



City of San Rafael

# Bicycle/Pedestrian Plan

## Final Report

August 2001





# City of San Rafael

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# Table of Contents

Chapter 1 Introduction and Summary .....	1-1
Chapter 2 Goals, Objectives and Policy Actions .....	2-1
Chapter 3 Existing Conditions .....	3-1
Chapter 4 Needs Analysis .....	4-1
Chapter 5 Proposed System and Improvements .....	5-1
Chapter 6 Implementation Cost Estimates.....	6-1
Appendix A Detailed Trail Descriptions	
Appendix B Bicycle Parking & Restroom Facilities	
Appendix C Educational Programs	
Appendix D Bicycle Advocacy Groups	

# Table of Figures

Figure 1-1 Map of Existing and Proposed Bikeways .....	1-10
Figure 4-1 San Rafael Estimate of User Increases and Vehicle Trips and Miles Saved .....	4-3
Figure 4-2 Comparison of Mode Share .....	4-4
Figure 4-3 Reduced Daily Vehicle Trips/Miles .....	4-4
Figure 5-1 Short Term Bicycle Improvements .....	5-4
Figure 5-2 Medium Term Bicycle Improvements .....	5-5
Figure 5-3 Long Term Bicycle Improvements .....	5-6
Figure 5-4 Existing Sections .....	5-7
Figure 5-5 Specific Pedestrian Improvements .....	5-13
Figure 5-6 Pedestrian Priorities .....	5-17
Figure 6-1 SHORT TERM Cost Estimates (YEARS 1-5) .....	6-1
Figure 6-2 MEDIUM TERM Cost Estimates (YEARS 1-10) .....	6-1
Figure 6-3 LONG TERM Cost Estimates (YEARS 1-20) .....	6-1

## PREAMBLE

The San Rafael Bicycle and Pedestrian Plan is the product of a collaborative effort of the San Rafael Bicycle and Pedestrian Advisory Committee (BPAC), Nelson Nygaard Transportation consultants, and City staff. Its purpose is to integrate proposed bicycle and pedestrian infrastructure improvements and into San Rafael's overall transportation plan. In terms of content and structure, the Plan meets the requirements set forth in the California Bicycle-Transportation Act, section 891.2 of the Streets and Highway Code.

Upon adoption of the Plan by the San Rafael City Council, each of the policies, programs, and infrastructure improvement projects described herein will be fully reviewed by City staff. The San Rafael Bicycle and Pedestrian Plan is a conceptual document in that the Council will have ultimate discretion and authority to modify, reject, or implement any of the Plan's elements.

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# Chapter 1 Introduction and Summary

## **Background**

The San Rafael Bicycle and Pedestrian Advisory Committee (BPAC) was established with the specific purpose of preparing a bicycle and pedestrian plan for the City of San Rafael.

The Plan meets the requirements of the California Bicycle-Transportation Act. Those requirements are contained in the Streets and Highway Code, Section 891.2, which state that “A city or county may prepare a bicycle transportation plan, which shall include, but not be limited to, the following elements:” The 11 elements, (a) through (k), are treated in this section of the Plan.

## **Bicycle and Pedestrian Master Plan Process**

This plan was developed with input from San Rafael neighborhood groups, BPAC members’ expertise, and work done to create the Marin County Bicycle and Pedestrian Master Plan (2000). BPAC meetings are held monthly, are open to the public, and are properly agendized and noticed in compliance with the Brown Act.

## **Previous Marin County Bicycle and Pedestrian Plans**

The following studies or planning efforts have been reviewed and consulted, studied for consistency, and where appropriate, folded into the San Rafael Plan.

### **Marin County Bicycle Plan (1974 & 2000)**

In 1975, Marin County’s Board of Supervisors adopted “A Bikeway Policy for Marin County,” which emphasized the need for safe accommodation for bicycling in all public streets and roads. However, the City of San Rafael did not adopt this plan. The policies called for the County to design new road construction and repair projects to safely accommodate bicycles, integrate bicycle planning into transportation planning and construction, provide recreational bikeways, develop uniform standards for bikeway design, and support bicycle safety education and rules.

The 1975 plan called for the delineation of over 400 miles of bike routes, the provision of bicycle parking at appropriate locations, the introduction of an educational and safety program in all elementary schools, and the introduction of a bicycle registration program to help recover stolen bicycles.

In May, 2001 the County approved the Year 2000 update to the Plan.

### Marin County North-South Bikeway Feasibility Study (1994)

The purpose of the Marin County North-South Bikeway Feasibility Study was to identify and develop safe and efficient north-south bikeways from the Golden Gate Bridge to the Sonoma County line. It generally followed the old Northwestern Pacific Railroad right-of-way, for commuters, but also recommended a short-term alignment that runs mostly along existing streets parallel to the right-of-way, with improvements in signing, striping, and pavement. The Study was never officially adopted.

### The Bay Trail Plan (1989)

The Bay Trail Plan proposes the development of a regional hiking and bicycling trail around the perimeter of San Francisco and San Pablo Bays. Important sections pass through San Rafael. This effort is supported by the Association of Bay Area Governments. Contact ABAG at [www.abag.org](http://www.abag.org)

## Summary

### Bicycle Section

#### Definitions

This plan refers to various classes of bikeways as defined by Caltrans in Chapter 1000 of the Highway Design Manual:

**Class I Bikeway:** Referred to as a bike path or multi-use path. Provides for bicycle travel on a paved right of way completely separated from any street or highway.

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

**Class III Bikeway** Referred to as a bike route. Provides for shared use with pedestrian or motor vehicle traffic and is identified only by signing and (sometimes) stenciling.

**Class III-b Bicycle Boulevard:** is similar to Class III except that it is designed to favor bicycles. Pioneered in Palo Alto, the Bicycle Boulevard is designed to promote bicycle movement and to discourage through vehicle movement, except for local stops. The effect is achieved by partial closures and lack of coordinated traffic signals.

### Overview of Proposed System Improvements

This plan proposes a continuous network of bikeways for travel within San Rafael and to surrounding communities. Routes are designated either “north-south” or “east-west.” North-south routes have odd numbers, and east-west routes have even numbers. Two of the north-south routes connect San Rafael

with other cities, as does one of the east-west routes. The other routes are primarily for travel within the City.

*Proposed New North-South Bike Routes*

BPAC identified seventeen north-south routes in San Rafael. Two connect San Rafael with cities to the north and south, and the rest provide connections within the city.

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North-south routes that **connect with Novato and Larkspur** are

**01.** From Novato to Bellam Blvd, via Las Gallinas, Northgate Dr, Los Ranchitos, Lincoln, Irwin, Woodland.

**07.** From Novato to Larkspur, via Northwestern Pacific Railway right-of-way through San Rafael.

(Sections of both of these routes are in the County-wide bicycle plan.)

Proposed new north-south routes primarily **within San Rafael**:

**03.** Los Gamos Dr from Lucas Valley Rd to Manual T Freitas Pkwy.

**05.** Redwood Hwy Frontage Rd and Civic Center Drive, from Smith Ranch Rd to North San Pedro Rd.

**09.** From North San Pedro Rd to the Richmond Bridge, via Hwy 101 shoulder, Villa Ave, Grand Ave & Francisco Blvd. East. (proposed alternative to Lincoln Ave. connection)

**11.** Recreational Shore Park Path and Bay Trail.

**13.** Baypoint Pathway from Spinnaker Point Dr to Andersen Drive

**15.** Kerner Blvd. from Bellam Blvd. to Grange Way.

**17.** Bay Trail spur from city line near Hamilton to McInnis Park.

**19.** Wolf Grade/ D Street from Fourth St to Larkspur.

**21.** Irwin and Tiburon from Woodland to Larkspur.

**23.** Nova Albion and Golden Hinde from Las Gallinas to Los Ranchitos.

**25.** Merrydale from Merrydale101 Overcrossing to Merrydale Pathway to Los Ranchitos/Lincoln Ave..

**27.** Canal Neighborhood to Montecito connector from Third St to East Francisco Blvd. To West Francisco Blvd. (and/or Andersen Dr).



**31.** C St from First St to Fifth Ave.

**33.** A St from Fifth Ave to First St.

**35.** Knight Dr and Castlewood from Point San Pedro Rd to 25 West Castlewood Drive.

*Proposed New East-West Bike Routes*

Twelve east-west routes the Committee identified in San Rafael. One connects San Rafael with San Anselmo to the west and with San Quentin and the Richmond-San Rafael Bridge to the east, and the rest are important connections within the city.

East-west routes that **connect with San Anselmo and San Quentin:**

**12.** Greenfield Ave & Fourth St from City Limit to downtown. *(see route 24 for alternative route)*

East-west routes primarily **within San Rafael** are:

**02.** Lucas Valley Road from the Lucas Valley area to Redwood Hwy Frontage Rd, and Smith Ranch to McInnis Park.

**04.** West end of Freitas Parkway from city limit to Las Gallinas Ave.

**06.** North San Pedro Rd, Point San Pedro Rd, Bay Trail Spur, Third.

**08.** Bay Trail Extension (Recreational & Park access).

**10.** West end of Fifth Ave from Mt Tamalpais Cemetery to H St.

**14.** Andersen Drive from Second St to Sir Francis Drake Blvd/Hwy 580. (Completed)

**16.** Taylor St and Woodland Ave from D Street to Irwin St.

**18.** Gallinas Creek Pathway from Redwood to Smith Ranch Rd.

**22.** Walter Place and Las Gallinas from Corillo Dr. to Merrydale

**24.** (Alt. to Route 12) Greenfield Ave, Second, and others from City Limit to Union St.

**26.** Francisco Blvd. West from Transit Center to new overcrossing near Medway and Andersen Dr.

## **Pedestrian Section**

The Pedestrian Improvements section encompasses two elements:

- Sidewalk, intersection, and crossing improvements.
- Multi-use paths (Class I bikeways).

See Chapter 5 for descriptions of proposed site-specific pedestrian improvements.

## **School Commute**

The Plan prioritizes school commute safety, with many of the short to mid-term projects providing enhanced connections to schools, plus a separate School Commute Safety program. This program encourages more walking and biking to school through in-class activities, contests and events, and organized “school pools” of parents escorting children by foot, bike or carpool. Programs of this sort are known as “Safe Routes to School” and are being implemented throughout Marin County. Funding for such programs – especially capital elements – is limited and there are generally more applicants than awards given.

## **Educational Programs**

This Plan calls for programs to educate all users of public rights of way and of each other’s respective rights and responsibilities in order to foster mutual respect and safety. More details are given in the Appendix.

## **Caltrans Requirements**

The eleven standard bike plan elements mandated by Caltrans are presented in this section, but without complete detail. Full details appear later in the document as warranted.

### **1. “(a) The estimated number of existing bicycle commuters in the plan area and the estimated increase in the number of bicycle commuters resulting from implementation of the plan.”**

The Marin County Bicycle and Pedestrian Plan estimates that there are approximately 5,700 daily bicycle and pedestrian commuters in San Rafael and that they make 11,400 trips per day. (These figures are based on 1990 Census source data and adjusted and allocated based on San Rafael’s population.)

Also according to the County plan, the potential increase in the number of bicycle and pedestrian commuters is estimated to be 5,165 for a daily total of

This Plan calls for programs to educate all users of public rights of way and of each other’s respective rights and responsibilities in order to foster mutual respect and safety.

10,904 commuters making a total of 21,808 trips. This assumes the current bicycle/pedestrian commute mode share can be increased from 3.7% to 7%.

**2. “(b) A map and description of existing and proposed land use and settlement patterns which shall include, but not be limited to, locations of residential neighborhoods, schools, shopping centers, public buildings, and major employment centers.”**

The intent of this plan is to serve the entire city. San Rafael is a city of suburban character with a well developed downtown area, some light industrial areas, and several major shopping centers. This plan is integrated with General Plan provisions which may be referenced for further information.

