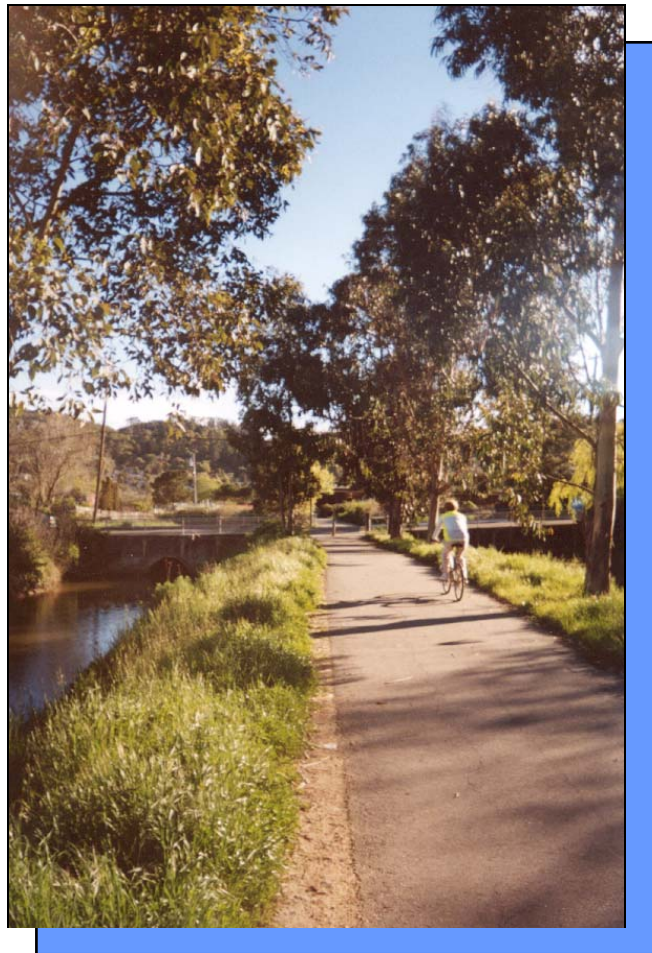




TOWN OF CORTE MADERA

BICYCLE TRANSPORTATION PLAN 2008 UPDATE



Prepared for:
The Town of Corte Madera

Prepared by:
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Approved by Corte Madera Bicycle Advisory Committee June 4, 2008

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INTRODUCTION

This Updated Plan is intended to provide a blueprint towards making bicycling an integral part of transportation and daily life in Corte Madera. Successful implementation and continued interest in accommodating bicyclists' needs can improve the quality of life in Corte Madera.

Why is it important for Corte Madera to encourage bicycling? Bicycling can be part of a healthy lifestyle – an asset that becomes even more valued in our hectic daily lives. The entire Town benefits from lessened traffic congestion, lower vehicle exhaust emissions, decreased noise levels, and less land dedicated towards automobiles and parking. Also, a community seems friendlier and more inviting when residents are not confined to an automobile and can easily socialize with those they meet.



Becoming a bicycle-friendly community requires several elements. **Safety** is a number one concern of citizens, whether they are avid or casual recreational bicyclists or bicycle commuters. In most cases, bicyclists must share narrow, high-traffic roadways and cross busy intersections. This is often cited as the primary reason why many people elect not to use their bicycles more often. Second, **access improvements** are important to help enhance the ability to make utilitarian trips to destinations like shops, work, and school. Currently, Corte Madera lacks a continuous and connected bikeway network to access these activity centers and must lessen the barrier effect caused by U.S. 101. Finally, **effective implementation** is vital for the success of this plan. Successful educational programs, enforcement, and funding are necessary to promote bicycle use and ensure that the needs of bicyclists are met.



The Corte Madera Bicycle Master Plan Update is primarily a coordinating and resource document for the Town, which will evolve over time to reflect the changing priorities of the community. Once adopted and certified, the Bicycle Master Plan Update will enable the Town to qualify for State and Federal funding sources specific for bicycle improvements.

LAND USE

Corte Madera is a relatively small town of 9,100 residents (2000 Census) within 4.5 square miles located on Highway 101 – the primary route to San Francisco from the North Bay region. Situated between the San Francisco Bay and the Blithedale Ridge, a good portion of the Town enjoys a relatively flat terrain – ideal for the novice cyclist – yet close to more challenging environments. Corte Madera’s location within Marin County also lends itself to easy access to major activity centers. However, according to Corte Madera’s 1989 General Plan, bicycle circulation was limited and considered difficult – a situation that has been improved since adoption of the 2001 Bicycle Transportation Plan but still requires additional effort. A number of projects proposed in the 1989 General Plan and the 2001 Bicycle Transportation Plan have been completed, including additional bike paths on the former Northwestern Pacific Railroad right-of-way.

Of particular concern both then and now continues to be movement between east and west Corte Madera. Access across U.S. 101 is limited to Tamalpais Drive, the Nellen Avenue overcrossing, and the class I path on the south side of Wornum Way. As shown on the town’s land use map, a majority of the Town’s commercial development is situated on either side of the freeway while residential areas lie primarily on the western and southeastern portions of

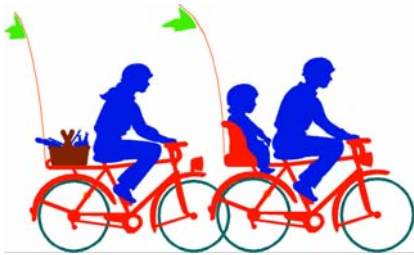


Nellen Avenue Overcrossing

Town. Certain significant destinations in the community, namely Neil Cummins Elementary School and Town Park, are located west of the freeway. Obviously, inconvenient crossings present problems of safety and access especially for eastside residents without automobiles. Children are most affected by this constraint. The Neil Cummins Elementary School PTA has noted that many children living on the east side of the highway would gladly bicycle to school but current conditions are a serious safety issue with the novice cyclists. The bus stops at the Tamalpais Interchange are another area of concern. Bus riders must cross the busy on- and off-ramps of the freeway to reach the bus stops.

COMMUTERS

An April 2003 national survey conducted by America Bikes showed that Americans want to bicycle more and support building infrastructure to achieve this: "Over half of Americans (52%) want to bike more than they do now and a majority of the public (53%) favors increasing federal spending to build more bike paths for easier and safer bicycling." This suggests that there is a large reservoir of potential cyclists who do not ride (or do not ride more) due to a lack of appropriate facilities. According to the 2000 Census, one percent of commuting residents in Corte Madera rode their bicycles to work.



Commuter bicyclists range from employees who ride to work to a child who rides to school to people riding to shops. Bicycling requires short commutes, typically less than three miles, which runs counter to most land use and transportation policies that encourage people to live farther and farther from where they work. Access to transit helps extend the commute range of cyclists, but

transit systems also face an increasingly dispersed live-work pattern that is difficult to serve. Despite these facts, Corte Madera has a great potential to increase the number of people who ride to work or school because of (a) the small size of the community, (b) the proximity of its' residential neighborhoods to the employment centers of Central Marin County, (c) a favorable climate where commuters could potentially commute over 250 days a year rain free, and (d) a high percentage of work trips that are less than 15 minutes (31% in 2000) by car.

The Needs Analysis chapter provides a detailed analysis of the estimated existing and potential increase in commuting and utilitarian cycling.



The High Canal Pathway is a popular route for schoolchildren to access Neil Cummins Elementary School.

OTHER LOCAL PLANS

This Bicycle Master Plan Update is intended to coordinate and guide the provision of all bicycle-related plans, programs, and projects in the Town. It is intended to assist the Town in the implementation of its priorities but does not mandate any particular action on its part. The following studies and planning efforts involve bicycle facility planning in Corte Madera and elements have been incorporated, as appropriate, into this Bicycle Master Plan Update. In addition the Bicycle Advisory committee plans to consider the issue of a "Complete Streets" policy for the Town, separate from the bicycle plan update, with the goal of bringing this policy to the Town Council for consideration at a later date.

Relationship to Other Marin County Plans and Projects

The studies or planning efforts listed below have been reviewed and consulted, studied for consistency, and where appropriate, incorporated into the Corte Madera plan update.

Corte Madera General Plan Update (Draft, 2008)

Corte Madera is currently in the process of updating its General Plan. A key element of the Circulation Element of the draft general plan is the proposal to construct a bicycle and pedestrian overcrossing of Highway 101, somewhere in the vicinity of the existing Tamalpais Drive overcrossing. This crossing has been discussed as a potential public-private partnership with the goal of connecting the two shopping centers on either side of the highway.

Greenbrae Improvements Corridor (Ongoing, 2008)

The goal of this Transportation Authority of Marin project is to plan and construct improvements to the Greenbrae Corridor along Highway 101 between Corte Madera and San Rafael. Among the key elements of the project are improvements to the Greenbrae interchange at Sir Francis Drake as well as potential changes to the Tamalpais Drive interchange and the on and off-ramps along the corridor. Major bicycle projects within this corridor include the proposed Central Marin Ferry Connection Project (CMFCP) over Corte Madera Creek, the existing Wornum Drive Pathway which connects the CMFCP to the existing Sandra Marker Trail in Larkspur and a new bicycle and pedestrian overcrossing of Highway 101 Corte Madera.

Nonmotorized Transportation Pilot Program (NTPP)

Marin County is one of four communities nationally that has been selected by Congress to participate in a Nonmotorized Transportation Pilot Program (NTPP) and receive \$20 million for improvements for walking and bicycling. The funds were allocated through Section 1807 of SAFETEA-LU, the six-year federal transportation funding bill adopted in

2005. The purpose of the pilot program is to demonstrate “the extent to which bicycling and walking can carry a significant part of the transportation load, and represent a major portion of the transportation solution, within selected communities. The County Department of Public Works, as local administrator of the NTPP, conducted an extensive outreach process in conjunction with this plan update to solicit project and program ideas. Through a screening and ranking process, the Board of Supervisors adopted a funding plan for all of the NTPP funds in April, 2007. The selected projects and programs will be implemented over the course of the Pilot, which concludes in 2010. Funded projects are included in this Plan. NTPP funding has been allocated for the Mill Valley-Corte Madera Bikeway Study, which will examine the feasibility of improvements to the connections between these two communities to encourage bicycling. The connection between these communities has been identified as a priority bikeway improvement for this plan.

