CITY OF COLFAX
BIKEWAY MASTER PLAN

FINAL DRAFT
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I. INTRODUCTION

CITY OF COLFAX BIKEWAY MASTER PLAN PURPOSE

The purpose of the City of Colfax Bikeway Plan is to develop a city wide bikeway network that coordinates with the regional bikeway plan and complies with the requirements of the California Bicycle Transportation Act (Appendix B). Bicycling is becoming an increasingly popular transportation mode for commuting, running errands, fitness, and recreation.

PREVIOUS BIKEWAY PLANNING EFFORTS

Prior to this document, the City of Colfax had not developed a bicycle plan; however, there are bikeways in and around the City. The Colfax General Plan encourages the use of bicycles.

RELATIONSHIP TO OTHER DOCUMENTS

Regional Transportation Plan (RTP) for Placer County

The RTP for Placer County was recently updated and adopted by the Placer County Transportation Planning Agency (PCTPA) in December of 2001. The 2001 RTP contains a description of non-motorized facilities, accompanied by a needs assessment and short and long range action plans. Regional project priorities are identified in the appendix, and projects within the Colfax City limits have been included in this plan. Future updates within the RTP non-motorized section may include regional routes within the Colfax City limits.

County General Plan

Placer County's General Plan was last updated in 1994. It includes a section on non-motorized transportation that incorporates an overall goal of providing a safe, comprehensive, and integrated system of facilities for non-motorized transportation. The policies call for development of a comprehensive and safe system of recreational and commuter bicycle routes and coordination of County bikeways with neighboring jurisdictions.

Colfax General Plan

The Colfax General Plan states that the use of bicycles should be encouraged and expanded in the City of Colfax. Additionally, the General Plan calls for accompanying bike route right-of-ways with collector or arterial streets in new developments.

I-80 Corridor Bicycle Plan

Conducted jointly by the Sacramento Area Council of Governments (SACOG) and PCTPA, one of the objectives of the I-80 corridor study was to make bicycling a real travel option in the I-80 corridor by identifying existing and proposing potential future bicycle facilities that would provide for continuous and safe along the I-80 corridor. The areas in the City of Colfax that are relevant to the I-80 corridor are consistent with the I-80 corridor bicycle plan.

Placer County Regional Bikeway Plan

The Placer County Regional Bikeway plan provides for a regional system of bikeways for transportation and recreation purposes. The plan divides the eastern and western portions of the County at Colfax and the Tahoe basin, emphasizing regional connections between and within cities in the two areas. The Regional Bikeway Plan provides suggestions for jurisdictions to follow within city limits, as regional bikeways are frequently multi-jurisdictional. Suggestions within the Regional Bikeway Plan were utilized in the development of this document. The Regional Bikeway Plan was accepted by the PCTPA Board in August of 2001 and was adopted by the Placer County Board of Supervisors on September 24, 2002.

PAST EXPENDITURES FOR BICYCLE FACILITIES

The only existing bicycle facility within the City of Colfax is a Class II bike lane along one side of Rising Sun Drive. The local elementary school constructed the bike lane. The actual cost is unknown, but is estimated to be $200,000.

PLAN DEVELOPMENT AND PUBLIC PARTICIPATION

The plan was developed in conjunction with the Placer County Regional Bikeway Plan. The PCTPA Bicycle Advisory Committee was consulted during plan development. Meetings were convened with both members of the public and City officials. The following steps are being implemented in order to maintain consistent involvement with the members of the public.

- Issue Administrative Draft Plan to City. *(complete)*
- Hold an open house community meeting in the City of Colfax. *(complete)*
- Revise draft plan, incorporating comments from Colfax Parks & Recreation Commission and public. *(complete)*
- Submit plan to City Planning Commission and then City Council for adoption.
- Present adopted plan to PCTPA Board for acceptance.

II. GOALS & OBJECTIVES

OVERALL GOAL FOR THE CITY OF COLFAX BIKEWAY MASTER PLAN:

To promote safe, convenient, and enjoyable cycling by establishing a comprehensive network of bikeways that link the Activity Centers of Colfax and coordinate with the Placer County Regional Bikeway Plan.

OBJECTIVES AND POLICIES:

1. Create a safe and efficient network of bikeways that enhances bicycle use as a viable alternative mode of transportation for commuter and recreational use and for the avid cyclists as well as the "weekend" rider.

   Policy: Implement the bikeway network by working closely with Placer County jurisdictions, bicycle advisory committees, and City residents.

2. Encourage the City to consider the needs of cyclists when designing new or reconstructing existing facilities.

   Policy: Work with the County and other cities to incorporate state-of-the-art bicycle design guidelines into their overall policies for roadway and interchange design.

3. Coordinate with Placer County departments, cities, and other government entities to create continuity and consistency with existing and planned bikeway systems.

   Policy: Develop a prioritized list of bikeway projects for implementation on a City-wide basis.

4. Provide for bikeways that connect to work, school, shopping, transit transfer points, and recreational areas.

   Policy: Implement directional signage along bikeways to indicate connections to key destinations.

5. Create a bikeway system that takes advantage of the scenic qualities in Colfax for both resident and visitor to enjoy.

   Policy: Encourage Placer County jurisdictions to work with developers and bicycle groups to dedicate easements for bikeways.

6. Integrate bicycle planning with other community planning, including land use and transportation planning.

   Policy: Include bikeways in City planning efforts.

7. Provide for an ongoing bikeway planning process.

   Policy: Update the prioritized project list as bikeway projects are implemented.

8. Maintain bikeways and related facilities in a condition favorable to safe and efficient use by cyclists.

   Policy: Develop an ongoing funding source for maintenance of bikeways.

9. Ensure safe conditions for cyclists through signage, traffic controls, engineering, and law enforcement efforts.

   Policy: Encourage addition of safety signage on shared roadways, and support safety education programs for bicyclists.

10. Promote awareness and use of the bikeway system through distribution of a map of all bicycle facilities.

    Policy: Working with the PCTPA, provide updated information for the regional bicycle map. Work with local groups to provide wide distribution to everyone including low income and minority communities.

11. Pursue all possible sources of funding for timely implementation of the bicycle master plan.

    Policy: Apply for/utilize all possible sources of funding including: Safe Routes to Schools, Congestion Mitigation and Air Quality, Transportation Development Act, State Bicycle Transportation Account.

III. PLAN ELEMENTS

DEFINITIONS

The City of Colfax uses Caltrans' design standards, as described in Chapter 1000 of the Caltrans Highway Design Manual, dated February, 2001.

Class I Bike Path provides a completely separated facility designed for the exclusive use of bicycles and pedestrians with minimal crossflows by motorists. Caltrans standards call for Class I bikeways to have 8 feet (2.4 meters) of pavements with 2 foot (0.6 meters) graded shoulders on either side, for a total right-of-way of 12 feet (3.6 meters). These bikeways must also be at least 5 feet (1.5 meters) from the edge of a paved roadway.

Class II Bike Lane provides a restricted right-of-way designated for the exclusive or semi-exclusive use of bicycles with through travel by motor vehicles or pedestrians prohibited, but with vehicle parking and crossflows by pedestrians and motorists permitted. Caltrans standards generally require a 4 foot (1.2 meters) bike lane with a 6-inch (150 mm) white strip separating the roadway from the bike lane.