See Figure 1 – Existing & Proposed Bikeways Maps page 1-10.

**3. “(c) A map and description of existing and proposed bikeways.”**

- See Figure 1 – Existing & Proposed Bikeways Map. Page 1-10.
- See Chapter 5, Proposed System and Improvements.

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

- See Figure 1 – Existing & Proposed Bikeways Map, which includes parking.

The plan recognizes that bicycle-parking facilities are inadequate in some parts of San Rafael. A few locations, such as the Northgate Mall, currently have enough quality bicycle parking. Most schools, parks, and the downtown area have inadequate and/or substandard parking.

- See Bikeway Support Facilities in Chapter 3 for more about bicycle parking.

**5. “(e) A map and description of existing and proposed bicycle transport and parking facilities for connections with and use of other transportation modes. These shall include, but not be limited to, parking facilities at transit stops, rail and transit terminals, ferry docks and landings, park and ride lots, and provisions for transporting bicyclists and bicycles on transit or rail vehicles or ferry vessels.”**

Golden Gate Transit has installed bike racks at the Transportation Center and other locations, and has installed bike racks on nearly all of its buses. However, there is not enough bike parking at the Transportation Center and bike racks on buses are often filled. Two of the three park and ride lots lack

bicycle parking, and there is no “Bike Station” (secure, free parking with an attendant) in San Rafael as there is at other Bay Area locations such as Palo Alto and Berkeley. San Rafael has no active rail or ferry terminals.

- See Figure 1 –Existing & Proposed Bikeways Map page 1-10.
- See Bikeway Support Facilities in Chapter 3 for more about multi-modal connections.

**6. “(f) A map and description of existing and proposed facilities for changing and storing clothes and equipment. These shall include, but not be limited to, locker, restroom, and shower facilities near bicycle parking facilities.”**

The Committee recognizes that changing and storage areas and locker, restroom, and shower facilities in major employment sites are a very important element in a complete and effective bicycle infrastructure. This type of facility is very limited at present but is addressed in the Plan.

- See Chapter 2 Goals Objectives and Policy Actions.

**7. “(g) A description of bicycle safety and education programs conducted in the area included within the plan, efforts by the law enforcement agency having primary traffic law enforcement responsibility in the area to enforce provisions of the Vehicle Code pertaining to bicycle operation, and the resulting effect on accidents involving bicyclists.”**

No formal bicycle safety education programs are offered by the City of San Rafael. However, the Bicycle Trails Council of Marin (BTCM) and Trips for Kids offer skill and other education programs for adults and youth as well as the “Safe Routes to School” Program, currently offered by the Marin County Bicycle Coalition (MCBC) in the selected schools.

- See the Appendix.

**8. “(h) A description of the extent of citizen and community involvement in development of the plan, including, but not limited to, letters of support.”**

In developing this plan the BPAC used the input and data gathered for the recent Marin County Bicycle and Pedestrian Master Plan as a starting point. The BPAC also met with planners, bicycle advocates, neighborhood groups and interested citizens. Committee members attended workshops and participated in public hearings. In addition, members completed fieldwork surveys taking an inventory of existing conditions including safety concerns and identifying missing links to develop a coordinated citywide non-automotive

It is recognized that changing and storage areas and locker, restroom, and shower facilities in major employment sites are a very important element in a complete and effective bicycle infrastructure.

recreational/transportation system. Various neighborhood plans and documents were reviewed.

Community involvement for the Marin County plan was managed by Marin County's Congestion Management Agency (CMA) which hosted five public workshops and also met with the Bicycle and Pedestrian Advisory Committees in most of the towns. This was done as part of the effort to create the Marin County Bicycle and Pedestrian Master Plan. These workshops were attended by over 250 people and were advertised through the media, bicycle shops, schools, city halls, and other means. Copies of the surveys and all comments received are available through Marin County's CMA. (Contact Public Works at 415/ 499-6570.) Surveys were targeted at individuals as well as elementary and middle schools. Bicycle and pedestrian counts were conducted in San Rafael by the Department of Public Works.

**9. “(i) A description of how the bicycle transportation plan has been coordinated and is consistent with other local or regional transportation, air quality, or energy conservation plans, including, but not limited to, programs that provide incentives for bicycle commuting.”**

The San Rafael plan is consistent with the Marin County Bicycle and Pedestrian Master Plan (2000) prepared for the Marin County Congestion Management Agency. Specifically, it supports the goals of:

- Making the bicycle an integral part of daily life in Marin,
- Encouraging walking as a daily form of transportation,
- Making Marin a model community for alternative transportation. The San Rafael plan also supports the Bay Trail Plan (1989).

**10. “(j) A description of the projects proposed in the plan and a listing of their priorities for implementation.”**

All items are prioritized as Short Term Priority (1 to 5 years), Medium Term priority (1 to 10 years), and Long Term priority (1 to 20 years).

**11. “(k) A description of past expenditures for bicycle facilities and future financial needs for projects that improve safety and convenience for bicycle commuters in the plan area.”**

According to the BPAC's measurements, there are now 2.7 miles of Class 1 pathways, 3.9 miles of Class 2 bike lanes, and no Class 3 bike routes. In addition to these routes, which can be used by recreational and commuter bicyclists, the City of San Rafael has a number of parks and open spaces that can be reached by bicycle. Four of San Rafael's ten parks and all three recreation centers have bike racks but they are mostly sub-standard.

**Figure 1-1 Existing & Proposed Bikeway Map**

## Chapter 2 Goals, Objectives and Policy Actions

This chapter describes the Goals, Objectives and Policy guidelines that are recommended for the City of San Rafael.

### Relevant Legislation and Policies

The following legislative goals and policies are relevant to the San Rafael Bicycle and Pedestrian Plan.

- According to the California Bicycle Transportation Act (1994), all cities and counties should have an adopted bicycle master plan. The Caltrans Highway Design Manual contains specific, mandatory design requirements. The San Rafael Plan meets these requirements.
- Chapter 1000: Bikeway Planning and Design of the Highway Design Manual sets the basic design parameters for on-street and off-street bicycle facilities. As a matter of policy, the City of San Rafael follows the Caltrans Highway Design Manual in the development of its roadways, paths and sidewalks. As described in Chapter 300, Topic 308.1, of the Highway Design Manual, the city also uses the latest update of the American Association of State Highway and Transportation Officials (AASHTO) standards as described in “A Policy on Geometric Design of Highways and Streets,” as well as AASHTO’s “Guide for the Development of Bicycle Facilities,” for its local streets and roads.
- According to Liability Aspects of Bikeway Design, A Special Report (John English, Legal Consultant, Bicycle Federation of America, April, 1986.), a city can incur liability by being negligent in the designation or design of a bikeway, and by defects or hazardous conditions along the route. By conforming to the design standards listed above, the city significantly reduces exposure to liability.

### Goals, Objectives and Policy Actions

The following goals, objectives, and policy actions will guide and facilitate the City in the implementation, maintenance, and upgrade of the bicycle and pedestrian infrastructure in San Rafael:

- Goals set a long-term vision and serve as a foundation to this plan.
- Objectives identify specific areas where effort is required.
- Policy Actions guide day-to-day decision-making toward reaching the goals.

## Goals

The following Goals, Objectives and Policies are similar to those in the Marin County Pedestrian Bicycle Master Plan but are tailored for San Rafael. There are three major goals:

### Goal 1 Bicycle Transportation

Make the bicycle an integral part of daily life in San Rafael, 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 Pedestrian Transportation

Encourage walking as a daily form of transportation in San Rafael by completing a pedestrian network that accommodates short trips and transit, improves the quality of the pedestrian environment, and increases pedestrian safety and convenience.

### Goal 3 Model Community

Make San Rafael a model community for alternative transportation. Aim for a 20 percent mode share of all utilitarian trips to be made by bicycling and walking by the year 2020.

## Objectives and Policy Actions

### Objective A - Facilitation

Facilitate the implementation of this San Rafael Bicycle and Pedestrian Plan, which identifies existing and future needs, and provides specific recommendations for facilities and programs over the next 20 years.

### Proposed Policy Actions for Objective A

What:	Who <sup>1</sup> :
1. Approve this Bicycle and Pedestrian Plan.	City Council
2. Maximize coordination between the City and community to facilitate citizen review and comment on issues of mutual concern.	Staff

Encourage walking as a daily form of transportation in San Rafael, by completing a pedestrian network that accommodates short trips and transit, improves the quality of the pedestrian environment, and increases pedestrian safety and convenience.

<sup>1</sup> **Key to Abbreviations:** **Staff** = City Staff (various departments as appropriate), **BPAC** = Bicycle & Pedestrian Advisory Committee, **DPW** = Department of Public Works



**Objective B - Bikeways**

*Complete a network of bikeways that provide bicycle-friendly connections through travel corridors and to important destinations, especially for travel to employment centers, schools, commercial districts, transit stations, parks, and institutions.*

**Policy Actions for Objective B**

What:	Who:
1. Where feasible, include planning and design of bikeway and pedestrian facilities as an integral part of the process for all transportation improvements.	Staff
2. Seek funding for bikeway projects through regional, state, and federal funding programs.	Staff
3. Coordinate with multi-jurisdictional funding applications when appropriate.	Staff

**Objective C - Walkways**

*Complete a network of walkways that serves pedestrian needs, especially for short trips to employment centers, schools, commercial districts, transit stations, and institutions.*

**Policy Actions for Objective C**

What:	Who:
1. Complete missing connections to establish direct routes for walking.	Staff
2. Identify and mitigate impediments and obstacles to walking to school, such as through a Safe Routes to Schools program.	Staff
3. Ensure accessibility of pedestrian facilities to the elderly and disabled.	Staff
4. Support the installation of appropriate pedestrian facilities as part of all new transportation improvements, development projects and transit facilities.	Staff
5. Identify funding for construction of ADA curb cuts.	Staff
6. Identify funding for ongoing maintenance of sidewalks and pathways.	Staff

**Objective D – Maintenance**

*Maintain and improve the quality, operation, and integrity of bikeway and walkway network facilities.*

What:	Who:
1. Undertake routine maintenance of bikeway and walkway network facilities, such as sweeping bicycle lanes and trimming bushes next to bike lanes and sidewalks.	Staff
2. Consider bicycle and walking facilities in the repair and construction of roadways.	Staff
3. Provide an easy method (such as a hotline or email) for the public to report road/walkway hazards, and create an effective and appropriate response mechanism to correct reported hazards.	Staff

**Objective E – Bicycle Parking**

*Provide bicycle parking in employment and commercial areas, in multifamily housing, at schools and colleges, and at transit facilities.*

**Policy Actions for Objective E**

What:	Who:
1. Review existing zoning code ordinances that require bicycle parking spaces are built as part of development projects.	Staff
2. Encourage the installation of bicycle parking in the public right-of-way as appropriate.	Staff
3. Coordinate with local businesses and schools to offer improved bicycle parking.	City Council; staff
4. Explore the adoption of zoning requirements for lockers and showers to be added to new commercial buildings.	City Council
5. Upgrade bike parking at City recreation facilities.	City Council, staff
6. Consider that parking for bicycles is as essential as parking for cars.	City Council, staff

**Objective F – Bike/Transit Coordination**

*Increase the number of bicycle-transit trips.*

**Policy Actions for Objective F**

What:	Who:
1. Support and promote improved bicycle access to all local transit facilities.	Staff

**Objective G - Education**

*Develop and implement plans for bicycle and pedestrian education aimed at youth, adult cyclists, pedestrians, and motorists. Increase public awareness of the benefits of bicycling and walking and of available resources and facilities.*

**Policy Actions for Objective G**

What:	Who:
1. Add a San Rafael Transportation page to the San Rafael website. The page should include a bike route map, plans, and a list of bike organizations and events.	Staff, BPAC
2. Develop adult and youth bicycle and pedestrian education, encouragement and safety programs with the help of available bicycle and pedestrian facility programs such as: >Safe Routes to Schools >Public Service Announcements	Staff
3. If feasible, require major City sponsored community events to include convenient bicycle parking and publicize such accommodations.	City Council, Staff

Increase public awareness of the benefits of bicycling and walking and of available resources and facilities.

