply to enhance the bicycling environment. The program can improve the bicycling environment and increase the visibility of bicycling in a relatively short time. Within one or two years bike parking can be placed throughout communities.

The City should apply for funds to retrofit existing establishments with bike parking and expand existing parking accommodations. A public bike parking program typically purchases large numbers of racks and bike lockers and places them in public locations such as:

- On sidewalks in front of stores
- At schools
- In parks
- In front of libraries, city offices, and other civic locations
- At pools and recreation areas
- Establishment of a bike station at the International Border crossing at San Ysidro. Please see Project 2 for more detailed information on this proposal.

Public bicycle parking programs can also be coordinated with property owners of commercial buildings to supply parking for employees and visitors.

The cost of the program varies according to the number of parking devices desired. The City can start with a small program and expand over time, or attempt to implement a blanket program over a short period of time.

For proposed developments, bicycle parking shall be provided in accordance with Municipal Code Sections 142.0525, 142.0530, and 142.0560, and any other applicable regulations.

Project 2: San Ysidro Bike Station

- **Existing Problem: Lack of sufficient bicycle parking and other support facilities at the San Ysidro international border crossing**

- **Estimated Cost: $150,000**

The San Ysidro border crossing is one of the busiest ports of entry into the United States. Due to the long delays involved in crossing the border via private vehicle, an increasing number of commuters ride their bicycles into San Diego from Tijuana every day. An acute lack of bicycle parking at the border crossing has become a pressing issue at this location. Every day, bicycles can be seen parked against fences and posts by the dozens. Additional parking capacity needs to be provided in San Ysidro in order to make it easier and safer for commuters to park their bicycles and transfer to other modes of travel, namely the San Diego Trolley, buses, or other vehicles.

In addition to providing additional parking for bicycles at the San Ysidro crossing, a bike station is proposed to further serve the large number of commuters at this location. Establishment of a bike station would provide additional parking as well as other amenities that would help to support bicyclists as they commute and make connections to other modes of transportation. Attendants and other personnel managing the bike station should be fluent in both English and Spanish. A typical bike station would include the following amenities.

- Attended bicycle parking
- Bicycle rental establishment
- Accessory shop
- Bicycle repair shop
- Changing rooms
- Shower, and locker facilities

Project 3: Bicycle Safety Education Program

- **Existing Problem: Lack of knowledge of safe bicycle riding technique**
- **Estimated Cost: $150,000 per year for ten years**

Background

Many people don't ride bicycles because they believe it is not safe to ride. Respondents to bicycle surveys often cite safety as the top concern preventing people from riding more. Although physical improvements such as signage and adding more bikeway facilities can make a difference, it is also imperative that all bicyclists know how to ride safely. Knowing how to ride safely will encourage people to ride more confidently, more often, and along more routes. Safety education programs teach people of all ages and lifestyles how to ride safely and effectively on paths, streets, and in traffic.

The Program

Bicycle safety education programs teach bicycle safety to children, adults and other groups that encounter bicyclists, such as motorists. A specific curriculum geared for each audience, along with a handbook or other literature is recommended.

- Children – Bicycle safety education should be comprehensive enough to ensure that all children in public schools go through a bicycle safety program before they graduate. Educating children at the appropriate age is important to build life-long cycling skills that they can use in riding to school and riding for short trips later in life. In addition, bicycle safety should be taught to students who are taking drivers education classes to ensure that as new motorists, they respect bicyclists on the road.
- Adults – A safety education component can also be available to adults at employment sites, college campuses, and on selected weekends for the general public. Safety education for adults can encourage more people to ride bicycles rather than driving because education can build confidence in riding for people otherwise afraid to ride in traffic.
- Motorists – Bicycle safety education should reach anyone who would come into contact with bicyclists even if they are not cyclists themselves. This most certainly includes motorists on the roadways. Motorists as well as bicyclists need to be informed of the rules and laws of the road that pertain to bicycling in traffic. Motorist education will make motorists aware of cyclists' correct lane positioning and rights on the road to ensure the safe co-existence of bicyclists and motorists on streets and roadways.
- Other Groups – Safety education should be taught to other people who come in to contact with bicyclists or who are involved in bicycle programs. These groups of people may include San Diego Transit bus drivers, San Diego Police, and city staff who work with planning, public works and parks projects. Bicycle safety education can be incorporated into existing training or orientations.

Some items of instruction that should be conveyed to students in bicycle safety education sessions usually include:

- Choosing the right bike
- Proper bicycling clothing
- Helmet use

- How to deal with bad weather
- Basic bicycle maintenance and repair
- Using the gears
- Bicycle registration
- Rules, regulations and ordinances that govern bicyclists
- Proper mounting and dismounting techniques
- Recognition and avoidance of common bicycle collisions
- Selecting bike routes
- Consequences of unsafe bicycle use
- Proper braking techniques for hills, wet pavement, sand, rain gutters, debris, car doors
- Riding in traffic
- How to make left and right-hand turns
- Left hand shoulder check
- Avoiding hazards

The best training includes a mix of in-class and on-road instruction. After these topics have been taught in a classroom setting, it is important for cyclists to go out and practice proper riding technique under the observation of a trained instructor.

Bicycle safety education programs should be provided by certified instructors. They also could be performed by a number of organizations, including police and sheriff's departments, school districts, parks and recreation departments, and municipalities. Other programs exist which provide education programs to schools and communities across the country. Two of these specialized programs are Safe Moves and Effective Cycling. Safe Moves has conducted education programs in the City in recent years, but funding for an ongoing program has often been inconsistent. These programs have instructors and curricula that can be sent to schools and organizations in the City to teach different groups of people how to ride safely and responsibly.

Education programs are often sponsored by municipalities or school districts, and paid for by grants. The State Office of Traffic Safety has been one important source of grant money for such programs.

San Diego will seek funds for a bicycle safety education program. One option may be to pursue funds through the Office of Traffic Safety.

Project 4: Improvements to the Intersection of Pacific Highway and Barnett Avenue

- **Existing Problem: High-speed traffic; difficult to make turns**
- **Classification: Class I, II and III**
- **Cost Estimate: $151,500 to $175,500**

Some movements through the intersection of the Pacific Highway and Barnett Avenue pose challenges to bicyclists. One requires cyclists to ride through a narrow underpass. The most difficult movements are turning left from the Pacific Highway northbound to Barnett Avenue westbound, and continuing southbound on Pacific Highway from north of Barnett Avenue to south of Barnett Avenue.

Improving this intersection will require careful engineering. Each of the movements demands creative thinking. Below are some suggested options for consideration to make bicycling safer and more manageable through the intersection. They are presented for each particular movement.

Intersection recommendations for all movements

- Better signage for cyclists to follow
- Warning signs for motorists
- Enforcement of speed limit; (lower by 5 mph if feasible)
- Widen curb lanes where possible
- Add bike lanes where possible

Movement A: Turning from Barnett Avenue right onto Pacific Highway Southbound

- Consider constructing a one-way bike path parallel to an existing sidewalk along the south side of Barnett. This path would begin before the slope down to the underpass and would end past the underpass where Barnett joins Pacific Highway, and where the highway returns to an even grade. This will allow cyclists to avoid the narrow underpass. A ramp and signage at both ends could be designed for an easy transition.

Movement B: Turning right from southbound Pacific Highway onto westbound Barnett Avenue

<u>Option B1:</u>

- A bike lane exists on Pacific Highway north of the intersection. A frontage road also exists. Just north of the existing pedestrian bridge, cyclists could be directed onto the frontage road.
- They could follow new bike lanes on the frontage road and turn right at Barnett Avenue.

<u>Option B2.</u>

- Instead of following the frontage road to Barnett Avenue, cyclists could be routed along Enterprise Street to Jessop Lane. At Jessop Lane cyclists would turn left and then

turn right onto Barnett Avenue where Jessop Lane meets Barnett Avenue. This would be a Class III route.

Movement C: Going Southbound along Pacific Highway through the Intersection

Option C1:

- Use any of the options from Movement B to turn right onto Barnett Avenue.
- Cross Barnett Avenue at Jessop Lane. Appropriate signage warning motorists of bicycles crossing should be installed.
- From there, follow the recommendation in Movement A to continue southbound onto the Pacific Highway.

Option C2:

- Add a stop sign or a ramp meter to the merging lanes coming from Barnett Avenue.
- Consider narrowing the lanes from two to one on the Barnett merge. The feasibility of this would be determined by examining traffic volumes.

Movement D: Continuing Northbound on Pacific Highway through the Intersection

Option D1:

- Extend the bike lane where width exists, or widen the curb lane.
- Improve signage.

Option D2:

- Route cyclists along the frontage road through the intersection.
- Add bike lanes where feasible.

Movement E: Turning left from northbound Pacific Highway onto westbound Barnett Avenue

Option E1:

- Remove the southernmost pylons adjacent to the left-exit lane to allow for cyclists to cross over to this exit lane earlier.
- Add a bike lane on the left-exit lane immediately after its separation with Pacific Highway.
- Add signage.

Option E2:

- Route cyclists onto the frontage road.
- Direct cyclists to the pedestrian bridge north of Barnett Avenue.
- Add wheel gutters to the stairways going up the pedestrian bridge.
- Route cyclists along Enterprise Street and left onto Jessop Lane on a Class III route. Turn right from Jessop Lane onto Barnett Avenue.

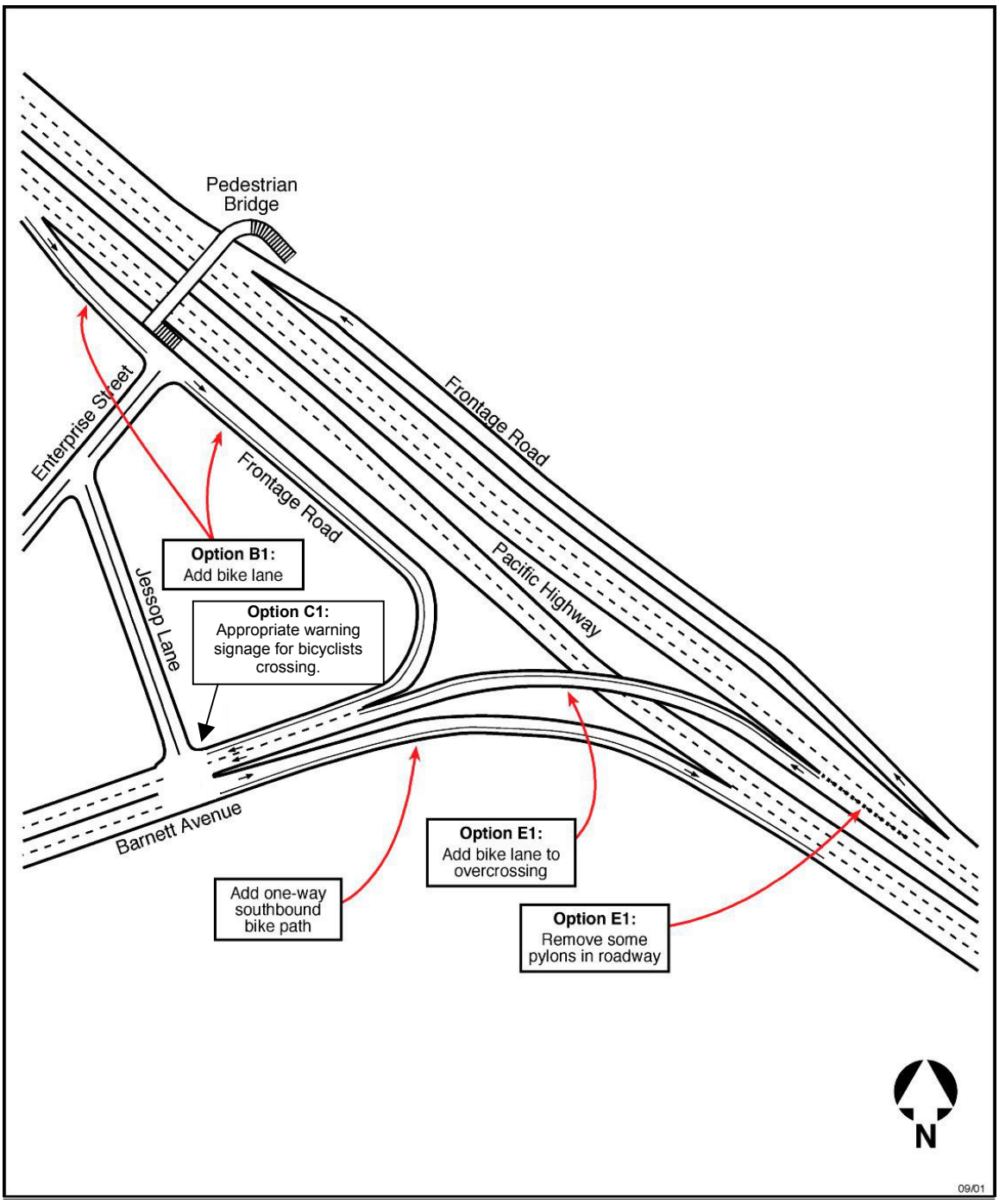


Figure 7.1
Pacific Highway and Barnett Avenue Street Modifications

Project 5: Centre City Bikeway Network

- **Existing Problem: Bicyclists must negotiate traffic while cycling through traffic to downtown's many destinations**
- **Classification: Classes II and III**
- **Length: to be determined at a later date**
- **Cost Estimate: to be determined at a later date**

With its many offices, stores, restaurants and other establishments, Centre City is a major destination for bicyclists. Within Centre City, the dense concentration of buildings and attractions makes every block filed with destinations. Bicyclists need to be able to travel throughout Centre City with a reasonable perception of safety and comfort.

The Centre City Community Plan is currently being updated. As part of this update, the current bicycle element will also be updated. Once this update is complete and adopted by the San Diego City Council, the Bicycle Master Plan will be updated to include the bicycle element for Centre City as proposed in the updated Centre City Community Plan.

It is recommended that downtown streets be restriped where possible to create Class III bike routes in accordance with the section shown in Figure 7.2. It is also recommended to restripe major north-south and east-west corridors in downtown to create Class II bike lanes to connect downtown areas with neighboring communities. Figure 7.2 also shows the recommended section to accommodate Class II bike lanes.

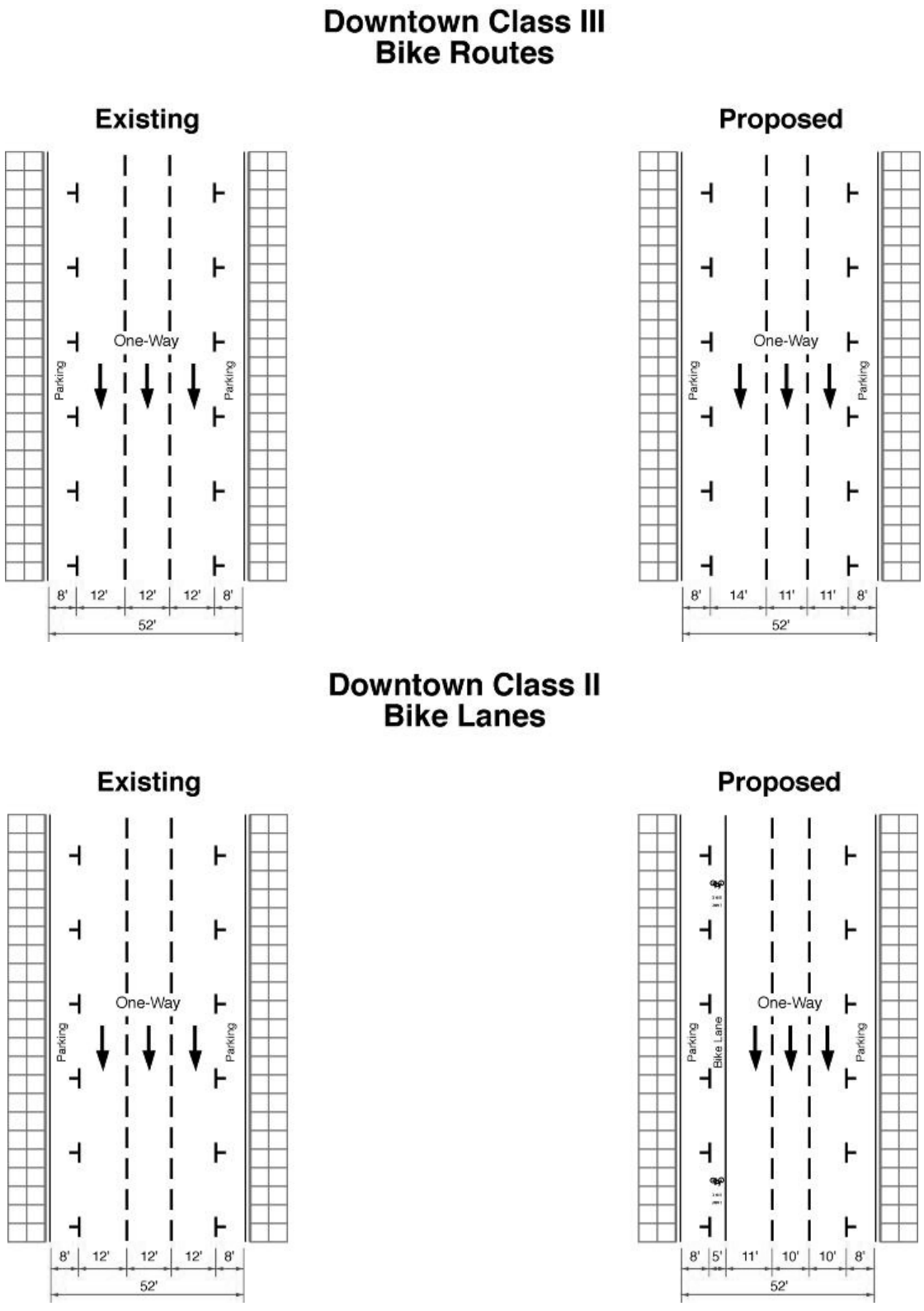


Figure 7.2
Downtown Bike Lane Classes

Project 6: Improvements to the Intersection of Fairmount Avenue and Camino del Rio North

- **Existing Problem: High-speed traffic entering and exiting I-8; difficult to cross traffic to make turns**
- **Classification: Class II**
- **Cost Estimate: $16,000 to $118,000**

The intersection of Fairmount Avenue and Camino del Rio North presents special problems for cyclists turning from northbound Fairmount Avenue onto westbound Camino del Rio North. They must cross two lanes of traffic in the vicinity of freeway ramps to turn left. Cyclists also face difficulty in turning onto southbound Fairmount Avenue from eastbound Camino del Rio North. They must contend with traffic crossing them turning right onto the I-8 Freeway on-ramp. Improving this will require creative engineering. Suggestions for consideration for improving each of these movements are made separately below.