Class III Bike Route provides a right-of-way designated by signs or permanent markings and shared with pedestrians and motorists. Roadways designated as Class III bike routes should have sufficient width to accommodate motorists, bicyclists, and pedestrians. Other than a street sign, there are not special markings required for a Class III bike route.

SETTING

The City of Colfax is located on the western slope of the Sierra Nevada range at elevations around 2,400 feet. Located between the rugged American River Canyon and the Bear River, Historic Colfax is still a small railroad community. The Union Pacific Railroad runs through the heart of Colfax, as does Interstate 80, which can be a barrier to inter-city circulation by bicycle. Bike routes designated in this plan will address the crossing issue to the extent feasible.

The climate is mild, with occasional extreme conditions in both summer and winter. Colfax is just below the snow line, and just out of the valley heat and fog. The foothill terrain provides bicyclists with a challenging ride and splendid scenery. Scenic vistas and lookout points surround the City, which is characterized by lush trees, canyons and rivers.

LAND USE PATTERNS

An efficient bikeway network connects residents with schools, hospitals, government, business, parks and shopping centers. An emphasis has been put on roadways that connect these activity center areas, consistent with the goal of developing a city wide bicycle network. Figure 2 on page 12 displays various activity center locations throughout the City of Colfax.

BICYCLE COMMUTER PROJECTIONS

Bicycling is becoming an increasingly popular mode of travel in Placer County and in Colfax – both as an alternative to the auto commute and as a form of recreation. There are several bicycle clubs and advocacy groups that have sprung up to encourage more use of bicycles and to work with local governments to provide safe and adequate facilities.

Based on Census data, it is estimated that .2% of the population in Placer County uses a bicycle to get to work on a regular basis. This estimates results in a very small estimate of bicycle commuters in Colfax. However, this does not include students who use their bicycles to get to and from school. In addition, Colfax's downtown business area, which includes a multimodal center, lends itself to access by bicycle, and the area attracts recreational visitors who enjoy the physical activity and scenic benefits of bicycling in the area.

During the community meetings held throughout the County during development of the Regional Bikeway Plan, participants indicated an interest in developing a network of bicycle paths throughout the City of Colfax. Given the community support and the closely distributed activity centers within the city core, it is likely bicycling will increase as a transportation mode. Other factors that contribute to bicycle transportation usage are employment growth, retail development, and traffic congestion.

Another source of increased ridership is likely to be more and improved support facilities. A study performed in the development of the Roseville Bikeway Master Plan reported that if better facilities existed, 94 percent of adults would commute by bicycle. The same study showed that 26 percent of children in the Roseville area use a bicycle to commute to school.

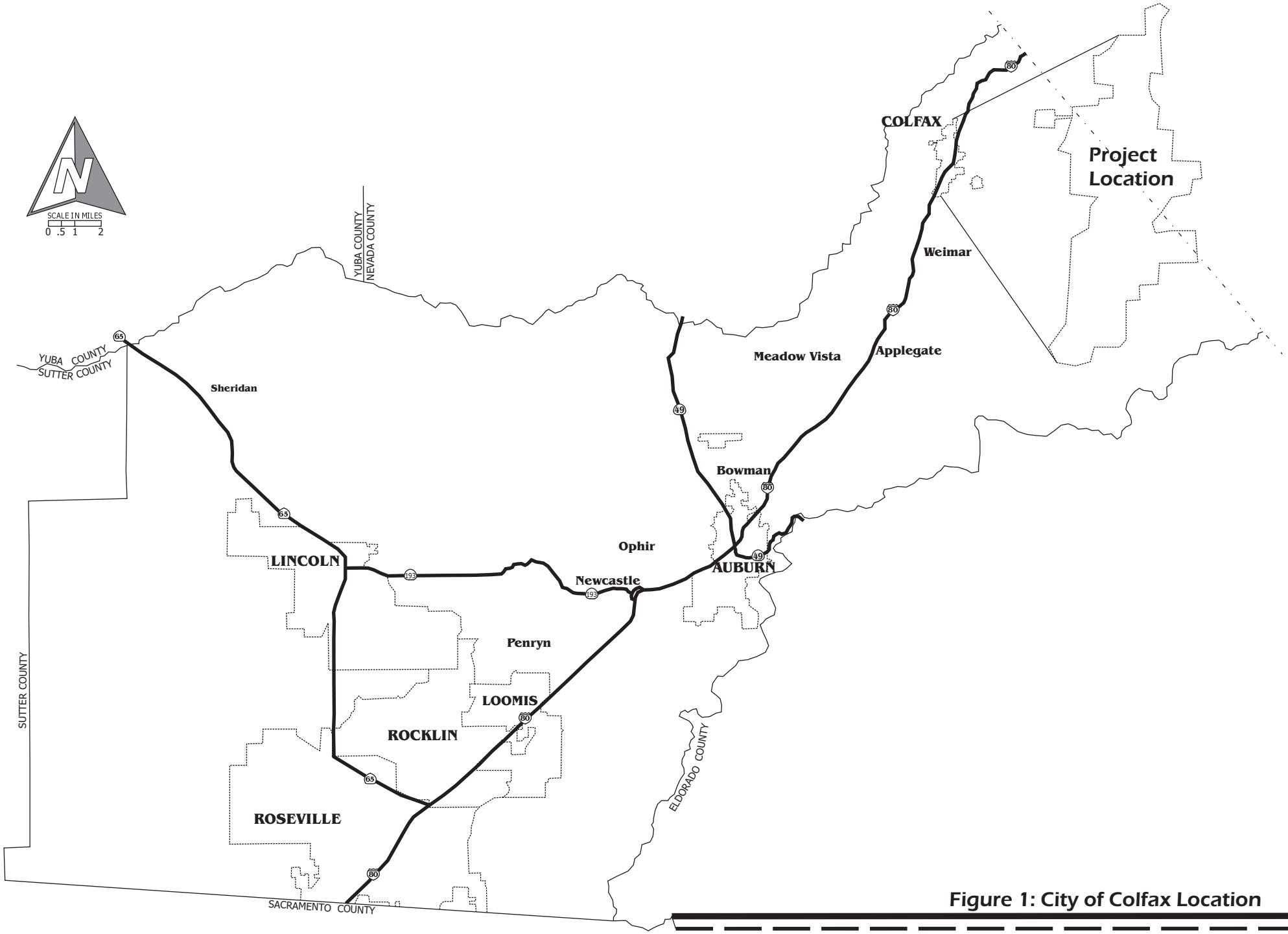


Figure 1: City of Colfax Location

SUPPORT FACILITIES

Support facilities such as bicycle parking, shower and locker facilities can encourage bicycling by reducing the threat of theft and making bicycling more convenient. Properly designed bike racks should be considered near major shopping and employment centers. These facilities should be considered for new developments that are likely to receive bicycle traffic including, but not limited to commercial centers, recreational facilities, and employment centers. Where possible, existing activity centers should be encouraged to add parking facilities if they are lacking. Bicycle parking facilities should be chosen based on (a) cost (b) ease of use (c) ability to prevent theft and (d) aesthetics.