**Objective H - Standards**

*Continue to use the latest versions of the Caltrans Highway Design Manual, the American Association of State Highway and Transportation Officials (AASHTO) “Policy on Geometric Design of Highways and Streets,” and the AASHTO “Guide for the Development of Bicycle Facilities,” as applicable, for streets, roads, highway and pathways in San Rafael.*

## Chapter 3 Existing Conditions

### Bicycle Facilities

San Rafael's existing bikeway system consists of approximately 2.7 miles of multi-use pathways and 3.9 miles of bicycle lanes. While bicyclists are generally prohibited from using freeways, they are allowed on the northbound shoulder of U.S. 101 between and including the Villa Avenue and North San Pedro off-ramps, and a short section of I-580 near San Quentin. Bicycles are not allowed on the Richmond-San Rafael Bridge; bicyclists must use a bus to make this crossing.

### Existing Bikeways

The following are the known existing bikeways that have been identified by the BPAC, with approximate measurements made by BPAC members:

- 1. Pacheco Hill Pathway:** This paved path links Miller Creek Road in Marinwood to Alameda del Prado in Ignacio, just north of the San Rafael city limits.
- 2. Merrydale Hill Pathway:** This paved pathway connects North San Pedro Road to Lincoln Avenue by way of Merrydale Road to Merrydale Hill pathway. This pathway is in the jurisdiction of Caltrans. In the near future, this pathway will be relocated approximately 100 feet west of its present location. This new class I pathway will be a 12 foot wide paved path with a 2 foot dirt shoulder on either side. However, the steepness of both the pathway and Merrydale Road connecting to the pathway will present an impediment to use by southbound cyclists.
- 3. Baypoint Pathway:** This pathway starts at the intersection of Bellam Boulevard and Playa Del Rey and continues to Spinnaker Point Drive. The length is approximately 0.4 miles and the width is 9 - 10 feet. The primary use of this trail is recreational.
- 4. The Shoreline Park Path and Bay Trail:** This recreational trail follows the shoreline from Pickleweed park south to Francisco Blvd near Grange Way. The length is about 1.9 miles of which one mile is paved. The width varies. *For a complete section-by-section description of this pathway, see the Appendix.*
- 5. The Redwood Hwy. Frontage Rd to McInnis Park Pathway:** This pathway begins at Redwood Highway Frontage Road and continues east to McInnis Park. The trail length is about 0.5 miles and width is 8 feet with a dirt shoulder on either side.

**6. The Old Lucas Valley Road Pathway:** This pathway starts at the intersection of Lucas Valley Road and Mount Lassen Drive continuing to the intersection with Upper Oak and Canyon Oak Drive. The length of this trail is 0.6 miles. The city of San Rafael and Marin County Open Space District have jurisdiction of this pathway.

**7. Walter Place Pathway:** This pathway starts at the “T” intersection of Los Ranchitos Road and Walter Place, just south of Mt. Olivet Cemetery. This pathway is 180 feet long with a five to six foot width, and it crosses the Northwestern Pacific Railway right-of-way.

Total length of Bikeways (Multi-Use Paths): approximately 2.7 miles
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### Existing Bike Lanes

The following street segments in San Rafael currently have bike lanes:

**1. Andersen Dr:** 2.0 miles.

This bike lane follows Andersen Drive from Lindaro St to Hwy. 580 at Sir Francis Drake.

**2. Las Gallinas Ave:** 1.0 miles.

This bike lane follows Las Gallinas Ave. from Lucas Valley Rd. to Las Colindas.

**3. Bellam Boulevard:** 0.1 miles.

This bike lane follows Bellam Blvd. from 24 Bellam Blvd to Andersen Dr. both northern and southern routes.

**4. Lincoln Avenue:** 0.2 miles.

This bike lane follows Lincoln Avenue from where Lincoln Avenue and Los Ranchitos Road merge at the top of the hill and runs south to Prospect Ave.

**5. Civic Center Drive and McInnis Parkway:** Length 0.2 miles.

This bike lane follows Civic Center Drive from 400 Civic Center Drive to 330 feet north of McInnis Parkway.

**6. Merrydale Overcrossing:** Length 0.2 miles.

This bike lane follows the Merrydale Overcrossing (U.S. 101) from Civic Center Drive to Las Gallinas Avenue.

**7. Redwood Highway Frontage Road:** Length 0.1 miles.

This bike lane follows Redwood Highway frontage road from Professional Center Drive to Marin Center Drive.

**8. Bellam/Playa Del Rey:** Length 0.1 miles.

This bike lane follows Baypoint Village Drive from Playa Del Rey to Baypoint Drive.

**9. Mahon Creek Path:** Length 0.22 miles

This bike and pedestrian path way connects Lindaro to Francisco Blvd. West

Total length of Bike Lanes: approximately 4.12 miles

**Bikeway Support Facilities**

Classification of Bicycle Parking Facilities

Class I: Class I bicycle parking facilities are provided in a secure, weather-protected manner and location such as a bicycle locker, or a secure area like a ‘bike corral’ that may be accessed only by bicyclists.

Class II: Bicycle racks provide support for the bicycle and usually do not have a locking mechanism. The cyclist provides his/her own lock(s). Appropriate Class II racks should meet the following standards:

- allow bicyclists to securely lock their frames and wheels,
- secured to the ground,
- located in highly visible areas.

Typically, variations on the “upside-down ‘U’” or “wave” racks meet these standards. Racks that only support the front wheel of a bicycle do not.

Bike Stations

“Bike Stations” can provide Class I bike parking. Bike stations are attended bike-transit centers that offer secure valet bicycle parking and other transit amenities such as rental bikes, repairs, and snacks. Such facilities are currently in place at the **Palo Alto Caltrain Station** and **Berkeley BART Station** and are currently under development at other major transfer centers in the Bay Area.

Bicycle Parking – Existing Conditions

A field review found several locations in San Rafael with bike racks. Excluding schools and parks, there is Class I parking at two locations, Class II at 11 locations, and sub-standard racks at three locations. Most of the schools surveyed had sub-standard Class II racks (See the Appendix for details.)

Bike stations are attended bike-transit centers that offer secure valet bicycle parking and other transit amenities such as rental bikes, repairs, and snacks.

According to the 1990 Census Journey to Work data, approximately 11% of San Rafael residents take transit to work on an average day.

## Multi-Modal Connections

According to the 1990 Census Journey to Work data, approximately 11% of San Rafael residents take transit to work on an average day. In San Rafael, Golden Gate Transit (GGT) provides local bus service, regional bus service to San Francisco, Santa Rosa and Richmond, and a shuttle to Larkspur to connect with Golden Gate Ferry service to San Francisco. According to Golden Gate Transit, approximately 88% of their buses had bike racks as of mid-1999. They can be used day and night and at the same fare as a regular passenger. Each rack holds two bicycles. The buses that do not have bike racks are 45 feet long and state law forbids bike racks on them.

The #40 bus that links the San Rafael Transit Center with the City of Richmond also allows bicycles inside the bus, as long as there is rear door wheelchair access and room for the bicycles (passengers and wheelchairs take precedence). The district runs a taxi shuttle for cyclist's who are bumped from buses that are filled with the maximum. The Golden Gate Transit ferries from Larkspur Landing also accommodate bicycles: 25 bicycles are permitted on the regular ferry, and 15 are permitted on the high-speed ferry. Golden Gate Transit hopes to increase this number to about 20 bikes on both the existing and future high-speed ferries.

According to BPAC field surveys, Class II parking for about 16 bicycles exists at the San Rafael Transit Center, but more than 16 bikes are typically found at the center, many of them chained to posts or trees. Since almost the entire population of San Rafael is within a five-mile bicycle ride of the Transit Center – the upper limit of the distance that a typical cyclist will ride, according to Bicycle Federation of America measurements – meeting bicycle parking demand there should be a high priority.

## Pedestrian Facilities

This section briefly describes the general conditions that exist in San Rafael with regard to pedestrian facilities.

### Sidewalks

While most of San Rafael has a continuous sidewalk network, there are some locations in the city where pedestrian facilities could be improved.

There are places where sidewalks do not exist or end abruptly in some areas of San Rafael. Examples are Sidewalks on Redwood Highway Frontage Road and East Francisco Blvd. Also, there is no sidewalk on Mission St. from the Library/City Hall area to Boyd Park. In some locations such as East Francisco Boulevard, from Bellam Boulevard north, sidewalks are impacted by both northbound and southbound bicyclists.

While most of San Rafael has a continuous sidewalk network, there are some locations in the city where pedestrian facilities could be improved.

There are places where wheelchair ramps do not exist or are in conflict with sidewalk obstacles. Sidewalks are discontinuous in some places or are in need of repair. Pedestrians may conflict with vehicle movements at certain freeway on-ramps and off-ramps.



## Chapter 4 Needs Analysis

This section presents material that provides the basis for the recommendations made in Chapter 5.

As a community, we need to expand our transportation infrastructure in the most economical, environmentally responsible and lowest impact method available. As individuals, we need to commute to work, school and to businesses in our neighborhoods while engaging in more exercise for health and well-being. This plan attempts to address these needs through sound transportation planning practice.

### Commuter Bicycle Needs

According to a May 1991 Lou Harris Poll, it was reported that “...nearly three million adults – about one in 60 – already commute by bike. This number could rise to 35 million if more bicycle friendly transportation systems existed.”

The parts of this plan that deal with bicycling focus primarily on the use of bicycles for commuting – utilitarian trips made for the purpose of getting to work or school, or for shopping, or other errands. It is therefore important to understand the specific needs of bicycle commuters. Bicyclists in San Rafael include employees who ride to work, children and adults who ride to school, and people running errands and shopping. While recreational cyclists often ride long distances and are not concerned with the time it takes, commuting bicyclists are more interested in shorter trips. Typically, they expect to ride less than three miles. Access to transit helps extend the commute range of cyclists.

Bicycle commuters usually seek the most direct and fastest route available, with regular adult commuters often preferring to ride on arterials rather than on side streets or off-street facilities. Commute periods for bicyclists frequently coincide with peak auto traffic periods, increasing exposure to potential conflicts.

Rather than be directed to side streets, most commuting adult cyclists would prefer to use bike lanes or wider curb lanes on direct routes. Commuters generally prefer routes where they are required to stop as few times as possible, thereby minimizing delay and conflict with other vehicles.

Besides traffic congestion, major concerns for bicycle commuters include rain, riding in darkness, personal safety and security, and secure storage of their bicycle at the end of the trip.

As a community, we need to expand our transportation infrastructure in the most economical; environmentally responsible and lowest impact method available.

Bicyclists in San Rafael include employees who ride to work, children and adults who ride to school, and people running errands and shopping.

## Traffic Congestion and Air Quality Benefits

A key goal of the Bicycle and Pedestrian Master Plan is to maximize the number of local bicycle and pedestrian commuters in order to help reduce traffic congestion and air pollution. In order to set the framework for these benefits, national statistics and policies are used as a basis for determining the benefits to Marin County.