***Sonoma Marin Area Rail Transit Final Environmental Impact Report (2006)
(SMART FEIR)***

The SMART FEIR detailed plans to establish passenger rail service, as well as a bicycle and pedestrian pathway parallel to the rail line, for the 70-mile corridor from Larkspur Landing in Marin to Cloverdale in Sonoma County. According to the FEIR, approximately 7,000 people would use the pathway on a daily basis on weekdays and over 10,000 people would use it on the weekend days. Rail stations were designed to optimize pedestrian and bicycle access, including on-site bicycle parking at all stations and space for staffed bicycle storage and maintenance facilities at the San Rafael and Santa Rosa station sites. With room being designed into rail cars for bicycle storage, passengers would be able take the train and ride their bicycles to work, school, shopping or for recreation.

One of the goals of the 2001 *Marin County Unincorporated Areas Bicycle and Pedestrian Master Plan* as well as the 1994 *North-South Bikeway Study* was the creation of a North-South Bikeway, along the railroad right-of-way. Because SMART owns the railroad right-of-way from Corte Madera north, all proposals for projects in the SMART Right-of-Way in this plan update must be reconciled with the SMART FEIR.

Marin County Transit District Short-Range Transit Plan (2006)

The Marin County Transit District *Short Range Transit Plan* (SRTP) includes a complete assessment of the current Marin County transit system and its riders, as well as an identification of transit needs and alternative ways to meet those needs. The goal of the plan is to develop a financially sustainable transit system for Marin County that maximizes productivity and mobility for everyone who travels within the County. A majority of Measure A Transportation Sales Tax revenues fund local transit service. Per Measure A requirements, this plan will be updated every two years. In terms of bicycle access to transit, the plan includes a statement that higher capacity bicycle racks are recommended for new buses. This plan also includes bus stop amenity standards,

which include the provision of appropriate bicycle storage and/or parking at all high use transit stops with usage of over 100 passengers per day.

Corte Madera Bay Trail Feasibility Study (2004)

This plan fleshed out the local alignment through Corte Madera of a regionally significant bicycle and pedestrian route. It proposes a combination of Class I, II and III bikeway facilities along Paradise Drive in Corte Madera from San Clemente to the Tiburon border. The facilities proposed in this bicycle plan update are consistent with the proposal in this feasibility study. The Bicycle Advisory Committee has identified the segment of Paradise Drive between Harbor Drive and San Clemente Drive as a priority for improvements.

Central Marin Ferry Connection Project Feasibility Study (2004)

This Larkspur and Bay Trail-funded study carried forward one of the top priority North-South Bikeway projects from the 2001 County bicycle plan, a proposal to connect the communities of Corte Madera and Larkspur over Corte Madera creek, which would complete a key segment of the Bay Trail, and provide improved bicycle and pedestrian access to the Larkspur Ferry Terminal. The report established a preferred alignment for the Central Marin Ferry Connection project which essentially follows the old Northwestern Pacific Railroad right-of-way between Wornum Drive in Corte Madera, across Corte Madera Creek, and across East Sir Francis Drake Boulevard on a new high-level bridge connecting to the Cal Park Tunnel Pathway.

Alto Tunnel Scoping Study, Volumes I and II (2001)

This study was completed in 2001. It collected background documents and laid out the scope of a future feasibility study for reopening the Alto Tunnel between Corte Madera and Mill Valley. The studies contain detailed information about the current condition of the tunnel as known through field inspections and inferred from historical sources. The document recommends a specific strategy for further study of the tunnel's condition.

Marin County Unincorporated Areas Bicycle and Pedestrian Master Plan Update (2008)

This plan was completed for the Marin County Department of Public Works in 2001 and updated in 2006-2008. The plan outlines improvements to the unincorporated areas of the County of Marin and includes routes of countywide and regional significance, including the North-South Bikeway as well as highlighting key improvements from the incorporated communities of Marin.

Local Bicycle and Pedestrian Master Plans

The following jurisdictions have adopted bicycle or bicycle/pedestrian master plans which are being updated concurrently. Special consideration has been given to locations where countywide and regional facilities cross jurisdictional boundaries in order to coordinate improvements among multiple jurisdictions.

Community	Year of Plan Adoption (most recent update)
Corte Madera	2008
Sausalito	1999
Tiburon	2001
Fairfax	2008
San Anselmo	2008
San Rafael	2002
Novato	2007
Mill Valley	2003
Larkspur	2007
Ross	No Plan
Unincorporated Marin County	2008

Marin County North-South Bikeway Feasibility Study (1994)

The purpose of the Marin County North-South Bikeway Feasibility Study was to identify and develop a safe and efficient north-south bikeway from the Golden Gate Bridge to the Sonoma County line, generally following the old Northwestern Pacific Railroad right-of-way. The Study was never officially adopted. The Plan’s recommendations included development of a long-term “North-South Greenway” alignment along the Northwest Pacific Railroad right-of-way through much of the County. However, the Study recognized the short-term difficulties in this alignment due to the intended use of the right-of-way for transit, cost, rebuilding of tunnels, and private site development. Thus it also recommended a short-term alignment that runs mostly along existing streets and paths, with improvements in signing, striping, and pavement.

Marin County Bicycle Plan (1975)

In 1975, Marin County’s Board of Supervisors adopted a document entitled “A Bikeway Policy for Marin County,” which emphasized the need for safe accommodation for bicycling in all public streets and roads.” 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, 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 locations with an apparent demand for such facilities, a bicycle educational and safety program be initiated in all elementary schools, and the introduction of a bicycle registration program to help recover stolen bicycles. The total cost of the Plan was estimated at \$3.5 million.

Cal Park Hill Tunnel Rehabilitation and Pathway (in progress)

This project carries forward one of the key North-South Bikeway gap closure projects proposed in the 2001 plan. The project is currently in final design. The overall cost of the project is estimated at \$24 million, including \$12.4 million for the multimodal bicycle and pedestrian facility and tunnel reconstruction and an additional \$11.6 million for work necessary to accommodate potential rail without disrupting the pathway. All rail-related costs are funded through SMART, the commuter rail agency. The project is fully funded, with the majority of funding coming from Regional Measure 2 funds earmarked to TAM and SMART. Additional funding is secured through Marin County, State and Federal grants.

Countywide Bicycle Route Guide Signage Project (in progress)

As proposed in the 2001 County bicycle plan, the Marin County Department of Public Works has developed and is in the process of implementing a numbered countywide Bicycle Route Guide Signage Project. The system will guide riders around the county between destinations, providing direction and destination information at decision points. As of this writing, signs had been installed throughout the County including most locations in Corte Madera.

Regional Bicycle and Pedestrian Plans

Regional Bicycle Plan (2001, Metropolitan Transportation Commission)

The Metropolitan Transportation Commission's 2001 Regional Bicycle Plan is a component of the 2001 Regional Transportation Plan for the San Francisco Bay Area, which establishes the region's 25-year transportation investment plan. The plan identifies a bikeway network over 1,600 miles in length, which includes all 400 miles of the Bay Trail, the multiuse pathway that will ultimately ring San Francisco Bay. The creation of the Regional Bicycle Network will provide better access to the region's transit network and activity centers, as well as serving the goal of encouraging greater use of the bicycle as a transportation mode.

The Bay Trail Plan (1989)

The Bay Trail Project is a nonprofit organization administered by the Association of Bay Area Governments (ABAG) that plans, promotes and advocates for the implementation of a continuous 500-mile bicycle, pedestrian, multi-use path around San Francisco Bay. When complete, the trail will pass through 47 cities, all nine Bay Area counties, and cross seven toll bridges. To date, slightly more than half the length of the Bay Trail alignment has been developed. The Bay Trail designated a 'spine' for a continuous through-route around the Bay and 'spurs' for shorter routes to Bay resources. The goals of the Plan include providing connections to existing park and recreation facilities, creating links to existing and proposed transportation facilities, and preserving the ecological integrity of the Bays and their wetlands. Major Marin sections that have been

completed include the Tiburon Bicycle Path, the Mill Valley-Sausalito Bicycle Path, the Corte Madera-Larkspur Bay Trail and sections of the San Rafael Shoreline Park Pathway.

Relevant Legislation and Policies

The Federal Safe Accountable Flexible Efficient Transportation Equity Act – a Legacy for Users (SAFETEA-LU) provides bicycle and pedestrian funding opportunities including funding for the Nonmotorized Transportation Pilot Program.

On a state level, according to the California Bicycle Transportation Act (1994), all cities and counties should have an adopted bicycle master plan. The Caltrans BTA requirements – and how this Plan complies with them for Marin County – are detailed in **Table 2.1 California Bicycle Transportation Act (1994) Requirements** below. The *Caltrans Highway Design Manual* contains specific, mandatory design requirements for facilities recommended in those plans. The basic design parameters of on-street and off-street bicycle facilities are defined in 'Chapter 1000: Bikeway Planning and Design' of the Manual. In addition to BTA and design requirements, Caltrans Deputy Directive 64 (DD-64) also applies to projects within Caltrans jurisdiction or funded by Caltrans moneys. The document states: "The Department fully considers the needs of non-motorized travelers (including pedestrians, bicyclists and persons with disabilities) in all programming, planning, maintenance, construction, operations and project development activities and products."

The Metropolitan Transportation Commission (MTC) is the regional transportation funding agency in the San Francisco Bay Area and requires that pedestrian and bicycle facilities be routinely considered in roadway projects. In 2006, MTC passed Resolution #3765 which states that "Projects funded all or in part with regional funds (e.g. federal, STIP, bridge tolls) shall consider the accommodation of non-motorized travelers, as described in Caltrans Deputy Directive 64." MTC Resolution 875 details requirements for Bicycle Advisory Committees in the development and updating of local bicycle plans and the prioritization of TDA Article 3 funding.