Access to shower and locker facilities may help encourage people to commute by bicycle. Many occupations require specific uniforms or formal attire such as suits and ties. Shower and locker facilities provide employees with the option to shower and dress at work. This is an important consideration for bicycle commuters, as the environmental conditions a bicycle commuter will encounter may vary.

The following action is recommended for increasing the number of locations with bicycle parking, shower and locker facilities:

- Encourage the installation of bicycle parking, shower and locker facilities where appropriate.
- Actively pursue state and federal funding to install bicycle parking, shower, and locker facilities at existing activity and employment centers.

Major Activity Centers to be considered for support facility improvements in the City of Colfax:

Employment:

- Downtown
- Industrial at Whitcomb

Commercial:

- Downtown
- South Auburn Street
- Colfax Multimodal Center

CROSSING IMPROVEMENTS

The following improvements should be targeted for major intersections on the proposed bikeway system, and at locations where students cross busy streets to gain access to campus facilities.

- Use signing, striping, flashing beacons, standard and international standard crosswalks, and pedestrian actuated signals at street crossings with high levels of pedestrian and bicycle demand.
- Install bicycle detectors at signalized intersections along the bikeway system as intersections are upgraded. Detectors should be located within the striped bike lane or between the right turn lane and through lane.

BICYCLE SAFETY AND EDUCATION

Placer County Sheriff/California Highway Patrol

The Placer County Sheriff's law enforcement agency has primary responsibility for bicycle safety in the City of Colfax. Community service officers have developed a curriculum that teaches the basics of bicycle safety, helmet fit, use, and laws. Bike safety programs are performed on request, primarily at schools. Local bike shops often participate with a mechanic on duty to perform minor repairs and to notify bicycle owners of any necessary major repairs.

The California Highway Patrol also has officers dedicated to bicycle safety. They often work in a collaborative effort with the Placer County Sheriffs office and participate in bike education and safety programs.

California Law

California Law requires minors under the age of 18 to wear bicycle helmets. Officers may give citations or a type of “fix it ticket” in which violators will not be fined upon providing a helmet proof of purchase. On some occasions helmets are provided to those without them.

IV. EXISTING BIKEWAY FACILITIES

In conjunction with the development of the Regional Bikeway Plan, PCTPA conducted field observations to identify existing bikeway facilities throughout Placer County. The only existing facility within the City of Colfax is a Class II bike lane along one side of Rising Sun Road. See Figure 2 on page 12 for a map that includes this existing bikeway.

V. PROPOSED IMPROVEMENTS

Improvements must be made to accomplish the goal of developing a comprehensive bikeway network. This chapter offers suggestions for improvements based on the following criteria:

Coverage - The system should provide balanced access from locations outside and within the City for both commuting and recreation purposes.

Safety - The network should provide the highest level of safety possible for bicyclists and pedestrians while minimizing major safety concerns such as narrow roadways, bicycle/pedestrian conflicts, and auto/bike conflicts.

Connectivity - The system should provide bikeway/pedestrian connections to major activity centers, multi-modal centers, and to regional routes that leave/enter the City limits. Activity centers include residential areas, regional parks, shopping centers, employment centers, government centers, transit centers, and recreational areas.

The proposed improvements are presented in the table on the following page. Figure 2 on page 12 shows the upgrades and demonstrates connectivity developed between activity centers and among local and regional bikeways.

City of Colfax Proposed Bikeways			
Roadway	Segment	Upgraded Condition	Approx. Distance
Grass Valley Street	Rising Sun Road to Auburn Street	Class III	1/4 mile
Grass Valley Street	Auburn Street to Highway 174	Class III	1/8 mile
Oak Street	Railroad Avenue to Auburn Street	Class III	1/8 mile
Church Street	Rising Sun Road to Main Street	Class III	1/8 mile
Main Street	Highway 174 to Newman Street	Class III	1/2 mile
Railroad Avenue	Grass Valley Street to Oak Street	Class III	1/8 mile
Auburn Street and South Auburn Street	Main Street to I-80 overcrossing at south end of town	Class III	1.3 miles
Whitcomb Avenue	Entire length	Class III	1/3 mile
South Canyon Way	Between I-80 overcrossings at north and south ends of town	Class II	1.4 miles
Culver Street	Newman Street to Church Street	Class III	1/8 mile
Newman Street	Culver Street to Main Street	Class III	<1/8 mile
Highway 174	Auburn Street to Giovanni's Corner (where 174 and Rollins Lake Road split)	Class II	1.3 miles

REGIONAL CONNECTIONS

An important element of this plan is to consider the proposed bikeway system outside of the City Limits. Figure 2 on page 12 shows how the City proposes that the Colfax bikeway network interface with regional bikeways and nearby recreational destinations. The City's recommendations for bikeways in the unincorporated areas are subject to approval by the Placer County Board of Supervisors.

- At Rising Sun and Tokayana, a Class III bike route in the County would connect to Placer Hills Road.
- The Class II bike lane on South Canyon Way in the City would continue south as a Class III bike route in the County. At the north end of town, it would also continue onto North Canyon Way in the County and terminate at the Stevens Trailhead.
- The Class II bike lane on Highway 174 would continue north as a Class III bike route on Rollins Lake Road.