The policy goal of this plan is for a combined bicycle and pedestrian mode share of 20% of all local trips, including work, shopping and recreational trips. While significantly higher than current rates, this goal is achievable over the 20-year time frame of this plan if a comprehensive network of bicycle and pedestrian facilities is completed as called for by project lists herein. The goal is also supported by the following points:

- According to the 1990 Census, 3.9% of San Rafael residents walk or bike to work, and according to the Marin County Bicycle and Pedestrian Master Plan, 4.1% of Marin County workers walk or bike to work.
- In the Bay Area, Stanford and the City of Berkeley already significantly exceed the 20% goal (not including student trips), and the City of Calistoga comes close.
- This is a 20-year plan.
- The mild climate of San Rafael and the residents' health-oriented lifestyle are conducive to walking and biking.
- Increased fuel costs and increased congestion over the next 20 years will make walking and biking even more attractive.

Using figures from the Marin County Bicycle and Pedestrian Master Plan, the BPAC estimated the impact of meeting various mode share goals. Figure 4-1 below shows the effect on numbers of bicyclists and walkers, daily vehicle trips and vehicle miles traveled if San Rafael can meet the 10.31% bike/walk mode split goal described in the County Bicycle and Pedestrian Master Plan, and what happens if the city meets the 20% goal described in this plan. To calculate the impact on San Rafael at 10.31%, the BPAC simply took the countywide numbers and multiplied them by the city's share of the overall county population, 24.2%. For the 20% mode share goals, the BPAC simply rounded up.

The mild climate of San Rafael and the residents' health-oriented lifestyle are conducive to walking and biking.

Figure 4-1 San Rafael Estimate of User Increases and Vehicle Trips and Miles Saved

<b>Scenario 1- Impact with 10.31% Bike/Walk Mode Share</b>			
	<b>Current</b>	<b>When System is Completed</b>	<b>Increase</b>
Mode Share	3.75%	10.31%	275%
Total Daily Bicycle/Walk Commuters	5,739	15,996	10,257
Total Daily Bicycle/Walk Trips	11,479	31,992	20,514
Reduced Daily Vehicle Trips	7,820	22,134	14,192
Reduced Daily Vehicle Miles	13,996	39,011	25,014
<b>Scenario 2 - Impact with 20% Bike/Walk Mode Share</b>			
	<b>Current</b>	<b>When System is Completed</b>	<b>Increase</b>
Mode Share	3.75%	20.00%	533%
Total Daily Bicycle/Walk Commuters	5,739	30,608	24,869
Total Daily Bicycle/Walk Trips	11,479	61,221	49,742
Reduced Daily Vehicle Trips	7,820	41,707	33,887
Reduced Daily Vehicle Miles	13,996	74,645	60,649

Figure 4-2 Comparison of Mode Share

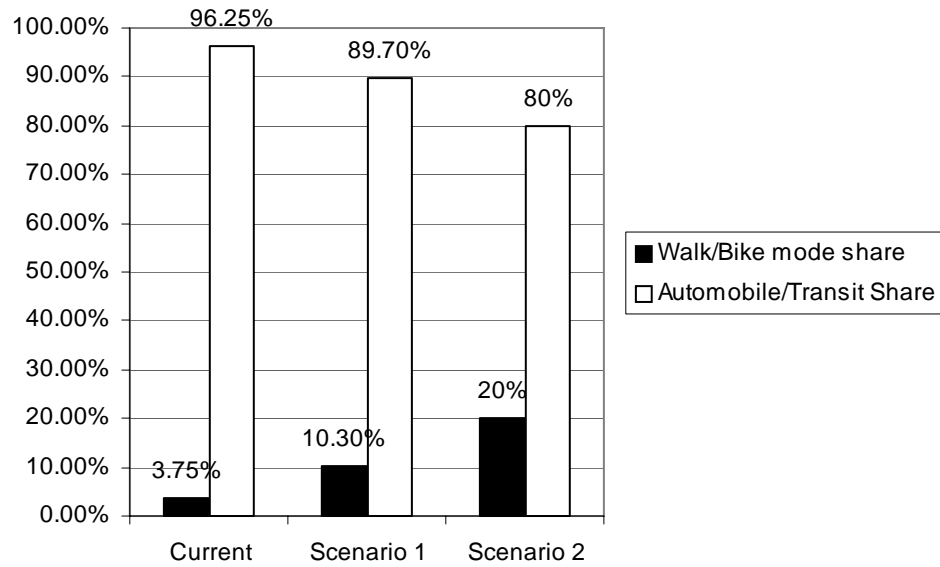
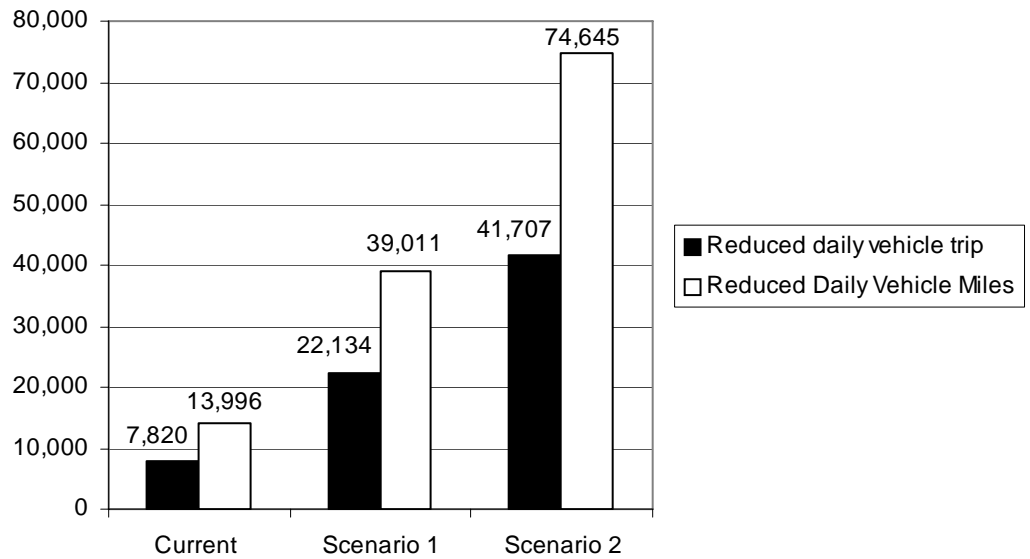


Figure 4-3 Reduced Daily Vehicle Trips/Miles



## Chapter 5 Proposed System and Improvements

This chapter begins with the overall priorities of San Rafael residents, and then describes the proposed infrastructure improvements that would meet these priorities.

### A. Community Priorities

The BPAC developed the following priorities list based on input to the Marin County Bicycle Plan as well as additional comments from residents, cyclists and pedestrians in San Rafael.

The most frequently requested improvements were for a continuous network of high quality **north-south** and **east-west** bikeways through the County. This includes San Rafael where a number of routes are needed within the City. Other community priorities include the following:

- The 1994 North-South Bikeway Feasibility Study provides the framework for this ‘bicycle freeway’ envisioned as an unbroken path following a combination of the railroad right-of-way and Highway 101. The long-term alignment of this **north-south bikeway** would be along the Northwestern Pacific Railroad right-of-way from Novato to Larkspur, then along the existing path through Larkspur, then again using the undeveloped right-of-way through Corte Madera, through the partially collapsed Mill Valley Tunnel, and finally connect to the existing Mill Valley-Sausalito path.

For certain segments, alternative alignments may be more feasible in the short-term. One key segment is from Central San Rafael south to Larkspur. It is desirable to connect the new bike lanes on Andersen Dr. with the rail right-of-way near Bellam to form a Class I path to Larkspur.

- An equally high quality **east-west bikeway** is needed from San Quentin through San Rafael to San Anselmo and Fairfax using existing roads. East-West routes are also needed within San Rafael, where several are necessary to serve the local population. The routes would be mostly on street with limited off-street near West End and perhaps Court Street. (See Chapter 5).
- Requests for **shoulder widening** on many streets and roads. In San Rafael these include Ranchitos Rd., Lucas Valley Road, and Lincoln Ave.

The most frequently requested improvements were for a continuous network of high quality north-south and east-west bikeways through the County.

- Requests for **new Class II bicycle lanes** on many existing roads, such as Andersen Drive, Second and Third Streets, and Francisco Blvd. East.
- **Improvements to existing bicycle lanes** on Old Redwood Hwy., Civic Center Dr. and Bellam Blvd.
- Improved pedestrian and bicycle **crossings**.
- Allow bicycling over the **Richmond-San Rafael Bridge**.
- **Alternatives to sub-standard sidewalk/path** along streets like East Francisco Blvd., Mission near San Rafael High School, Grand Ave, near the transit center, and along Redwood Highway in north San Rafael.
- Improve **pedestrian access/safety and continuity** on the main arteries feeding the town center.
- A **bridge over the canal** would make a much better connection between the Canal Neighborhood and Downtown, San Rafael High, and major employment and shopping centers.
- A **freeway crossover** at Medway would greatly improve connectivity between the canal area and the Woodland/Davidson school area.
- Addition of **curb cuts** to meet ADA guidelines for pedestrians.
- **Improve pedestrian crossings** through traffic calming, better signage, enforcement, lighting and visibility, especially at crossings to bus stops, libraries, schools, and other frequent destinations.
- Create **transit hubs** in downtown areas that include bicycle parking and storage, access to a park and ride lot, and a pedestrian plaza.
- Two-way bicycle and pedestrian access to the Hammondale freeway undercrossing at the top of Lincoln Ave.
- A focus to encourage of safe and more frequent bicycling and walking amongst **school-age children**.
- The addition of a comprehensive destination-based bikeway and walkway **signing and/or marking system** for Marin County.
- The addition of high quality **bicycle parking**.

## **B. Bicycle Improvements in San Rafael – Specific Route Projects**

Proposed and existing bicycle routes are described in this section and illustrated on the Bike Route Map. Each route is given a number and a short general description is provided below as a supplement to the map.

**Eighteen north-south** routes are assigned **odd** numbers.

Thirteen **east-west** routes are assigned even numbers. The Committee expects that a simplified system of route numbers may be needed for signage, but the numbers shown here are useful during planning and development.

Bicycle improvements have been categorized as short term, medium term and long term priority based on the following considerations:

**Short Term:** Bike route segments that are relatively low cost and require only signage and striping/stenciling.

**Medium Term:** bike route segments that will require more work or require further study. For example, in some cases parking may need to be moved, or a median strip altered, or they may depend on the completion of some other segment in order to be useful. For some Medium Term segments, another jurisdiction may be involved, such as the County or the GGBHTD.

**Long Term** Bike Route segments all have some characteristic that makes them difficult to complete. Reasons can include high cost, lack of space, location outside of the city limits, uncertainty about plans by other agencies or the need to build community support.

Short-term projects require only signage and striping, and, if feasible, be done without extensive planning, design work, construction, or high-level decision-making.

Projects categorized as long term or medium term are no less important than short term projects. In some cases, preliminary work needs to start right away on medium and long term projects in order to assure completion within the 10 or 20 year timetable. Therefore, the strategy is to do most or all of the short-term priority improvements during the first five years and to start planning and preliminary work soon on the top priority projects in the medium and long categories. Projects are listed in priority order in Table 5.4.1, Pedestrian Priorities.

Within each category, the most important segments are listed first.

Individual Segments of each Route are listed below. The segments are organized by priority as explained in the boxes below.

### **Short Term priority Segments (1 to 5 years)**

- These projects require only signage and striping, and, if feasible, be done without extensive planning, design work, construction, or high-level decision-making.
- Projects with a priority “A” are recommended for completion in the 1st year, “B” in the 2nd year, and so on.
- The main north-south and main east-west routes are priority “A”. Routes that are centrally located, and/or heavily used are priority “B”, and the rest are “C”.