Turning from Northbound Fairmount Avenue to Westbound Camino del Rio North

Option 1:

- Add a bicycle signal at the signalized intersection south of Interstate 8 that allows eastbound existing traffic from the freeway to cross. This signal would allow bicyclists to go through the intersection a few seconds ahead of the other traffic in order to more easily move over two lanes to make the left turn.

Option 1a:

- In conjunction with the bicycle signal, add a European-style "bicycle box" that allows cyclists to advance further into the intersection than motor vehicles. This would allow cyclists to move over to the left to make the left turn before going through this first intersection.

Option 2:

- Add crosswalks across the westbound freeway exit (south of the freeway), and across Fairmount Avenue, south of Camino del Rio North. This would assist cyclists to turn left using crosswalks.

Turning from Eastbound Camino del Rio North to Southbound Fairmount Avenue

- Add a bike lane to the left of travel lanes turning right onto eastbound freeway on ramps.
- Improve signage.

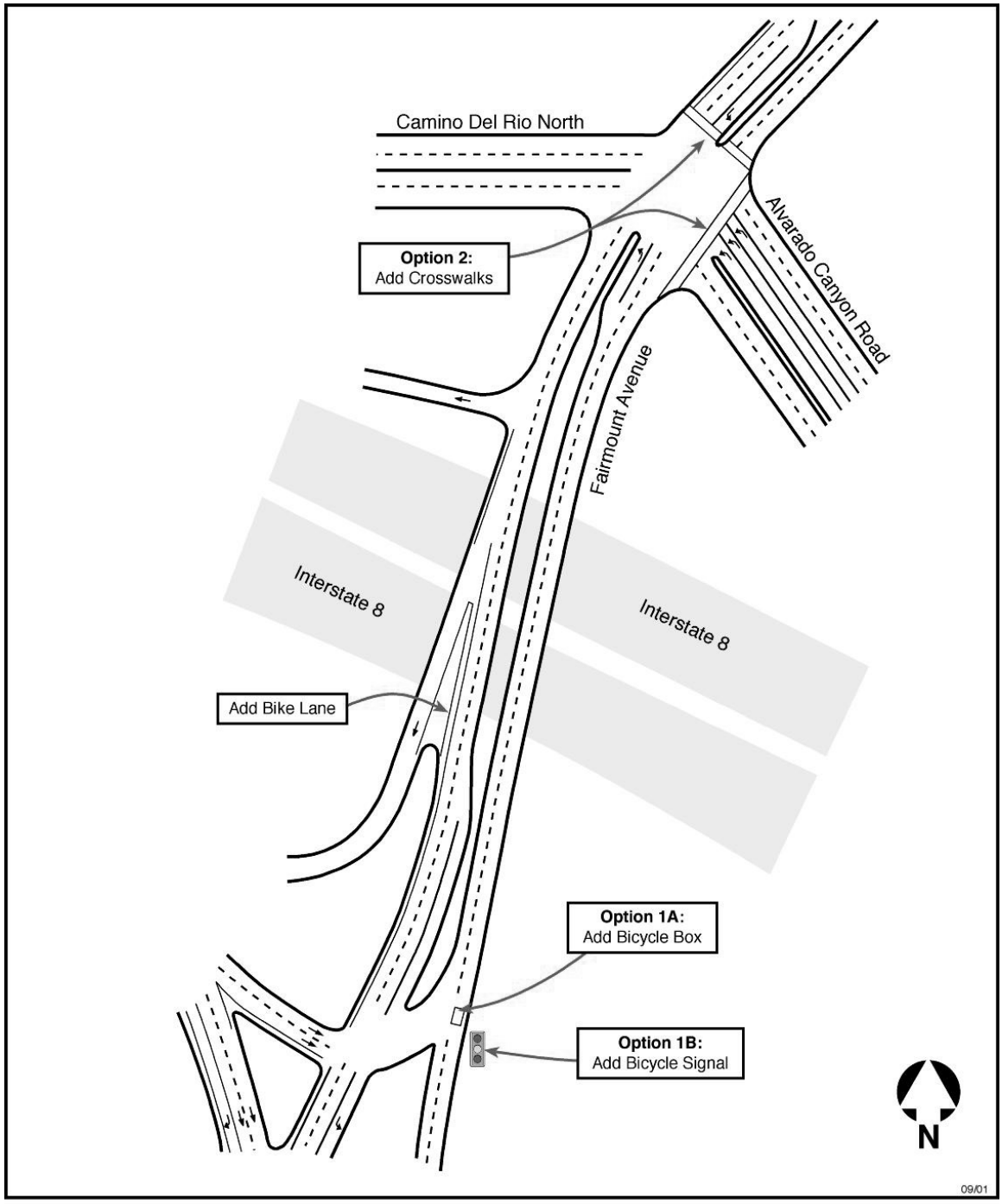


Figure 7.3
Fairmount Avenue and Camino del Rio North Intersection Improvement

Project 7: Improvements to Friars Road Over the SR-163 Interchange

- **Project Limits – Ulric Street to east side of SR-163**
- **Existing Problem: High-speed traffic merging onto and exiting from Friars Road**
- **Classification: Class II**
- **Cost Estimate: $12,500**

Friars Road has bike lanes along most of its length. Traffic moves fast as it merges on Friars Road and as it exits Friars Road over the interchange of the SR-163 Freeway. The exiting and merging lanes are to the right of bicyclists placing cyclists between these merging lanes and fast-moving through traffic. Cyclists must move to the left of existing traffic and cross over merging traffic to return to the right side of the road.

Currently the bike lanes along Friars Road end at the location of this interchange. They need to be continued through where possible. This project seeks to add visibility to bicyclists.

One or more routes of the proposed Transit First Plan for expanded transit in San Diego County is located along this route. However, at this time there are no proposals to include a transit-only lane on Friars Road.

- Add bike lanes where feasible
- Add signage

Project 8: Grand Avenue Bikeway Project

- **Project Limits – Beach Boardwalk to Noyes Street**
- **Existing Problem: Existing bike lanes don't extend to the beach**
- **Classification: Class III**
- **Length: Approximately 1.5 miles**
- **Cost Estimate: $15,000**

The beach area attracts significant bicycle traffic. The beach boardwalk bike path and the Mission Bay bike path serve cyclists well. Accessing these facilities can be better facilitated with greater visibility for bicyclists. Few east-west streets traverse the area. Grand Avenue is a primary link to the beach and bay bikeways. An enhanced Class III bikeway along this street would make this a better connection for bicyclists.

One or more routes of the proposed Transit First Plan for expanded transit in San Diego County is located along this route. However, at this time there are no proposals to include a transit-only lane on Grand Avenue.

- Provide Class III bikeway and destination signage and pavement markings on Noyes Street to the Beach Boardwalk
- Restripe the travelway to include one 11-foot travel lane and one 14-foot travel lane plus existing parking lanes.

Project 9: Balboa Avenue, Tierrasanta Boulevard Bikeway Project

- **Project Limits – Morena Boulevard to Santo Road**
- **Existing Problem – No east-west bikeway currently exists to connect Pacific Beach, Clairemont, Kearny Mesa, and Tierrasanta.**
- **Classification – Classes II and/or III**
- **Length – Approximately 6.75 miles**
- **Cost Estimate - $67,500 (all Class III) to $337,500 (all Class II)**

This proposed project would provide a Class II and/or III bikeway route along a major east-west corridor in north central San Diego. The Balboa/Tierrasanta Bikeway would serve the Tierrasanta residential community, the Kearny Mesa industrial and employment area, the Clairemont residential community, as well as major commercial retail centers located near Santo Road, Convoy Street, and Genesee Avenue. The Balboa Avenue Master Plan should be consulted prior to implementation of projects along this corridor.

This proposed bikeway project would intersect several existing bikeway facilities, including Santo Road, Murphy Canyon Road, Kearny Villa Road, the I-805 Path, Ruffin Road, and Genesee Avenue. It would connect with one proposed top project, Ruffin Road. It would also intersect second and third priority projects, such as Convoy Street, Charger Boulevard, Clairemont Drive, Moraga Drive, and Morena Boulevard.

One or more routes of the proposed Transit First Plan for expanded transit in San Diego County is located along this route. However, at this time there are no proposals to include a transit-only lane on Balboa Avenue or Tierrasanta Boulevard.

- Restripe to include Class II bike lanes and/or provide signage and pavement markings for a Class III bikeway on Balboa Avenue and Tierrasanta Boulevard between Morena Boulevard and Santo Road
- Add bikeway and destination signage

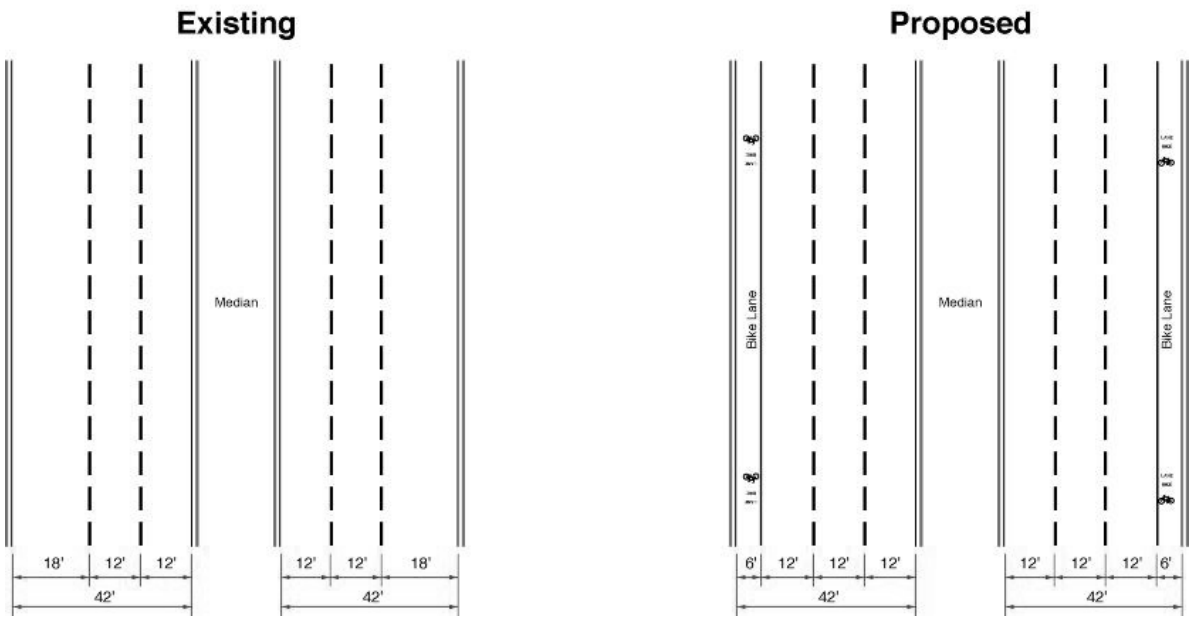


Figure 7.4
Balboa Avenue Typical Cross Section

Project 10: Park Boulevard, Adams Avenue, Aldine Drive, Monroe Avenue, El Cajon Boulevard Bikeway Project

- **Project Limits – I-5 Freeway to La Mesa city limit**
- **Existing Problem – Lack of a continuous bikeway facility to connect Downtown with Balboa Park and the communities northeast of Downtown.**
- **Classification – Classes II and III**
- **Length – Approximately 8.75 miles (1.25 miles of Class II and 7.5 miles of Class III)**
- **Cost Estimate - $137,500**

This proposed project would provide a combination Class II and III bikeway facility that would serve the communities of Hillcrest, University Heights, Normal Heights, Kensington, Talmadge, and the College Area, as well as the attractions of Balboa Park and the San Diego Zoo. Class II lanes would be implemented along Park Boulevard between the I-5 Freeway and Upas Street. Class III facilities would be implemented along Park Boulevard between Upas Street and Adams Avenue, along Adams between Park Boulevard and Van Dyke Avenue/Aldine Drive, along Aldine Drive between Adams and Monroe Avenues, and along Monroe Avenue between Aldine Drive and Collwood Boulevard. The project would then continue along El Cajon Boulevard between 54th Street and Montezuma Road and between 70th Street and the La Mesa city limit. This project would provide continuity with the City of La Mesa to the east.

This bikeway project would intersect three existing bikeway facilities, including Class II lanes on Fairmount Avenue and 70th Street and a Class III route on Collwood Boulevard. It would also intersect three proposed top priority projects. These are Class II lanes on Utah and 35th Streets and a Class III route along College Avenue. This project would intersect other second and third priority projects, including Robinson Avenue, Washington Street, Euclid Avenue, and Rolando Boulevard.

One or more routes of the proposed Transit First Plan for expanded transit in San Diego County is located along this route. Along Park Boulevard where Class II bike lanes are proposed, it is proposed that a transit-only lane be established. As part of the Class II bikeway project, parking was to be removed from the street. Therefore, no conflict should exist between establishing both a transit-only lane and a bike lane on Park Boulevard between Upas Street and I-5. In this case, the bike lane would be best placed to the left of the transit-only bus lane. At this time there are no proposals to include other transit-only lanes along this bikeway project.

- Restripe to include Class II bike lanes on the following segments:
    - Park Boulevard between I-5 and Upas Street
- Provide signage and pavement markings for a Class III bikeway along the following segments:
    - Park Boulevard between Upas Street and Adams Avenue
    - Adams Avenue between Park Boulevard and Van Dyke Avenue/Aldine Drive
    - Aldine Drive between Adams Avenue and Monroe Avenue
    - Monroe Avenue between Aldine Drive and Collwood Boulevard
    - El Cajon Boulevard between 54th Street and Montezuma Road
    - El Cajon Boulevard between 70th Street and La Mesa city limit
- Add bikeway and destination signage

Project 11: Utah Street Bike Lane Project

- **Project Limits – Collier Avenue to Upas Street**
- **Existing Problem – Lack of an adequate north-south bikeway facility through North Park.**
- **Classification – Class II**
- **Length – Approximately 1.75 miles**
- **Cost Estimate - $87,500**

This proposed project would provide for a Class II north-south connection through the North Park community between Adams Avenue and Upas Street. It would connect with the existing Pershing Drive bike lanes that lead into Downtown San Diego. This proposed bikeway would intersect the proposed top priority projects of Adams Avenue, Landis Street, and Upas Street.

One or more routes of the proposed Transit First Plan for expanded transit in San Diego County is located along this route. However, at this time there are no proposals to include a transit-only lane on Utah Street.

- Restripe to include Class II bike lanes on Utah Street between Collier Avenue and Upas Street
- Add bikeway and destination signage

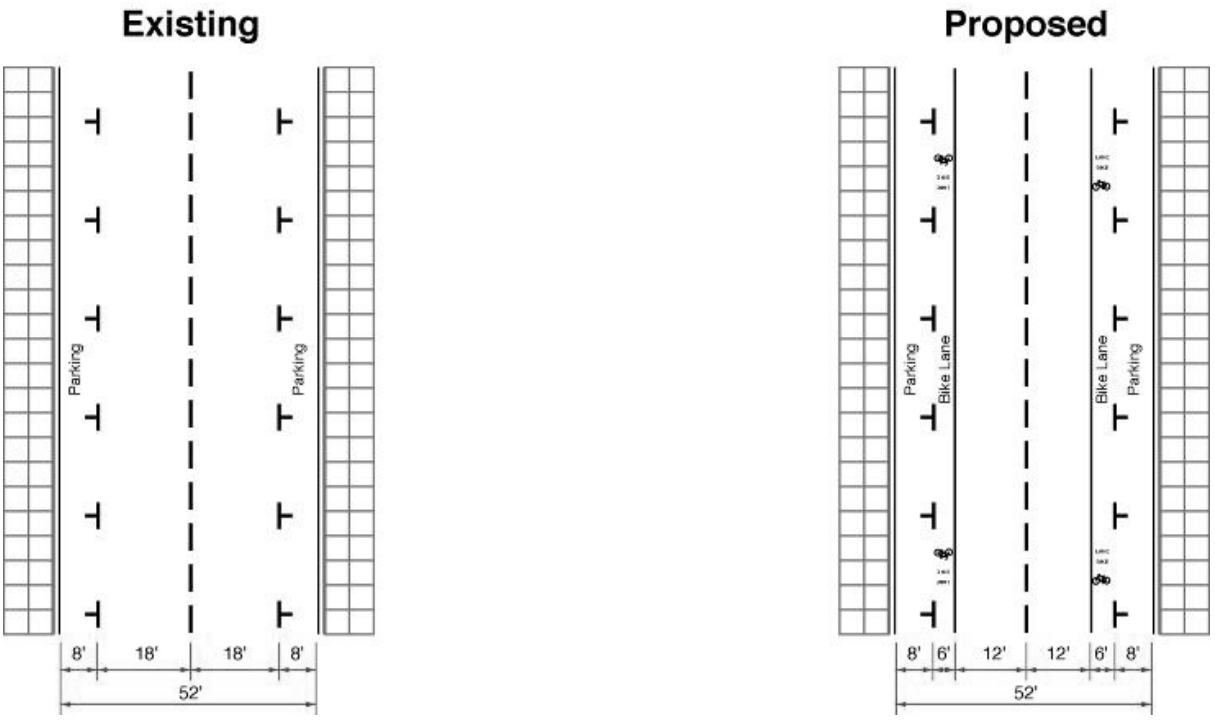


Figure 7.5
Utah Street Typical Cross Section

Project 12: 35th Street Bike Lane Project

- **Project Limits – Adams Avenue to Wightman Street**
- **Existing Problem – Lack of an adequate north-south bikeway facility through Normal Heights and City Heights.**
- **Classification – Classes II and III**
- **Length – Approximately 1 mile**
- **Cost Estimate - $50,000**

This proposed project would provide for a Class II north-south connection through the communities of Normal Heights and City Heights between Adams Avenue and Wightman Street. It would connect with the existing Class III facility along Wightman Street. This proposed bikeway would intersect the proposed top priority project to upgrade the Class III facility along Wightman to a Class II facility. 35th Street would connect many destinations within the community, including an elementary school near University Avenue and Adams Avenue Park. Although this project is proposed as Class II, one block of Class III must be implemented between University Avenue and Polk Avenue due to street width and parking considerations.