Table 1
BTA Compliance Checklist

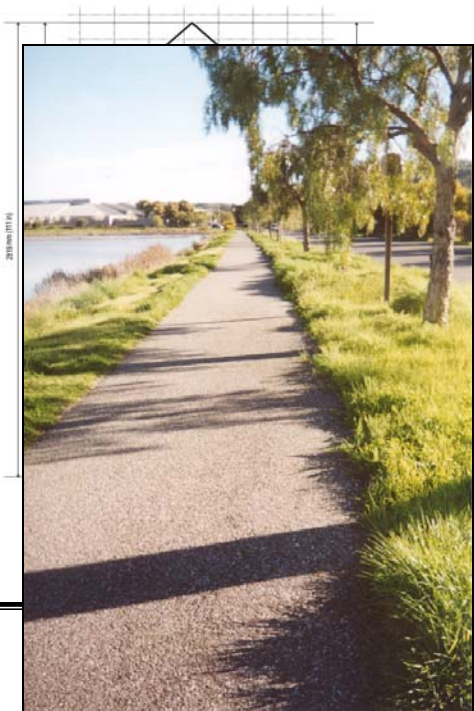
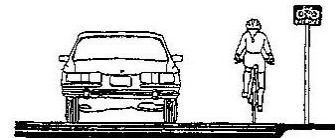
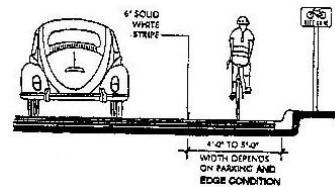
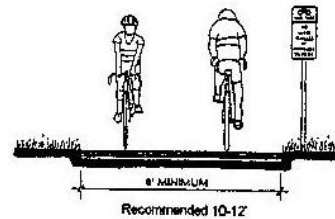
BTA 891.2	Required Plan Elements	Location Within the Plan
(a)	The estimated number of existing bicycle commuters in the plan area and the estimated increase in the number of bicycle commuters resulting from implementation of the plan.	Table 5; page 30. Table 6; page 32.
(b)	A map and description of existing 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.	Figure 3; page 29.
(c)	A map and description of existing and proposed bikeways.	Figure 1; page 14. Figure 2; page 22. Tables 2 and 3, pages 13 and 20. Text, pages 11-13, 18-21.
(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.	Figure 1; page 14. Figure 2; page 22 Text, pages 15-16.
(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.	Figure 1; page 14. Figure 2; page 22 Text, page 17.
(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.	Figure 1; page 14. Figure 2; page 22 Text, pages 15-16.
(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.	Text, pages 23-26.
(h)	A description of the extent of citizen and community involvement in development of the plan.	Text, page 34.
(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.	Text, pages 5-10.
(j)	A description of the projects proposed in the plan and a listing of their priorities for implementation.	Text, pages 18-21.
(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.	Figure 1; page 14. Text, pages 11-13.

EXISTING BIKEWAYS

Bikeways can be classified into three primary types:

- Class I Bikeway – Typically called a bike path, this provides for bicycle and pedestrian travel on a paved right-of-way completely separated from any street or highway. (These are particularly popular with novice cyclists and avoided by experienced cyclists because they can become overly popular and crowded.) The Caltrans design criteria require a minimum width of 2.4 meters (8 feet) for a two-way path.
- Class II Bikeway – These are often referred to as a bike lane. It provides a striped and stenciled lane for one-way travel on a street or highway. When properly designed, bike lanes help improve the motorists' awareness of cyclists. The minimum width of a lane is 1.2 meters (4 feet), 1.5 meters (5 feet) if parking is permitted.
- Class III Bikeway – Generally referred to as a bike route, it provides for shared use with pedestrians (on sidewalks) or motor vehicle traffic and is identified only by signing. These are recommended to connect discontinuous segments of the bikeway or when through routes are not served by Class I or Class II bikeways. Shared Roadway Bicycle Marking stencils are sometimes used on Class III Bikeways where parallel parking exists. These stencils indicate where cyclists should ride outside the "door zone" and also alert motorists to the presence of bikes on the roadway.

There are just over six miles of bikeways within Corte Madera, although some pathways may not conform to Caltrans design criteria. The majority of bikeways in the town are multi-use pathways found



in park and open space areas, primarily along the former Northwestern Pacific railroad right-of-way. Some of the notable accomplishments in the town since the 2001 plan include the paving of the section of the Sandra Marker Trail between the High Canal and Tamal Vista Blvd and the installation of the High Canal Bridge. The High Canal Bridge, which was completed during Summer 2001, has long been on the wish list of area cyclists. It lies on a former Northern Pacific Railroad right-of-way that serves as a vital east-west link. Approximately \$50,000 was allotted to a paved class I path leading from the bridge to Tamal Vista to complete the link to the east side of the freeway via the Wornum Way class I path.

Table 1 on the following page lists the existing bikeway facilities, their type, and length. **Figure 3-1** illustrates where these bikeways are located throughout the Town.

Class I pathway along Redwood Highway

**Table 2
Existing Bikeways in Corte Madera**

Class I Facilities - Multi-Use Paths (Off-Street)				
Segment Name	Begin	End	Class	Length
Sandra Marker Trail/Wornum Pathway (Larkspur/Corte Madera)	Redwood Hwy.	Corte Madera City Limit	I	0.30
Redwood Highway/San Clemente Drive Paths	Sandra Marker Trail	Paradise Dr.	I	1.20
Alto Hill Pathway (Mill Valley/Corte Madera/County/Caltrans)	Casa Buena Dr.	Corte Madera City Limit	I	0.34
Tamalpais Drive Sidepath	Chapman Dr.	Sausalito St.	I	0.21
Town Park Pathway	High Canal Bridge Pathway	Mohawk Ave.	I	0.35
NWP Railroad Path (Corte Madera)	Serra St.	Tamalpais Dr.	I	0.04
High Canal Bridge Pathway Section 1 (Corte Madera/Larkspur)	Tamalpais Dr.	Lakeside Dr.	I	0.54
High Canal Bridge Pathway Section 2(Corte Madera/Larkspur)	Wornum Way	Corte Madera City Limit	I	1.59
NWP Railroad Path (Larkspur/Corte Madera)	Redwood Ave.	Corte Madera City Limit	I	0.22
Redwood Highway/San Clemente Drive Paths	Prince Royal Dr.	Westward Dr.	I	0.35
				5.12
Class II Facilities - Striped Bicycle Lanes (On-Street)				
Segment Name	Begin	End	Class	Length
San Clemente Dr.	Tamalpais Dr.	Paradise Dr.	II	0.49
Madera Blvd.	Council Crest Dr.	Tamalpais Dr.	II	0.34
				0.83
Existing Class 3 Bikeways - Signed Bicycle Routes				
Segment Name	Begin	End	Class	Length
Redwood Ave.	Tamalpais Dr.	Pixley Ave.	III	0.25
				0.25

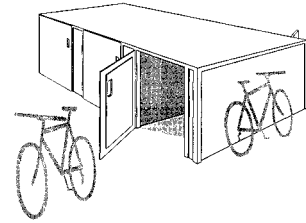
[INSERT FIGURE 1 HERE]

PARKING FACILITIES

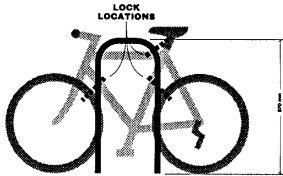
Parking must not be overlooked when planning bicycle facilities and encouraging widespread use. Bicycles are one of the top stolen items in all communities, with components being stolen even when a bicycle is securely locked. Because today's bicycles often cost between \$350 to over \$2,000, parking issues should be considered.

Parking facilities can be classified as follows:

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



Class II bicycle parking facilities are best used to accommodate visitors, customers, messengers, and others expected to depart within two hours. Bicycle racks provide support for the bicycle but do not have locking mechanisms. Racks are relatively low-cost devices that typically hold between two and eight bicycles, allow bicyclists to securely lock their frames and wheels, are secured to the ground, and are located in highly visible areas. They are usually located at schools, commercial locations, and activity centers such as parks, libraries, retail locations, and civic centers.



Golden Gate Transit provides Class II parking at a number of bus stops throughout the Town. These locations include Tamalpais Drive at Casa Buena, southbound U.S. 101 ramp at Tamalpais Drive, and southbound U.S. 101 ramp at Lucky Drive.

Bike racks are located at a limited number of destinations around town including:

- Neil Cummins School
- Corte Madera Town Center Mall
- The Village at Corte Madera
- The Marketplace
- Gold's Gym (10 Fifer Avenue)
- Paradise Point Executive Center (5725 Paradise Drive)



Paradise Point Executive Center

Figure 1 also identifies where these parking facilities are situated in the Town.

Bicycle commuters traveling longer distances appreciate additional amenities to make commuting more viable and enjoyable. Showers, changing rooms, and bicycle and clothing storage areas are welcomed. The concept of a full-service “bicycle commuting center” offering these conveniences and other services such as cafes, bike shops, and bicycle rentals, has spurred considerable interest in the country. Cities in California that have built “bikestations” include Palo Alto, Long Beach, and Berkeley.

No official shower or locker facility for bicycle commuters is known to exist in Corte Madera. It is likely that some employers provide these facilities, and that some bicycle commuters use facilities in local health clubs.

MULTI-MODAL CONNECTIONS

Improving the bicycle-transit link is an important part of making bicycling a part of daily life in Corte Madera. Linking bicycles with public transportation (bus and ferry) overcomes such barriers as lengthy trips, personal security concerns, and riding at night, in poor weather, or up hills. Additionally, bicycling to transit instead of driving benefits communities by reducing air pollution, demand for park and ride land, energy consumption, and traffic congestion with relatively low cost investments.

There are four main components of bicycle-transit integration:

- Allowing bicycles on transit
- Offering bicycle parking at transit locations
- Improving bikeways to transit

Eleven percent of commuters in Corte Madera use public transit according to the 2000 Census. Although the Town does not provide public transit services, Golden Gate Transit (GGT) does offer bus service and the necessary support services such as transit shelters and bicycle racks at some stops. The Town also maintains bus shelters. Bicycle racks have been installed on all 40-foot buses in the fleet. The racks hold two bicycles and are free to all passengers. State law forbids bike racks on buses measuring 45 feet in length, approximately 12 percent of the fleet and GGT has now installed underfloor bicycle racks in the luggage area of all of these longer buses. Bicycles are also allowed on ferries on a first-come, first-serve basis. Three of the four Larkspur ferries can accommodate 25 bicycles and 15 bicycles are permitted on the fourth, the Larkspur catamaran.



For those cyclists who may chose to leave their bicycles at their bus stop or if the bus racks are full, Class II bicycle parking can be found at some GGT stops in the Town. Page 8 lists these sites and Figure 2 shows their location. Parking for up to 40 bicycles is also available at the Larkspur Ferry Terminal for commuters.

Buses in Corte Madera follow Tamalpais Drive, Tamal Vista Blvd, Paradise south of Tamalpais and San Clemente and make intermittent stops along these routes. A Park and Ride lot is located at Redwood Avenue at Montecito Drive that also provides bicycle parking.

PROPOSED PROJECTS

As reported in the 2001 bicycle plan, the Town has historically spent approximately \$50,000 each year on bikeway improvements, on average.

Paradise Drive is part of the Bay Trail alignment and is the only arterial access to residential developments in southeastern Corte Madera. The physical constraints that exist along most portions of Paradise Drive have resulted in discontinuous bike lanes and paths along the corridor. Residents have especially expressed support at public meetings for completion of the gap between Madera del Presidio and El Camino. With the implementation of a continuous bicycle corridor along Paradise Drive, in addition to on-street bike lanes along the Redwood Highway/San Clemente Drive corridor, a continuous bikeway between the city limits of Larkspur and Tiburon would be created.

To address these issues, the Town of Corte Madera completed the *Corte Madera Bay Trail Feasibility Study* in 2004, which presents a variety of pathway, bike lane and bike route solutions, both short and long-term.