Figure 5-1 Short Term Bicycle Improvements (refer to Chap. 1 for a list of routes)

Priority	Route – segment	SHORT Term Priority Segment: (1-5 years)	Class
A	01-01	Miller Creek Rd. from Marinwood Ave. to Las Gallinas Ave. (County route)	2-3
A	01-03	Las Gallinas Ave. from Miller Creek Rd. to Lucas Valley Rd. (County route)	2-3
A	01-11	Northgate Dr. from Las Gallinas Ave. to Los Ranchitos Rd.	2-3
A	01-13	Los Ranchitos Rd. from Northgate Dr. to Lincoln Ave.	2-3
A	01-21	Irwin Ave. from Lincoln Ave. to Woodland Ave.	2-3
A	01-23	Woodland Ave. from Irwin Ave. to Bellam Blvd.	3
A	06-07	Point San Pedro Rd. from North San Pedro Rd. to Third St.	2-3
A	09-02	Villa Ave from the Hammondale Under-Crossing to Linden Ln.	2-3
A	09-03	Grand Ave. from Linden Ln. to Mission Ave.	2-3
A	09-04	Grand Ave. from Mission Ave. to Francisco Blvd East.	2-3
A	09-05	Grand Ave. from Villa to Mission	2-3
A	12-01	Greenfield Ave. from City Limit to Dunand Ave.	3
A	12-03	West End Ave. from Dunand Ave. to Marquard/Fourth St.	3
A	12-05	Fourth St from West End Ave. to Union St. [For an alternate, see Route 24]	3
A	14-01	Andersen Dr. from Second St. to Lindaro St (south side only)	2-3
A	32-01	Harbor Dr. along Canal St. to the Bay Trail	3
B	05-01	Redwood Highway Frontage Rd. from Smith Ranch Rd. to Professional Center Dr.	2-3
B	05-05	Redwood Highway Frontage Rd. and Civic Center Drive from Marin Center Dr.	2-3
B	05-07	Civic Center Drive from Number 400	2-3
B	05-09	Civic Center Drive from 330 Feet north of McInnis Pkwy to North San Pedro Rd.	2-3
B	06-05	North San Pedro Rd. from La Pasada to Point San Pedro Rd.	2-3
B	06-09	Third St. from Point San Pedro Rd. to Grand Ave.	2-3
B	13-05	Bellam Blvd. from Playa Del Rey to Kerner Blvd.	2-3
B	13-07	Bellam Blvd. from Kerner to Hwy. 580 interchange.	2-3
B	13-09	Bellam Blvd. from Hwy. 580 interchange to Andersen Dr.	2-3
B	19-03	Wolfe Grade from Antonette to Larkspur	2-3
		[Route 24 is an alternate to Route 12, Segment 5]:	
B	24-05	Second St. from West End Ave. to Miramar Ave.	3
B	24-06	Miramar Ave. and First St. from Second St. to E St.	3
B	24-07	First St. from E St. to D St.	2-3
B	24-09	First St. from D St. to B St.	2-3
B	24-11	First St. from B St. to A St.	2-3
C	01-15	Lincoln Ave. from Los Ranchitos Rd. to Prospect Ave.	3
C	01-17	Lincoln Ave. from Prospect Ave. to Fourth St.	3
C	02-07	Canyon Oaks Dr. from Old Lucas Valley Road to (new) Lucas Valley Road.	3
C	02-09	Lucas Valley Rd. and Smith Ranch Rd. from Canyon Oaks Dr. to Redwood Hwy.	2-3
C	03-01	Los Gamos Dr. from Lucas Valley Rd to Manual T. Freitas Pkwy.	3
C	04-03	Manual T. Freitas Parkway from Marin Open Space to Las Pavadas Ave.	2-3
C	04-501	Del Ganado from Terra Linda Open Space to Freitas Parkway	2-3



Priority	Route – segment	SHORT Term Priority Segment: (1-5 years)	Class
C	10-01	Racquet Club Dr. from City limit to Fifth Ave.	3
C	10-03	Fifth Ave. from Racquet Club Dr. to K St.	2-3
C	16-01	Taylor St. from D Street to B St.	2-3
C	16-03	Woodland Ave. from B St. to Irwin St.	2-3
C	21-01	Irwin Ave. from Woodland Ave. to Tiburon Ave (at SR city limit).	2-3
C	23-01	Nova Albion Way from Las Gallinas Ave to Golden Hinde Blvd.	2-3
C	23-03	Golden Hinde Blvd from Nova Albion Way to Los Ranchitos Rd.	2-3
C	23-05	Nova Albion Way from Golden Hinde Blvd. to Northgate Dr.	2-3
C	35-01	Castlewood Drive form 25 Castlewood to Knight Drive	3
C	35-03	Knight Drive from Castlewood to Pt. San Pedro Rd.	3

### Medium Term Priority Segments (1 – 10 years)

- These projects require moderate to extensive planning and design work, minor to moderate construction and high-level approval. Most do not involve other agencies or have an unusually high cost, but may involve redesign of the median or intersections, the relocation of parking, and other issues.
- The “A” projects are probably easier to implement and should be started right away, if feasible. “B” and “C” should be implemented later during the 10-year Medium Term period, if feasible.
- The main north-south and east-west routes are priority “A”. Routes that are centrally located, and/or heavily used are priority of “B”, and the rest are “C”.

Figure 5-2 Medium Term Bicycle Improvements

Priority	Route – segment	MEDIUM Term Priority Segment: 1-10 Years	Class
A	01-09	Las Gallinas Ave. from Manual T. Freitas Pkwy. to Northgate Dr.	3
A	01-07	Las Gallinas Ave. from Las Colindas Rd. to Manual T. Freitas Pkwy.	2-3
A	04-07	Manual T. Freitas Parkway from Las Gallinas Ave. to Northgate Dr.	2-3
A	04-05	Manual T. Freitas Parkway from Las Pavadas to Las Gallinas Ave.	2-3
A	19-01	D St. from Fourth St. to Antoinette Ave.	3
A	25-02	Merrydale Rd. across the NWP right of way and across a small creek to reach the continuation of Merrydale Rd. A culvert or small bridge (bike/ped. access only) will be needed.	1
A	25-03	Merrydale Rd. from NWP right of way to Las Gallinas Ave.	2-3
A	26-01	Francisco Blvd. West from Second Street to Medway Overcrossing	1
A	26-03	Francisco Blvd. West from Medway Overcrossing to Andersen Dr.	2-3
A	27-03	Canal from the Bridge to Harbor Drive	2-3
A	27-05	Harbor Drive from Canal St to Front St	2-3
A	27-07	Front St and Harbor Drive to Medway and Front St.	2-3

Priority	Route – segment	MEDIUM Term Priority Segment: 1-10 Years	Class
A	27-09	Mill St and Harbor Drive to Medway Rd	2-3
B	06-01	N. San Pedro Rd. from Los Ranchitos Rd. to Civic Ctr. Dr.	3
B	06-03	North San Pedro Rd from Civic Center Dr to La Pasada.	2-3
B	09-01	Hwy 101 east shoulder and off-ramp (northbound) from N San Pedro Rd to Hammondale.	1-2
B	10-07	H St from Fifth Ave to Fourth St.	3
B	10-09	Fifth Ave from H St to Court St.	2-3
B	10-11	Fifth Ave from Court St to Grand Ave.	2-3
B	10-12	Court St from Fifth St to Mission Ave.	2-3
B	10-13	Mission Ave from Court St. to Grand Ave.	2-3
B	15-01	Kerner Blvd. from Bellam to the start of the Kerner Blvd. gap.	2-3
B	15-03	Kerner Blvd. gap. This segment will close the gap north of Shoreline	2-3
B	15-05	Kerner Blvd from Shoreline Pkwy to Grange Way.	2-3
B	15-07	Grange Way from Kerner Blvd from Francisco Blvd.	2-3
B	25-01	Merrydale Rd from Merrydale Overcrossing to NWP Right-of-way.	2-3
B	25-05	Merrydale Rd from Las Gallinas Ave to the existing Merrydale Hill pathway.	2-3
B	22-03	Las Gallinas Ave from Corrillo Dr to Merrydale Rd.	2-3
C	02-01	Lucas Valley Rd. from Westgate Dr. to Mt. Lassen Dr.	2-3
C	02-03	Lucas Valley Rd. from Mt. Lassen Dr. to Canyon Oaks Dr.	2-3
C	02-11	Smith Ranch Rd. and Main Drive from Redwood Hwy. Frontage to McInnis Park	2-3
C	04-09	Manual T. Freitas Pkwy. From Northgate Dr. to Las Gallinas Ave.	2-3
C	04-11	Manual T. Freitas Parkway freeway overpass (Hwy. 101)	2-3
C	09-07	Francisco Blvd. East from Grand Ave. to Medway	2-3
C	09-09	Francisco Blvd. East from Medway to Main St. (Richmond Bridge)	2-3
C	10-05	Fifth Ave from K St to H St.	2-3
C	31-01	A St from Fifth Ave to First St.	2-3
C	33-01	C St from Fifth Ave to First St.	2-3

### Long Term Priority Segments (1 – 20 years)

- These projects are very important but may be complicated, involve other agencies, require community input, or need substantial funding, extensive planning, and design and engineering work. They involve major construction, road realignment, or other issues.
- Priority “A” projects should be planned right away, and completed first. “B” and “C” should be planned and implemented within 20 years.

- The main north-south and main east-west routes are priority “A”. Other routes that are centrally located, and/or heavily used are priority of “B”, and the rest are “C”.

Figure 5-3 Long Term Bicycle Improvements

Priority	Route – segment	LONG Term Priority Segment: 1-20 Years	Class
A	01-19	Lincoln Ave from Fourth Street to Irwin Ave.	2-3
A	07-01	NWP Right of Way from the San Rafael northern city limit to Smith Ranch Rd.	1
A	07-03	NWP Right of Way from Smith Ranch Rd to the Transit Center	1
A	07-05	NWP Right of Way from the Transit Center to the San Rafael southern city limit	1
A	07-07	NWP Right of Way from San Rafael southern city limit through the Larkspur Tunnel.	1
A	27-01	Bridge over the San Rafael Creek from Third St to Canal St	1
A	27-13	Freeway Overcrossing from Francisco Blvd East to Francisco Blvd West.	1
A	27-11	Medway Rd to Francisco Blvd. East.	2-3
B	17-01	Bay Trail spur from Hamilton to McInnis Park. The path from the sewer plant to McInnis Park is paved.	1
C	08-01	Cantera Way from Point San Pedro Rd to the bay.	2-3
C	08-03	Bay Trail Spur from Cantera Way (end) to Point San Pedro Rd.	1
C	11-01	Bay Trail from Kerner Blvd to Shoreline Park (near Grange Way).	1
C	11-02	Grange Way from Bay Trail to Francisco Blvd	2-3

The following table lists the segments already completed or in the process of being completed.

Figure 5-4 Existing Sections

Name of Existing Routes and Segments:		Class
01-0	“Pacheco Hill Pathway” parallel to Hwy 101 from Novato to Miller Creek.	1
01-05	Las Gallinas Ave from Lucas Valley Rd to Las Colindas Rd.	2
02-05	Old Lucas Valley Road from Mt. Lassen Dr to Canyon Oaks Dr.	1
04-01	Marin Open Space District pathway from City limit to Manual T Freitas Parkway	1
05-03	Redwood Highway Frontage Rd from Professional Center Dr to Marin Center	2 (partly done)
13-01	Baypoint Pathway from Spinnaker Point Dr to Baypoint Village Dr.	1
13-03	Baypoint Village Dr from Playa Del Rey to Baypoint Dr.	2
14-03	Andersen Dr from Lindaro St to Bellam Blvd segment (Existing).	2
14-05	Andersen Dr from Bellam Blvd to Sir Francis Drake Blvd/Hwy 580.	2
18-01	Gallinas Creek Pathway from Paul Drive to Yosemite Rd.	Path
18-03	Gallinas Creek Path from Yosemite Rd to Smith Ranch Rd	1
22-01	Walter Place pathway from Los Ranchitos Rd to Corrillo Dr.	1
24-15	Mahon Creek Path from Lindaro St. to Francisco Blvd. West	1

25-07	Merrydale Hill pathway from the south end of Merrydale Rd to Los Ranchitos Rd.	1
37-01	Hwy 580 off ramp (westbound) from East Francisco Blvd to Sir Francis Drake Blvd	2
37-03	Hwy 580 on ramp and Hwy 580 shoulder (eastbound) from Sir Francis Drake Blvd to Main Street	2

### C. Proposed County-Wide Gap Closure and Safety Projects

The following section is a list of San Rafael projects from the Marin County plan that are consistent with community priorities.