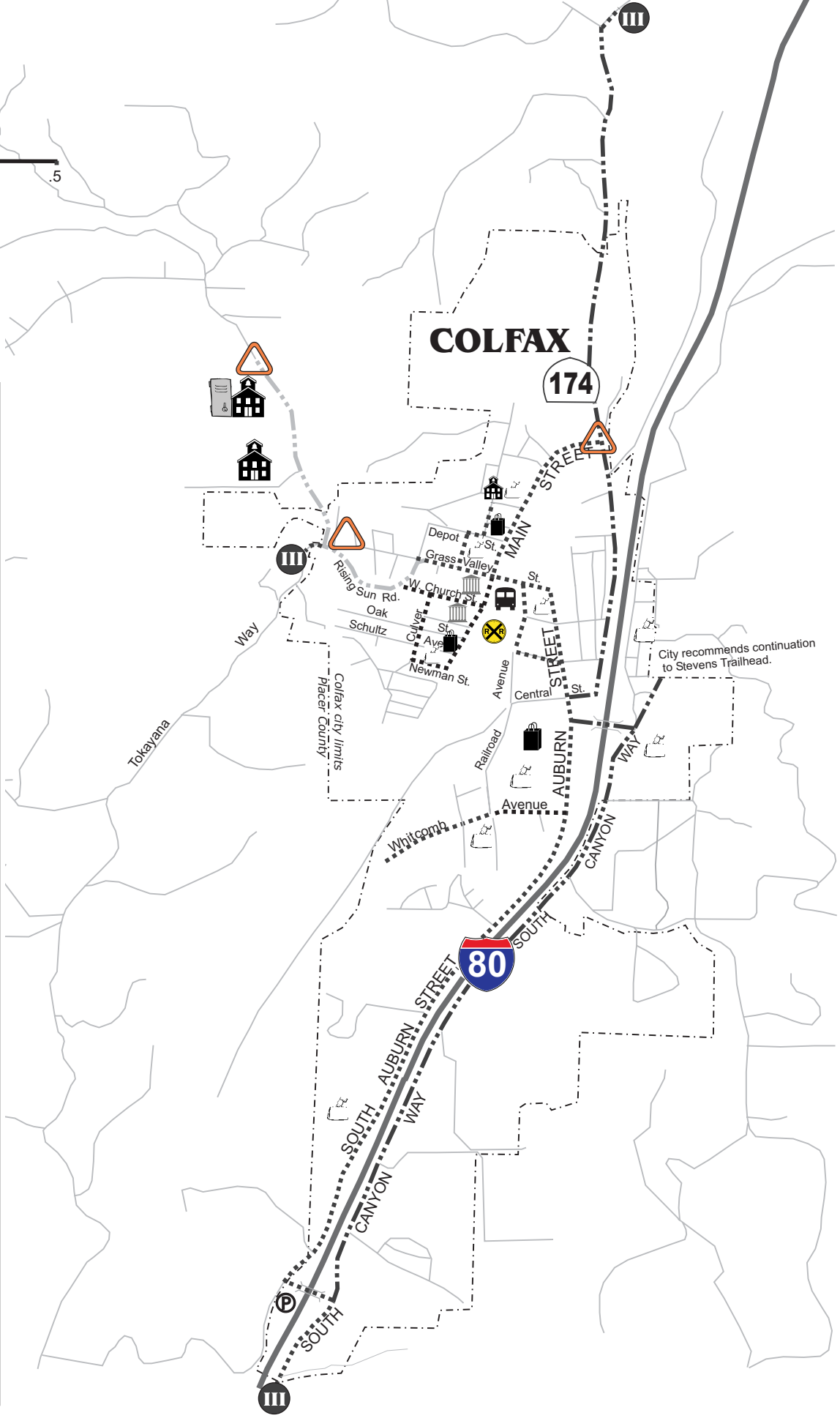


Figure 2

LEGEND

Colfax Bikeway Master Plan Proposed Bikeways

- Class II
- Class III

Existing Bikeways in Colfax

- Class II

Regional Connections

- City recommends continuation as Class III

Activity Centers

- School/Community Center
- Government
- Shopping
- Business
- Park/Recreation Area

Multi Modal Centers

- Rail Station
- Bus Transfer Station
- Park & Ride Lot

Support Facilities

- Bike Rack or Bike Locker
- Shower and Locker Facilities
- Important Crossing

VI. BIKEWAY FUNDING

A variety of funding sources are available for bikeways and related facilities. In order to be eligible for state funds, a Bikeway Master Plan must be in compliance with Streets and Highways Code Section 891.2 (see Appendix A). Federal and state sources applicable to the City of Colfax are provided below.

FEDERAL SOURCES

Regional Surface Transportation Program, Transportation Enhancements Program, and Congestion Mitigation and Air Quality funds are authorized under the Federal Transportation Efficiency Act for the 21st Century (TEA-21). TEA-21 funds are distributed over a six-year period. All TEA-21 funds available in the Sacramento region have been programmed. The next re-authorization of funds for transportation (including bicycle) projects will occur in 2003.

Regional Surface Transportation Program (RSTP)

Placer County will receive approximately $7.5 million in RSTP funds over the six-year period of TEA-21. RSTP funds are distributed to incorporated cities and the unincorporated County per a population/maintained road miles formula adopted by the PCTPA Board. Traditionally in Placer County this source of funds has been used for road overlay projects. As with other TEA-21 programs, projects must be included in an approved Federal Statewide Transportation Improvement Program (FSTIP), and 11.5 percent local match is required.

Transportation Enhancement Activities Program (TEA)

TEA funds are to be used for transportation related capital improvement projects that enhance quality of life in or around transportation facilities. Projects must be over and above required mitigation and normal transportation projects, and must be directly related to the surface transportation system. The projects must have a quality of life component, while providing the greatest benefit to the greatest number of people. Projects must be within one of twelve categories, seven of which are related to bicycle and pedestrian projects:

1. Provision of facilities for pedestrians and bicycles
2. Provision of safety and educational activities for pedestrians and bicyclists
3. Acquisition of scenic easements and scenic/historic sites
4. Scenic or historic highway programs
5. Landscaping and other scenic beautification
6. Historic preservation
7. Rehabilitation and operation of historic transportation facilities (including historic railroad facilities and canals)

Regional Transportation Planning Agencies (RTPA's), such as PCTPA, receive 75 percent of the TEA dollars available in California. Project sponsors should submit projects to RTPA's. PCTPA received approximately $6 million in TEA funds over the six-year period of TEA-21.

Congestion Mitigation and Air Quality Program (CMAQ)

CMAQ funds are directed to transportation projects and programs that contribute to the attainment or maintenance of National Ambient Air Quality Standards in non-attainment or air quality maintenance areas for ozone, carbon monoxide or particulate matter under provisions for the Federal Clean Air Act.

In Placer County (portions of which are in a non-attainment area for carbon monoxide and ozone), priority for CMAQ funds has been on projects that can make a significant impact on the reduction of Nitrogen Oxide (NOx), which a precursor to ozone. Eligible projects must show a low cost per pound of NOx reduction. Historically, bicycle projects have been fairly high cost, due in part to low bicycle commute numbers. Placer County received approximately $10 million in CMAQ funds during the last cycle. Project sponsors should submit projects to PCTPA.

Safe Routes to School Program (SR2S)

During the fiscal years of 2000 and 2001, the SR2S program was designed as a demonstration project for the construction of bicycle and pedestrian safety and traffic calming projects. To be eligible, the projects had to correct an identified safety hazard or problem on a route that students use for trips to and from school. In October 2001, Governor Davis signed SB10 extending the SR2S bill for 3 more years. SB10 is expected to provide approximately $70,000,000 over the next three years for new sidewalks, bike lanes, trails and other projects that encourage students to walk or bike to school. Caltrans administers SR2S funds projects.

STATE SOURCES

Bicycle Transportation Account (BTA)

The BTA is intended to provide funds for bicycle transportation and to enhance bicycling for commuting purposes. Available funding has increased in recent years, and is now up to $7 million annually for five years beginning in Fiscal year 2001/02. After that time the fund will revert to $5 million annually. These funds are available for bicycle projects statewide on a competitive basis for any jurisdiction that has prepared and adopted a bicycle plan that complies with state guidelines.

Applicants provide a local match of at least 10 percent of total project cost. No applicant may receive more than 25 percent of the total funds transferred into the BTA in a single fiscal year. The Bicycle Facilities Unit in the Caltrans Local Assistance Program selects projects for funding.

Pedestrian Safety Program (PSP)

Projects eligible for PSP funding include, but are not limited to, traffic calming measures, intersection safety improvements and any traffic safety or enforcement program authorized by law. Projects must correct an identified pedestrian safety hazard or problem. In 1999/2000, $8 million was provided in a one-time appropriation of funds. In order for the funding to continue, an appropriation must be included in the future State Budget Act or other legislation.

Environmental Enhancement and Mitigation Program (EEM)

The purpose of the EEM program is to mitigate the environmental impacts of new or modified public transportation facilities beyond the level required by the project's environmental document. Projects must demonstrate a direct or indirect relationship with the environmental impact of modifying an existing transportation facility or construction of a new facility after January 1, 1990. One category, which in some cases may be applicable to bicycle projects, is known as 'Roadside Recreational.' Roadside Recreational projects provide roadside recreational opportunities, including roadside rests, scenic overlooks, trails, trailheads, sno-parks and parks. Statewide, $10 million are available; applicable projects are to be submitted to the Resources Agency of California for evaluation.