The proposed paving of the existing path between the Sandra Marker Trail and Lakeside Drive is a project that will lead from the class I facility on the former Northern Pacific Railroad right-of-way to the adjacent neighborhoods. This is a popular path with students attending Neil Cummins School.

Access to the Sandra Marker Trail is an issue at two neighborhood locations. Improvements at the end of Apache Avenue would allow users, including the disabled, to overcome a steep grade alongside the former railroad right-of-way. The City of Larkspur has received \$296,730 in SR2S funding to improve access at this location, in partnership with the Town of Corte Madera. The total project cost is estimated at \$329,700. Improvements to the existing dirt path accessing the Trail at the end of Hart Street near Palm Avenue would provide a valuable connection for school children attending Neil Cummins. This connection currently has maintenance and drainage issues which would need to be addressed, in addition to resolving an private property or easement issues.

Bicycle signage and Shared Roadway Bicycle Stencils (Sharrows) are proposed along the Meadowsweet Drive/Tamal Vista Boulevard/Lucky Drive corridor to provide a continuous north-south route on the west side of Town. Madera Boulevard, which lies between Meadowsweet Drive and Tamal Vista Boulevard, currently has class II facilities. Periodically widening the roadway on Meadowsweet to provide turnouts and passing areas on the uphill side of the road, where feasible, will provide a more comfortable riding environment.

“Share the Road” signs are proposed in conjunction with the Share the Road program in Corte Madera in order to improve both motorists’ and cyclists’ awareness of the need for safe road-sharing behaviors. The following potential locations for Share the Road signs are along existing and proposed Class III signed bicycle routes. They have been identified by the Town’s Transportation Advisory Committee. Exact sign locations should be determined by Public Works. Locations marked with an * already have some Share the Road signs but should be reviewed for additional sign locations.

- Paradise Drive*
- Corte Madera Avenue/Camino Alto Avenue*
- Casa Buena Drive
- Madera Boulevard
- Lucky Drive
- Fifer Avenue
- Meadowsweet Drive
- Tamal Vista Boulevard

Class II bicycle lanes are proposed on Tamalpais Drive, the main east-west connection through town. A bicycle/pedestrian U.S. 101 overpass has been recommended and is being considered as a part of the Greenbrae Improvements Corridor, a project of the Transportation Authority of Marin. This facility would be especially advantageous for novice cyclists, namely elementary school children, to safely cross the freeway rather than using the high volume Tamalpais Drive crossing.

The most direct access between Mill Valley and Corte Madera involves steep routes that may deter all but the experienced and fit bicyclists. A number of alternatives have been developed to make the trip more appealing to amateur cyclists. Cooperation between the city of Mill Valley, Corte Madera, and County of Marin will be necessary to plan, fund, and implement a preferred route.

Corte Madera Avenue is a narrow, winding, steep roadway serving as the primary link between Corte Madera and Mill Valley. Utilizing the existing roadway, it may be possible to restripe the lanes to create a wider uphill and narrower downhill lane. Alternately, widening the roadway periodically to provide turnouts and passing areas, where feasible, will provide a more comfortable riding environment. In addition, the Nonmotorized Transportation Pilot Program has provided funding to study this option, as well as the existing route which utilizes the Horse Hill Pathway and reopening the Alto Tunnel.

A Corte Madera Creek crossing, in addition to an alternative route between Mill Valley and Corte Madera, are principal elements of a North-South bikeway through Marin County. Construction of a creek crossing will also involve the cooperation of a number of governmental bodies with the Town of Corte Madera. The Central Marin Ferry Connection is a funded project will proposes to bridge Corte Madera Creek with a new high-level bridge.

Table 3 lists segment details and **Figure 2** illustrates all proposed bicycle facility improvements.

**Table 3
Corte Madera Proposed Bikeways**

Class I Facilities - Multi-Use Paths (Off-Street)				
Segment Name	Begin	End	Class	Length
Central Marin Ferry Connection Project	Wornum Wy.	Corte Madera City Limit	I	0.28
Corte Madera Town Park Pathway	Tamalpais Dr.	Neil Cummins Elementary School	I	0.27
High Canal Bridge Pathway (Corte Madera/Larkspur)	Lakeside Dr.	Sandra Marker Trail	I	0.22
Mill Valley-Corte Madera North-South Bikeway Gap Closure (Alto Tunnel and approach paths)	Tamalpais Dr.	Corte Madera City Limit	I	1.17
NWP RR	Paradise Dr.	Skunk Hollow	I	0.41
Paradise Drive Sidepath	Westward Dr.	Robin Dr.	I	0.78
Sandra Marker Trail Access Pathway – Apache Ave.	Apache Ave.	Corte Madera City Limit	I	0.03
Sandra Marker Trail Access Pathway – Hart St.	Sandra Marker Trail	Palm Ave.	I	0.02
Corte Madera Bay Trail	Industrial Wy.	San Clemente Dr.	I	0.75
				3.94
Class II Facilities - Striped Bicycle Lanes (On-Street)				
Segment Name	Begin	End	Class	Length
Casa Buena Dr.	Tamalpais Dr.	Sanford St.	II	0.02
Redwood Ave.	Corte Madera Ave.	Tamalpais Dr.	II	0.05
Redwood Hwy.	Tamalpais Dr.	Wornum Wy.	II	0.74
Sanford St.	Casa Buena Dr.	Meadowsweet Dr.	II	0.02
Tamalpais Dr.	Redwood Ave.	San Clemente Dr.	II	1.01
				1.84
Class III Facilities - Signed Bicycle Routes (On-Street)				
Segment Name	Begin	End	Class	Length
Corte Madera Ave.	Bahr Ln.	Chapman Dr.	III – Sharrows & Shoulder Widening	1.14
Fifer Ave.	Lucky Dr.	Tamal Vista Blvd.	III – Sharrows	0.63
Lakeside Dr.	Birch Ave.	Tamalpais Dr.	III	0.82
Lucky Dr.	Doherty Dr.	Fifer Ave.	III - Sharrows	0.35
Meadowsweet Dr.	Tamalpais Dr.	Casa Buena Dr.	III – Sharrows & Shoulder Widening	1.28
Paradise Dr.	San Clemente Dr.	Corte Madera City Limit	III - Sharrows	1.40
Tamal Vista Blvd.	Fifer Ave.	Madera Blvd.	III - Sharrows	0.63
				6.26

Bicycle Parking

The Town should seek to continue to provide bike racks at public destinations, including major bus stops, community centers, libraries, parks, schools and commercial areas. All bicycle parking should be in a secure area, if possible. Employers should be encouraged to provide secure indoor parking, covered bicycle parking, or bicycle lockers. The following are potential new or improved locations for inverted-u or equivalent secure bicycle parking racks as determined through the TAC process.

- Town Hall
- Recreation Center
- Restaurants
- Cafes
- Other commercial destinations
- Transit stops (as needed)
- Post Office
- Library
- Paradise Shopping Center
- Schools (as needed, coordinate with SR2S Task Force)

While no accepted national or local standards for bicycle parking exist as yet, the Association of Pedestrian and Bicycle Professionals (APBP) has developed a set of guidelines for the selection and placement of bicycle racks. The guide can be found at <http://www.apbp.org/pdfsanddocs/Resources/Bicycle%20Parking%20Guidelines.pdf>

Bicycle Signal Detection

Currently Corte Madera has Bicycle Loop Detectors at the intersections of Redwood Highway/ Corte Madera Avenue and Redwood Highway/Wornum. The following recommendations are intended to expand the town's existing signal detection efforts to include bicycles along all designated lanes/routes and at key intersections.

- Where appropriate, the Town should ensure that all existing loops and video detection devices are calibrated and operable for bicycle users.
- Where appropriate, the Town should consider repositioning existing pedestrian push-buttons for bicycle use, while ensuring ADA compliance. MUTCD standard signage (R9-5; R10-3) can be used to designate these locations. Additional push-buttons may be necessary to maintain accessibility for disabled users while locating the button within reach of cyclists in the roadway or multi-use pathway, keeping cyclists off the sidewalk.
- The Town should develop a policy of installing bicycle-calibrated loop detectors at intersections along designated bike routes as they are repaved.
- Apply Caltrans Standard Plan A24C bicycle detection marking to indicate detection areas



The following signalized intersections are potential locations for improved bicycle detection, subject to further feasibility analysis and traffic studies:

- Redwood Highway/ Corte Madera Avenue (loop installed, need to paint stencil)
- Tamalpais Drive/Madera Boulevard/Sanford Avenue

[insert figure 2]

SAFETY & EDUCATION PROGRAMS

Many potential bicyclists cite the fear of traffic as their main objection to riding a bicycle on urban streets. The Town can help alleviate this fear by providing good bikeway facilities, particularly at intersections, where most bicycle-motor vehicle crashes occur. However, many concerns about cycling's level of danger are based on the misconception that most bicycle crashes involve an automobile. In fact, the vast majority of bicycle crashes do not involve a motor vehicle; rather, studies of hospital data have shown that bicycle accidents primarily involve falls or collisions with stationary objects, other cyclists, or pedestrians. This points out the need for education of cyclists and motorists, enforcement of existing laws, and encouragement of safe cycling techniques.

Education is an important element in promoting bicycle use while also improving safety. People often assume that as cycling becomes more popular, the number of crashes will increase. This need not be the case as has been demonstrated in other communities. Perhaps the most effective way to improve the safety of cycling is simply to improve the quality of Corte Madera's bikeway facilities. However, bikeways cannot do it alone; it must be combined with proper education of both youth and adult cyclists and motorists.

Law Enforcement

The Twin Cities Police Authority has identified enforcing hazardous bicycle violations as a high priority goal in recent years. The department has a history of successfully securing grant funding to pay for additional staff time for officers to conduct special bicycle enforcement activities. In 2001, the Town was awarded a \$29,000 grant from the Office of Traffic Safety (OTS) for the Town's Bicycle and Pedestrian Safety Program (BPSP). This program was developed as a result of growing concern citizens had for the safety of pedestrians and bicyclists on public streets. The BPSP involves many components to achieve its goal of improving safety on public streets, including a Traffic Safety Week, production and distribution of pamphlets, newspaper and newsletter articles, additional bicycle and pedestrian signage – especially near schools and critical intersections, and periodic presence of police officers at schools during morning and afternoon peak periods. BPSP implementation involves the Town Council, the Transportation Advisory Committee (TAC), and the Twin Cities Police Department to work with the Larkspur School District, private schools, and homeowner associations to educate and inform the public.