#### 1. County Signing and Stenciling Program (A potential countywide project)

**Jurisdiction(s):** County and local public works agencies

This project addresses one of the most common concerns expressed in surveys and workshops: the lack of directional signage for bicyclists, and signs warning and advising motorists of bicycles on the roadway. All approved routes should be signed. This project could be implemented in the following three phases:

- a. Phase I: primary north-south and east-west routes
- b. Phase II: rural recreational routes
- c. Phase III: secondary routes

#### 2. Bicycle and Pedestrian Maintenance & Development Project

**Jurisdiction(s):** County and local agencies

Capital funding for the projects identified in this Plan is available through Federal and State sources, but maintenance funds are not included. This project would seek to establish a regular source of maintenance funds for roadways and multi-use pathways in Marin County similar to the streetlight agreement already in place.

In many cases, it would be more cost-effective to maintain and re-construct facilities on a larger multi-jurisdictional level rather than have each local city or town act independently. It should be noted that participation in such a program, however, would be optional for the local jurisdictions.

Capital funding for the projects identified in this Plan is available through Federal and State sources, but maintenance funds are not included.

Recommended minimum maintenance practices to be funded under this project are presented below.

The annual maintenance cost of the bike path system is estimated to be \$90,000 countywide when it is fully implemented. Class I bike path and sidewalk maintenance costs are based on \$8,500 per mile, which covers weekly trash removal, monthly sweeping, and bi-annual resurfacing and repairs. Other maintenance costs include bike lane line and crosswalk re-striping, sweeping debris, and tuning signals for bicycle and pedestrian sensitivity.

### **3. Interchange Projects (Safety Projects)**

**Jurisdiction(s):** Caltrans, local agencies

U.S. 101 in Marin County acts as a major barrier for bicyclists and pedestrians of all ages and abilities. This project recognizes both the complexity and the similar nature of the issue from interchange to interchange. Many interchanges share the same characteristics, meaning that prototype solutions probably have wide applicability. Caltrans itself has modified interchanges in Marin, notably the southbound East Blithedale off-ramp, partially to improve bicycle and pedestrian safety.

The City of San Rafael should continue to work with Caltrans to eliminate barriers to walking and bicycling from one side of the freeway corridor to another, and to ensure that on- and off-ramps are as safe as possible for all users.

The City of San Rafael should continue to work with Caltrans to eliminate barriers to walking and bicycling from one side of the freeway corridor to another.

### **4. Bellam-Francisco Bicycle/Pedestrian Project (Safety Projects)**

**Jurisdiction(s):** City of San Rafael, Caltrans

Staff, the public, and others consistently identified these two corridors in San Rafael. Specifically, it was noted that this area has a high number of people who are dependent on walking or bicycling as a primary mode of transportation, plus numerous people riding bikes on sidewalks, and a combination of heavy traffic volumes, numerous driveways, and constrained roadway. Some surveys indicated specific problems with school children in the Canal Neighborhood reaching Davidson Middle School because of the traffic on Bellam at the I-580 ramps. People walking or riding on East Francisco Blvd. towards the Montecito Shopping Center was also identified as a high priority area.

The corridor between San Anselmo and San Rafael was identified as a major bicycling route in public workshops and surveys.

Several potential solutions for this area are being explored, on of which to explore the feasibility of a bicycle/pedestrian bridge connecting the east side of US 101 to the west side.

Solutions on East Francisco Blvd. are more problematic due to the constrained roadway. A drawbridge connection leading directly from the Canal Neighborhood to San Pedro Rd. near San Rafael High School has been proposed. While this project would help provide people walking/bicycling on East Francisco Blvd. with a viable option, additional feasibility work is required.

### **5. San Rafael – San Anselmo Connector (Safety Projects)**

**Jurisdiction(s):** City of San Rafael/City of San Anselmo

The corridor between San Anselmo and San Rafael was identified as a major bicycling route in public workshops and surveys. Bicyclists typically use Greenfield as an alternative to the busy Red Hill/4th St. (Miracle Mile) corridor. Specific problem areas include the crossing from West End to 4th Street, and 2nd Street between West End and 1st Street. A feasibility study is needed to identify the best and most effective improvements.

### **6. Safe Routes to Schools Projects (Safety Projects)**

**Jurisdiction(s):** Local agencies, school districts, community groups

School commute improvements were a major focus of public and staff comments, partially out of concerns about current safety and impacts of school-related traffic, and partially because of new State funding opportunities.

### **7. San Rafael - Larkspur Gap Closure Project (Gap Assure Project)**

**Jurisdiction(s):** San Rafael, Larkspur, Marin County, GGBHTD, Caltrans

Along with the two previous gap closure projects, this is a key project that helps overcome one of the largest barriers in Marin County. Bicycle and pedestrian movement between San Rafael and southern Marin is limited to steep routes on Wolfe Grade or Via Cumbre, or very heavy traffic and an unprotected crossing on East Sir Francis Drake (ESFD) and Andersen Drive. This project would open up connections to the Larkspur Ferry Terminal, and numerous schools, employment and shopping areas, and virtually all movement in the north-south direction.

There are several approaches to this multi-jurisdictional project.

**Option #1:** construct shoulders or bike lanes on ESD from the ferry terminal to Andersen Drive. Signalize and improve this intersection, if feasible, and provide new bike lanes on Andersen.

**Option #2:** construct a new Class I bike path on the north side of ESD from the Larkspur Landing Circle signalized intersection to Andersen Drive. Provide new bike lanes on Andersen.

**Option #3:** construct a Class I pathway on the NWP right-of-way from ESD up to the tunnel portal, ramp up and around the portal to the U.S. 101 cut, connect through the cut, and then ramp back down to the NWP right-of-way.

**Option #4:** construct a Class I path on the NWP right-of-way through the tunnel and on to a connection with Andersen in San Rafael.

## 8. Puerto Suello Gap Closure Project (Gap Closure Project)

**Jurisdiction(s):** San Rafael, Marin County, GGBHTD, Caltrans

Unlike other gap closure projects in Southern or Central Marin, there are existing direct, local streets (Lincoln Avenue and Ranchitos Rd) available to bicyclists and pedestrians over Puerto Suello Hill. While these routes do carry moderate to heavy traffic volumes, neither corridor was identified as a major constraint by experienced bicyclists in surveys or workshops other than the lack of bike lanes or shoulders. Marin County currently has plans to provide bike lanes on a portion of Ranchitos Road. However, Class II bike lanes cannot be accommodated on the full length of Lincoln because of its constrained roadway width. It is recommended that the feasibility of a contra-flow bike connection be explored to transition northbound cyclists on Grand Avenue under US 101 (Hammondale undercrossing) at Villa Ave. to connect to the West Side 101 Bike Path.

Use of the NWP right-of-way from Central San Rafael northward as a bikeway is directly linked to future rail use. Due to the expansion of U.S. 101 through this area, the railroad corridor will be reduced to 30 feet total, leaving no possibility of shared use. Expanding the right-of-way further would require the removal of numerous additional homes in this corridor, which is neither likely nor desirable. Should rail service not prove practical, a bike path could use this corridor and possibly the existing Puerto Suello tunnel. Other related components of this project could include:

- re-construction of the Merrydale path as part of the U.S. 101 project
- improvements to the North San Pedro Road/US 101 undercrossing pathway
- potential extension of Merrydale for bicycles and pedestrians only, across the railroad tracks and over a small creek. The feasibility of this option is dependent on approval by the California PUC and NWP owners/operators.

Use of the NWP right-of-way from Central San Rafael northward as a bikeway is directly linked to future rail use.

## 9. Regional Connection Projects (Gap Closure Project)

**Jurisdiction(s):** Marin County, Caltrans, Novato, San Rafael

### North-South Bikeway (Shared Rail-with-Trail)

Much of the proposed North-South Bikeway in central and southern Marin is proposed to be located on the old Northwestern Pacific Railroad right-of-way. This right-of-way runs through San Rafael from the city line on the north, through a tunnel at Puerto Suello Hill, through the center of town (where it bisects the Transit Center), and continues south to the city line where it enters the short Larkspur Tunnel. The corridor is held in trust by the Golden Gate Bridge Highway and Transportation District (GGBHTD). Width of this right-of-way varies from 37 ft to 100 ft throughout its length. The San Rafael General Plan currently calls for this corridor to be developed as a Class I multi-use path.

Should rail service be implemented, then a bike path would need to be located so that it meets the latest Federal Railway Administration and California Public Utility Commission requirements.

North of San Rafael, from Terra Linda through Novato and on to Petaluma and Black point, the short- to mid-term recommendations are mostly located on existing streets. As discussed earlier, the feasibility of sharing the railroad right of way north of San Rafael is largely dependent on the future of rail service in this corridor. Should rail service not prove practical, then a bike path could be constructed on the right of way to Ignacio.

Should rail service be implemented, then a bike path would need to be located so that it meets the latest Federal Railway Administration and California Public Utility Commission requirements. Additional research being conducted by the Federal Highways Administration and Federal Railroad Administration points to a recommended setback of 25 feet, with 15 feet being a minimum setback when combined with fencing. For most of the NWP right of way north of San Rafael, this would place a bike path in the adjacent wetlands, or force it to climb the embankments through cut sections. While both of these options are physically possible, they would be expensive and politically challenging. The boardwalk option through the wetlands requires extensive environmental analysis to determine potential impacts.

## 10. Signals and Lighting Improvements and Upgrades.

*Recommendation: Create a program to install and mark signal loop detectors that are responsive to bicycles at existing and new intersections.*

Such markings should show cyclists where to stand to trip lights. One suggested site for bicycle-sensitive traffic signals is North San Pedro Road at Merrydale Road.



## D. Pedestrian Improvements in San Rafael

Accessibility, continuity, and connectedness of pedestrian facilities are key features of this element. Listed below are recommendations for pedestrian improvements identified in field surveys conducted by BPAC members. More improvements will be identified later by the Safe Routes to Schools program and by neighborhood associations.

### Safe Routes to School

It is recommended that San Rafael embrace and encourage the Safe Routes to Schools program. Among other things, it can provide valuable suggestions for improved pedestrian facilities.

During the first months and years of this plan, we propose to take advantage of the Safe Routes to Schools program to help identify additional specific pedestrian improvements. Neighborhood associations will be invited to identify problem areas for pedestrians and school children, and that input will also be incorporated. Articles should be placed in the neighborhood newspapers to stimulate more community involvement.

Safe Routes to Schools addresses the daily gridlock of school traffic through a combination of education, activities, and engineering solutions. It encourages more walking and biking to school through in-class activities, contests and events, and organized “school pools” of parents escorting children by foot, bike or carpool. It also identifies problem areas that need to be improved.

The following table (Figure 5-5) is a listing of pedestrian improvements in priority order.

Figure 5-5 Specific Pedestrian Improvements

Location	Issue	Project
Villa/Highway 101 Underpass	One way underpass.	Change travel under freeway from one way to both directions for better pedestrian and bicycle access to west side of 101 and Lincoln Avenue, by eliminating one automobile travel lane.
Puerto Suello Hill to North San Pedro Road, on East side of US 101	Narrow path next to busy freeway lane.	Improve and construct pedestrian (and bicycle) sidewalk
Merrydale Road to Civic Center Drive (under US 101) <i>[see segment 025-002 in figure 5.2]</i>	Gap in Merrydale Rd	Pave over railroad tracks that split Merrydale South of the Merrydale Overpasses, and add a bridge over the creek to make Merrydale Road continuous for pedestrian and bicycle access.