One or more routes of the proposed Transit First Plan for expanded transit in San Diego County is located along this route. However, at this time there are no proposals to include a transit-only lane on 35th Street.

- Restripe to include Class II bike lanes on 35th Street between Adams and Polk Avenues and between University Avenue and Wightman Street
- Provide for Class III signage and pavement markings on 35th Street between Polk and University Avenues
- Add bikeway and destination signage

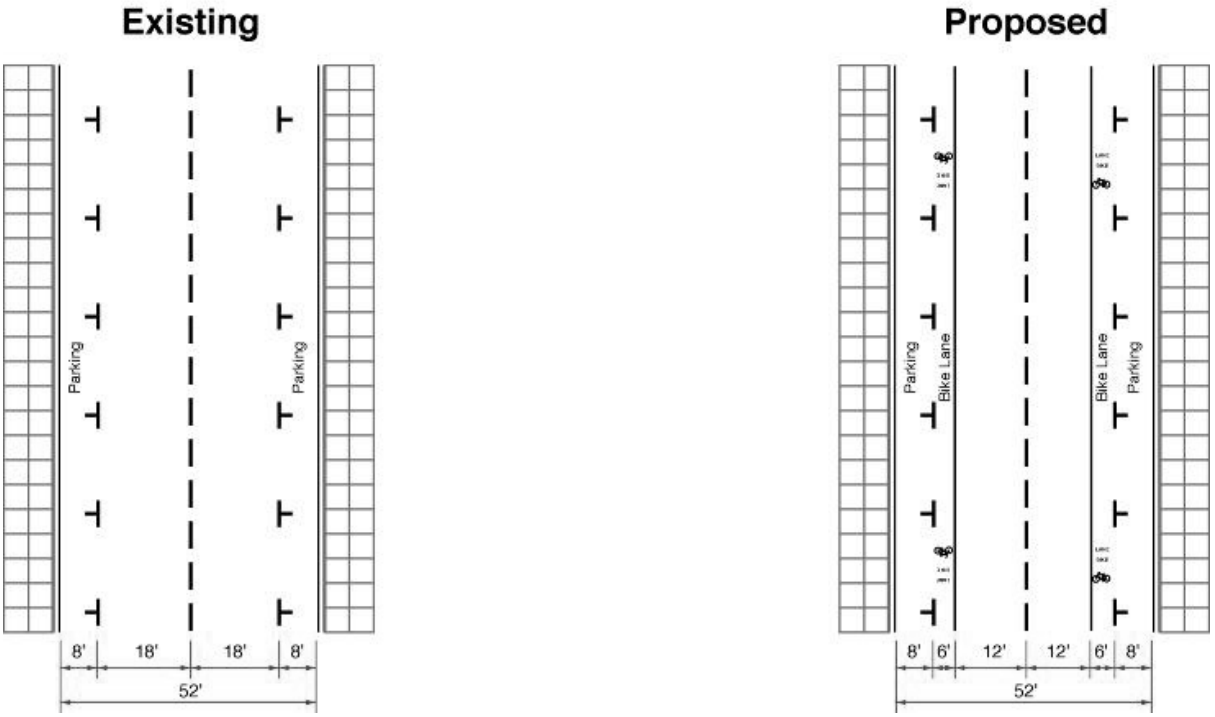


Figure 7.6
35th Street Typical Cross Section

Project 13: Landis-Wightman Bikeway Project

- **Project Limits – Utah Street to 30th Street and Swift Avenue to Euclid Avenue**
- **Existing Problem – Provide east-west connectivity and upgrade an existing Class III facility where there is room to do so.**
- **Classification – Classes II and III**
- **Length – Approximately 2.5 miles (1.5 miles of Class II and 1 mile of Class III)**
- **Cost Estimate - $85,000**

This proposed project would create a continuous combination Class II and III east-west bikeway through the communities of North Park and City Heights. The existing Landis Street Class III facility will be extended west from 30th Street to the proposed top priority Class II project along Utah Street to provide for connectivity. The existing Class III facility along Wightman Street will be upgraded to a Class II facility between Swift and Euclid Avenues. Installation of Class II bike lanes along Wightman Street would require the removal of an existing two-way left turn lane. The impact of the proposed removal of the two-way left turn lane must be evaluated and input from the community will be considered prior to implementation of this project.

The Landis-Wightman bikeway project would intersect proposed top priority bikeway projects along Utah Street, 35th Street, Central Avenue, and 43rd Street/Fairmount Avenue. A second priority project would be intersected at Euclid Avenue.

- Restripe to include Class II bike lanes along Wightman Street between Swift and Euclid Avenues
- Provide signage and pavement markings for a proposed Class III bikeway on Landis Street between Utah and 30th Streets
- Improve signage on the existing Class III route on Landis Street between 30th Street and the link to Wightman

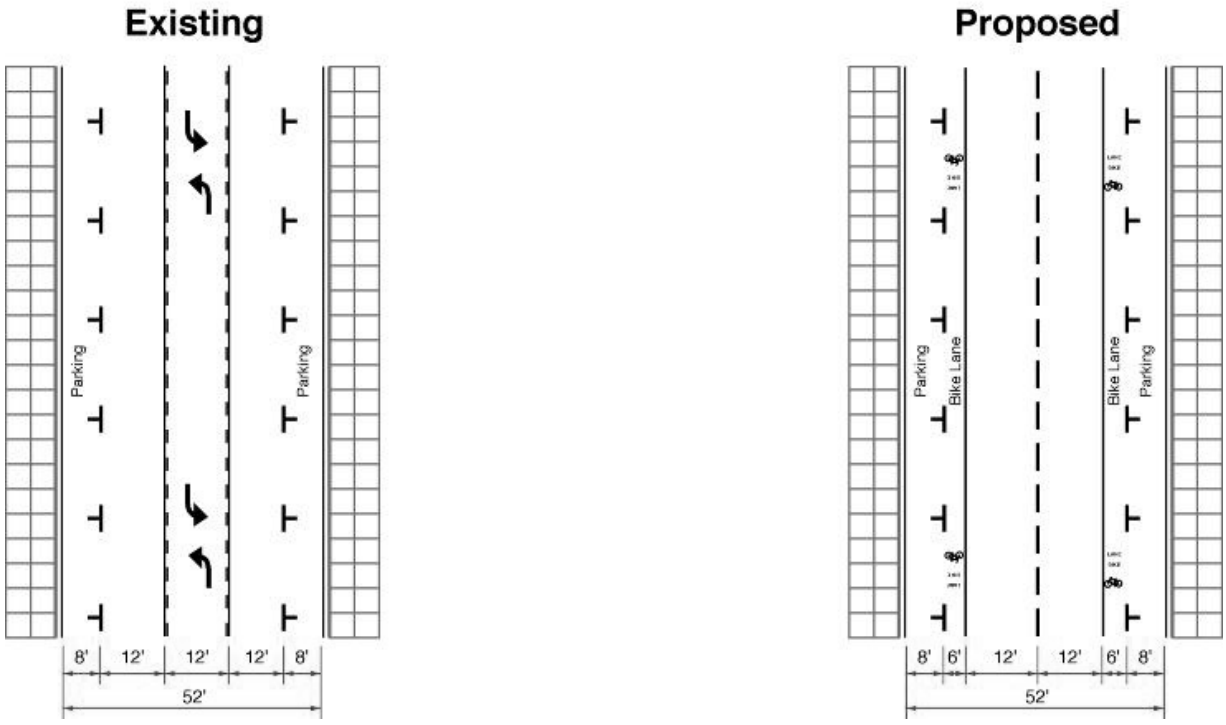


Figure 7.7
Wightman Street Typical Cross Section

Project 14: Upas Street, Morley Field Bike Route Project

- **Project Limits – Vermont Avenue to Boundary Street**
- **Existing Problem – Lack of an east-west connector through North Park adjacent to Balboa Park.**
- **Classification – Class III**
- **Length – Approximately 2 miles**
- **Cost Estimate - $20,000**

This proposed project would provide for east-west access and continuity through the North Park community adjacent to Balboa Park. This project would include Class III facilities along Upas Street from Vermont Avenue to Park Boulevard and from Alabama Street to Boundary Street and along Morley Field Drive between Park Boulevard and Alabama Street/Upas Street. To the west, this bikeway would connect to the existing Upas Street Bridge Class I facility, which bridges the SR-163 Freeway to the western side of Balboa Park and provides a southern link across the freeway in Hillcrest. This project would also connect with the existing Pershing Drive Class II lanes that lead into Downtown San Diego. It would also intersect the Florida Street Class III bikeway, which may become a Class I facility with the planned closure of Florida Street through Balboa Park.

This project would intersect proposed top priority projects including Utah Street and Park Boulevard. Other second and third priority projects that this project would intersect include 30th Street and Boundary Street. This project would serve the Morley Field recreation area of Balboa Park and would provide an east-west connection from other facilities to the Park.

One or more routes of the proposed Transit First Plan for expanded transit in San Diego County is located along this route. However, at this time there are no proposals to include a transit-only lane on Upas Street or Morley Field Drive.

- Provide Class III bikeway and destination signage and pavement markings on the following street segments:
    - Upas Street between Vermont Avenue and Park Boulevard
    - Morley Field Drive between Park Boulevard and Upas Street
    - Upas Street between Morley Field Drive and Boundary Street
- Add bikeway and destination signage

Project 15: 43rd Street, Fairmount Avenue Bikeway Project

- **Project Limits – Meade Avenue to Ridge View Drive**
- **Existing Problem – There is a gap in the north-south bikeway network through City Heights.**
- **Classification – Class III**
- **Length – Approximately 3.5 miles**
- **Cost Estimate - $35,000**

This proposed project would close a gap in the bikeway network and would provide continuity through the City Heights area of San Diego. North of Thorn Street, 43rd Street and Fairmount Avenue are a couplet with 43rd Street being one-way southbound and Fairmount being two-way with 2 travel lanes northbound and one southbound. South of Thorn Street, Fairmount is a balanced two-way facility. Except for two blocks on 43rd and Fairmount between Meade and Orange Avenues where a Class III is recommended, this project is for Class II bike lanes. The aforementioned section of the project is too narrow to accommodate bike lanes.

This project would extend the existing Fairmount Avenue bikeway south through City Heights and will connect to the existing bike lanes near the Chollas Canyon bridge. This project would serve as a major regional bikeway corridor through the eastern portion of the City. It would also provide enhanced bicycle access to the City Heights redevelopment areas along Fairmount Avenue.

This project would intersect three proposed top priority projects, including those along Aldine Drive and Wightman Street. It would also intersect other proposed bikeways, including those proposed along Polar Street, Home Avenue, and Chollas Canyon.

- Restripe to provide wide outside lanes for enhanced bicycle travel on 43rd Street and Fairmount Avenue.
- Provide bikeway and destination signage and pavement markings.

Project 16: 54th Street, Euclid Avenue Bikeway Project

- **Project Limits – Trojan Avenue to Market Street**
- **Existing Problem – No north-south bikeway currently exists in this area of the City to provide continuity and enhanced access for bicyclists.**
- **Classification – Classes II and III**
- **Length – Approximately 3.25 miles (2.25 miles of Class II and 1 mile of Class III)**
- **Cost Estimate - $122,500**

This proposed project would close a gap in the regional bikeway network and provide continuity in the southeastern part of the City. This project would connect the College Area with Southeastern San Diego and its neighborhoods. To its north, it would connect with the existing Class III route on 54th Street. To its south, the project would connect to existing Class II lanes on Euclid Avenue south of Market Street. This bikeway project would serve the Euclid Avenue Trolley Station as well as Villaview Community Hospital and Colina del Sol Community Park.

The 54th Street-Euclid bikeway would intersect two proposed top priority projects, including the Orange Avenue Class III route extension and the Class III route proposed along Market Street west of Euclid Avenue. The project also intersects other proposed bikeway projects, including University Avenue, Streamview Drive, College Grove Drive, and Federal Boulevard.

One or more routes of the proposed Transit First Plan for expanded transit in San Diego County is located along this route. However, at this time there are no proposals to include a transit-only lane on 54th Street or Euclid Avenue.

- Restripe to include Class II bike lanes on 54th Street between Trojan and Euclid Avenues
- Provide Class III signage and pavement markings along Euclid Avenue between 54th and Market Streets
- Add bikeway and destination signage

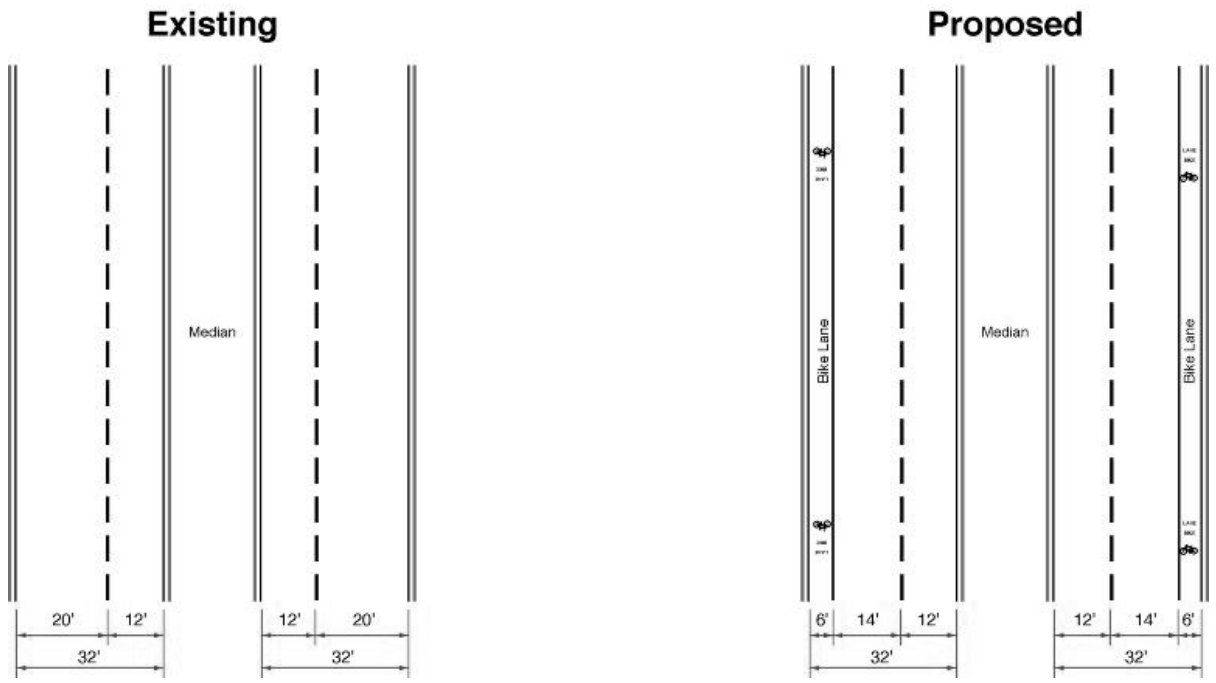


Figure 7.8
54th Street Typical Cross Section

Project 17: College Avenue Bikeway Project

- **Project Limits – Navajo Road to Lemon Grove city limit**
- **Existing Problem – Lack of north-south bikeway facilities through the College Area for local and regional connectivity.**
- **Classification – Classes II and III**
- **Length – Approximately 4.5 miles (1.25 miles of Class II and 3.25 miles of Class III)**
- **Cost Estimate - $95,000**

This proposed project would provide a regional bikeway facility in the Southeatern San Diego and College Area communities of San Diego. The Class II portion of this project would be along College Avenue between University Avenue and the Lemon Grove city limit. The Class III portion would be between University Avenue and Navajo Road. College Avenue is the primary route to access San Diego State University, and establishing a bikeway along this route would increase access to SDSU for students, faculty, and staff who choose to bicycle to the campus. Other destination that are served by this project include commercial areas near El Cajon Boulevard and University Avenue, and the College Grove Shopping Center located near SR-94.

This project would intersect two existing bikeways, Class II lanes on Navajo Road and Montezuma Road. It would link up with two proposed top priority projects including Class III routes on El Cajon Boulevard and Adelaide Avenue. The College Avenue project would also link up with other proposed projects, including Alvarado Road, Del Cerro Boulevard, University Avenue, Streamview Drive, College Grove Drive, and Racine Road.

One or more routes of the proposed Transit First Plan for expanded transit in San Diego County is located along this route. However, at this time there are no proposals to include a transit-only lane on College Avenue.