According to the Twin Cities' Police Department *Annual Traffic Report 2007*, bicycle citations spiked in 2005 when targeted enforcement was initiated, but declined approximately 28% from 2005 to 2006. The decrease in citations may be due to the effectiveness of ongoing targeted enforcement during those years.

Street Smarts Program

Corte Madera will serve as one of three pilot cities for the "Street Smarts" traffic education program, coordinated by the Transportation Authority of Marin. Street Smarts is comprised of two major elements: a media campaign and a community relations campaign. Banners, posters and signs carrying safety messages for drivers, pedestrians and cyclists are slated to appear in late summer 2008. In addition to this media outreach, the program works by developing partnerships with schools, neighborhoods, businesses and community organizations to address the growing community issue of traffic safety.

Share the Road

The Twin Cities Police Department participates in the Marin County Bicycle Coalition's Share the Road Campaign. The campaign includes three components: checkpoints, basic street skills classes, and public presentations.

At checkpoints, uniformed police, highway patrol officers and volunteers from the bicycle coalition stop vehicles, cyclists and pedestrians and provide them with share the road flyers. Flyers contain California Vehicle Code information, codes of conduct for bicyclists and motorists, and additional safety tips to prevent road rage. Fairfax hosted checkpoints in 2005 and 2006.

Basic Street Skills Classes are provided free of charge by the Marin County Bicycle Coalition. Classes provide information on how to avoid collisions and citations, how to ride safely, improve visibility and the legal rights of cyclists. Cyclists who have received a bicycle violation may attend this class to reduce their fine to \$50.

The Marin County Bicycle Coalition also provides a Share the Road presentation for the public. The presentation is available by request, and includes information on the rights and responsibilities of cyclists and drivers and focuses on ways each group can behave courteously to avoid collisions.

The Corte Madera Department of Public Works should consider adding signage such as "Share the Road" to further educate both drivers and bicyclists. Share the Road signs improve bicycle safety by serving as reminders to motorists that bicycles may be on the roadway. Several of these signs have already been installed in Marin County and continue the "branding" of the Share the Road message.

In addition, Share the Road activities should be continued and expanded within Corte Madera as a partnership between local law enforcement, the Town and citizen groups.

Safe Routes to Schools

The countywide Safe Routes to Schools program began in 2000 as an effort to reduce congestion and encourage healthy exercise and transportation habits among school aged children in Marin County. The program has since expanded to its current level, with 45 schools and over 18,470 students participating countywide. Each year, the program has successfully decreased the percentage of drive-alone students at participating schools through innovative classroom activities, contests and events, and initiation of engineering improvements.

The program consists of five key components – education, engineering, encouragement, enforcement, and evaluation – which are described below.

Education - Classroom lessons teach children the skills necessary to navigate through busy streets and show them how to be active participants in the program. Table 3-6 shows education programs completed in Larkspur District Schools.

Engineering - The Program's licensed traffic engineer works with schools and the City in developing a plan to provide a safer environment for children to walk and bike to school. The focus is on creating physical improvements to the infrastructure surrounding the school, reducing speeds and establishing safer crosswalks and pathways.

Encouragement - Events, contests and promotional materials are incentives that encourage children and parents to try walking and biking. **Table 4** shows encouragement programs completed in Larkspur District Schools.

Enforcement – Police officers, crossing guards and law enforcement officials participate throughout the Safe Routes process to encourage safe travel through the community. Targeted enforcement of speed limits and other traffic laws around schools make the trip to school more predictable for students. This plan also includes enforcement enhancements and outreach to drivers through driver safety campaigns.

Evaluation – Program participation is regularly monitored to determine the growth in student and parent participation.

As detailed in Table 4, Corte Madera area schools Neil Cummins Elementary School, Hall Middle School and Redwood High School have participated in the project. A Safe Routes to Schools Task Force has been formed for the Larkspur Unified School District to create Safe Routes to Schools Travel Plans which include engineering recommendations, enforcement, driver education programs and encouragement programs.

Safe Routes to Schools programs should be continued and expanded within Corte Madera as a part of the TAM-sponsored effort.

Table 4
Larkspur School District Safe Routes to School Education and Encouragement Programs

			Education											Encouragement					
Participants	Grades	Enroll.	CT	FT	CT	CT	FT	FT	TM	CT	CT	CT	EV	TM	SP	CN	CN	WK	
			SL&L	WB	HS	JEOP	Rodeo	OTB	Clubs	S.Art	Yikes	Earth	Fam M	IWA LK	W2SD	SP	W&BA	FRM	WA
2005-06																			
Larkspur																			
Neil Cummins	K-5	681	X	X	X	X	X			X		X	X			X	X		X
Hall	Middle	335																	X
Redwood High School	High	1482							X			X	X				X		X

Key:

X- Previously Completed

Education:

SL&L - Stop Look and Listen; WB - Walk Around the Block; HS - Helmet Safety; Jeop - Jeopardy; Rodeo - Bicycle Rodeo; OTB - On the Bike (Middle School), Clubs - EcoVelocity Clubs; S. Art - Safety Art; Yikes - Assembly; W2SD - Parade Prep; Earth - Earth Day Classes; Fam M - Family Management; NR - Neighborhood Rides

Encouragement:

Iwalk - International Walk to School Day, W2SD - Ongoing Walk to School Days; SP - SchoolPool; W&BA - Walk and Bike Across America; FRM - Frequent Rider Miles Contest

NEEDS ANALYSIS

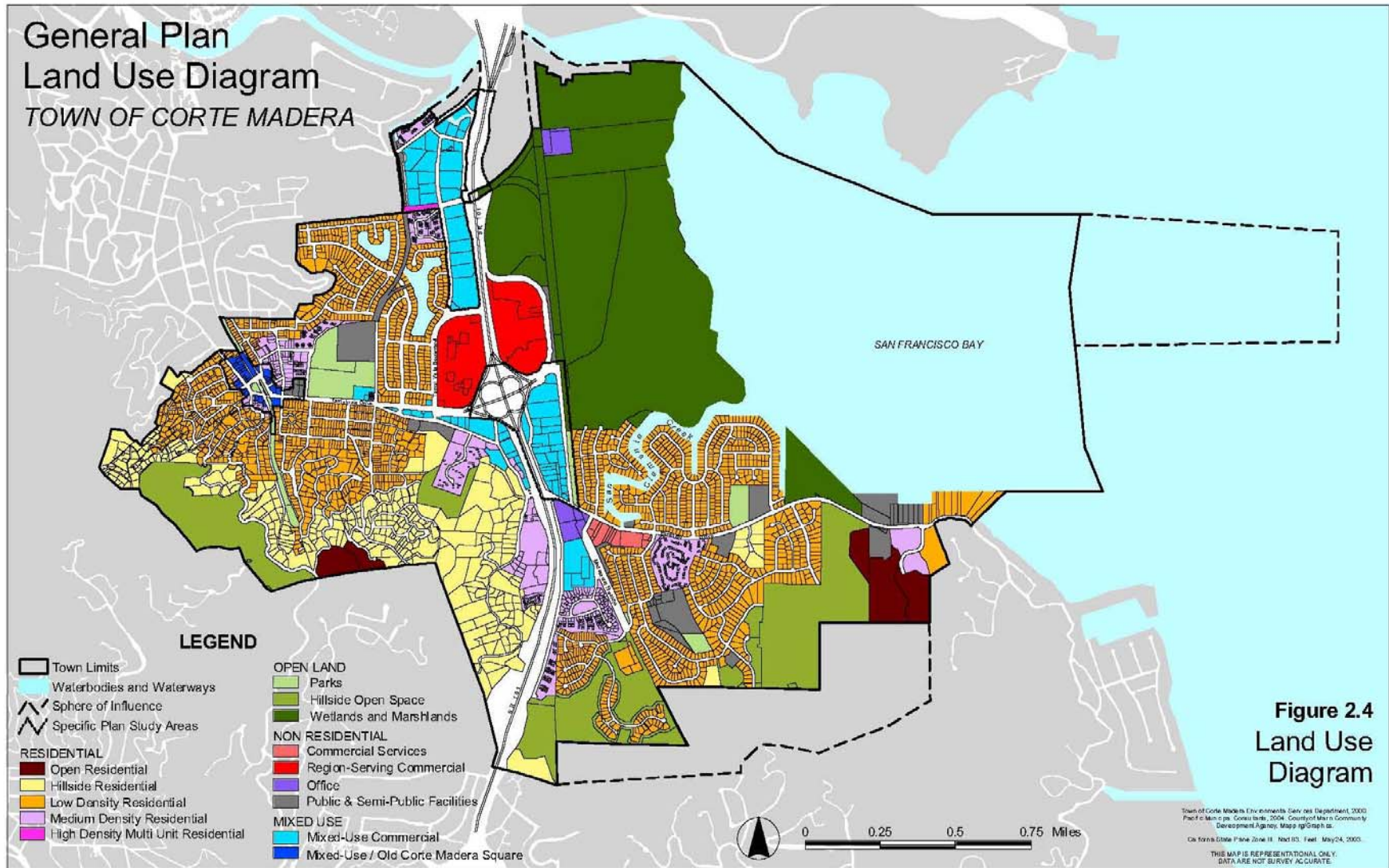
Land Use Demand

The “demand” for bicycle facilities can be difficult to predict. Unlike automobile use, where historical trip generation studies and traffic counts allow one to estimate future “demand” for travel, bicycle trip generation methods are less advanced and standardized. Land use patterns can help predict demand and are important to bikeways planning because changes in land use (and particularly employment areas) will affect average commute distance, which in turn affects the attractiveness of bicycling as a commute mode. **Figure 3**, the land use map from the Corte Madera General Plan, is included on the next page.

The Corte Madera bikeways network will connect the neighborhoods where people live to the places they work, shop, engage in recreation, or go to school. An emphasis will be placed on regional bikeways and transit connections centered on the major activity centers in Corte Madera, including:

- Downtown commercial district
- Civic buildings such as the community centers, senior centers and libraries
- Schools
- Transit Hubs
- Neighborhood parks and regional recreational areas
- Shopping Centers
- Major Employers

Figure 3 – Corte Madera General Plan Land Use Map



Commute Patterns

A central focus of presenting commute information is to identify the current “mode split” of people that live and work in Corte Madera. Mode split refers to the choice of transportation a person selects to move to destinations, be it walking, bicycling, taking a bus, or driving. One major objective of any bicycle facility improvement is to increase the percentage of people who choose to bike rather than drive or be driven. Every saved vehicle trip or vehicle mile represents quantifiable reductions in air pollution and can help in lessening automobile traffic congestion.

Journey to work and travel time to work data were obtained from the 2000 US Census for Corte Madera, Marin County, California, and the United States. Primary mode of journey to work data is shown in **Table 5**.