LOCAL SOURCES

Local Transportation Fund (LTF)

Under Article 3 of the Transportation Development Act (TDA), up to two percent of the LTF allocation to cities and counties can be used for bicycle and pedestrian projects. PCTPA sets aside these funds for jurisdictions to claim under a five-year cash flow management plan for bicycle and pedestrian projects. Revenues to the LTF program are derived from 1/4 cent of statewide sales tax.

New Construction

In some cases, portions of the proposed network will be completed as part of future development, construction or widening projects within the City of Colfax. To ensure that roadway construction projects provide these facilities where needed, roadway design standards need to include minimum cross-sections that have sufficient pavement for on-street bikeways, and the review process for new development should include input pertaining to consistency with the proposed

bikeway network. Future development in the City of Colfax will contribute to implementation of new bikeway facilities only if projects are conditioned and roadway design standards are updated to include bikeway facilities (see Appendix B for Caltrans Deputy Directive DD-64).

VII. PRIORITY BIKEWAY PROJECTS

Priority routes were chosen based on connectivity, anticipated use, facility type, and potential safety improvements. The following routes have the highest priority for implementation, in no specific order.

Class II Bike Lanes on Highway 174: This important roadway has high traffic volumes and car speeds and provides an important connection from the city core to residential and recreational areas north of Colfax.

SEGMENT DISTANCE	EXISTING CONDITION	ESTIMATED COST
1.3 miles	Varying shoulder widths	$390,000

Class II Bike Lanes on South Canyon Way: Part of the I-80 Corridor, this roadway provides a connection into the city core from residential areas at the south end of town. There are also businesses located along South Canyon Way.

SEGMENT DISTANCE	EXISTING CONDITION	ESTIMATED COST
1.4 miles	Varying shoulder widths	$420,000

Class III Bike Route on Main Street through Downtown Core: This downtown route will provide access to the multi-modal center, as well as promote the use of bicycles through the downtown core.

SEGMENT DISTANCE	EXISTING CONDITION	ESTIMATED COST
0.6 mile	Varying shoulder widths and on-street parking	$80,000

COST ESTIMATES

The table below provides a conceptual cost estimate summary for constructing bikeways included in the proposed network. These cost estimates are based on costs experienced in various other California communities and previous bikeway expenditures in Placer and other counties. Due to variances in the nature of individual projects, these estimates should be used only to develop generalized construction cost estimates and project priorities. More detailed estimates should be developed after preliminary engineering is complete for each project.

Conceptual Cost Estimates for Bikeway Construction		
Bikeway Facility	Estimated Cost Per	
	Mile	Kilometer
Class I Bike Path • Cost to grade and pave an 8-foot wide surface with 2-foot wide shoulders on each side. (Does not include amenities such as landscaping, lighting, irrigation, phones etc...)	$400,000	$252,000
Class II Bike Lane **Moderate Shoulder Improvement:** • Cost to install pavement striping, markings, and signs on both sides of an existing 4-foot roadside shoulder. **Major Shoulder Improvement:** • Cost to install four-foot strips of pavement, pavement striping, markings and signs on both sides of a roadway.	$5,000 $300,000	$3,120 $187,000
Class III Bike Route **Signs Only:** • Cost to install signs on both sides of the roadway. **Moderate Shoulder Improvement:** • Cost to install 2-3 foot strips of pavement, a 6-inch fog line and signs on both sides of the roadway.	$1,500 $150,000	$984 $93,500

BIKEWAY DESIGN STANDARDS

The Caltrans Highway Design Manual gives extensive detail on the design for bikeways. The Caltrans standards provide a good framework for future implementation, but may not always be possible due to topographic constraints. Local jurisdictions must be protected from liability so most agencies adopt the Caltrans guidelines as a minimum standard. Examples of typical standard design treatments for Class I, Class II, and Class III bikeways are provided in Appendix C. This information is provided to assist local agency staff in the design and construction of future bikeway facilities.

FIGURE 3: COMPLIANCE WITH BICYCLE TRANSPORTATION ACT

Section 891.2 items A-K.

BTA REQUIREMENT	LOCATION IN CITY OF COLFAX BIKEWAY MASTER PLAN
a. Bicycle Commuters	Page 6
b. Map and description of land use patterns	Description: Page 6 Map: Figure 2, Page 12
c. Map and description of existing and proposed bikeways	Existing Bikeways; Description: Page 10 Map: Figure 2, page 12
	Proposed Bikeways; Description: Pages 10-11 Map: Figure 2, page 12
d. Map and description of existing and proposed support facilities	Description: Page 8 Map: Figure 2, page 12
e. Map and description of existing and proposed connections to other transportation modes	Description: Page 8 Map: Figure 2, page 12
f. Map and description of existing and proposed changing facilities	Description: Page 8 Map: Figure 2, page 12
g. Description of safety and education programs	Page 9
h. Citizen and community involvement in plan development	Page 2
i. Relationship to other documents/coordination	Page 1
j. Proposed project priorities	Page 17
k. Past expenditures and future financial needs	Past: Page 2 Future: Page 17

Appendix A
California Bicycle Transportation Act

CALIFORNIA BICYCLE TRANSPORTATION ACT
CALIFORNIA CODES
STREETS AND **HIGHWAYS CODE**
SECTION 890-894.2

890. It is the intent of the Legislature, in enacting this article, to establish a **bicycle transportation** system. It is the further intent of the Legislature that this **transportation** system shall be designed and developed to achieve the functional commuting needs of the employee, student, business person, and shopper as the foremost consideration in route selection, to have the physical safety of the bicyclist and bicyclist's property as a major planning component, and to have the capacity to accommodate bicyclists of all ages and skills.

890.2. As used in this chapter, "**bicycle**" means a device upon which any person may ride, propelled exclusively by human power through a belt, chain, or gears, and having either two or three wheels in a tandem or tricycle arrangement.

890.3. As used in this article, "**bicycle** commuter" means a person making a trip by **bicycle** primarily for **transportation** purposes, including, but not limited to, travel to work, school, shopping, or other destination that is a center of activity, and does not include a trip by **bicycle** primarily for physical exercise or recreation without such a destination.

890.4. As used in this article, "bikeway" means all facilities that provide primarily for **bicycle** travel. For purposes of this article, bikeways shall be categorized as follows:

(a) Class I bikeways, such as a "bike path," which provide a completely separated right-of-way designated for the exclusive use of bicycles and pedestrians with crossflows by motorists minimized.

(b) Class II bikeways, such as a "bike lane," which provide a restricted right-of-way designated for the exclusive or semiexclusive use of bicycles with through travel by motor vehicles or pedestrians prohibited, but with vehicle parking and crossflows by pedestrians and motorists permitted.

(c) Class III bikeways, such as an onstreet or offstreet "bike route," which provide a right-of-way designated by signs or permanent markings and shared with pedestrians or motorists.

890.6. The department, in cooperation with county and city governments, shall establish minimum safety design criteria for the planning and construction of bikeways and roadways where **bicycle** travel is permitted. The criteria shall include, but not be limited to, the design speed of the facility, minimum widths and clearances, grade, radius of curvature, pavement surface, actuation of automatic traffic control devices, drainage, and general safety. The criteria shall be updated biennially, or more often, as needed.