- Restripe to include Class II bike lanes along College Avenue between University Avenue and Lemon Grove city limit
- Provide Class III signage and pavement markings along College Avenue between Navajo Road and University Avenue
- Add bikeway and destination signage

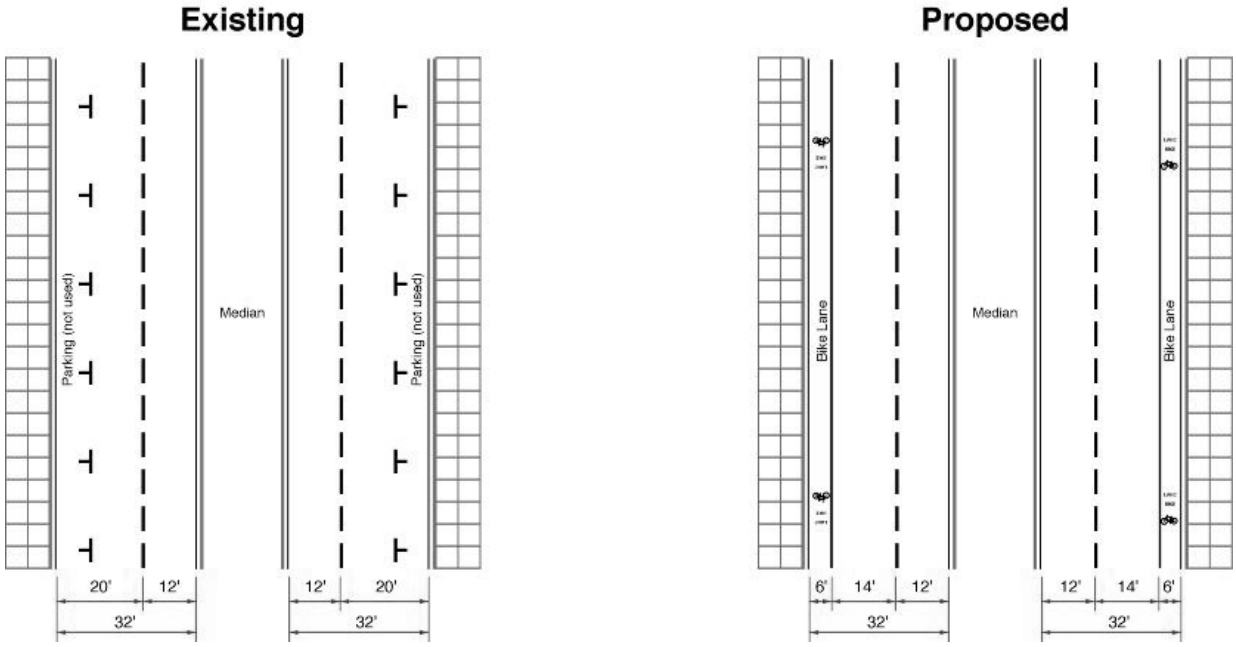


Figure 7.9
College Avenue Typical Cross Section for Class II Bike Lanes

Project 18: Island Avenue, Market Street Bikeway Project

- **Project Limits – I-5 Freeway to Euclid Avenue**
- **Existing Problem – Lack of an adequate east-west bikeway to link with Downtown San Diego from the eastern communities.**
- **Classification – Classes II and III**
- **Length – Approximately 3.50 miles (2 miles of Class II and 1.5 miles of Class III)**
- **Cost Estimate - $115,000**

This proposed project provides enhanced access into Centre City from the eastern neighborhoods and communities. It would utilize Island Avenue, which is a low-volume collector street, from the I-5 Freeway east into the Golden Hill neighborhood. At 32nd Street, this bikeway will go north and continue on Market Street to Euclid Avenue in Southeastern San Diego. Currently, one Class II segment exists between 40th Street and Toyne Street. This segment is not included in the mileage and cost estimate totals above. This project would have both Class II and Class III segments. Class II segments would include Island Avenue between the I-5 Freeway and 28th Street and Market Street from 32nd Street to 40th Street and from Toyne Street to the I-805 Freeway. Class III segments would be on Island Avenue from 28th Street to 32nd Street and on Market Street from the I-805 Freeway to Euclid Avenue. Destinations served by this project include the Gaslamp District in Downtown, the Market Street Trolley Station, Grant Hill Park, and the Euclid Avenue Trolley Station.

This project would intersect three existing bikeway facilities, including Class II lanes on Euclid Avenue south of Market Street and Class III routes along 22nd Street and 28th Street. Three other proposed top priority projects would be linked by this project, including Class III routes on Quail Street and Euclid Avenue north of Market Street. This project would also link with several other proposed bikeway projects, including 16th Street, 25th Street, 32nd Street, and 47th Street.

One or more routes of the proposed Transit First Plan for expanded transit in San Diego County is located along this route. However, at this time there are no proposals to include a transit-only lane on Island Avenue or Market Street.

- Restripe to include Class II bike lanes along the following segments:
    - Island Avenue between the I-5 Freeway and 28th Street
    - Market Street between 32nd street and 40th Street
    - Market Street between Toyne Street and I-805
- Provide Class III signage and pavement markings along the following segments:
    - Island Avenue between 28th and 32nd Streets
    - Market Street between I-805 and Euclid Avenue
- Add bikeway and destination signage

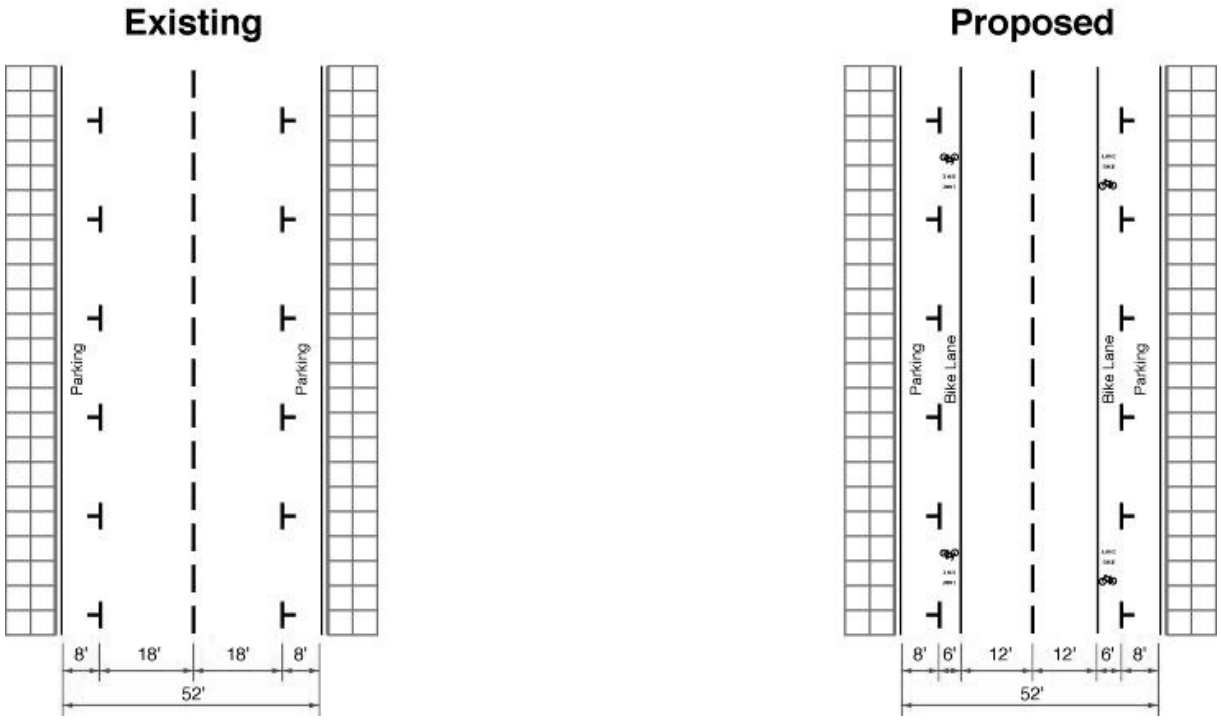


Figure 7.10
Island Avenue Typical Cross Section

Project 19: Kettner Boulevard, India Street Bikeway Project

- **Project Limits – Washington Street to Laurel Street/I-5 Freeway**
- **Existing Problem – Lack of an enhanced bikeway facility accessing Downtown from the northwest.**
- **Classification – Classes II or III**
- **Length – Approximately 2.0 miles**
- **Cost Estimate - $20,000 - $100,000**

This proposed project would enhance access into Downtown from the Middletown area of the City via a Class II or III bikeway. This project would install a Class II bike lane facility or a Class III bike route facility along these two streets.

This project would intersect the existing Laurel Street Class III bikeway. This project would connect with other proposed projects, including Washington Street and San Diego Avenue.

One or more routes of the proposed Transit First Plan for expanded transit in San Diego County is located along this route. However, at this time there are no proposals to include a transit-only lane on Kettner Boulevard or India Street.

- Restripe to include Class II bike lanes or provide Class III bikeway signage and pavement markings on the following segments:
    - Kettner Boulevard between Washington and Laurel Streets
    - India Street between Washington and the I-5 Freeway
- Add bikeway and destination signage

Project 20: Pacific Beach Drive Bikeway Project

- **Project Limits – Mission Boulevard to Programmed Rose Creek Bridge Project**
- **Existing Problem – Lack of an adequate east-west bikeway to link the Mission Beach Boardwalk through the Pacific Beach community.**
- **Classification – Class III**
- **Length – Approximately 1.5 miles**
- **Cost Estimate - $15,000**

This proposed project would provide an alternate east-west route to Grand Avenue for those who prefer a quieter route through the Pacific Beach community. A short segment of this project has already been designated a Class III bikeway between Crown Point Drive and Olney Street. This segment is not included in the mileage and cost estimate figures above. This project would link the eastern portion of Mission Bay with the Mission Beach Boardwalk and would connect with the programmed Rose Creek Bridge Class I bikeway project. Other destinations served would include The Promenade at Pacific Beach shopping area, Campland by the Bay, and the Northern Wildlife Preserve.

This project would link with the existing Class III facilities along Crown Point Drive, Olney Street, and Fanuel Street. It would also link with the aforementioned programmed Rose Creek Bridge project. It would also intersect other proposed projects, including Mission Boulevard, Cass Street, Ingraham Street, Jewell Street, and Lamont Street.

- Provide Class III bikeway and destination signage and pavement markings along Pacific Beach Drive between Mission Boulevard and the current eastern end of Pacific Beach Drive
- Add bikeway and destination signage

Project 21: C Street, Quail Street Bikeway Connector Project

- **Project Limits – Programmed Home Avenue/C Street Path to Market Street**
- **Existing Problem – Lack of continuity to provide access to the programmed Home Avenue/C Street Path connector.**
- **Classification – Class III**
- **Length – Approximately 0.5 miles**
- **Cost Estimate - $5,000**

This proposed project would close a gap in the regional bikeway network and provide access to the programmed Home Avenue/C Street Path project. This Class III project will guide bicyclists from Market Street to the C Street Path from the south. It would intersect the existing Market Street Class II bike lanes facility. This project would serve no destinations, but would provide a Class III link to provide regional connectivity and access for bicyclists in Southeastern San Diego.

- Provide Class III bikeway and destination signage and pavement markings on the following street segments:
    - C Street between the end of the Home/C Street Path
    - Quail Street and on Quail Street between C and Market Streets

Project 22: Orange Avenue Bikeway Eastern Extension Project

- **Project Limits – Altadena Street to College Avenue**
- **Existing Problem – Lack of continuity east of the current terminus of the existing Orange Avenue Class III bikeway.**
- **Classification – Class III**
- **Length – Approximately 1.25 miles**
- **Cost Estimate - $12,500**

This proposed project would extend the Orange Avenue Class III bike route eastward to end at College Avenue. From the current eastern end of the Orange Class III facility, the project would establish a Class III route along Orange Avenue, Sharron Place, Trojan Avenue, 60th Street, and Adelaide Avenue to connect with College Avenue. This project would provide improved access to San Diego State University via College Avenue, and provides an alternative to busy El Cajon Boulevard. Other destinations served include Colina del Sol Community Park and Colina Park Golf Course.

This project would intersect the existing Class III route along 54th Street north of Orange Avenue. It would also intersect proposed top priority projects, including Class II lanes on 54th Street south of Orange Avenue and a Class III route along College Avenue.

- Provide Class III bikeway and destination signage and pavement markings along Orange Avenue, Sharron Place, Trojan Avenue, 60th Street, and Adelaide Avenue between Altadena Street and College Avenue

Project 23: Ruffin Road/Murphy Canyon Road Bikeway Project

- **Project Limits – Kearny Villa Road to Murphy Canyon Path**
- **Existing Problem – Lack of an enhanced bikeway and lack of connectivity in eastern Kearny Mesa and Murphy Canyon areas.**
- **Classification – Class II**
- **Length – Approximately 3.25 miles**
- **Cost Estimate - $162,500**

This proposed project would provide enhanced bikeway access and connectivity in the eastern portion of Kearny Mesa. It would establish a significant north-south bikeway connecting Kearny Villa Road and Qualcomm Stadium. Class II bike lanes are proposed along Ruffin Road between Kearny Villa Road and Aero Drive and would upgrade the existing Class III facility on Murphy Canyon Road between Aero Drive and the Murphy Canyon Path. This extension would provide improved access to employment centers, the Stonecrest Mall, and other commercial areas in the community of Kearny Mesa.

This project would intersect the existing Class II facilities on Kearny Villa Road, Aero Drive, Ruffin Road south of Aero Drive, the Class III facility on Clairemont Mesa Boulevard, and the Class I Murphy Canyon Path. It would intersect the proposed top priority project along Balboa Avenue.

One or more routes of the proposed Transit First Plan for expanded transit in San Diego County is located along this route. However, at this time there are no proposals to include a transit-only lane on Ruffin Road or Murphy Canyon Road.

- Restripe to include Class II bike lanes along the following street segments:
  - Aero Drive between Convoy Street and Kearny Villa Road
  - Murphy Canyon Road between Aero Drive and the beginning of the Murphy Canyon bike path
- Add bikeway and destination signage

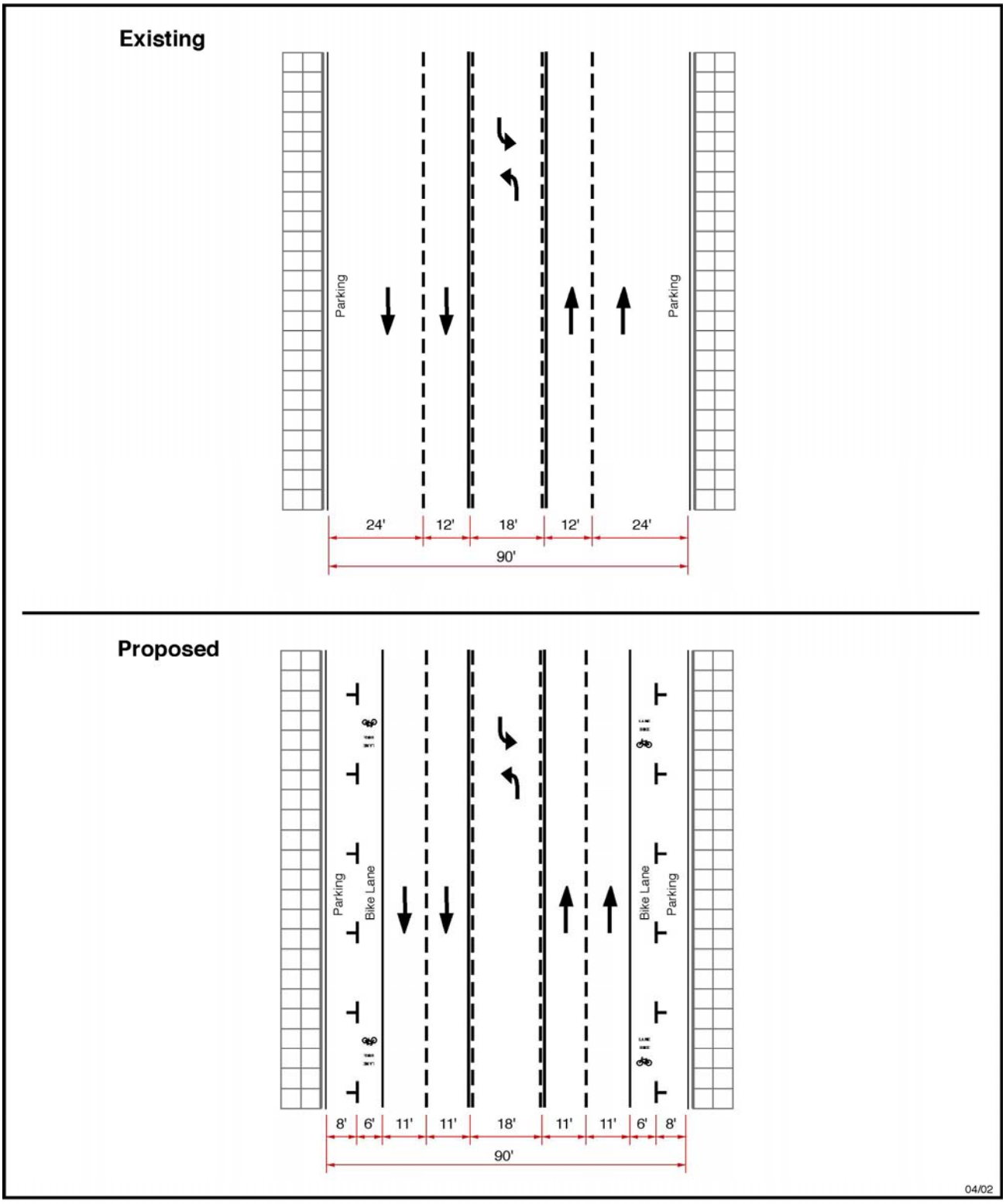


Figure 7.11
Ruffin Road Typical Cross Section

Project 24: Mira Mesa Boulevard Bikeway Project

- **Project Limits – Parkdale Avenue to Scripps Ranch Boulevard**
- **Existing Problem – Three gaps currently exists in the bikeway network along Mira Mesa Boulevard.**
- **Classification – Class II**
- **Length – Approximately 1.75 miles**
- **Cost Estimate - $87,500**

This proposed project would close three gaps in the regional bikeway network and create visibility and awareness of bicyclists through a very congested part of the street system in Mira Mesa. This project would provide continuity and connectivity through Mira Mesa and connect with Scripps Ranch. It would serve commercial centers near Camino Ruiz, Black Mountain Road, Westview Parkway, and Scripps Ranch Boulevard. It would also serve a park-and-ride lot located on Mira Mesa Boulevard west of the I-15 Freeway, Mira Mesa High School, and Mira Mesa Community Park.

This project would intersect with the existing Class II lanes on Camino Ruiz, Black Mountain Road, and Scripps Ranch Boulevard. Due to the atypical segments of Mira Mesa Boulevard at these locations, cross sections have not been developed. However, based on a preliminary feasibility assessment, this project may require median encroachment and/or widening. Preliminary evaluation and engineering analysis to determine the specifics of this project should be conducted prior to its implementation.

One or more routes of the proposed Transit First Plan for expanded transit in San Diego County is located along this route. However, at this time there are no proposals to include a transit-only lane on Mira Mesa Boulevard.