Table 5
Corte Madera Commute Mode Split Compared to the State and Nation

Mode	Nationwide	Statewide	Marin County	Corte Madera
Bicycle	0.4%	0.9%	1.1%	1.2%
Walk	3.0%	3.0%	3.3%	2.7%
Public Transit	4.9%	5.3%	11.1%	9.8%
Drove Alone	78.2%	74.7%	71.8%	78.4%
Carpool	12.6%	15.1%	11.8%	7.5%
Other	0.5%	1.1%	0.6%	0.4%

Data from US Census 2000

As shown, about 1.2% of all employed Corte Madera residents commute primarily by bicycle. Census data do not include the number of people who bicycle for recreation or for utilitarian purposes, students who bicycle to school, and bicycle commuters who travel from outside Corte Madera, and are therefore likely to undercount true cycling rates. Recreational cycling is especially popular in Corte Madera, with its easy access to popular recreational routes in West Marin and other areas.

Corte Madera has a very high percentage of commuters who take public transit to work—almost ten percent, compared with 5.3% for the state. Two percent of Golden Gate Transit riders arrive at bus stops by bicycle.¹ If bicycle

¹ Marin County Transit District. “Marin County Transit Short Range Transit Plan”. March 2006.

connections to Golden Gate Transit stops are improved, and especially if these connections are coupled with improved bicycle storage, it would be possible to shift some vehicle trips to the bus stops into bicycle trips. Improving connections to future proposed SMART stations would also encourage those who are arriving in Corte Madera by SMART to bicycle from the station, if and when SMART is approved by the voters of Marin and Sonoma Counties.

Potential Future Air Quality Improvements

Corte Madera lies within the San Francisco Bay Area Basin, which is regulated by the Bay Area Air Quality Management District (BAAQMD). According to the California Air Resources Board, as of July 2005, the air quality in the San Francisco Bay Area Basin did not meet the minimum State health-based standards for one-hour concentrations ground-level ozone and the State standards for Particulate Matter (PM10) and Fine Particulate Matter (PM2.5).² Currently, the Basin is classified as marginal non-attainment area for the Federal 8-hour ozone standard.

According to the BAAQMD, motor vehicles are responsible for approximately 75 percent of the smog in the Bay Area. Reducing vehicle miles traveled (VMTs) is a key goal of the BAAQMD, and fully implementing Corte Madera's bicycle network will help achieve this goal by providing residents safe and functional ways to get to work, school, or shopping without relying on motor vehicles. Based on data from the 2000 Census and estimates of bicycle mode share for students, the current number of daily bicycle commuters in Corte Madera is estimated to be 89 riders, making 952 daily trips and saving an estimated 6,038 VMTs per weekday.

Table 6 quantifies the estimated reduction in VMTs in Corte Madera following an increase in the bicycle mode share, and the estimated reduction in air pollutants based on the best available local and national data. It is estimated that the total number of work and school commuters could increase from the current estimate of 951 to 992. This would result in an estimated decrease of 19 kg/day of HC, 139 kg/day of CO, and 9 kg/day of NOX.

This improvement in air quality could be greater assuming that if conditions for bicyclists improve and attract new Corte Madera-based riders, the same conditions may attract bicyclists to the City whose trips originate outside of Corte Madera. Corte Madera's mild climate and rising fuel costs will also encourage additional cycling as more attractive routes and gap closures are accomplished.

² BAAQMD. Ambient Air Quality Standards & Bay Area Attainment Status. Last updated July 15, 2005. http://www.baaqmd.gov/pln/air_quality/ambient_air_quality.htm

**Table 6
Bicycle Commute and Air Quality Projections**

Current Commuting Statistics		Source
Corte Madera Population	9,144	2000 US Census
Number of Commuters	4,481	2000 US Census (Employed persons minus those working at home)
Number of Bicycle-to-Work Commuters	53	2000 US Census
Bicycle-to-Work Mode Share	1.18%	Mode share percentage of Bicycle to Work Commuters
School Children Grades K-8	1,084	2000 US Census, population ages 5-14
Estimated School Bicycle Commuters	54	Lamorinda School Commute Study (Fehr & Peers Associates, 1995) and San Diego County School Commute Study (1990). (5%)
Number of College Students	345	2000 US Census
Estimated College Bicycle Commuters	589	National Bicycling & Walking Study, FHWA, Case Study No. 1, 1995. Review of bicycle commute share in seven university communities (5%)
Average Weekday Golden Gate Ridership	12,745	Average of weekday system wide Golden Gate Transit boardings on Bus Routes serving Corte Madera (Routes:)Marin Transit Data Request
Number of Daily Bike-Golden Gate Transit Users	255	GGT Existing Conditions System Levels Analysis Report 2005, Page 4-24
Estimated Total Number of Bicycle Commuters and Utilitarian Riders	951	Total of bike-to-work, transit, school, college and utilitarian bicycle commuters Does not include recreation.
Estimated Adjusted Mode Share	10.4%	Estimated Bicycle Commuters divided by population
Estimated Current Bicycle Trips		
Total Daily Bicycle Trips	1,902	Total bicycle commuters x 2 (for round trips) plus total number of utilitarian bicycle trips
Reduced Vehicle Trips per Weekday	1,338	Assumes 73% of bicycle trips replace vehicle trips for adults/college students and 53% for school children
Reduced Vehicle Miles per Weekday	6,038	Assumes average one-way trip travel length of 4.6 miles for adults/college students and 0.5 mile for schoolchildren
Potential Future Bicycle Commuters		
Number of workers with commutes nine minutes or less	582	US Census 2000
Number of workers who already bicycle or walk to work	172	US Census 2000
Number of potential bicycle commuters	410	Calculated by subtracting number of workers who already bicycle or walk from the number of workers who have commutes 9 minutes or less
Future number of new bicycle commuters	41	Based on capture rate goal of 10% of potential bicycle riders
Total Future Daily Bicycle Commuters	992	Current daily bicycle commuters plus future bicycle commuters
Future Total Daily Bicycle Trips	1,984	Total bicycle commuters x 2 (for round trips)
Future Reduced Vehicle Trips per Weekday	1,448	Assumes 73% of bicycle trips replace vehicle trips

Future Reduced Vehicle Miles per Weekday	6,663	Assumes average one-way trip travel length of 4.6 miles for adults. Assumes 12 mph average bicycle speed; 23 minute average travel time. Travel time data from NHTS 2001 Trends, Table 26.
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Future Reduced Vehicle Miles per Year	1,765,680	256 weekdays per year
Future Air Quality Benefits		
Reduced HC (kg/weekday)	19	(0.0028 kg/mile)
Reduced CO (kg/weekday)	139	(0.0209 kg/mile)
Reduced NOX (kg/weekday)	9	(0.00139 kg/mile)
Reduced CO2 (kg/weekday)	733,640	(.4155 kg/mile)
Reduced HC (metric tons/year)	5	1000 kg per metric ton; 256 weekdays/year
Reduced CO (metric tons/year)	36	1000 kg per metric ton; 256 weekdays/year
Reduced NOX (metric tons/year)	2	1000 kg per metric ton; 256 weekdays/year
Reduced CO2 (metric tons/year)	187,812	1000 kg per metric ton; 256 weekdays/year

Emissions rates from EPA report 420-F-00-013 "Emission Facts: Average Annual Emissions and Fuel Consumption for Passenger Cars and Light Trucks." 2000.

COMMUNITY INVOLVEMENT

Official opportunities for public comment on bicycle issues in Corte Madera began in 1999 with the County of Marin bicycle plan development and the 2001 Bicycle Transportation plan. A Bicycle and Pedestrian Advisory Committee (BPAC) was formed in the fall of 1999 to work on the plan. The committee was reconstituted in 2007 as a Bicycle Advisory Committee, a subcommittee of the Town's Transportation Advisory Committee TAC and met four times in 2007 and 2008 to update the 2001. In an ongoing capacity, bicycle concerns are addressed as part of the TAC. In addition to these TAC meetings public input was received at four countywide public workshops. In 2006 the County of Marin conducted a series of four plan update workshops to collect input on needed bicycle improvements and priorities. The Southern Marin Workshop was held on Thursday, November 2, at the Mill Valley Community Center. The Central Marin Workshop was held Monday, November 13, at the San Rafael Community Center. Two Nonmotorized Transportation Pilot Program Public Workshops were held, one on Thursday November 29, 2006 at the Embassy Suites Hotel, San Rafael and one on Monday March 12, 2007 at the San Rafael Community Center, San Rafael.

COST ESTIMATES

A summary and breakdown of cost estimates for the recommended bicycle network detailed in this plan is presented in **Table 7** below. The cost of the recommended projects is estimated to be about \$3.9 million for Class I projects, \$56,000 for Class II Bike Lane projects, and \$487,000 for Class III Bike Route projects, combined for a total system buildout cost of about \$4.5 million. It is important to note the three following assumptions about the cost estimates. First, all cost estimates are highly conceptual, since there is no feasibility or preliminary design completed, and second, the design and administration costs included in these estimates may not be sufficient to fund environmental clearance studies. Finally, costs estimates are a moving target over time as construction costs escalate quickly.

All the projects are recommended to be implemented over the next two to twenty years, or as funding is available. The more expensive projects may take longer to implement. In addition, many funding sources are highly competitive, and therefore impossible to determine exactly which projects will be funded by which funding sources. Timing of projects is also something difficult to pinpoint exactly, due to the dependence on competitive funding sources and, timing of roadway and development, and the overall economy.

The projects listed may be funded through various sources. The funding section in this chapter outlines some of the local, regional, State and federal funding methods and resources for non-motorized transportation projects.

**Table 7
Proposed Bikeways Cost Estimates**

Class I Facilities - Multi-Use Paths (Off-Street)					
Segment Name	Begin	End	Class	Length	Est Cost
Central Marin Ferry Connection Project	Wornum Wy.	Corte Madera City Limit	I	0.28	\$278,000
Corte Madera Town Park Pathway	Tamalpais Dr.	Neil Cummuns Elementary School	I	0.27	\$272,300
High Canal Pathway (Corte Madera/Larkspur)	Lakeside Dr.	Sandra Marker Trail	I	0.22	\$219,600
Mill Valley-Corte Madera North-South Bikeway Gap Closure (Alto Tunnel and approach pathways)	Tamalpais Dr.	Corte Madera City Limit	I	1.17	\$1,165,100
NWP RR	Paradise Dr.	Skunk Hollow	I	0.41	\$407,300
Paradise Drive Sidepath	Westward Dr.	Robin Dr.	I	0.78	\$779,000

Sandra Marker Trail Access Pathway – Apache Ave.	Apache Ave.	Corte Madera City Limit	I	0.03	\$329,700*
Sandra Marker Trail Access Pathway – Hart St.	Sandra Marker Trail	Palm Ave.	I	0.02	\$19,900
Corte Madera Bay Trail	Industrial Wy.	San Clemente Dr.	I	0.75	\$742,600
Total Class I Bicycle Pathways				3.94	\$4,213,500

Base cost for installation of a typical Class I Shared Use Pathway is \$994,300/mi.