890.8. The department shall establish uniform specifications and symbols for signs, markers, and traffic control devices to designate bikeways, regulate traffic, improve safety and convenience for bicyclists, and alert pedestrians and motorists of the presence of bicyclists on bikeways and on roadways where **bicycle** travel is

permitted.

891. All city, county, regional, and other local agencies responsible for the development or operation of bikeways or roadways where **bicycle** travel is permitted shall utilize all minimum safety design criteria and uniform specifications and symbols for signs, markers, and traffic control devices established pursuant to Sections 890.6 and 890.8.

891.2. A city or county may prepare a **bicycle transportation** plan, which shall include, but not be limited to, the following elements:

(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.

(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.

(c) A map and description of existing and proposed bikeways.

(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.

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

(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.

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

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

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

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

(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.

891.4. (a) A city or county that has prepared a **bicycle transportation** plan pursuant to Section 891.2 may submit the plan to the county **transportation** commission or **transportation** planning

agency for approval. The city or county may submit an approved plan to the department in connection with an application for funds for bikeways and related facilities which will implement the plan. If the **bicycle transportation** plan is prepared, and the facilities are proposed to be constructed, by a local agency other than a city or county, the city or county may submit the plan for approval and apply for funds on behalf of that local agency.

(b) The department may grant funds applied for pursuant to subdivision (a) on a matching basis which provides for the applicant's furnishing of funding for 10 percent of the total cost of constructing the proposed bikeways and related facilities. The funds may be used, where feasible, to apply for and match federal grants or loans.

891.5. The Sacramento Area Council of Governments, pursuant to subdivision (d) of Section 2551, may purchase, operate, and maintain callboxes on class 1 bikeways.

891.8. The governing body of a city, county, or local agency may do all of the following:

(a) Establish bikeways.

(b) Acquire, by gift, purchase, or condemnation, land, real property, easements, or rights-of-way to establish bikeways.

(c) Establish bikeways pursuant to Section 21207 of the Vehicle **Code**.

892. (a) Rights-of-way established for other purposes by cities, counties, or local agencies shall not be abandoned unless the governing body determines that the rights-of-way or parts thereof are not useful as a nonmotorized **transportation** facility.

(b) No state highway right-of-way shall be abandoned until the department first consults with the local agencies having jurisdiction over the areas concerned to determine whether the right-of-way or part thereof could be developed as a nonmotorized **transportation** facility. If an affirmative determination is made, before abandoning the right-of-way, the department shall first make the property available to local agencies for development as nonmotorized **transportation** facilities in accordance with Sections 104.15 and 887.6 of this **code** and Section 14012 of the Government **Code**.

892.2. (a) The **Bicycle Transportation** Account is continued in existence in the State **Transportation** Fund, and, notwithstanding Section 13340 of the Government **Code**, the money in the account is continuously appropriated to the department for expenditure for the purposes specified in Section 892.4. Unexpended moneys shall be retained in the account for use in subsequent fiscal years.

(b) Any reference in law or regulation to the **Bicycle** Lane Account is a reference to the **Bicycle Transportation** Account.

892.4. The department shall allocate and disburse moneys from the **Bicycle Transportation** Account according to the following priorities:

(a) To the department, the amounts necessary to administer this article, not to exceed 1 percent of the funds expended per year.

(b) To counties and cities, for bikeways and related facilities, planning, safety and education, in accordance with Section 891.4.

892.5. The Bikeway Account, created in the State **Transportation** Fund by Chapter 1235 of the Statutes of 1975, is continued in effect, and, notwithstanding Section 13340 of the Government **Code**, money in the account is hereby continuously appropriated to the department for expenditure for the purposes specified in this chapter. Unexpended money shall be retained in the account for use in subsequent fiscal years.

892.6. The Legislature finds and declares that the construction of bikeways pursuant to this article constitutes a highway purpose under Article XIX of the California Constitution and justifies the expenditure of highway funds therefor.

893. The department shall disburse the money from the **Bicycle Transportation** Account pursuant to Section 891.4 for projects that improve the safety and convenience of **bicycle** commuters, including, but not limited to, any of the following:

(a) New bikeways serving major **transportation** corridors.

(b) New bikeways removing travel barriers to potential **bicycle** commuters.

(c) Secure **bicycle** parking at employment centers, park-and-ride lots, rail and transit terminals, and ferry docks and landings.

(d) **Bicycle**-carrying facilities on public transit vehicles.

(e) Installation of traffic control devices to improve the safety and efficiency of **bicycle** travel.

(f) Elimination of hazardous conditions on existing bikeways.

(g) Planning.

(h) Improvement and maintenance of bikeways.

In recommending projects to be funded, due consideration shall be given to the relative cost effectiveness of proposed projects.

893.2. The department shall not finance projects with the money in accounts continued in existence pursuant to this article which could be financed appropriately pursuant to Article 2 (commencing with Section 887), or fully financed with federal financial assistance.

893.4. If available funds are insufficient to finance completely any project whose eligibility is established pursuant to Section 893, the project shall retain its priority for allocations in subsequent fiscal years.

893.6. The department shall make a reasonable effort to disburse funds in general proportion to population. However, no applicant shall receive more than 25 percent of the total amounts transferred to the **Bicycle Transportation** Account in a single fiscal year.

894. The department may enter into an agreement with any city or county concerning the handling and accounting of the money disbursed pursuant to this article, including, but not limited to, procedures to permit prompt payment for the work accomplished.

894.2. The department, in cooperation with county and city governments, shall adopt the necessary guidelines for implementing this article.

Appendix B
Caltrans Deputy Directive DD-64

California Department of Transportation

DEPUTY DIRECTIVE NUMBER: DD-64

Effective Date: 3-26-01
Supersedes: New

Title: Accommodating Non-Motorized Travel

POLICY

The Department fully considers the needs of non-motorized travelers (including pedestrian bicyclists and persons with disabilities) in all programming, planning, maintenance, construction, operations and project development activities and products. This includes incorporation of the best available standards in all of the Department's practices. The Department adopts the best practice concepts in the U.S. DOT Policy Statement on "Integrating Bicycling and Walking into Transportation Infrastructure."

DEFINITION / BACKGROUND

The planning and project development process seeks to provide the people of California with a degree of mobility that is in balance with other values. They must ensure that economic, social and environmental effects are fully considered along with technical issues, so that the best interest of the public is served. This includes all users of California's facilities and roadways.

Attention must be given to many issues including, but not limited to, the following:

- Safe and efficient transportation for all users of the transportation system
- Provision of alternatives for non-motorized travel
- Support of the Americans With Disabilities Act (ADA)
- Attainment of community goals and objectives
- Transportation needs of low-mobility, disadvantaged groups
- Support of the state's economic development
- Elimination or minimization of adverse effects on the environment, natural resources, public services, aesthetic features and the community
- Realistic financial estimates
- Cost effectiveness

Individual projects are selected for construction on the basis of overall multimodal system benefits as well as community goals, plans and values. Decisions place emphasis on making different transportation modes work together safely and effectively. Implicit in these objectives is

the need to accommodate non-motorized travelers as an important consideration in improving the transportation system.