- Restripe to include Class II bike lanes on the following segments of Mira Mesa Boulevard:
    - Parkdale Avenue to Reagan Road
    - New Salem Street to Greenford Drive
    - Rickert Street to Scripps Ranch Boulevard
- Add bikeway and destination signage

Project 25: Rancho Bernardo Bikeway Project

- **Existing Problem: Existing bikeways have gaps**
- **Classification: Class II**
- **Length: Approximately 3 miles of Class II**
- **Cost Estimate: $150,000**

The Rancho Bernardo community has bike lanes and routes on some of its streets. However, the bikeway network is incomplete. These gaps can be closed. Along some portions of Bernardo Center Drive, parking exists on both sides and the street is too narrow for simple restriping to accommodate bicycle lanes without removing parking. Bike lanes could be implemented along Bernardo Center Drive and West Bernardo Drive as proposed in this project if parking were removed.

One or more routes of the proposed Transit First Plan for expanded transit in San Diego County is located along this route. However, at this time there are no proposals to include a transit-only lane on Bernardo Center Drive or West Bernardo Drive.

- Restripe to add bike lanes on West Bernardo Drive from Rancho Bernardo Road to Duenda Road
- Restripe to add bike lanes to Bernardo Center Drive from the southern crossing of I-15 to West Bernardo Drive, or keep as Class III route where on-street parking is needed
- Add bikeway and destination signage

Project 26: San Clemente Canyon Bikeway Project

- **Project Limits – Rose Canyon Bikeway to I-805**
- **Existing Problem – Lack of a continuous bikeway in this area to connect with the existing and very popular Rose Canyon bikeway.**
- **Classification – Class I**
- **Length – Approximately 3.5 miles**
- **Cost Estimate - $4,000,000**

This proposed project would create a continuous bikeway through a scenic canyon on the border of the community of Clairemont. The path would be located adjacent to the SR-52 Freeway and would connect with the popular Rose Canyon Bikeway at its western terminus. This connectivity would be achieved via a crossing of the active San Diego Northern Railway line either as an at-grade crossing or via an underpass. This crossing can be determined at a future date when this project moves forward. The San Clemente Canyon Bikeway would also be consistent with the Marian Bear Memorial Park Natural Resource Management Plan.

This project would intersect existing Class II bike lanes on Genesee Avenue and a proposed second priority project along Regents Road/Clairemont Mesa Boulevard.

- Construct a Class I path along the San Clemente Canyon between the Rose Canyon Bikeway and I-805
- Add bikeway and destination signage

Project 27: Rose Creek Bike Path Improvement Project

- **Project Limits – Grand Avenue to North Mission Bay Drive**

- **Existing Problem – A gap currently exists in the bikeway network in this area.**
- **Classification – Class I**
- **Length – Approximately 0.25 miles**
- **Cost Estimate - $250,000**

This proposed project would close a gap in the regional bikeway network and provide connectivity through the Pacific Beach and Mission Bay Park communities. Currently, a fenced path exists in this area that does not meet standard for a Class I bikeway facility. It is anticipated that the property in the area will be redeveloped in the next several years. Construction of a standard Class I bike path replacing the existing non-standard path is planned to be completed as part of this redevelopment project. This bikeway project would serve the Mission Bay Park area as well as link with Mission Bay High School.

This project would link with the existing Class II lanes on Grand Avenue as well as with the Class III route along North Mission Bay Drive. This project would also link with the programmed Rose Creek Bridge project, which will connect with the proposed top priority Pacific Beach Drive Class III project.

- Construct a Class I path along Rose Creek between Grand Avenue and North Mission Bay Drive/Rose Creek Bridge project
- Add bikeway and destination signage

Project 28: San Diego River Bikeway Project

- **Project Limits – Qualcomm Way to Father Junipero Serra Trail**
- **Existing Problem – Lack of a continuous east-west bikeway through Mission Valley and along the San Diego River corridor.**
- **Classification – Class I**
- **Length – Approximately 7.75 miles**
- **Cost Estimate - $10,000,000**

This proposed project would provide for a continuous Class I bikeway facility, which will eventually have grade-separated crossings. This project would be an eastern extension of the San Diego River Path in Mission Valley that currently ends at Qualcomm Way. It would end at Junipero Serra Trail near Mission Gorge Road in Mission Trails Regional Park. This project would serve Qualcomm Stadium, the Fenton Parkway, Stadium, and Mission San Diego Trolley Stations, Friars Village shopping center, Kaiser Permanente Medical Center, and Mission Trails Regional Park.

The alignment of the portion of the San Diego River Bike Path within the boundaries of Mission Trails Regional Park is depicted only schematically in the proposed bikeway map. This segment will be studied in the future to develop an alignment that is agreeable to the City Council, Mission Trails Regional Park Citizen Advisory Committee, Mission Trails Regional Park Task Force, and the San Diego River Park Coalition. Furthermore, the alignment of this segment would not interfere with sensitive biological resources and would be consistent with Multiple Habitat Planning Area

This project would intersect three existing bikeways, including Class II lanes on Qualcomm Way, Camino del Rio North, and Friars Road. It would also intersect one proposed top priority project, the Tierrasanta Class I Path connector. This project would link with other proposed projects, such as the Murphy Canyon Class I Path extension and San Diego Mission Road.

- Construct a Class I path along the San Diego River
- Add bikeway and destination signage

Project 29: Sabre Springs Parkway Bikeway Project

- **Project Limits – Poway Road to Springbrook Drive**
- **Existing Problem – Lack of connections between neighborhoods and Poway Road in the area.**
- **Classification – Class II**
- **Length – Approximately 1 mile**
- **Cost Estimate - $50,000**

This proposed project would provide for a Class II bikeway along Sabre Springs Parkway south of Poway Road to Springbrook Drive. This collector street would connect the neighborhoods to the Poway Road Class II bikeway. It would also connect with the existing Sabre Springs Parkway Class II lanes north of Poway Road. It would link with proposed bikeway projects, including the I-15/Poway Road Class I extension and the Class II or III project along Springbrook Drive.

- Restripe to include Class II bike lanes along Sabre Springs Parkway between Poway Road and Springbrook Drive
- Add bikeway and destination signage

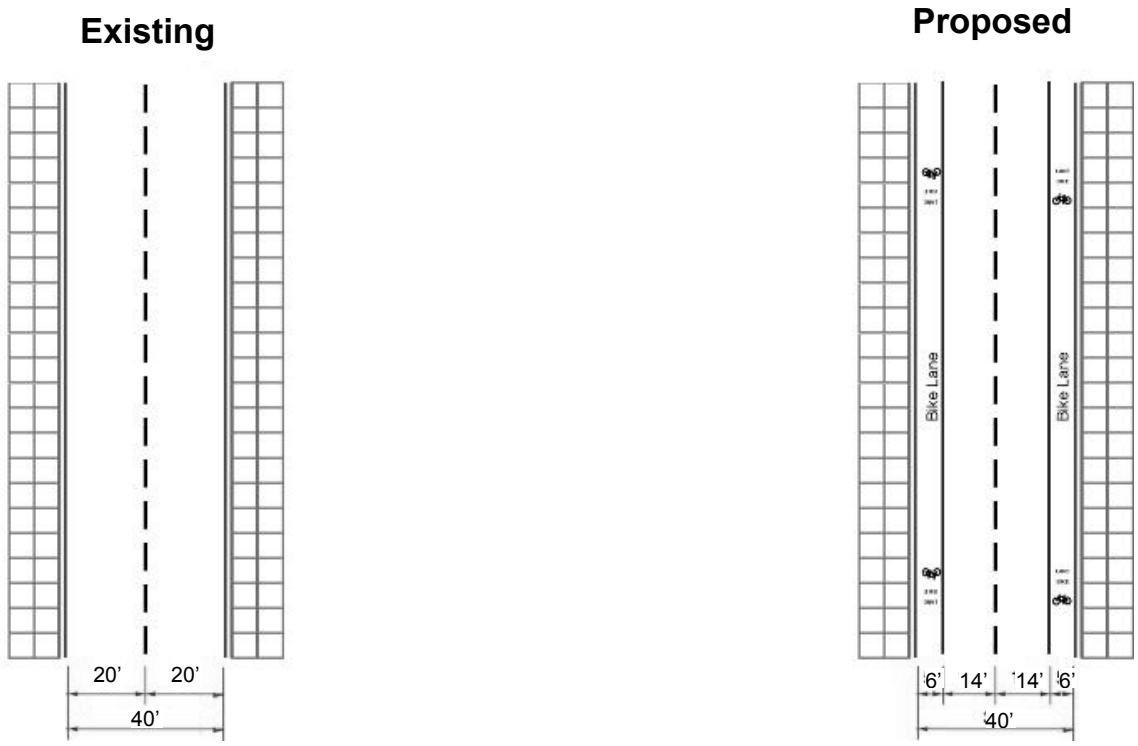


Figure 7.12
Sabre Springs Parkway Typical Cross Section

Project 30: Limerick Avenue, Charger Boulevard, Ashford Street Bikeway Project

- **Project Limits – Clairemont Mesa Boulevard to Mesa College Drive**
- **Existing Problem – Lack of a continuous bikeway to link the neighborhood of the Clairemont community.**
- **Classification – Class III**
- **Length – Approximately 3 miles**
- **Cost Estimate - $30,000**

This proposed project would provide for a Class III facility through many of the neighborhoods in Clairemont. It would provide a link to Mesa College as well as to the neighborhood shopping center located at Ashford and Beagle Streets. This project would intersect the existing I-805 path near Balboa Avenue. It would also link with the proposed top projects along Balboa Avenue and Mesa College Drive. This project would also intersect other proposed projects, including Clairemont Mesa Boulevard and Mt. Abernathy Avenue.

One or more routes of the proposed Transit First Plan for expanded transit in San Diego County is located along this route. However, at this time there are no proposals to include a transit-only lane on the streets of this bikeway project.

- Provide Class III bikeway and destination signage and pavement markings along Limerick Avenue, Chandler Drive, Charger Boulevard, Eckstrom Avenue, and Ashford Street

Project 31: Marlesta Drive, Mesa College Bikeway Project

- **Project Limits – Genesee Avenue to Linda Vista Road**
- **Existing Problem – Lack of a bikeway facility to serve Mesa College.**
- **Classification – Class III**
- **Length – Approximately 1.5 miles**
- **Cost Estimate - $15,000**

This proposed project would provide for a critical bikeway link to serve Mesa College. It would link with the existing Class II bikeways along Genesee Avenue and Linda Vista Road as well as the proposed top priority project along Ashford Street.

One or more routes of the proposed Transit First Plan for expanded transit in San Diego County is located along this route. However, at this time there are no proposals to include a transit-only lane on the streets of this bikeway project.

- Provide Class III bikeway and destination signage and pavement markings along Mesa College Drive, the southern Mesa College access road, and Marlesta Street.

Project 32: Beyer Boulevard Bikeway Project

- **Project Limits – Dairy Mart Road to San Ysidro Trolley Station**
- **Existing Problem – Lack of bikeway connectivity and access to the International Border.**
- **Classification – Classes II and III**
- **Length – Approximately 1.75 miles (0.5 Class II and 1.25 Class III)**
- **Cost Estimate - $62,500**

This proposed project would provide for a connection with the International Border crossing at San Ysidro. It would also provide a cross-community bikeway link through San Ysidro. It would serve the business district near the border crossing and would provide direct access to the Beyer and San Ysidro Trolley stations. This bikeway would link with the existing Class II facilities along Smythe Avenue and Otay Mesa Road. It would also link with proposed second and third priority bikeway projects, including those along Beyer Boulevard, San Ysidro Boulevard, and Camino de La Plaza.

This bikeway project would link with existing Class II lanes along Otay Mesa Road and a Class III bike route along Smythe Avenue. It would also connect with proposed bikeway projects along Beyer Boulevard and San Ysidro Boulevard.

- Restripe to include Class II bike lanes along Beyer Boulevard from Dairy Mart Road to Otay Mesa Boulevard/East Beyer Boulevard.
- Provide Class III bikeway and destination signage and pavement markings along East Beyer Boulevard from Otay Mesa Road/Beyer Boulevard and the San Ysidro Trolley Station.
- Add bikeway and destination signage.

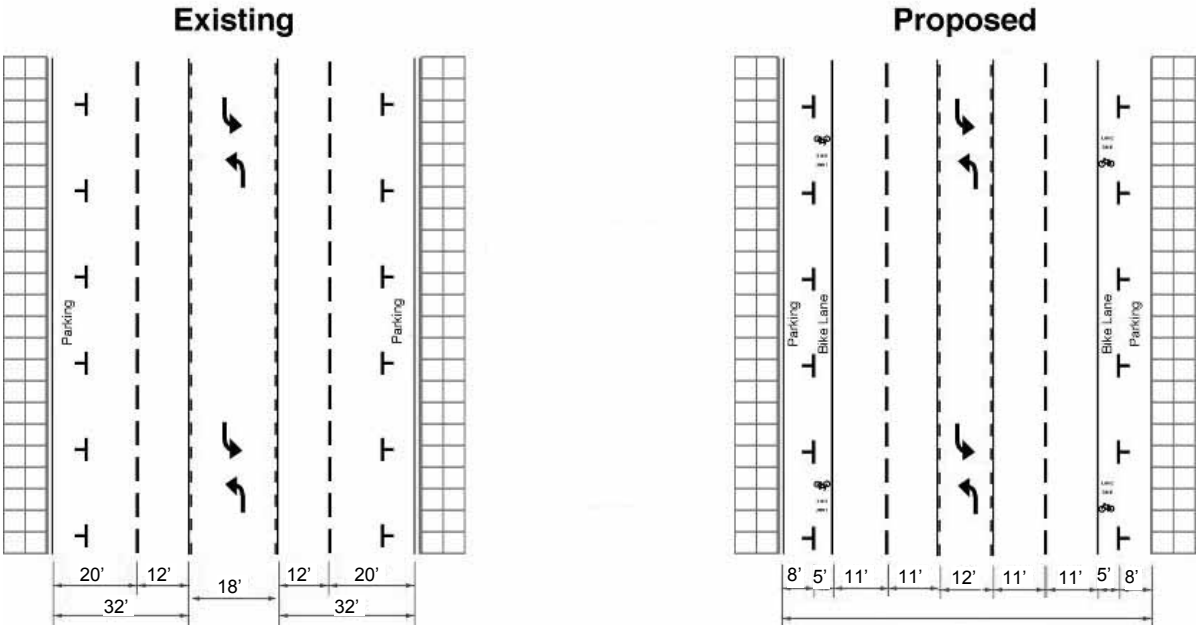


Figure 7.13
Beyer Boulevard Typical Cross Section

Project 33: Bachman Place Bikeway Project

- **Project Limits – Hotel Circle South to Washington Street**
- **Existing Problem – Lack of access between Mission Valley and Hillcrest.**
- **Classification – Classes II and III**
- **Length – Approximately 1 mile (0.5 Class II and 0.5 Class III)**
- **Cost Estimate - $30,000**

This proposed project would provide for a connection between Mission Valley and the Hillcrest area of the City. Currently, no direct connection exists for bicyclists. Bachman Place would have Class II bike lanes from Hotel Circle South to the top of the hill where a traffic choker now exists. South of there, this bikeway would be a Class III route and would be routed along Bachman Place, Lewis Street, and 4th Avenue to Washington Street. This bikeway would serve the UCSD Medical Center Hillcrest Campus.

This bikeway project would link with existing Class II lanes along Hotel Circle South. It would also connect with the proposed top priority project along 4th Avenue and another proposed project along Washington Street.

One or more routes of the proposed Transit First Plan for expanded transit in San Diego County is located along this route. Although it is proposed that a parking lane be removed in favor of a contra-flow transit-only lane on Lewis Street, it is not likely that this will present a conflict with the proposal to establish a Class III bikeway along a portion of Lewis Street.

- Restripe to include Class II bike lanes along Bachman Place from Hotel Circle to the traffic choker.
- Provide Class III bikeway and destination signage and pavement markings along Bachman Place south of the traffic choker and along Lewis Street and 4th Avenue.
- Add bikeway and destination signage.

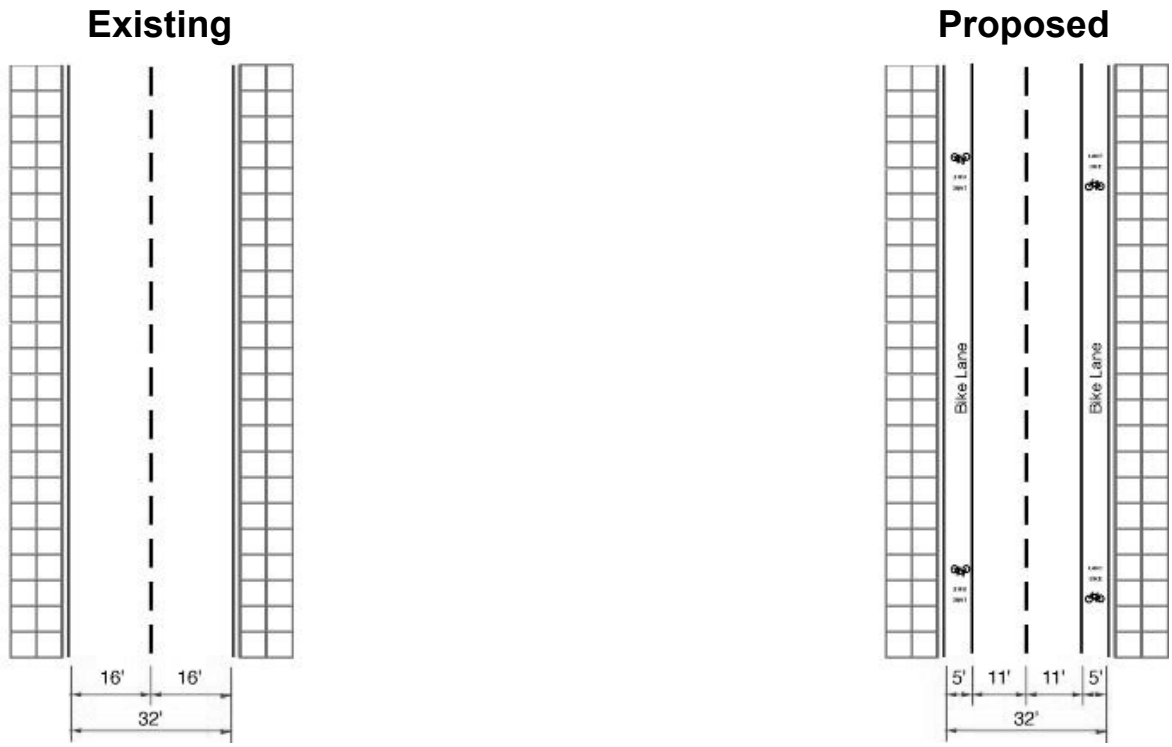


Figure 7.14
Bachman Place Typical Cross Section

Project 34: Rosecrans Street/Taylor Street Bikeway Project

- **Project Limits – Talbot Street to Morena Boulevard**
- **Existing Problem – Lack of access between Point Loma and Old Town San Diego.**
- **Classification – Classes II and III**
- **Length – Approximately 3.25 miles (2.25 miles of Class II and 1 mile of Class III)**
- **Cost Estimate - $122,500**

This proposed project would provide for a combination Class II Bike Lane/Class III Bike Route in the communities of Peninsula, Midway, and Old Town. Due to on-street parking constraints along certain portions of Rosecrans Street, Class II Bike Lanes could not be proposed throughout the entire length of the corridor. The redevelopment plans for the U. S. Marine Corps Recruit Depot site call for a future Class II bike lane facility along Rosecrans Street between Lytton Street and Russell Street.