Class II Facilities - Striped Bicycle Lanes (On-Street)					
Segment Name	Begin	End	Class	Length	Est Cost
Casa Buena Dr.	Tamalpais Dr.	Sanford St.	II	0.02	\$600
Redwood Ave.	Corte Madera Ave.	Tamalpais Dr.	II	0.05	\$1,700
Redwood Hwy.	Tamalpais Dr.	Wornum Wy.	II	0.74	\$22,600
Sanford St.	Casa Buena Dr.	Meadowsweet Dr.	II	0.02	\$500
Tamalpais Dr.	Redwood Ave.	San Clemente Dr.	II	1.01	\$31,100
Total Class II Bicycle Lanes				1.84	\$56,500

Base cost for installation of a typical Class II Bicycle Lane is \$30,700/mi.

Class III Facilities - Signed Bicycle Routes (On-Street)					
Segment Name	Begin	End	Class	Length	Est Cost
Corte Madera Ave.	Bahr Ln.	Chapman Dr.	III – Sharrows & Shoulder Widening	1.14	\$199,800
Fifer Ave.	Lucky Dr.	Tamal Vista Blvd.	III – Sharrows	0.63	\$11,100
Lakeside Dr.	Birch Ave.	Tamalpais Dr.	III	0.82	\$10,400
Lucky Dr.	Doherty Dr.	Fifer Ave.	III - Sharrows	0.35	\$6,100
Meadowsweet Dr.	Tamalpais Dr.	Casa Buena Dr.	III – Sharrows & Shoulder Widening	1.28	\$224,400
Paradise Dr.	San Clemente Dr.	Corte Madera City Limit	III - Sharrows	1.40	\$24,500
Tamal Vista Blvd.	Fifer Ave.	Madera Blvd.	III - Sharrows	0.63	\$11,100
Total Class III Bicycle Routes				6.26	\$487,400

Base cost for installation of a typical Class III Signed Bicycle Route is \$12,600/mi; additional costs based on shared lane stencils and shoulder widening.

Total cost of bikeway network (complete buildout)					\$4,757,400
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*296,730 in SR2S funding has been secured by City of Larkspur for this project

Maintenance

Maintenance activities are divided into two categories, “routine maintenance” and “major maintenance”. Class I path routine maintenance activities typically include weekly trash removal, monthly sweeping, cleaning drainage systems, landscaping, underbrush and weed abatement and trimming vegetation encroaching on the pathway. Major maintenance activities typically include periodic resurfacing, re-striping the asphalt path, replacing missing or damaged signage and repairs to crossings. Class II bicycle lanes major maintenance typically includes restriping and restenciling once every five years and sign

replacement as necessary. Routine maintenance activities such as street sweeping of bicycle lanes are included by most jurisdictions in their regular street maintenance cost. Class III bicycle routes routine maintenance typically includes sign replacement and trimming of encroaching vegetation, as necessary. Other major maintenance activities for Class II and III bikeways such as filling potholes and spot improvements to pavement surfaces should be included in public works' regular street maintenance inspections and roadway repairs.

FUNDING RESOURCES

Federal Funding Sources

The primary federal source of surface transportation funding—including bicycle and pedestrian facilities—is SAFETEA-LU, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users. SAFETEA-LU is the fourth iteration of the transportation vision established by Congress in 1991 with the Intermodal Surface Transportation Efficiency Act (ISTEA) and renewed in 1998 and 2003 through the Transportation Equity Act for the 21st Century (TEA-21) and the Safe, Accountable, Flexible, and Efficient Transportation Equity Act of 2003 (SAFETEA). Also known as the federal transportation bill, the \$286.5 billion SAFETEA-LU bill was passed in 2005 and authorizes Federal surface transportation programs for the five-year period between 2005 and 2009.

SAFETEA-LU funding is administered through the state (Caltrans and the State Resources Agency) and regional planning agencies. Most, but not all, of these funding programs are oriented toward transportation versus recreation, with an emphasis on reducing auto trips and providing inter-modal connections. SAFETEA programs require a local match of 11.47%. SAFETEA funding is intended for capital improvements and safety and education programs and projects must relate to the surface transportation system.

Specific funding programs under SAFETEA-LU include:

- Congestion Mitigation and Air Quality (CMAQ) – Funds projects that are likely to contribute to the attainment of national ambient air quality standards
- Recreational Trails Program—\$370 million nationally through 2009 for non-motorized trail projects
- Safe Routes to School Program—\$612 million nationally through 2009
- Transportation, Community and System Preservation Program—\$270 million nationally over five years
- Federal Lands Highway Funds—Approximately \$1 billion dollars are available nationally through 2009

Federal Lands Highway Funds

Federal Lands Highway Funds may be used to build bicycle and pedestrian facilities in conjunction with roads and parkways at the discretion of the department charged with administration of the funds. The projects must be transportation-related and tied to a plan adopted by the State and MPO. Federal Lands Highway Funds may be used for planning and construction.

FUNDING GLOSSARY

CTC *California Transportation Commission*

FHWA *Federal Highway Administration*

MPO *Metropolitan Planning Organization*

RTIP *Regional Transportation Improvement Program*

RTP *Regional Transportation Plan*

RTPA *Regional Transportation Planning Agency*

SAFETEA-LU *Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users*

STIP *State Transportation Improvement Program*

Transportation, Community and System Preservation Program

The Transportation, Community and System Preservation (TCSP) Program provides federal funding for transit oriented development, traffic calming and other projects that improve the efficiency of the transportation system, reduce the impact on the environment, and provide efficient access to jobs, services and trade centers. The program is intended to provide communities with the resources to explore the integration of their transportation system with community preservation and environmental activities. TCSP Program funds require a 20% match.

Regional Surface Transportation Program

The Regional Surface Transportation Program (RSTP) is a block grant program which provides funding for bicycle and pedestrian projects, among many other transportation projects. Under the RSTP, Metropolitan planning organizations, such as MTC, prioritize and approve projects which will receive RSTP funds. TAMC distributes the RSTP funds to local jurisdictions. Metropolitan planning organizations can transfer funding from other federal transportation sources to the RSTP program in order to gain more flexibility in the way the monies are allocated. In California, 62.5% of RSTP funds are allocated according to population. The remaining 37.5% is available statewide.

Regional Transportation Improvement Program

The Regional Transportation Improvement Program (RTIP) is a derivative of the STIP program and identifies projects which are needed to improve regional transportation. Such projects may include bicycle and pedestrian facilities, safety projects and grade separation, among many others. RTIP project planning, programming and monitoring may be funded up to .5% of total RTIP funds in urbanized regions and 2% of total RTIP funds in non-urbanized regions. Each RTPA prepares a RTIP, consisting of projects to be funded through STIP. The RTPA's Regional Transportation Plan helps prioritize projects for the RTIP. RTIPs must be approved by the CTC. Projects to be funded by RTIP funds must be identified in the current or next Regional Transportation Plan.

Recreational Trails Program

The Recreational Trails Program of SAFETEA-LU provides funds to states to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. Examples of trail uses include hiking, bicycling, in-line skating, equestrian use, and other non-motorized as well as motorized uses. In California, the funds are administered by the California Department of Parks and Recreation. RTP projects must be ADA compliant. Recreational Trails Program funds may be used for:

- Maintenance and restoration of existing trails;

- Purchase and lease of trail construction and maintenance equipment;
- Construction of new trails; including unpaved trails;
- Acquisition of easements or property for trails;
- State administrative costs related to this program (limited to seven percent of a State's funds); and
- Operation of educational programs to promote safety and environmental protection related to trails (limited to five percent of a State's funds).

Land and Water Conservation Fund

Land and Water Conservation Fund is a federally funded program that provides grants for planning and acquiring outdoor recreation areas and facilities, including trails. The Fund is administered by the National Parks Service and the California Department of Parks and Recreation and has been reauthorized until 2015.

Cities, counties and districts authorized to acquire, develop, operate and maintain park and recreation facilities are eligible to apply. Applicants must fund the entire project, and will be reimbursed for 50% of costs. Property acquired or developed under the program must be retained in perpetuity for public recreational use. The grant process for local agencies is competitive, and 40% of grants are reserved for Northern California.

In 2006, approximately \$480,000 is available for projects in Northern California.

Rivers, Trails and Conservation Assistance Program

The Rivers, Trails and Conservation Assistance Program (RTCA) is a National Parks Service program which provides technical assistance via direct staff involvement, to establish and restore greenways, rivers, trails, watersheds and open space. The RTCA program provides only for planning assistance—there are no implementation monies available. Projects are prioritized for assistance based upon criteria which include conserving significant community resources, fostering cooperation between agencies, serving a large number of users, encouraging public involvement in planning and implementation and focusing on lasting accomplishments.

Statewide Funding Sources

The State of California uses both federal sources and its own budget to fund the following bicycle and pedestrian projects and programs.

Bicycle Transportation Account

The Bicycle Transportation Account (BTA) provides state funding for local projects that improve the safety and convenience of bicycling for transportation. Because of its focus on transportation, BTA projects, including trail, must provide a transportation link. Funds are available for both planning

and construction. BTA funding is administered by Caltrans and cities and counties must have an adopted Bicycle Transportation Plan in order to be eligible. City Bicycle Transportation Plans must be approved by the local MPO prior to Caltrans approval. Out of \$5 million available statewide, the maximum amount available for individual projects is \$1.2 million.

Wildlife Conservation Board Public Access Program

Funding for the acquisition of lands or improvements that preserve wildlife habitat or provide recreational access for hunting, fishing or other wildlife-oriented activities. Up to \$250,000 dollars available per project, applications accepted quarterly. Projects eligible for funding include interpretive trails, river access, and trailhead parking areas. The State of California must have a proprietary interest in the project. Local agencies are generally responsible for the planning and engineering phases of each project.

California Conservation Corp

The California Conservation Corps (CCC) is a public service program which occasionally provides assistance on construction projects. The CCC may be written into grant applications as a project partner. In order to utilize CCC labor, project sites must be public land or be publicly accessible. CCC labor cannot be used to perform regular maintenance, however, they will perform annual maintenance, such as the opening of trails in the spring.