RESPONSIBILITIES

Deputy Director, Planning and Modal Programs:

- Ensures that the needs of non-motorized travelers are incorporated into the program element of Transportation Planning and the modal elements of the statewide strategy for mobility.
- Ensures that liaison exists with non-motorized advocates to incorporate non-motorized needs into all program areas including project and system planning.
- Ensures that the needs of the non-motorized travelers are incorporated in personal movement strategies.

Deputy Director, Project Delivery:

- Ensures that projects incorporate best practices for non-motorized travel in the design and construction of capital projects.

Deputy Director, Maintenance and Operations:

- Ensures that the transportation system is maintained and operated in a safe and efficient manner with the recognition that non-motorized travel is a vital element of the transportation system.
- Ensures that the needs of non-motorized travelers are met in maintenance work zones.

District Directors:

- Ensure that best practices for non-motorized travel are included in all district projects and project planning.
- Ensure that best practices for non-motorized travel are implemented in maintenance and travel operations practices.

Chief, Division of Design

- Ensures that project delivery procedures and design guidance include the needs of non-motorized travelers as a regular part of doing business.
- Ensures that all project delivery staff is trained and consider the needs of the non-motorized traveler while developing and designing transportation projects.

Chief, Division of Planning:

- Ensures incorporation of non-motorized travel elements in transportation plans, programs and studies prepared by Transportation Planning.
- Ensures planning staff understand and are trained in the principles and design guidelines, non-motorized funding sources and the planning elements of non-motorized transportation.

- Coordinates Caltrans projects with non-motorized interest groups.
- Ensures incorporation of non-motorized travel elements in Corridor Studies prepared by Transportation Planning.

Chief, Division of Environmental Analysis:

- Ensures that non-motorized travel groups potentially affected by Caltrans projects are identified and have the opportunity to be involved in the project development process.
- Advocates effectively for all reasonable project-specific best practices that support or promote non-motorized travel.

Chief, Division of Maintenance:

- Ensures State-owned facilities are maintained consistent with the needs of motorized and non-motorized travelers.
- Provides guidance and training to those maintaining roadways to be aware of and sensitive to the needs of non-motorized travel.

Chief, Division of Traffic Operations:

- Ensures that the transportation system is operated in accordance with the needs of all travelers including non-motorized travel.
- Provides training and guidance on the operation of the transportation facility consistent with providing mobility for all users.
- Recommends safety measures in consideration of non-motorized travel on California's transportation system.

Chief, Division of Local Assistance:

- Ensures that Local Assistance staff, local agencies and interest groups are familiar with funding programs that are available for non-motorized travelers.
- Ensures that program coordinators responsible for non-motorized travel modes are familiar with non-motorized issues and advocate on behalf of non-motorized travelers.

APPLICABILITY

All Caltrans employees who are involved in the planning, design, construction, maintenance and operations of the transportation system.

TONY V. HARRIS
Chief Deputy Director

Appendix C
Bikeway Design Diagrams from Highway Design Manual

Figure 1003.1A

Two-Way Bike Path on Separate Right of Way

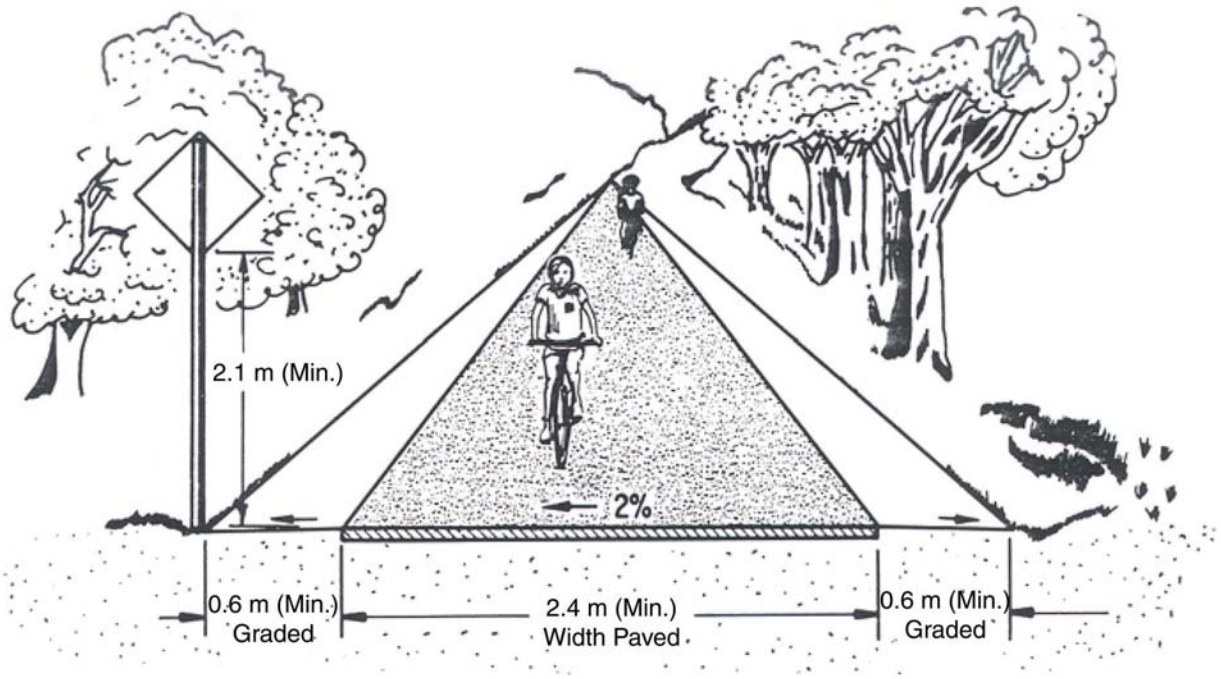
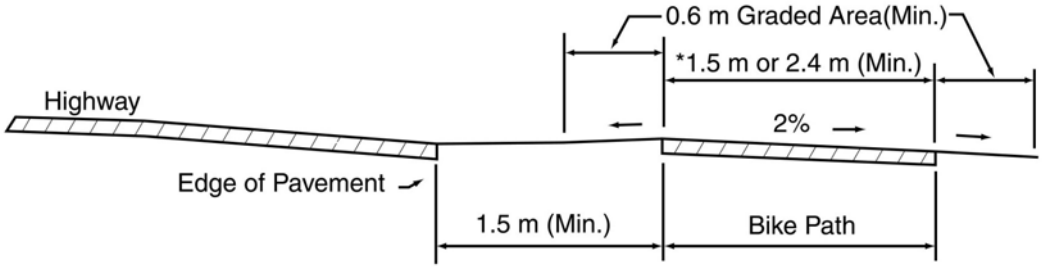


Figure 1003.1A

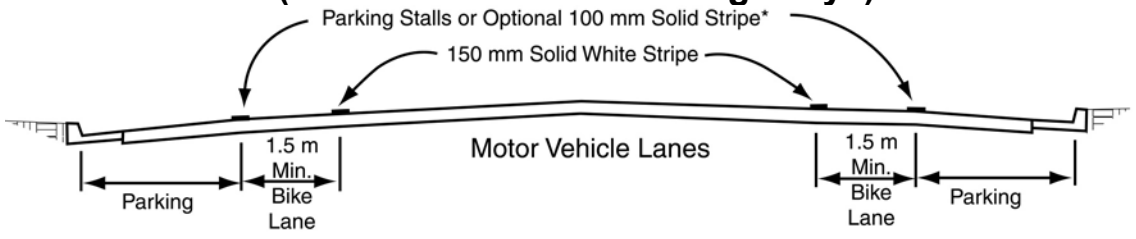
Typical Cross Section of Bike Path Along HIghway