This bikeway would connect several commercial and entertainment districts and would provide a regional link along the Point Loma peninsula and through the Midway area. It would connect the Peninsula with Old Town and links to Mission Valley, Mission Bay Park, and Downtown San Diego. This bikeway project would link with existing Class II lanes along Rosecrans Street south of Talbot Street and along Nimitz Boulevard, and Class III bikeways along Pacific Highway and Taylor Street east of Morena Boulevard. It would also connect with the proposed bikeway projects along Talbot Street, Canon Street, Shelter Island Drive, Lytton Street, Midway Drive, Sports Arena Boulevard, Congress Street, Juan Street, and Morena Boulevard.

One or more routes of the proposed Transit First Plan for expanded transit in San Diego County is located along this route. One of the alignments for the Transit First demonstration project is proposed along a portion of Rosecrans Street between Pacific Highway and Sports Arena Boulevard. In the event that a transit-only lane is established along this section of Rosecrans Street, the bike lane would either be relocated to the left of the transit lane, or become part of a shared bike-transit lane, which would be of width at least 14 feet.

- Restripe to include Class II bike lanes along Rosecrans Street between Talbot Street and Nimitz Boulevard, between Russell Street and Lytton Street, between Sports Arena Boulevard and Pacific Highway, and northbound only between Nimitz Boulevard and Russell Street.
- Restripe to include Class II bike lanes along Taylor Street between Pacific Highway and Congress Street.
- Provide Class III bikeway and destination signage and pavement markings along Rosecrans Street between Lytton Street and Sports Arena Boulevard and southbound only between Russell Street and Lytton Street.
- Provide Class III bikeway and destination signage and pavement markings along Taylor Street between Congress Street and Morena Boulevard.
- Add bikeway and destination signage.

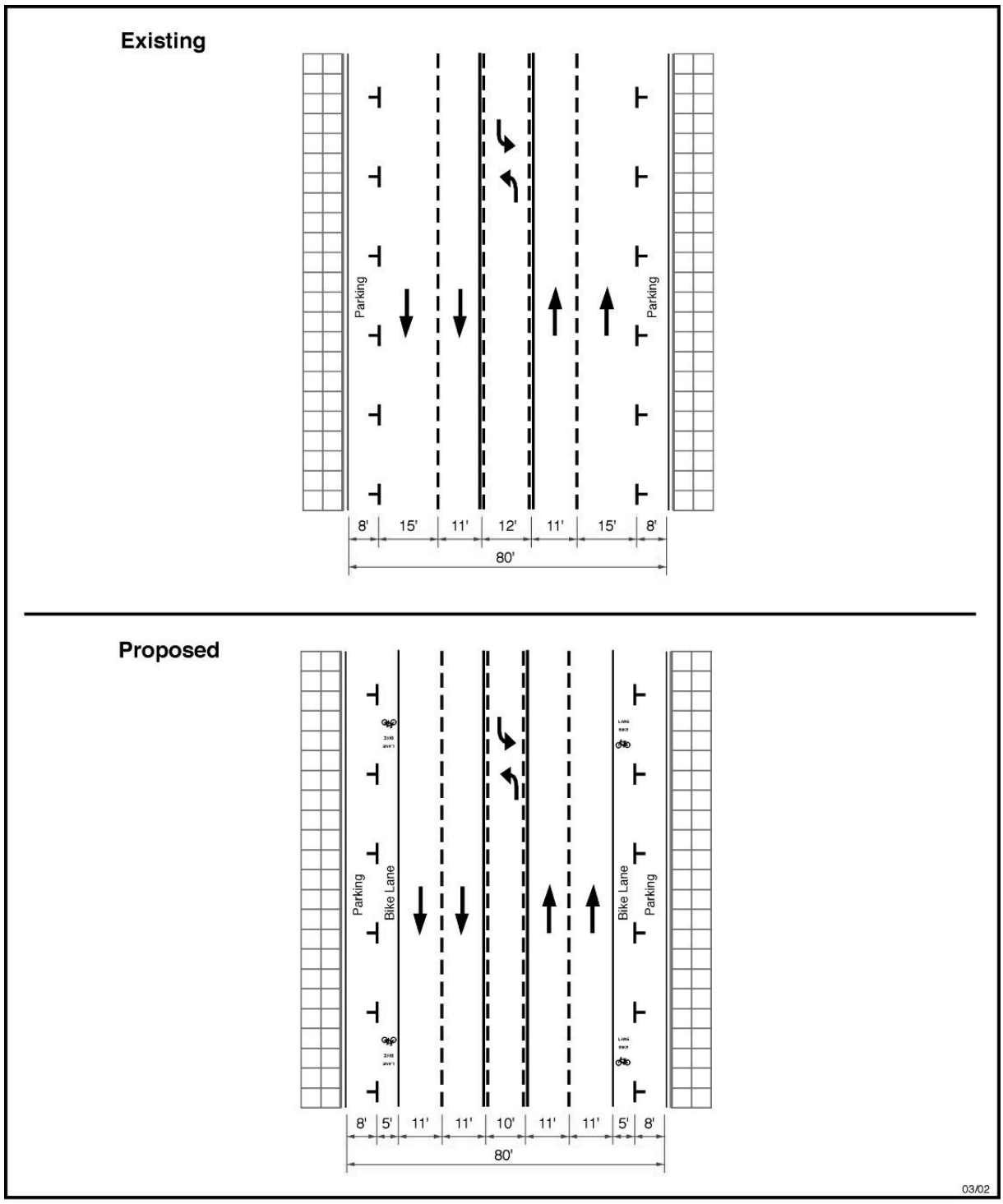


Figure 7.15
Rosecrans Street Typical Cross Section
for Class II Bike Lanes

Project 35: I-15 Class I Bike Path Extensions

- **Project Limits – Sabre Springs Parkway to Poway Road/I-15 Path, Erma Road to Mira Mesa Boulevard**
- **Existing Problem: Provide continuity and close gaps in the existing bikeway network.**
- **Classification: Class I**
- **Length: Approximately 1.00 mile**
- **Cost Estimate: $1,500,000**

The existing I-15 bike path extends from Poway Road/I-15 to Erma Road. The north extension of this path would provide a link to the Sabre Springs bike lane facility with its continuity to the north. It would also provide a safe crossing point for bicyclists desiring to travel across busy Poway Road. The southern terminus of the existing path currently does not connect with Mira Mesa Boulevard, a major east-west thoroughfare with a proposed bikeway project outlined in this plan (see Project 24). This project would extend the I-15 path to Mira Mesa Boulevard to provide continuity.

- Construct a Class I path adjacent to Poway Road and the I-15 Freeway
- Add bikeway and destination signage

Project 36: Chollas Creek Bike Path

- **Project Limits – I-805/Federal Boulevard to 54th Street**
- **Existing Problem: A lack of facilities exists in the bikeway network in this area.**
- **Classification: Class I**
- **Length: Approximately 2.00 miles**
- **Cost Estimate: $2,000,000**

This project would provide for a Class I bike path in an area of the City that does not have many bikeway facilities. It would connect the College Area with links to the south and west via Federal Boulevard and Fairmount Avenue. It would intersect other proposed bikeway projects along 54th Street, Euclid Avenue, Fairmount Avenue, and Federal Boulevard.

- Construct a Class I path adjacent to Chollas Creek
- Add bikeway and destination signage

Project 37: Feasibility Study to Link SR-56 Bike Path to Sorrento Valley Road

- **Project Limits – I-5 Freeway to Sorrento Valley Road**
- **Existing Problem: A Gap Exists Under the I-5 Freeway Structure**
- **Classification: Class I**
- **Cost Estimate: $25,000**

A bike path currently exists along the south side of SR-56 from Carmel Country Road to the east side of the I-5 Freeway. This Bicycle Master Plan includes a proposal to extend this bikeway further west to Sorrento Valley Road. On the west side of I-5, Sorrento Valley Road is currently used only for non-motorized travel. A link between the SR-56 bike path and Sorrento Valley Road would facilitate continuous bicycle travel between Carmel Valley and the beach and other destinations west of the I-5 Freeway.

Only a gap under the I-5 Freeway separates the bike path and Sorrento Valley Road. To close this gap cyclists must get under or over the I-5 Freeway. Going under presents challenges in that clearance under the freeway is low and water often flows through the channel that exists there. Bridging the freeway would be very costly. These issues need to be explored further to determine the feasibility of various alternative freeway crossings and their costs and to identify the preferred solution.

Project 38: 3rd, 4th, and 5th Avenues Bikeway Project

- **Project Limits – I-5 Freeway to Washington Street**
- **Existing Problem – Inadequate connection between Downtown and Hillcrest.**
- **Classification – Classes II and III**
- **Length – Approximately 3 miles (1 mile of Class II and 2 miles of Class III)**
- **Cost Estimate - $70,000**

This proposed project would provide a combination Classes II and III bikeway link between Centre City and the Hillcrest area of San Diego. 4th and 5th Avenues are a one-way couplet, with 5th Avenue serving northbound traffic and 4th Avenue serving southbound traffic. These two streets pass adjacent to Balboa Park to the east. 3rd Avenue serves as a one-way northbound street north of the I-5 Freeway to Fir Street. North of Fir, 3rd Avenue is a low volume two-way street, which can be easily striped for a northbound Class II bike lane. 3rd Avenue is a better northbound alternative than 5th Avenue between the I-5 Freeway and Laurel Streets because it does not encounter freeway ramps at the I-5 overcrossing. At Laurel Street, the northbound bikeway would jog from 3rd to 5th Avenue. Signals currently exist where Laurel intersects 4th and 5th Avenues to assist bicyclists' transition to 5th Avenue to continue north on the bikeway. The 3rd-4th-5th Avenues corridor is a major route to access Centre City from the north and also serves the heart of the Hillcrest retail district.

There are sections of streets in this project that are proposed to include a dedicated transit bus-only lane as stated in the MTDB's Transit First Plan. These sections include the following:

- 4th Avenue from Washington Street to Grape Street
- 5th Avenue from Washington Street to Laurel Street

Along these portion of these streets, it is proposed that the following options be considered:

- Provide a shared bus-bike lane of width 14 feet where the transit-only lane is the right lane of the street as a Class III bike route facility
- Where the transit-only lane is the left lane of the street, provide a wide right travel lane for a Class III bike route facility

Toward the north of Balboa Park, this Class II bikeway project would connect with the Upas Street Class I SR-163 freeway crossing, which connects with the top priority Upas Street project to the east in North Park. To the north, this bikeway would connect with the proposed second priority projects of Robinson Avenue and Washington Street.

- Restripe to include Class II bike lanes along the following segments:
  - 3rd Avenue between Laurel Street to the I-5 Freeway
  - 4th Avenue between Grape Street and the I-5 Freeway
- Provide Class III signage and pavement markings along the following segments:
  - 4th Avenue between Washington Street and Grape Street
  - 5th Avenue between Washington Street and the I-5 Freeway
- Add bikeway and destination signage

The Implementation of Proposed Action

Every proposed action in this plan will be considered separately upon receiving funding and prior to implementation. Each project will have to comply with all applicable federal, state, and local environmental regulations and will be reviewed by the applicable community planning group.

Funding

Previous Expenditures for Bikeways

The City of San Diego has had several projects funded over the past four years. The following table identifies specific projects funded since the year 1997, the communities in which they are located, and the amounts of the expenditures.

Table 7.1
City of San Diego Expenditures for Bikeways, 1997-2000

Project	Communities	Amount
Rose Creek Bike Path	Mission Bay Park, Pacific Beach	$1,000,000
Friars Road at Pacific Highway connector	Linda Vista	$198,000
Qualcomm Stadium/Zion Avenue Bikeway Study	Mission Valley, Navajo	$50,000
SR-56 Path	Rancho Penasquitos	$1,200,000
City of San Diego Bicycle Master Plan	Citywide	$100,000
Sorrento Valley Road at Sorrento Valley Boulevard Coastal Rail Crossing Feasibility Study	Torrey Pines, University	$40,000
Ocean Beach-Mission Valley Path (Pacific Highway to Hotel Circle Place) Feasibility Study	Mission Valley	$35,000
Camino de La Reina (Avenida del Rio to Camino de La Siesta) Class II Lanes	Mission Valley	$37,000
Camino Santa Fe (Calle Cristobal to Lopez Canyon) Class II Lanes	Mira Mesa	$177,000
SR-15 (Camino del Rio South to Landis Street) Path	Mid-City	$2,500,000
San Diego River Path III (Qualcomm Way to Qualcomm Stadium) Feasibility Study	Mission Valley	$50,000
Via de La Valle (San Andreas Way to El Camino Real) Class II Lanes	Via de La Valle	$305,000
Bayshore Bikeway	Otay Mesa-Nestor	$1,500,000
Coastal Rail Trail Design	Several Communities	$712,000

Funding Sources

There are a variety of potential funding sources including local, state, regional, and federal funding programs that can be used to construct the proposed bicycle improvements. Most of the Federal, state, and regional programs are competitive, and involve the completion of extensive applications with clear documentation of the project need, costs, and benefits. Local funding for projects can come from sources within jurisdictions that compete only with other projects in each jurisdiction's budget. A detailed program-by-program of available funding programs along with the latest relevant information is provided on the following pages. The funding sources are shown in the matrix that begins on page 149.

TEA-21

Federal funding through the TEA-21 (Transportation Equity Act) program will provide the some of the funding. TEA-21 currently contains three major programs, STP (Surface Transportation Program), TEA (Transportation Enhancement Activities), and CMAQ (Congestion Mitigation and Air Quality Improvement) along with other programs such as the National Recreational Trails Fund, Section 402(Safety) funds, Scenic Byways funds, and Federal Lands Highway funds.

TEA-21 funding is administered through the state (Caltrans or Resources Agency) and regional governments {San Diego Association of Governments (SANDAG)}. Most, but not all, of the funding programs are transportation versus recreational oriented, with an emphasis on (a) reducing auto trips and (b) providing an inter-modal connection. Funding criteria often includes completion and adoption of a bicycle master plan, quantification of the costs and benefits of the system (such as saved vehicle trips and reduced air pollution) proof of public involvement and support, CEQA compliance, and commitment of some local resources. In most cases, TEA-21 provides matching grants of 80 to 90 percent, but prefers to leverage other moneys at a lower rate.

With an active and effective regional agency such as the SANDAG, the City of San Diego should be in a good position to secure more than its fair share of TEA-21 funding. It will be critical to get the local State assemblymember and senator briefed on these projects and lobbying Caltrans and the California Transportation Commission for these projects.

All TEA-21 funds have been programmed. The successor legislation, presently called TEA-3, will be a future source of funds. This new legislation may come with additional categories of funding and guidelines.

State Funding Programs

TDA Article III (SB 821)

Transportation Development Act (TDA) Article III funds are awarded annually to local jurisdictions for bicycle and pedestrian projects in California. These funds originate from sales taxes and are distributed through a competitive Call For Projects administered by SANDAG on a yearly basis to local jurisdictions.

AB 434

AB 434 funds are available for clean air transportation projects, including bicycle projects, in California.

AB 2766

Clean air funds are generated by a surcharge on automobile registration. The San Diego County Air Pollution District allocates some of these funds for external bicycle projects.

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. Funding that is available on a statewide basis amounts to 7.2 million dollars annually beginning this fiscal year 2001. The City of San Diego may apply for these funds through the Caltrans Office of Bicycle Facilities.

Safe Routes to School (AB1475)

The Safe Routes to School program is a newly created State program using funds from the Hazard Elimination Safety program from TEA-21. For the year 2001, this program is meant to improve school commute routes by eliminating barriers to bicycle and pedestrian travel through rehabilitation, new projects and traffic calming. A local match of 11.5% is required for this competitive program, which will allocate 18 million dollars annually. Planning grants are not available through this program. This fund expires this year, but legislation is pending to extend it.

Local Funding

New Construction

Future road widening and construction projects are one means of providing bike lanes and sidewalks. To ensure that roadway construction projects provide these facilities where needed, appropriate and feasible, it is important that an effective review process is in place so that new roads meet the standards and guidelines presented in this Bicycle Plan.

Impact Fees

Another potential local source of funding is developer impact fees, typically tied to trip generation rates and traffic impacts produced by a proposed project. A developer may reduce the number of trips (and hence impacts and cost) by paying for on- and off-site bikeway improvements, which will encourage residents to bicycle rather than drive. In-lieu parking fees may be used to help construct new or improved bicycle parking. Establishing a clear nexus or connection between the impact fee and the project's impacts is critical in avoiding a potential lawsuit.

Mello Roos

Bike paths, lanes, and pedestrian facilities can be funded as part of a local assessment or benefit district. Defining the boundaries of the benefit district may be difficult unless the facility is part of a larger parks and recreation or public infrastructure program with broad community benefits and support.

Transnet

San Diego County has implemented a ½-cent sales tax that is allocated on a competitive basis to various transportation-related projects throughout the County. Bicycle projects are eligible to receive these funds, of which approximately $1-million is allocated annually to bicycle projects throughout the County of San Diego. These funds are allocated by the San Diego

Association of Governments (SANDAG) and are lumped together with Transportation Development Act (TDA) fund allocations.