Safe Routes to School (SR2S)

In September 2004, with the passage of SB 1087 (Soto), the State extended Safe Routes to School legislation for three additional years. The bill is scheduled to sunset on January 1, 2008. This program is meant to improve the safety of walking and cycling to school and encourage students to walk and bicycle to school through identification of existing and new routes to school and construction of pedestrian and bicycle safety and traffic calming projects. Caltrans is currently evaluating California's SR2S funding, in light of the new federal SR2S Program. Recent SAFETEA-LU legislation which requires each state's Department of Transportation to designate a SR2S Coordinator, also contains a SR2S program, but as of this writing, whether or not these programs will be combined in California or will remain autonomous has not yet been determined.



Environmental Justice: Context Sensitive Planning Grants

The Caltrans-administered Environmental Justice: Context Sensitive Planning Grants promotes context sensitive planning in diverse communities and funds planning activities that assist low-income, minority and Native American communities to become active participants in transportation planning and

project development. Grants are available to transit districts, cities, counties and tribal governments. This grant is funded by the State Highway Account at \$1.5 million annually state-wide. Grants are capped at \$250,000.

Office of Traffic Safety (OTS) Grants

The California Office of Traffic Safety distributes federal funding apportioned to California under the National Highway Safety Act and SAFETEA-LU. Grants are used to establish new traffic safety programs, expand ongoing programs or address deficiencies in current programs. Bicycle and pedestrian safety are included in the list of traffic safety priority areas. Eligible grantees are: governmental agencies, state colleges, and state universities, local city and county government agencies, school districts, fire departments and public emergency services providers. Grant funding cannot replace existing program expenditures, nor can traffic safety funds be used for program maintenance, research, rehabilitation or construction. Grants are awarded on a competitive basis, and priority is given to agencies with the greatest need. Evaluation criteria to assess need include: potential traffic safety impact, collision statistics and rankings, seriousness of problems, and performance on previous OTS grants. OTS expects to have \$56 million in funding available statewide for FY 2006/07.

Community Based Transportation Planning Demonstration Grant Program

This fund, administered by Caltrans, provides funding for projects that exemplify livable community concepts including bicycle and pedestrian improvement projects. Eligible applicants include local governments, MPO's and RPTA's. A 20% local match is required and projects must demonstrate a transportation component or objective. There are \$3 million dollars available annually statewide.

Coastal Conservancy Non-Profit Grants Program

The Coastal Conservancy provides grants to non-profit organizations for projects which provide access to the California coast and preserve coastal lands, including the construction of trails, public piers, urban waterfronts, and other public access facilities.

Regional Funding Sources

Regional bicycle and pedestrian grant programs come from a variety of sources, including SAFETEA-LU, the State budget and vehicle registration fees.

AB 2766 motor vehicle emission reduction grant program

The Bay Area Air Quality Management District provides a grant program in accordance with Assembly Bill 2766 which authorized air districts in California to impose a two to four dollar motor vehicle registration fee to be used for the

purpose of reducing motor vehicle emissions in order for air districts to meet their responsibilities under the California Clean Air Act. Projects include bicycle facility improvements, safety and enforcement. Proposals must demonstrate the relationship between reduced motor vehicle emissions and improved air quality.

Transportation for Livable Communities PROGRAM

The Transportation for Livable Communities Program (TLC) provides grant monies to public agencies to encourage land use decisions that support compact, pedestrian and bicycle friendly development near transit hubs. MTC administers the TLC program with funds from the Regional Surface Transportation Project. TLC grants are capped at \$400,000 and are competitive.

Transportation Enhancement Program

The Transportation Enhancement Program provides funds for the construction of projects, beyond the scope of typical transportation projects, which enhance the transportation system. Transportation Enhancement Projects may include landscaping, bicycle facilities and streetscape improvements. Transportation Enhancement projects are programmed as part of the STIP. Annual apportionment averages around \$800,000.

Transportation Fund for Clean Air Program (TFCA)

TFCA funds are generated by a four dollar surcharge on automobile registration fees in the nine-county Bay Area. Approximately \$20 million is collected annually which funds two programs: 60 percent of the TFCA monies go to the Regional Fund and 40 percent go to the County Program Manager Fund.

The Regional Fund is administered by the Bay Area Air Quality Management District (BAAQMD). Pedestrian infrastructure improvements are eligible for TFCA funds through the Smart Growth funding category.

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

Regional Bicycle and Pedestrian Program (RBPP)

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

competitive, with the county CMAs recommending the projects to be submitted to MTC for funding consideration.

Metropolitan Transportation Commission, RBPP Program

www.mtc.ca.gov/planning/bicyclespedestrians/regional.htm#bikepedprog

Safe Routes to Transit (SR2T)

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

Twenty million dollars of RM2 funding is allocated to the Safe Routes to Transit Program, which provides competitive grant funding for capital and planning projects that improve bicycle and pedestrian access to transit facilities. Eligible projects must be shown to reduce congestion on one or more of the Bay Area's toll bridges. The competitive grant process is administered by the Transportation and Land Use Coalition and the East Bay Bicycle Coalition. Competitive funding is awarded in five \$4 million grant cycles. The first round of funding was awarded in December 2005. Future funding cycles will be in 2007, 2009, 2011 and 2013.

Transportation and Land Use Coalition, SR2T Program:

www.transcoalition.org/c/bikeped/bikeped_saferoutes.html

The Bay Trail Project

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

Bay Trail Project Grant Program: http://baytrail.abag.ca.gov/grants_2003.htm

Local Funding Sources

TDA Article 3

Transportation Development Act (TDA) Article 3 funds are state block grants awarded annually to local jurisdictions for transit, bicycle and pedestrian projects in California. Funds for pedestrian projects originate from the Local Transportation Fund (LTF), which is derived from a ¼ cent of the general state sales tax. LTF funds are returned to each county based on sales tax revenues. Eligible pedestrian and bicycle projects include: construction and engineering

for capital projects; maintenance of bikeways; bicycle safety education programs (up to 5% of funds); and development of comprehensive bicycle or pedestrian facilities plans. A city or county is allowed to apply for funding for bicycle or pedestrian plans not more than once every five years. These funds may be used to meet local match requirements for federal funding sources. 2% of the total TDA apportionment is available for bicycle and pedestrian funding.

Measure A – Local Roads

The funds (approximately \$43.9 M) will be distributed on an annual basis to each city, town, and Marin County based on a combination of miles of roads to be maintained and population. Each project will be required to consider the needs of all roadway users. Where feasible, locally defined bicycle and pedestrian projects will be implemented at the time a roadway is improved. Improvements could include striping and signing for bicycle lanes and bikeways, sidewalk improvements, curb ramps, and other accessibility and safety improvements.

Measure A – Safe Pathways Funding

Safe Pathways to School is the capital improvement element of the Transportation Authority of Marin's Safe Routes to Schools program. Where the Safe Routes program identifies circulation improvements needed for safe access to schools, the Safe Pathways program will provide funding for the engineering, environmental clearance, and construction of pathway and sidewalk improvements in all Marin County communities, including safety improvements at street crossings.

Safe Pathway projects are expected to attract matching funds from other sources and may be used in combination with road funds to accelerate pathway improvements in school areas.

Safe Pathways Projects are selected based on performance criteria that focus on improving safety throughout the County. All projects will come from approved Safe Routes plans, supported by parents, school officials, and the local jurisdiction.

- Relieves an identified safety or congestion problem along a major school route
- Completes a "gap" in the bicycle and pedestrian system along a major school route
- Maximizes daily uses by students and others
- Attracts matching funds
- Respects geographic equity

Marin Nonmotorized Pilot Program

Marin County is one of four communities nationally that has been selected by Congress to participate in a Nonmotorized Transportation Pilot Program under Section 1807 of the 2005 federal transportation bill, SAFETEA-LU. Section 1807

provides for \$25 million to each of the four communities for fiscal years 2006 through 2009. The legislation states that "The Secretary shall establish and carry out nonmotorized transportation pilot program to construct, in the following four communities selected by the Secretary, a network of nonmotorized transportation infrastructure facilities, including sidewalks, bicycle lanes, and pedestrian and bicycle trails, that connect directly with transit stations, schools, residences, businesses, recreation areas, and other community activity centers:

1. Columbia, Missouri
2. Marin County, California
3. Minneapolis-St. Paul, Minnesota
4. Sheboygan County, Wisconsin

The purpose of the program shall be to demonstrate the extent to which bicycling and walking can carry a significant part of the transportation load, and represent a major portion of the transportation solution, within selected communities."

As of this writing Marin County is determining the process by which funding will be distributed and local agencies will apply or submit projects for consideration.

Non-Traditional Funding Sources

Community Development Block Grants

The CDBG program provides money for streetscape revitalization, which may be largely comprised of pedestrian improvements. Federal Community Development Block Grant Grantees may "use CDBG funds for activities that include (but are not limited to): acquiring real property; reconstructing or rehabilitating housing and other property; building public facilities and improvements, such as streets, sidewalks, community and senior citizen centers and recreational facilities, paying for planning and administrative expenses, such as costs related to developing a consolidated Plan and managing CDBG funds; provide public services for youths, seniors, or the disabled; and initiatives such as neighborhood watch programs."

American Greenways Program

Administered by The Conservation Fund, the American Greenways Program provides funding for the planning and design of greenways. Applications for funds can be made by local regional or state-wide non-profit organizations and public agencies. The maximum award is \$2,500, but most range from \$500 to \$1,500. American Greenways Program monies may be used to fund unpaved trail development.

California Center for Physical Activity Grant Program

The California Center for Physical Activity runs several programs related to walking and offers small grants to public health departments. Grants are in the amount of \$4,999 dollars or less and are offered intermittently.

requirements for new developments

With the increasing support for “routine accommodation” and “complete streets,” requirements for new development, road widening and new commercial development provide opportunities to efficiently construct pedestrian facilities.

Impact Fees

One potential local source of funding is developer impact fees, typically tied to trip generation rates and traffic impacts produced by a proposed project. A developer may attempt to reduce the number of trips (and hence impacts and cost) by paying for on- and off-site pedestrian improvements designed to encourage residents, employees and visitors to the new development to walk rather than drive. Establishing a clear nexus or connection between the impact fee and the project’s impacts is critical for avoiding a potential lawsuit.

Mello-Roos Community Facilities Act

The Mello-Roos Community Facilities Act was passed by the Legislature in 1982 in response to reduced funding opportunities brought about by the passage of Proposition 13. The Mello-Roos Act allows any county, city, special district, school district or joint powers of authority to establish a Community Facility Districts (CFD) for the purpose of selling tax-exempt bonds to fund public improvements within that district. CFDs must be approved by a two-thirds margin of qualified voters in the district. Property owners within the district are responsible for paying back the bonds. Pedestrian facilities are eligible for funding under CFD bonds.