Accessibility, continuity, and connectedness of pedestrian facilities are key features of this plan.

Location	Issue	Project
D Street (Wolf Grade):	Busy road; lots of pedestrians including children; and no sidewalk	Provide sidewalks or shoulders, as feasible.
Los Gamos and Northgate at Freitas Parkway	Offset intersection; pedestrians crossing divided parkway; poor visibility; and no crosswalks.	Redesign the offset intersection to provide continuous north-south pedestrian and bicycle movements.
East Francisco Boulevard	Narrow, incomplete, broken, and heavily used sidewalk situated next to a busy street with no parking.	Improve/construct (widen sidewalks)
US101 Overcrossing at Medway St	The freeway is a barrier to pedestrians who sometimes run across 6 lanes of traffic to cross the freeway.	Construct a Pedestrian & Bicycle over-crossing across the freeway at the location of East Francisco and Medway Street/Louise Street connecting to West Francisco Boulevard (and/or to Andersen Dr).
Canal Bridge	The canal separates bikes and pedestrians from San Rafael High School, Montecito Shopping Center, and downtown, and forces them to use busy Francisco Blvd East.	Construct a bridge over or under the canal for easier pedestrian/bicycle movement.
Francisco Boulevard West.	Sidewalks are missing in many places and there are no bike lanes. This is a major route to Davidson Middle School.	Improve and construct sidewalk going from San Rafael Transit Center out Francisco Boulevard West to Andersen Drive. Note: As part of the US 101 freeway widening HOV project, Caltrans will put in a new 4 ft. sidewalk along West Francisco Boulevard.
Vallecito School:	Inadequate sidewalks on Nova Albion Way.	Construct new sidewalk to reduce pedestrian car conflicts.
Lucas Valley Rd at Miller Creek.	Falling hazard. The bridge railings are sub-standard, only about 18" high, and the creek is deep.	Raise the height of the railing on both sides of the Miller Creek Bridge on Lucas Valley Road near Canyon Oaks Drive.
Mission from Tamalpais Ave to San Rafael High School.	Narrow street and heavy traffic during school hours. Bike and pedestrian facilities are poor. Irregular sidewalk made of asphalt on sections.	Consider legal use of sidewalk for bikes on Mission from Tamalpais Ave to San Rafael High School. Improve sidewalks. Add curb cuts needed at Grand & Mission. Add pedestrian and bike signage in this section of Mission.
Old Redwood Hwy frontage road from Smith Ranch Road to Freitas Parkway	Sidewalk from Mitchell Drive to Professional Center Parkway is broken, disjointed, narrow, and missing altogether at some locations.	Repair broken sidewalk. Complete all of the gaps on east side of street to make continuous. Widen sidewalk where the Fairchild property is being redeveloped.
Grand & Elm	There is only 1 curb cut and bushes and dirt block the sidewalk and impede access on the northeast corner.	Add curb cuts, cut bushes, and clean up dirt at north east corner.

Location	Issue	Project
Los Ranchitos from North San Pedro to Hammondale & Lincoln.	There is no place to walk along this stretch. The fog lane pinches out in places, and there is only a ditch and embankment, but no path or sidewalk. (This is also a very bad stretch for bikes.)	Widen the northbound shoulder to create a dirt path, and trim branches. Create a wide fog lane on the southbound direction. Reduce vehicle lane width to create a wider paved shoulder.
Civic Center Drive from MT Freitas Parkway Overpass To North San Pedro Road.	No sidewalk south of Gable Court.	Finish connecting missing gaps in the sidewalk.
Merrydale Road at the NWP tracks.	The railroad tracks and creek form a barrier to pedestrians (and bicycles). There is no sidewalk on Merrydale between the Merrydale OC and the NWP RR tracks. This street would be a great pedestrian & bike route if it were continuous.	Add a sidewalk or dirt/gravel path on the west side of Merrydale (next to the cemetery). Add a crossing for the railroad right of way. Add a bike and pedestrian bridge over the small creek.
Larkspur Street from Kerner To Canal.	There are many pedestrians; uncut bushes obstruct the sidewalk; and only a few cross walks exist.	Install traffic calming devices (roundabout & speed bumps) along Larkspur at Larkspur & Canal. Cut brush obstructing the sidewalk. Add a few cross walks.
Mission and Grand intersection	No traffic light, no cross walk signs on Mission. This is a very busy street.	Add a traffic light and pedestrian crosswalk signs.
Canal from Harbor to Medway	No sidewalk on one side of street.	Add sidewalk where missing.
Hammondale & Lincoln intersection.	Pedestrian facilities are missing on southeast corner. Need cross walk on Lincoln and on Hammondale, east side of intersection. Sidewalk is broken or missing on southwest corner and blocked by bushes. The Hammondale under-crossing has a very narrow sidewalk and is difficult to access.	Add a sidewalk to east side of Lincoln approaching the intersection. Add crosswalks with lights and pushbuttons on east side of intersection. Repair and complete sidewalk on the southwest corner of the intersection & trim bushes. Improve pedestrian access to the underpass and widen the sidewalk.
Los Ranchitos Rd from Northgate to North San Pedro Rd.	No sidewalk (but has generous fog line area.)	Add a sidewalk, or at least a dirt or gravel path to the east side of the road through here.
Francisco Boulevard from Grange Way to Highway 580. (At approximately 2165 E. Francisco Bld).	There is a bus stop sign, but no shelter or bus pad here. There is a small business center here and this stop is a link to the Richmond Bridge & Sir Francis Drake Blvd. Sidewalk ends at Bay Park.	Complete sidewalk on the east side of the street. Improve the bus stop at 2165 E. Francisco Blvd.

Location	Issue	Project
Grand and 5 <sup>th</sup> Ave intersection	Curb cuts lacking on the west side.	Install curb cuts on the northwest and southwest corners.
Grand from Elm to Villa.	Gravel sidewalk on the east side, paved sidewalk on the west side. No sidewalk on the east side of Grand, from Grand & Elm part way to Grand Court to Grand.	Add a sidewalk to the east side of Grand.
Grand and 2 <sup>nd</sup> Street intersection	On the Northeast. corner at Chevron station, the signal light pole is in the sidewalk, and a curb is needed.	Move stop light and install curb cut on northeast corner.
Grand from Locust to Newhall	Mountain View & Grand has no curb cuts on east side. Area varies from no sidewalk to dirt or gravel sidewalks. Newhall & Grand, no curb cuts. Sidewalk is gravel and dirt.	Add sidewalks where missing Add curb cuts at Newhall & Grand.
Grand from Jewel to Locust	No sidewalks in some parts. No curb cuts at Grand & Watt, Grand & Locust.	Add sidewalks where missing, Add curb cuts at the Grand & Watt, and Grand & Locust intersections
North San Pedro Road from city limit to Lincoln	Sidewalks missing in many areas. Pedestrians have problems crossing the on-ramps at the freeway.	Add sidewalks on at least one side of North San Pedro Road. Improve pedestrian crossings of the freeway on and off ramps.
East Francisco from Pelican Way to the end.	No sidewalk.	Add a sidewalk on the east (non-freeway) side of East Francisco.
Davidson Middle School access via Woodland	Children walk along Woodland, which is fast, narrow, and has many parked cars, business & driveways.	Educate kids on traffic safety & safe routes. Slow Woodland traffic with signs and speed humps.
Medway and Canal from E Francisco Blvd to Novato St.	Narrow street, fast traffic, parked cars, no crosswalks.	Add crosswalks and more stop signs along Canal and Medway.
Belvedere at Alto and Tiburon streets intersection	No crosswalk. This is an oddly shaped intersection with lots of cars, bikes, and pedestrians.	Add crosswalks.
Tamalpais Ave at Mission	Curb cut on east side of Tamalpais.	Add a curb cut on the east side of Tamalpais at Mission.
Bellam and Andersen Drive intersection.	Very busy intersection with no pedestrian signal or curb cuts.	Add pedestrian signals with push buttons. Add curb cuts on all 4 corners.
Mission Street from the Library/City Hall area to Boyd Park.	There is no sidewalk.	Conduct a study to find the best solution is this area. A standard concrete sidewalk may not fit in well at this location.

- Pedestrian improvements are not grouped by time period, but are designated as either “A”, “B”, or “C” with “A” the most important. Note that the bridge projects

are included with the bike route segments because they serve both bicycles and pedestrians.

Figure 5-6 Pedestrian Priorities

Priority:	Pedestrian Projects:
A	1. Villa/Highway 101 Underpass.
A	2. Puerto Suello Hill to North San Pedro Road, on East side of Hwy 101.
A	4. D Street (Wolf Grade)
A	6. East Francisco Boulevard.
A	10. Francisco Boulevard West.
A	14. Old Redwood Highway Frontage Road from Smith Ranch Road to Freitas Parkway.
A	16. Los Ranchitos from North San Pedro to Hammondale & Lincoln.
A	18. Merrydale Road from Merrydale Overcrossing to end at NWP tracks.
A	22. Hammondale & Lincoln intersection.
A	27. Grand and 2 <sup>nd</sup> Street intersection.
A	34. Belvedere at Alto/Tiburon streets intersection.
A	36. Bellam at Andersen Drive intersection.
B	3. Merrydale Road to Civic Center Drive (under highway 101)
B	8. Hwy 101 Overcrossing at Medway
B	9. Canal Bridge (or tube or ferry)
B	11. Vallicito School sidewalk improvement
B	13. Mission from Tamalpais Ave to SR High School.
B	15. Grand & Elm
B	17. Civic Center Dr. from MT Freitas Parkway Overpass To N. San Pedro Road.
B	19. Larkspur Street from Kerner To Canal.
B	20. Mission and Grand intersection.
B	21. Canal from Harbor To Medway.
B	23. Los Ranchitos Rd from Northgate to N San Pedro Rd.
B	26. Grand from Elm to Villa.
B	28. Grand from Locust to Newhall
B	29. Grand from Jewel to Locust.
B	30. N San Pedro Rd from city limit to Los Ranchitos Rd.
B	32. Davidson Middle School access via Woodland.
B	33. Medway and Canal from E Francisco Blvd to Novato Street
B	37. Mission Street from the Library/City Hall area to Boyd Park.
C	5. Los Gamos and Northgate at Freitas Parkway
C	12. Lucas Valley Rd at Miller Creek, railings.
C	24. Francisco Blvd from Grange Way to Hwy 580. (At approx. 2165 E. Francisco Blvd).
C	25. Grand and 5 <sup>th</sup> Ave intersection.
C	31. East Francisco from Pelican Way to the end.
C	35. Tamalpais

## Chapter 6 Implementation Cost Estimates

Figures 6-1, 6-2, and 6-3 show estimated costs for program elements. Most improvements are eligible for funding through a variety of State and Federal sources.