Other

Local sales taxes, fees, and permits may be implemented, requiring a local election. Parking meter revenues may be used according to local ordinance. Volunteer programs may substantially reduce the cost of implementing some of the proposed pathways. Use of groups such as the California Conservation Corp (who offer low cost assistance) will be effective at reducing project costs. Local schools or community groups may use the bikeway or pedestrian project as a project for the year, possibly working with a local designer or engineer. Work parties may be formed to help clear the right of way where needed. A local construction company may donate or discount services. A challenge grant program with local businesses may be a good source of local funding, where corporations 'adopt' a bikeway and help construct and maintain the facility.

Other opportunities for implementation will appear over time, which may be used to implement the system.

The total estimated cost of all top priority projects is $21,732,500 to $21,965,500.

The following table provides an overview of bicycle facilities funding sources.

Table 7.2
City of San Diego Bikeway Facilities Funding Sources

Grant Source	Due Date	Agency	Annual Total	Matching Requirement	Eligible Applicants	Eligible Bikeway Projects			Comments
						Commute	Recreation	Safety/ Education	
Federal Funding									
F1. TEA-21 Surface Transportation Program (STP)	Already Programmed	San Diego Association of Governments (SANDAG), Caltrans, FHWA		11.47% non-federal match	federally certified jurisdictions	X	X		STP funds may be exchanged for local funds for non-federally certified local agencies; no match required if project improves safety
F2. TEA-21 Congestion Mitigation and Air Quality Program	Already Programmed	SANDAG, CTC		11.47% non-federal match	federally certified jurisdictions	X			Counties re-designated to attainment status for ozone may lose this source
F3. TEA-21 Transportation Enhancement Activities (TEA)	Already Programmed	FHWA, SANDAG		11.47% non-federal match	federally certified jurisdictions	X	X		Contact SANDAG
F4. TEA-21 National Recreational Trails	Already Programmed	State Dept. of Parks & Recreation		no match required	jurisdictions, special districts, non profits with management responsibilities over the land		X		For recreational trails to benefit bicyclists, pedestrians, and other users; contact State Dept. of Parks & Rec. , Statewide Trails Coordinator, (916) 653-8803
						Commute	Recreation	Safety/ Education	
State Funding									
S1. Environmental Enhancement and Mitigation (EEM) Program	Nov.	State Resources Agency		not required but favored	Local, state and federal government non-profit agencies	X	X	X	Projects that enhance or mitigate future transportation projects; contact EEM Project Manager (916) 653-5800

City of San Diego Bikeway Facilities Funding Sources (continued)									
Grant Source	Due Date	Agency	Annual Total	Matching Requirement	Eligible Applicants	Eligible Bikeway Projects			Comments
S2. Bicycle Transportation Account (BTA)	Spring 2001	Caltrans	$7.2 m annually	10%	Cities and counties	X			Contact local Caltrans district office for details
S3. Safe Routes to School (AB1475)	Varies	Caltrans	$18 m	11.5%	Government agencies, non-profit groups, schools, community groups	X	X	X	Only two years of funding currently authorized as of 2000; legislation pending to extend
						Commute	Recreation	Safety/ Education	
Local Funding									
L1. Transportation Development Act (TDA) Section 99234 (2% of total TDA)	March	SANDAG		no match required	Cities, counties; currently allocated by population	X	X	X	Contact SANDAG
L2. Transnet (1/2-cent Countywide sales tax)	March	SANDAG	Approx. $1-million for bike projects	no match required	Local agencies within San Diego County	X	X	X	
L3. State Gas Tax (local and regional share)		Allocated by State Auditor Controller		no match required	local jurisdictions	X		X	
L4. Developer Fees / Exactions (developer fee for street improvements - DFSI)		Cities, or County		no match required		X	X	X	Mitigation required during land use approval process
L5. Vehicle Registration Surcharge Fee (AB 434)		Air Quality Control District		no match required	local agencies, transit operators, others	X	X	X	Competitive program for projects that benefit air quality

City of San Diego Bikeway Facilities Funding Sources (continued)									
Grant Source	Due Date	Agency	Annual Total	Matching Requirement	Eligible Applicants	Eligible Bikeway Projects			Comments
L6. Vehicle Registration Surcharge Fee (AB 434)		Air Quality Control Dist. or Congestion Management Agency		no match required	local jurisdictions	X	X	X	Funds are distributed to communities based on population
L7. Clean Air Fund (AB 2766)	Varies by region	Air Quality Control District	$50,000-$200,000	10-15%	local jurisdictions, transit agencies	X	X	X	Consult local air quality control district for program details

DESIGN AND MAINTENANCE

This chapter provides details on the recommended design and operating standards for the City of San Diego Bikeway System.

National design standards for bikeways have been developed by the American Association of Highway and Transportation Officials (AASHTO) and the California Department of Transportation (Caltrans). **The Caltrans Highway Design Manual, Chapter 1000: Bikeway Planning and Design, serves as the official design standard for all bicycle facilities in California.** Design standards in Chapter 1000 fall into two categories, mandatory and advisory. Caltrans advises that all standards in Chapter 1000 be followed, which also provides a measure of design immunity to the cities. Not all possible design options are shown in Chapter 1000. For example, intersections, ramp entrances, rural roads, and a variety of pathway locations are not specified in the Caltrans Highway Design Manual.

The following section summarizes key operating and design definitions:

- Bicycle: A device upon which any person may ride, propelled exclusively by human power through a belt, chain, or gears, and having either two or three wheels in tandem or tricycle arrangement.
- Class I Bike Path: Provides for bicycle travel on a paved right-of-way completely separated from any street or highway. Other users may also be found on this type of facility, including pedestrians and in-line skaters.
- Class II Bike Lane: Referred to as a bike lane. Provides a striped lane for one-way travel on a street or highway.
- Class III Bike Route: Referred to as a bike route. Provides for shared use with pedestrian or motor vehicle traffic.

The following guidelines present the recommended minimum design standards and other recommended ancillary support items for Class I bike paths, Class II bike lanes, and Class III bike routes. All bikeways should meet minimum Caltrans standards as spelled out in the California Highway Design Manual, Chapter 1000. Where possible, it may be desirable to exceed the minimum standards for bike paths or bike lane widths, signage, lighting and traffic signal detectors.

Class I Bike Path Facilities Design Recommendations

1. All Class I bike paths should generally conform to the design recommendation by Caltrans.

2. Multi-purpose trails and unpaved facilities that serve primarily a recreation rather than a transportation function may not need to be designed to Caltrans standards.

3. Class I bike path crossings of roadways require preliminary design review. Generally speaking, bike paths that cross roadways with Average Daily Trips (ADTs) over 20,000 vehicles will require signalization or grade separation.

4. Landscaping should generally be low water consuming native vegetation and should have the least amount of debris.

5. Lighting should be provided where the bike path will likely be used by commuters in the evenings.

6. Barriers at bike path entrances should be clearly marked with reflectors and ADA accessible (minimum five feet clearance). See Figure 8.1 for the design of a bollard entrance treatment.

7. Bike path construction should take into consideration maintenance and emergency vehicles but minimize their impacts on bike path width, shoulders, and vertical clearance requirements.

8. Provide two feet wide unpaved shoulders for pedestrians/runners, or a separate tread way where feasible. Direct pedestrians to right side of pathway with signing and/or stenciling.

9. Where paths are heavily used, consideration should be made to install emergency phone service.

10. In the design of bike paths, attention should be paid to preventing illegal use of the bike path by motor vehicles.

11. Where bike path design occurs in environmentally sensitive areas, design exceptions should be pursued to minimize environmental impacts.

Caltrans Highway Design Manual Section 1003.1 provides more detailed standards for the design of Class I bike paths.

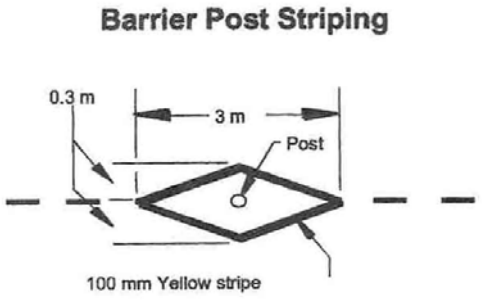


Figure 8.1 Class I Bike Path Entrance Treatment (from the Caltrans Highway Design Manual, Chapter 1000)

Class II Bike Lane Facilities Design Recommendations

1. All Class II bike lanes should generally conform to the minimum design recommendations stated in Chapter 1000 of the Caltrans Highway Design Manual. These call for minimum bike lane width of 5 feet in most cases. Please see Figure 1003.2A of the Caltrans Highway Design Manual. Striping of Class II facilities is found in Figure 8.2 on page 157 taken from the Caltrans Highway Design Manual Chapter 1000.

2. Intersection and interchange treatment. Caltrans provides recommended intersection treatments in Chapter 1000 including bike lane 'pockets' and signal loop detectors. Please see Figure 8.3 taken from Chapter 1000 of the Caltrans Highway Design Manual and Figure 1003.2E of the HDM.

3. Signal loop detectors that sense bicycles should be considered for all arterial/arterial, arterial/collector, and collector/collector intersections. The location of the detectors

should be identified by a stencil of a bicycle in accordance with Figure 1003.2D of the HDM.

4. When loop detectors are installed, traffic signalization should be set to accommodate bicycle speeds.

5. Bicycle-sensitive loop detectors are preferred over a signalized button specifically designed for bicyclists.

6. Bike lane pockets in Figure 8.3 (minimum 4 feet wide) between right turn lanes and through lanes should be provided wherever available width allows, and right turn volumes exceed 150 motor vehicles/hour.

7. Where bottlenecks preclude continuous bike lanes, they should be linked with Class III route treatments.

Caltrans Highway Design Manual Section 1003.2 provides more detailed standards for the design of Class II bike lane facilities.

Class III Bike Route Facilities Design Recommendations

Class III bike routes have been typically designated as simply signed routes as indicated in Section 1003.3 of the Highway Design Manual. With proper route signage, design, and maintenance, Class III bike routes can be effective in guiding bicyclists along a route that is more suited for bicycle riding without having enough roadway space to provide a Class II bike lane. Class III routes can become more useful when coupled with such techniques as:

- route, directional, and distance signage
- wide curb lanes
- accelerated pavement maintenance schedules
- traffic signals timed for cyclists
- traffic calming

In addition to those identified by Caltrans, there are a variety of improvements that will enhance the safety and attraction of streets for bicyclists. Figures 8.4 and 8.5 show signage and stencils used on Class III Bike Routes.

Riding on Sidewalks

The use of sidewalks as bicycle facilities is not encouraged by Caltrans, even as a Class III bike route. There are exceptions to this rule. The California Vehicle Code states: 'Local authorities may adopt rules and regulations by ordinance or resolution regarding the...operation of bicycles...on the public sidewalks.' (CA VC 21100, Subdiv. H). Caltrans adds in Chapter 1000: 'In residential areas, sidewalk riding by young children too inexperienced to ride in the street is common. With lower bicycle speeds and lower auto speeds, potential conflicts are somewhat lessened, but still exist. But it is inappropriate to sign these facilities as bikeways. Bicyclists should not be encouraged (through signing) to ride facilities that are not designed to accommodate bicycle travel.

Signage

All bikeway signing in San Diego should conform to the signing identified in the Caltrans Traffic Manual and/or the Manual on Uniform Traffic Control Devices (MUTCD). These documents give specific information on the type and location of signing for the primary bike system. A list of bikeway signs from Caltrans and the MUTCD are shown in Table 8.1 (Bikeway Signing and Marking Standards).

Stencils can also be included on Class III bicycle facilities, to help cyclists and motorists more easily identify the bike route. Stencils currently under examination for approval should be used (see Figure 8.5).

Bicycle Parking

Bicycle Parking is not standardized by any codes. However, there are preferable types of secure bicycle furnishing available on the market. When bicycle parking is being considered the types of bicycle lockers and racks in Figures 8.6 through 8.14 are recommended. More specific guidelines to determine bicycle parking capacity and location can be found in San Diego Municipal Code Sections 142.0525, 142.0530, and 142.0560.

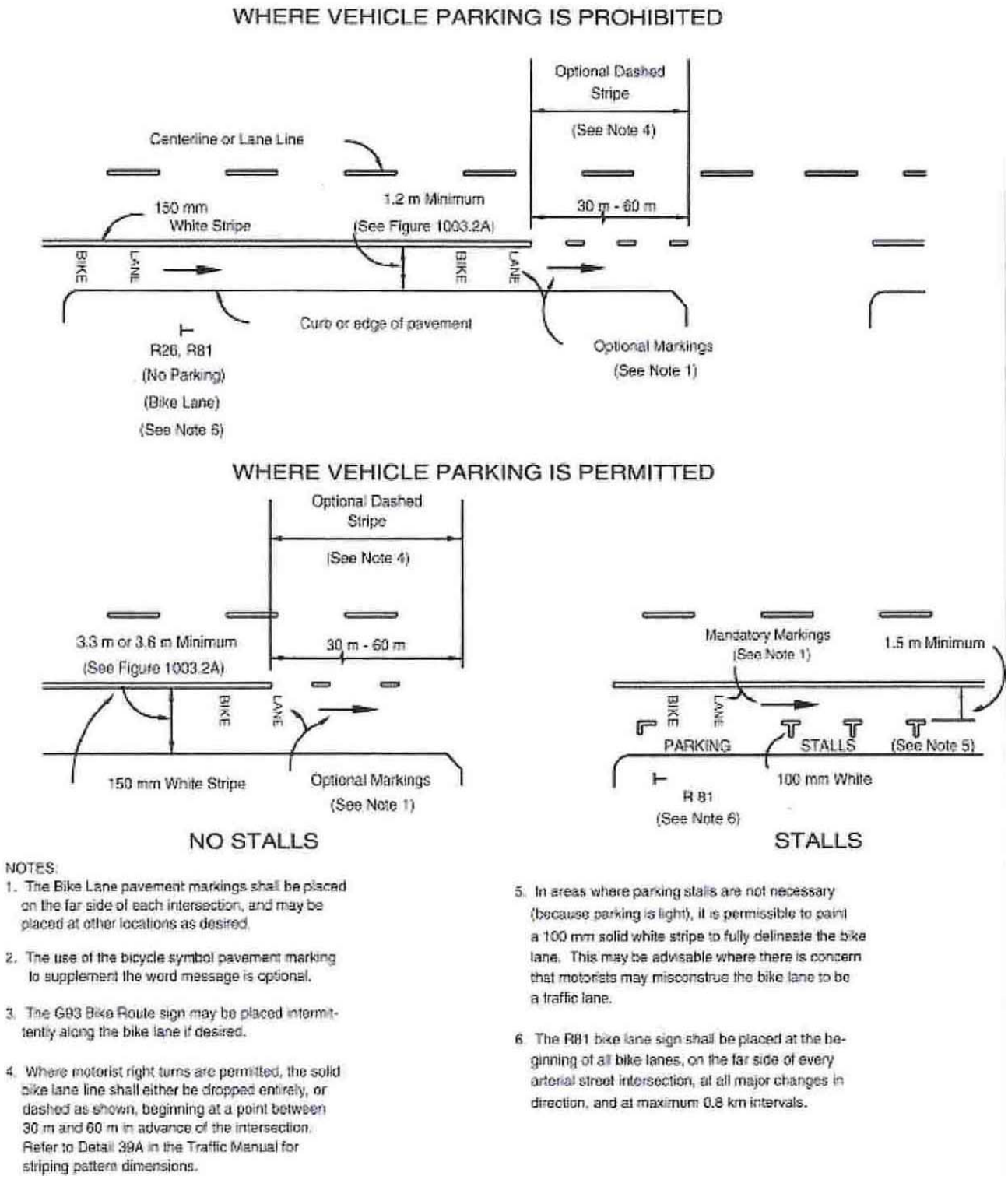
A bicycle-parking program is recommended as a high priority project for San Diego. Specific bicycle parking guidelines should be developed to help city staff, developers and commercial districts determine the types of furnishings and location of bicycle parking.

Traffic Calming

Traffic calming includes any effort to moderate or reduce vehicle speeds and/or volumes on streets where that traffic has a negative impact on bicycle or pedestrian movement. Because these efforts may impact traffic outside the immediate corridor, study of traffic impacts is typically required. For example, the City of Berkeley instituted traffic calming techniques by blocking access into residential streets. The impact was less traffic on local streets, and more traffic on arterials and collectors. Other techniques include installing traffic circles, intersection islands, partial street closings, 'bulb-out' curbs, pavement treatments, lower speed, signal timing, and narrowing travel lanes.

The City of San Diego already has a relatively continuous street system with some filtering of through traffic into residential neighborhoods. Traffic circles, roundabouts, and other measures may be considered for residential collector streets where there is a desire to control travel speeds and traffic volumes but not to install numerous stop signs or traffic signals.

Traffic calming alternatives should be considered where traffic speeds are exceedingly high, and when safety is an issue.



NOTES:

1. The Bike Lane pavement markings shall be placed on the far side of each intersection, and may be placed at other locations as desired.
2. The use of the bicycle symbol pavement marking to supplement the word message is optional.
3. The G93 Bike Route sign may be placed intermittently along the bike lane if desired.
4. Where motorist right turns are permitted, the solid bike lane line shall either be dropped entirely, or dashed as shown, beginning at a point between 30 m and 60 m in advance of the intersection. Refer to Detail 39A in the Traffic Manual for striping pattern dimensions.
5. In areas where parking stalls are not necessary (because parking is light), it is permissible to paint a 100 mm solid white stripe to fully delineate the bike lane. This may be advisable where there is concern that motorists may misconstrue the bike lane to be a traffic lane.
6. The R81 bike lane sign shall be placed at the beginning of all bike lanes, on the far side of every arterial street intersection, at all major changes in direction, and at maximum 0.8 km intervals.

Figure 8.2
Class II Bike Lane Striping
(from the Caltrans Highway Design Manual Chapter 1000)

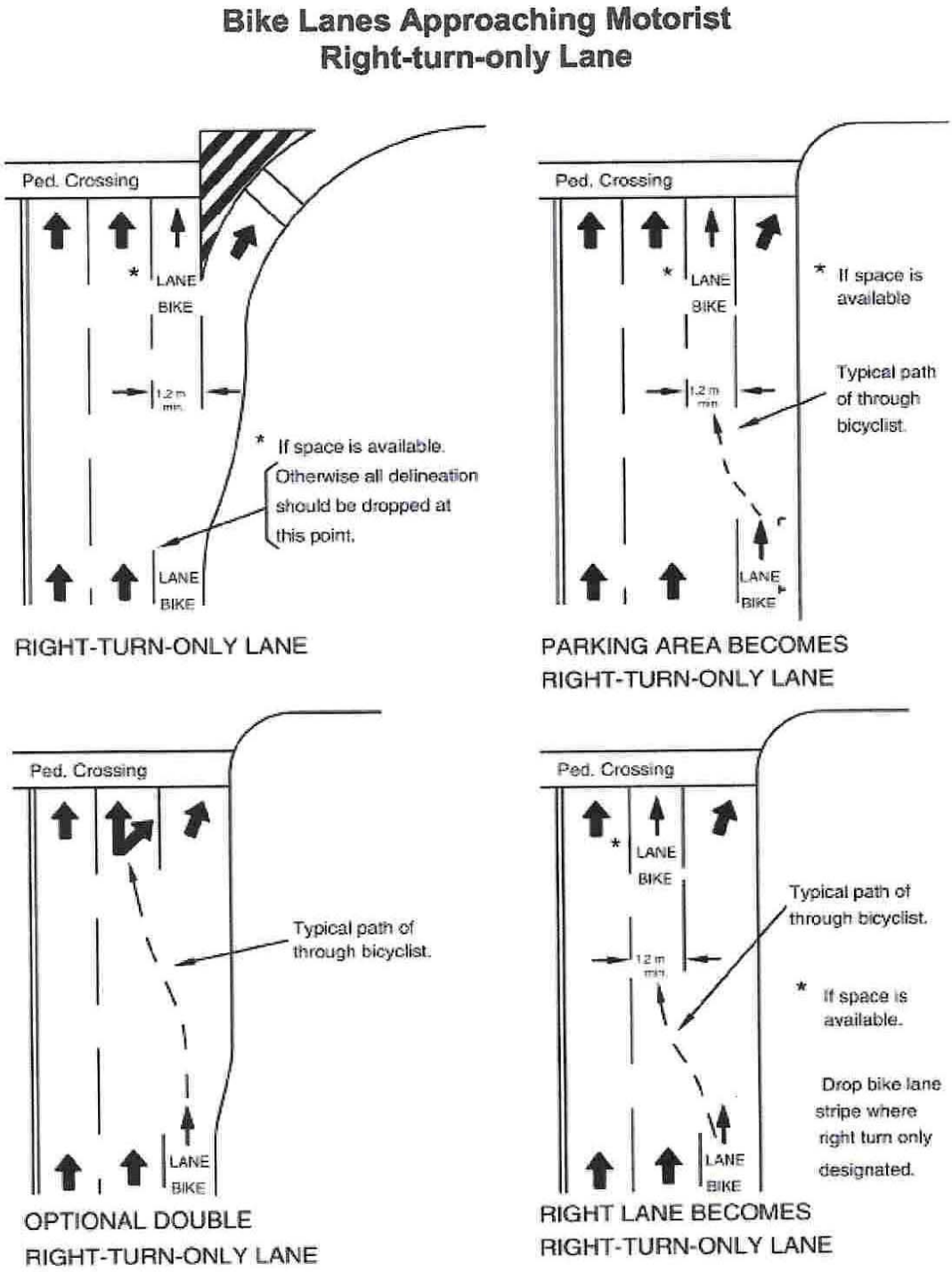


Figure 8.3
Bike Lanes Approaching Right Turn Lane(s)
(from the Caltrans Highway Design Manual Chapter 1000)

Table 8.1
Recommended Signing and Marking

Item	Location	Color	Caltrans Designation	MUTCD Designation
No Motor Vehicles	Entrances to trail	B on W	R44A	R5-3
Use Ped Signal/Yield to Peds	At crosswalks; where sidewalks are being used	B on W	N/A	R9-5 R9-6
Bike Lane Ahead: Right Lane Bikes Only	At beginning of bike lanes	B on W	N/A	R3-16 R3-17
STOP, YIELD	At trail intersections with roads and Coastal Bikeways	W on R	R1-2	R1-1 R1-2
Bicycle Crossing	For motorists at trail crossings	B on Y	W79	W11-1
Bike Lane	At the far side of all arterial intersections	B on W	R81	D11-1
Hazardous Condition	Slippery or rough pavement	B on Y	W42	W8-10
Turns and Curves	At turns and curves which exceed 20 mph design specifications	B on Y	W1,2,3 W4,5,6,14 W56,57	W1-1,2 W1-4,5 W1-6
Trail Intersections	At trail intersections where no STOP or YIELD required, or sight lines limited	B on Y	W7,8,9	W2-1, W2-2 W2-3, W2-3 W2-4, W2-5
STOP Ahead	Where STOP sign is obscured	B,R on Y	W17	W3-1
Signal Ahead	Where signal is obscured	B,R,G	YW41	W3-3
Bikeway Narrows	Where bikeway width narrows or is below 8'	B on Y	W15	W5-4
Downgrade	Where sustained bikeway gradient is above 5%	B on Y	W29	W7-5
Pedestrian Crossing	Where pedestrian walkway crosses trail	B on Y	W54	W11A-2
Restricted Vertical Clearance	Where vertical clearance is less than 8'6"	B on Y	W47	W11A-2
Railroad Crossing	Where trail crosses railway tracks at grade	B on Y	W47	W10-1
Directional Signs (i.e. Cal State LB, Downtown, Train Station, etc.	At intersections where access to major destinations is available	W on G	G7 G8	D1-1b(r/l) D1-1c
Right Lane Must Turn Right; Begin Right Turn Here, Yield to Bikes	Where bike lanes end before intersection	B on W	R18	R3-7 R4-4
Trail Regulations	All trail entrances	B on W	n/a	n/a
Multi-purpose Trail: Bikes Yield to Pedestrians	All trail entrances	n/a	n/a	n/a
Bikes Reduce Speed & Call Out Before Passing	Every 2,000 feet	B on W	n/a	n/a
Please Stay On Trail	In environmentally-sensitive areas	n/a	n/a	n/a
Caution: Storm Damaged Trail	Storm damaged locations	B on Y	n/a	n/a
Trail Closed: No Entry Until Made Accessible & Safe for Public Use	Where trail or access points closed due to hazardous conditions	n/a	n/a	n/a
Speed Limit Signs	Near trail entrances: where speed limits should be reduced from 20 mph	B on W	n/a	n/a
Trail Curfew 10PM - 5AM	Based on local ordinance	R on W	n/a	n/a

Figure 8.4
Bike Route Sign
(from the Caltrans Highway Design Manual Chapter 1000)

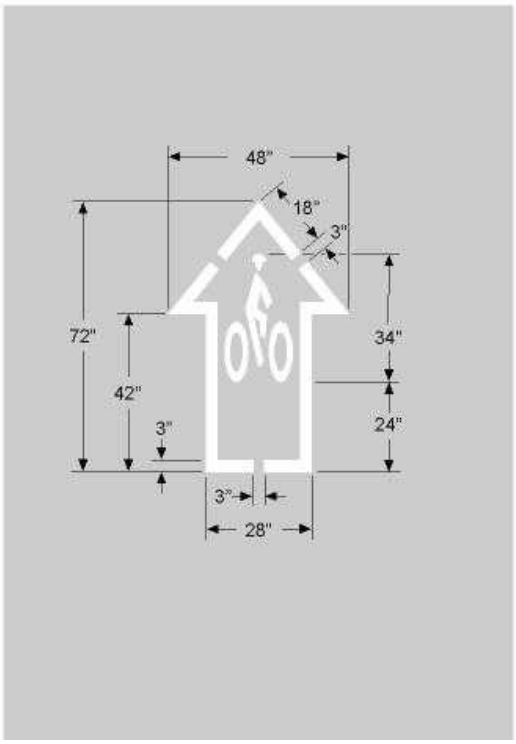


Figure 8.5
Schematic of Class III Bike Route Pavement Stencil in use in San Francisco and Denver

Bike Hitch Racks

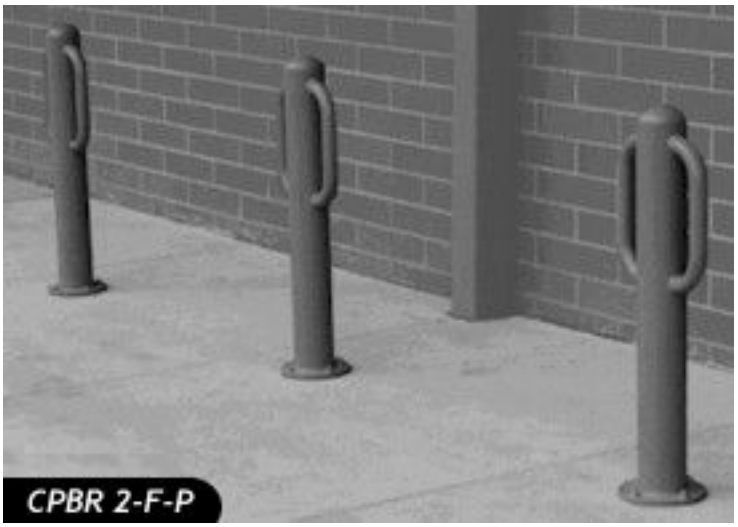
The Bike Hitch is an attractive and space efficient bike rack. The Bike Hitch was specifically designed for sidewalks and other narrow space applications. It is also an ideal rack to coordinate with parking meters. A 7-foot sidewalk width is the minimum requirement per ADA standards if bicycles are parked parallel to the curb. The Bike Hitch uses thick tube construction and the full radius bend of the ring makes it almost impossible to cut with a pipe cutter. It allows for the wheels and the frame to be secured using a u-style bike lock.

Inverted U Racks

The U Bike Racks are some of the most often used for their simple design and effective use of space. The U Rack can be typically used as part of sidewalk parking programs where bicycle parking for small businesses is accommodated. The bicycle makes contact with the rack in two places for additional stability and security. Simple, attractive, economical, and space-saving design is ideal for city sidewalks. Optional center crossbars are available to make the racks more ADA-friendly and to provide greater stability. The minimum sidewalk width per ADA requirements is 7 feet.

Figures 8.6, 8.7, 8.8, and 8.9
Recommended Bicycle Racks

Bollard Rack



The Bollard Bike Rack provides an attractive parking device for sidewalk areas or plazas. They could be used in coordination with sidewalk or street bollards. These racks can be placed so that bicycles are parked parallel to the curb on sidewalks in order to minimize sidewalk obstruction and adhere to ADA standards for sidewalk access.

Alley Rack/Hoop Rack

These racks are intended for use in high-density locations where space is limited. Such locations as Centre City or the beach areas are suitable for these types of parking devices. The Alley Racks allow bikes to be parked at an angle of 45 to 90 degrees against a wall. Required width for an alley with these racks in use is 15 feet to allow for alley traffic. When not in use, these racks can be folded against the wall to eliminate conflicts and storage problems.

Figures 8.10 and 8.11
Recommended Bicycle Racks

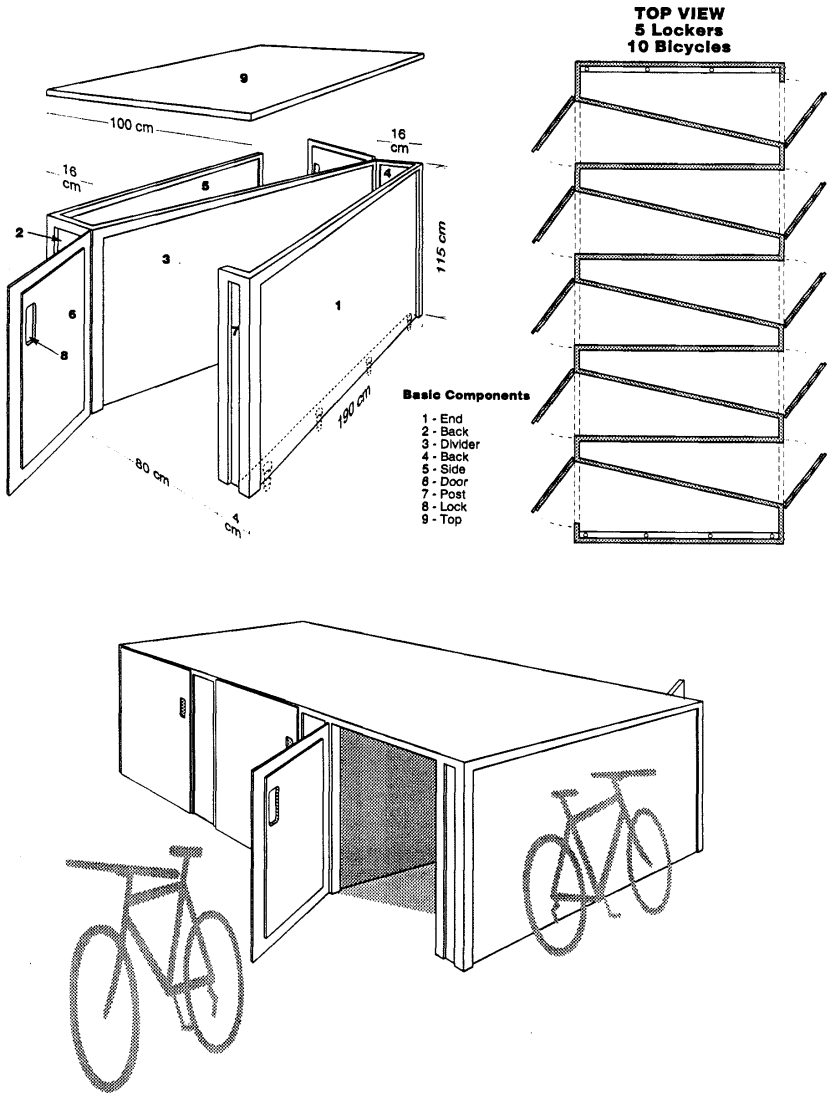


Figure 8.12
Bicycle Lockers

Figures 8.13 and 8.14
Bicycle "eLockers"

The eLocker bicycle locker is a new innovative parking and storage device that can be used without an often-burdensome key administration program. Functional characteristics long desired by both cyclists and facilities managers such as keyless on-demand parking, pay-parking, usage monitoring, unattended bicycle rental, and a wide range of other options can now be provided at a reasonable cost by the multi-faceted eLocker. The eLocker bicycle locker can also offer traditional assigned-key parking that can be easily upgraded to on-demand, or other modes.

Maintenance

The City should establish street maintenance schedules for the regular sweeping of streets, including bike lanes and Class I bike paths. Resurfacing specifications should be maintained as the City performs street improvements or when companies require the trenching of certain streets for a period of time. Compaction standards should also be adhered to in order to ensure that the settlement of pavement does not occur, especially within zones that have been trenched for some purpose. The inspection of roadways after construction activities have been completed should also be a required component of roadway work.

Maintenance requirements for all roadways in the City are outlined in the City of San Diego's Standard Drawings. Maintenance access on Class I bike paths should be achieved using standard City pick-up trucks on the pathway itself. Sections with narrow widths or other clearance restrictions should be clearly marked. Class I bike path maintenance includes cleaning, resurfacing and restriping the asphalt path, repairs to crossings, cleaning drainage systems, trash removal, and landscaping. Underbrush and weed abatement should be performed once in the late spring and again in mid-summer. In addition, these same maintenance treatments should be performed on Class II and Class III facilities. These facilities should be prioritized to include an accelerated maintenance plan that is already a part of the City's ongoing street maintenance. A maintenance schedule and checklist is provided in Table 8.2.

Trenching has become a major issue regarding roadway and bikeway maintenance in the City of San Diego. Trenching most often occurs in the bicyclists' path of a street and/or in the bike lane on those streets that have these facilities. The typical construction location in the roadway makes trenching a major maintenance issue for bicyclists. Field inspection should be increased to ensure that the condition of post-construction roadway surfaces is the same or better than the surface condition before construction commenced.

Utility and fiber-optic company trenching should be coordinated so that the number of trenching activities is minimized. Construction treatments for bicyclists are discussed in the Appendix.

When streets are resurfaced, the City's Street Division should coordinate with the Traffic Engineering Division to determine the best striping plan for streets when they are restriped after resurfacing projects. If a segment of roadway slated to be resurfaced is identified as a proposed bikeway in the Bicycle Plan, efforts should be made to provide space for bicycle travel either as a Class II bike lane or a Class III bike route with a widened curb lane.

An effort should be made to improve the maintenance of existing roadways that are regularly traveled by bicyclists regardless of whether a specific bikeway designation exists on those roadways.

Table 8.2
Bikeway Maintenance Check List and Schedule

Item	Frequency
Sign Replacement/Repair	1 - 3 years
Pavement Marking Replacement	1 - 3 years
Tree, Shrub & grass trimming/fert.	5 months - 1 year
Pavement sealing/potholes	5 - 15 years[1]
Clean drainage system	1 year
Pavement sweeping	Weekly-Monthly/As needed
Shoulder and grass mowing	Weekly/As needed
Trash disposal	Weekly/As needed
Lighting Replacement/Repair	1 year
Graffiti removal	Weekly-Monthly/As needed
Maintain Furniture	1 year
Fountain/restroom cleaning/repair	Weekly-Monthly/As needed
Pruning	1 - 4 years
Bridge/Tunnel Inspection	1 year
Remove fallen trees	As needed
Weed control	Monthly/As needed
Remove snow and ice	Weekly/As needed
Maintain emergency telephones, CCTV	1 year
Maintain irrigation lines	1 year
Irrigate/water plants	Weekly-Monthly/As needed

Security

Security may be an issue along portions of the Class I bike paths. The following actions are recommended to address these concerns.

Enforcement of applicable laws on the bike path should be performed by the San Diego Police Department, using both bicycles and vehicles. Enforcement of vehicle statutes relating to bicycle operation should be enforced on Class II and Class III bikeways as part of the Department's normal operations. No additional manpower or equipment is anticipated for Class II or III segments.