Figure 6-1 SHORT TERM Cost Estimates (YEARS 1-5)

Expense of Item	Year(s)	Feet or #. of Signs	Type	Cost
Signs	2001-2004	590	Signs	\$55,500
Striping	2001-2004	195,450 Ft.	Striping	\$306,000
Stencils	2001-2004	521	Stencils	\$130,000
Curb Cuts	2001-2004	100	Curb cut	\$150,000

Figure 6-2 MEDIUM TERM Cost Estimates (YEARS 1-10)

Expense of Item	Year(s)	Feet or #. of Signs	Type	Cost
Signs	2001-2010	359	Signs	\$34,000
Striping	2001-2010	116,000 Ft.	Striping	\$183,000
Stencils	2001-2010	311	Stencils	\$78,000
Bridges	2001-2010	2		\$2,000,000
Curb Cuts	2001-2010	100	Curb cut	\$150,000
Class 1	2001-2010	3,662 Ft.	Multi-use	\$13,500

Figure 6-3 LONG TERM Cost Estimates (YEARS 1-20)

Expense of Item	Year(s)	Feet or # of Signs	Type	Cost
Signs	2001-2020	125	Signs	\$12,000
Striping	2001-2020	15,369 Ft.	Striping	\$24,000
Stencils	2001-2020	41	Stencils	\$10,000
Bridges	2001-2010	2		\$2,000,000
Curb Cuts	2001-2010	50	Curb cut	\$75,000
Rail Trail	2001-2010	45,137 Ft.	Multi-use	\$000,000

## APPENDIX A

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### Detailed Trail Descriptions

## Appendix A Detailed Trail Descriptions

The Shoreline Park Path and Bay Trail - Recreational:

(Note: this description runs from south to north.)

This trail starts in San Rafael at Shoreline Park and continues east for 982 feet before ending at H. and H. Storage at 2167 East Francisco Boulevard. Then the Trail becomes a small dirt path for 1238 feet, then is paved again for 165 feet to a T-junction trailhead intersection at Pelican Way and Glacier Point. The width is just over 9 feet. Benches are distributed throughout this section of the pathway.

Continuing east, the paved path stops at 700 feet and becomes a dirt path and continues for 980 feet to a T-junction. The pathway continues 1420 feet onto a breakwater levy multi-use dirt pathway, which varies in width from 18 to 22 feet. This section ends at the Baypoint housing complex. The next section measures 3300 feet in length, and is 11 feet wide with a 2-foot shoulder on the inland side and one-foot shoulder bayside. Benches are provided alongside the trail. The total length of all paved sections of this pathway is one mile.



## APPENDIX B

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# Bicycle Parking & Restroom Facilities

## Appendix B      Bicycle Parking & Restroom Facilities

- **San Rafael Transit Center** - high quality racks exist that can accommodate about 16 bicycles. Observations indicate that this is inadequate to serve the existing and projected demand.
- **San Rafael City Hall** - a Class 2 bike rack was recently installed.
- **Dominican College in San Rafael** - there is a mixture of Class 2 and sub-standard bike racks.
- **Guide Dogs for the Blind** - has Class 2 bike racks. Showers and lockers are also part of their facility.
- **Fair Isaac** - showers, lockers and Class 2 bike racks are provided
- **AutoDesk** - Class 2 bike racks exist outside most of the buildings. Showers and lockers are available through a gym membership, which the AutoDesk Company subsidizes.
- **United Market** - employees are allowed to bring their bikes into a storage area.
- **Montecito Shopping Center** - there are two separate sub-standard bike racks each holding one bicycle.
- **Northgate Mall** - Five or six Class 2 bike racks exist.
- **Northgate I** - One Class 2 bike rack but none near the Safeway store or Starbucks.
- **San Rafael Public Library** - bike racks exist but are substandard.
- **Jackson's Hardware** - One Class 2 rack.
- **Albert Park and Mary B Freitas Park** - have Class 2 racks.
- **The Shamrock Center** - Class 2 bike racks exist.
- **Whole Foods** - has Class 2 bike racks

## **Bicycle Parking**

Note: To be effective, bicycle parking must be located in secure, visible, and convenient locations.

- Install adequate bike parking on busy commercial roads such as Fourth St.
- Expand and improve bike parking at the Transit Center.
- Encourage operators of shopping centers, large businesses, and employment centers, hospitals, schools, and public buildings to install secure bike parking.
- Install adequate amount of secure parking at all public parks and recreation centers.

## **Bike Stations**

Another approach to providing Class I bike parking is the creation of a Bike Station. Bike stations are attended bike transit centers that offer secure valet bicycle parking and other transit amenities to encourage the use of a bicycle as a transportation mode. Three facilities are currently operating in California cities including Long Beach, Palo Alto and Berkeley.

The Palo Alto Bike station is funded by the City of Palo Alto and a grant from the Bay Area Air Quality Management District. Operating in an old baggage building, it works like a coat check: People leave their bikes while they commute on the train or bus, or while visiting Palo Alto. There is no charge for bicycle storage. The facility is open weekdays from 6:00 AM to 8:00 PM, and on weekends from 9:00 AM to 6:00 PM.

In addition to bike storage there is a mechanic on duty to perform repairs and adjustments. The bike station also offers a coffee bar and patio seating, a changing area, and education programs including bicycle safety and maintenance workshops. There is a corporate commute program where companies can reserve bicycles for their employees to travel to and from the transportation center.

## Restrooms & Bike Racks in City of San Rafael Parks and Recreation Centers

<b>Albert Park</b>	Portable Restroom	1- Bike Rack
<b>Boyd Park</b>	Portable Restroom	0 - Bike Rack
<b>Freitas Park</b>		1- Bike Rack
<b>Gerstle Park</b>		0 - Bike Rack
<b>Peacock Gap Park</b>		0 - Bike Rack
<b>Santa Margarita Park</b>		1- Bike Rack
<b>Sun Valley Park</b>		0 -
Bike Rack		
<b>Victor Jones Park</b>		0 - Bike Rack
<b>Bret Harte Park</b>	Portable Restroom (Seasonal)	1 -
Bike Rack		
<b>Pickleweed Recreation Center:</b>		
	Building Restroom	
	2 - Portable Restrooms	1 - Bike Rack
<b>San Rafael Recreation Center</b>		
	Building Restroom	1 - Bike Rack
<b>Terra Linda Recreation Center</b>		
	Building Restroom,	
	1 - Portable Restroom (Seasonal)	1 - Bike Rack

## APPENDIX C

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## Educational Programs

## Appendix C Educational Programs

### **Skills Development Programs**

This plan recommends that San Rafael develop safety programs for cyclists and pedestrians such as Safe Routes to School and Trips for Kids. For seniors, the plan describes "Walking Through The Years," a program provided through the American Association of Retired Persons, American Automobile Association, and the National Safety Council.

A National Safety Council pedestrian safety program for elementary (K- 6) school bus riders is also available. The program contains materials for teachers, parents, and bus drivers. Five videos, K-6 curricula, and information pamphlets make up the program materials which are available as the "Walk-Ride-Walk: Getting to School Safely" program. (Call 708-775-2307.)

### **Administrators and Advocates**

Programs also exist for administrators, bike and pedestrian advocates and program administrators, and for the police. The National Highway Institute provides a 3-day training program for government representatives and public interest groups in the latest findings and foundations of the pedestrian and bicyclist areas relative to safety and accommodations. The course presents safety problems and provides countermeasure and design information. The course number is 38061. (Call 703-235-0528.) Police can get training on how to classify police crash reports into the NHTSA/FHWA (Federal Highway Administration) pedestrian and bike crash types. It is recommended that the SRPD obtain this training. The same program then will serve to create an operational database that identifies pedestrian and bicyclist safety problems at the local level.

### **Existing Bicycle Safety Education Programs**

Local nonprofit organizations offer a variety of safety education programs in San Rafael. Safe Routes Marin, Safe Routes to Schools, the Bicycle Trails Council of Marin (BTCM), and Trips for Kids offer skill and other education programs for adults and youth. Safe Routes to Schools also organizes walk and bike pools and special events that promote walking and biking to school.

## **Safe Routes to Schools**

Successful in Australia, Europe, and British Columbia, Safe Routes to Schools increases the health and safety of children, reduces traffic around schools, and fosters a stronger sense of community.

The program operates through a team building process, bringing together parents, children, neighbors, teachers, police, public and school officials to study the problem and create innovative solutions. The team begins with identifying the road networks leading to the schools, recognizing the hazardous areas, and recommending possible solutions. The local jurisdiction works to find funding sources to implement feasible solutions.

## **Trips for Kids Marin**

A Bay Area non-profit with facilities in San Rafael provides mountain bike outings and environmental education for kids who would not otherwise be exposed to these types of activities. Their goal is to combine lessons in personal responsibility, achievement and environmental awareness through development of practical skills and the simple act of having fun (including riding bicycles).

The Trips for Kids Re-Cyclery program focuses on recycling used bikes and bike parts through its thrift store, and provides job-training programs for youth. These recycled bikes provide safe, environmentally friendly and affordable transportation for both children and adults.

## APPENDIX D

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### Bicycle Advocacy Groups



## Appendix D Bike Advocacy

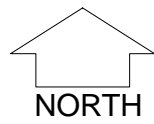
Groups that are active in San Rafael and seem relevant to this Plan are included here.

- **San Rafael BPAC** was created to develop a bicycle and pedestrian master plan for the City of San Rafael and pursue grant funding. The BPAC also promotes public involvement and support for biking and walking as a viable alternative to driving. Contact: City Managers office, (415) 485-3070
- **Safe Route to Schools** offers bicycle and pedestrian safety and educational programs in selected schools in San Rafael and plans to expand to all interested schools. It establishes safe routes “teams” of parents, neighbors, and other stakeholders. These teams organize "walking school buses," bike pools, and special events that promote walking and biking to school. They also work with local jurisdictions to improve safety conditions on the streets surrounding the school sites. Contact (415) 488-4101 or [wkallins@igc.org](mailto:wkallins@igc.org).
- **Bicycle Trails Council of Marin (BTCM)**, an informational and educational non-profit founded in 1987 that sponsors free monthly skill classes and other education programs. BTCM also helps maintain and build trails. They can be reached at: [www.btcmarin.org](http://www.btcmarin.org) or 488-1665.
- **Transportation Alternatives of Marin (TAM)** a non-profit organization that works to promote bicycling in Marin.
- **Trips for Kids** is an organization based in San Rafael that 1) takes inner city kids on mountain bike rides, 2) offers bicycle riding classes, 3) recycles bikes, and 4) runs 2 shops with used cycles and gear. Trips for Kids can be reached at 458-2986 or [tffbike@pacbell.net](mailto:tffbike@pacbell.net).
- **Bike the Bridge! Coalition** was founded in 1996 and is working to secure bicycle access on all Bay Area bridges, including the Richmond-San Rafael Bridge. They can be reached at: [www.bikethebridge.org](http://www.bikethebridge.org).
- **Marin County Bikeways Committee** provides recommendations to the Board of Supervisors on bicycle policies and practices in Marin County.
- **Cal Park Connection** A citizens group that seeks to close the gap for pedestrians and bicycles between San Rafael and Larkspur. Cal

Park Connection favors opening the Larkspur tunnel as a Class I bike path or install a Class I path parallel to Hwy 101. CPC can be reached at [cpc\\_gap@yahoo.com](mailto:cpc_gap@yahoo.com)

- **Marin County Bicycle Coalition (MCBC)**, a non-profit organization founded by cyclists in 1998 to unify bicyclists in Marin. The MCBC has produced a countywide bicycle map, available at bike shops. The MCBC can be reached at: [www.marinbike.org](http://www.marinbike.org) or (415) 456-3469.
- **Share The Road** program, which includes signs, posters, and educational programs, has the goal of making it safer to bicycle and drive in Marin County. Contact: [malcolm@sharetheroad.com](mailto:malcolm@sharetheroad.com) or visit: [www.sharetheroad.com](http://www.sharetheroad.com)

# Bike Routes North San Rafael



- Route Points
- End Point
- Bicycle & pedestrian related features
- PEDESTRIAN ACTIVITY
  - TRANSIT CENTER
  - RACK
  - LOCKERS
- Bicycle Routes Status & Class
- EXISTING I
  - EXISTING II
  - PROPOSED I
  - PROPOSED I-II
  - PROPOSED II
  - PROPOSED II-III
  - PROPOSED III
  - No Data

November 21, 2001