NOTE: See Index 1003.1(5)

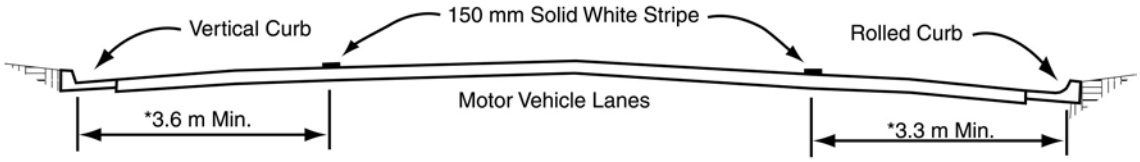
*One - Way: 1.5 m Minimum Width
Two - Way: 2.4 m Minimum Width

Figure 1003.2A
Typical Bike Lane Cross Sections
(On 2-lane or Multilane Highways)



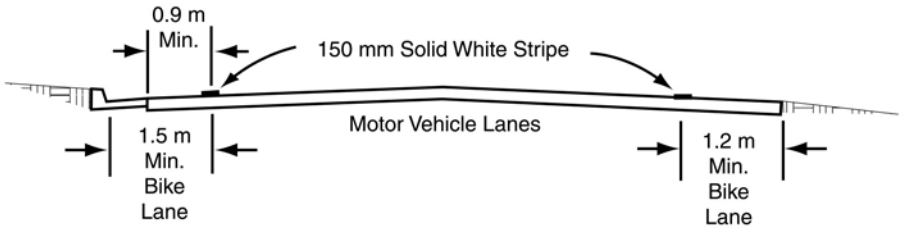
*The optional solid white stripe may be advisable where stalls are unnecessary (because parking is light) but there is concern that motorists may miscontrue the bike lane to be a traffic lane.

(1) STRIPED PARKING

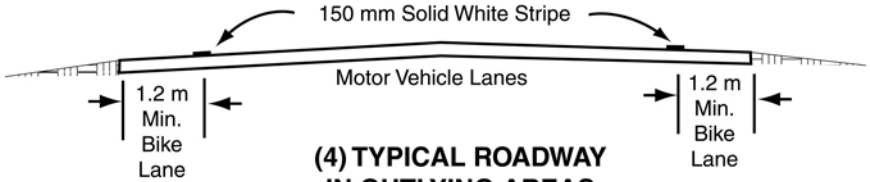


* 3.9 is recommended where there is substantial parking or turnover of parked cars is high (e.g. commerical areas).

(2) PARKING PERMITTED WITHOUT PARKING STRIPE OR STALL



(3) PARKING PROHIBITED



(4) TYPICAL ROADWAY IN OUTLYING AREAS PARKING RESTRICTED

Figure 1003.2B

Typical Bicycle/Auto Movements at Intersections of Multilane Streets

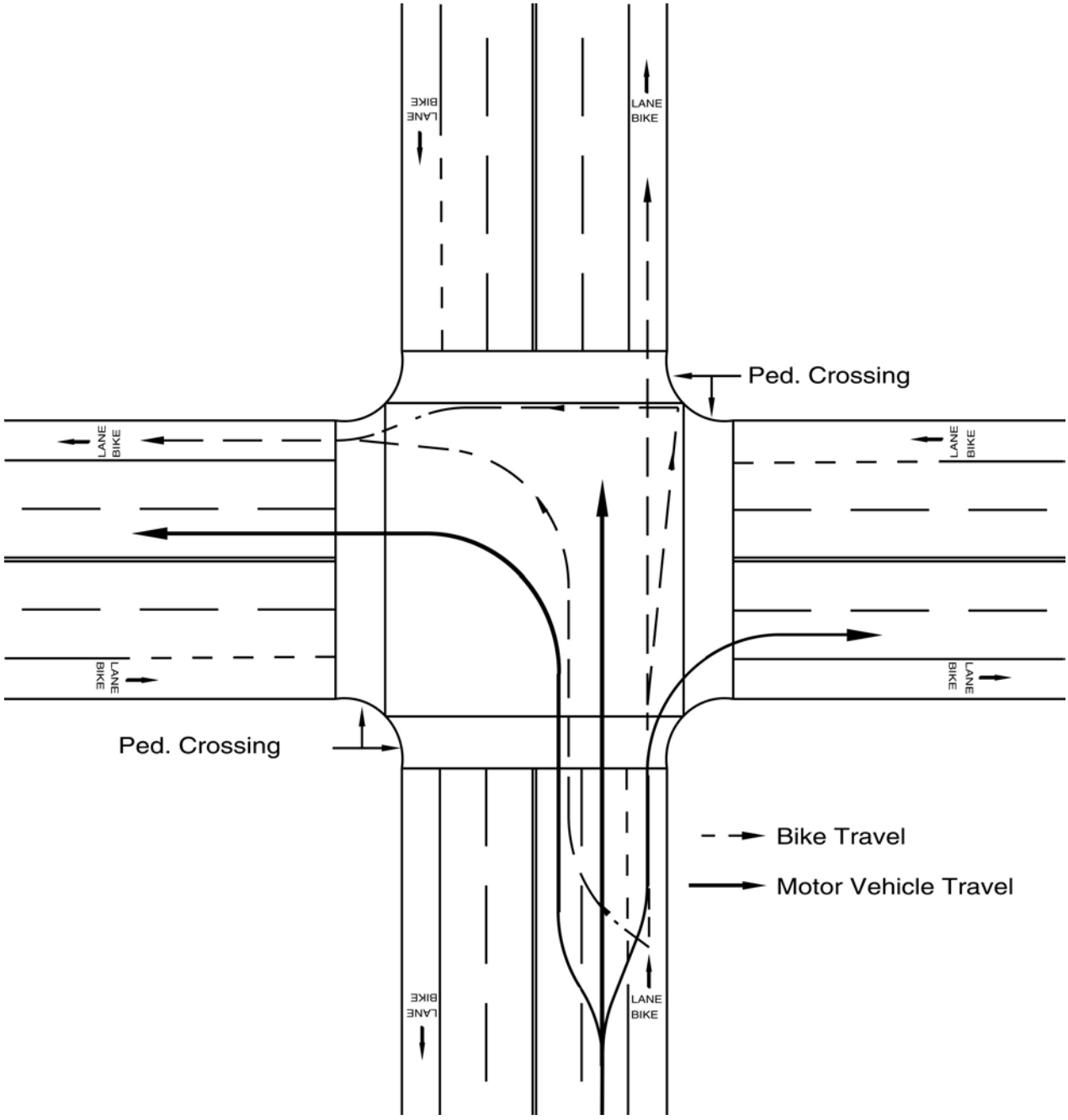


Figure 1003.2C
Bike Lanes Approaching Motorist
Right-turn-only Lane

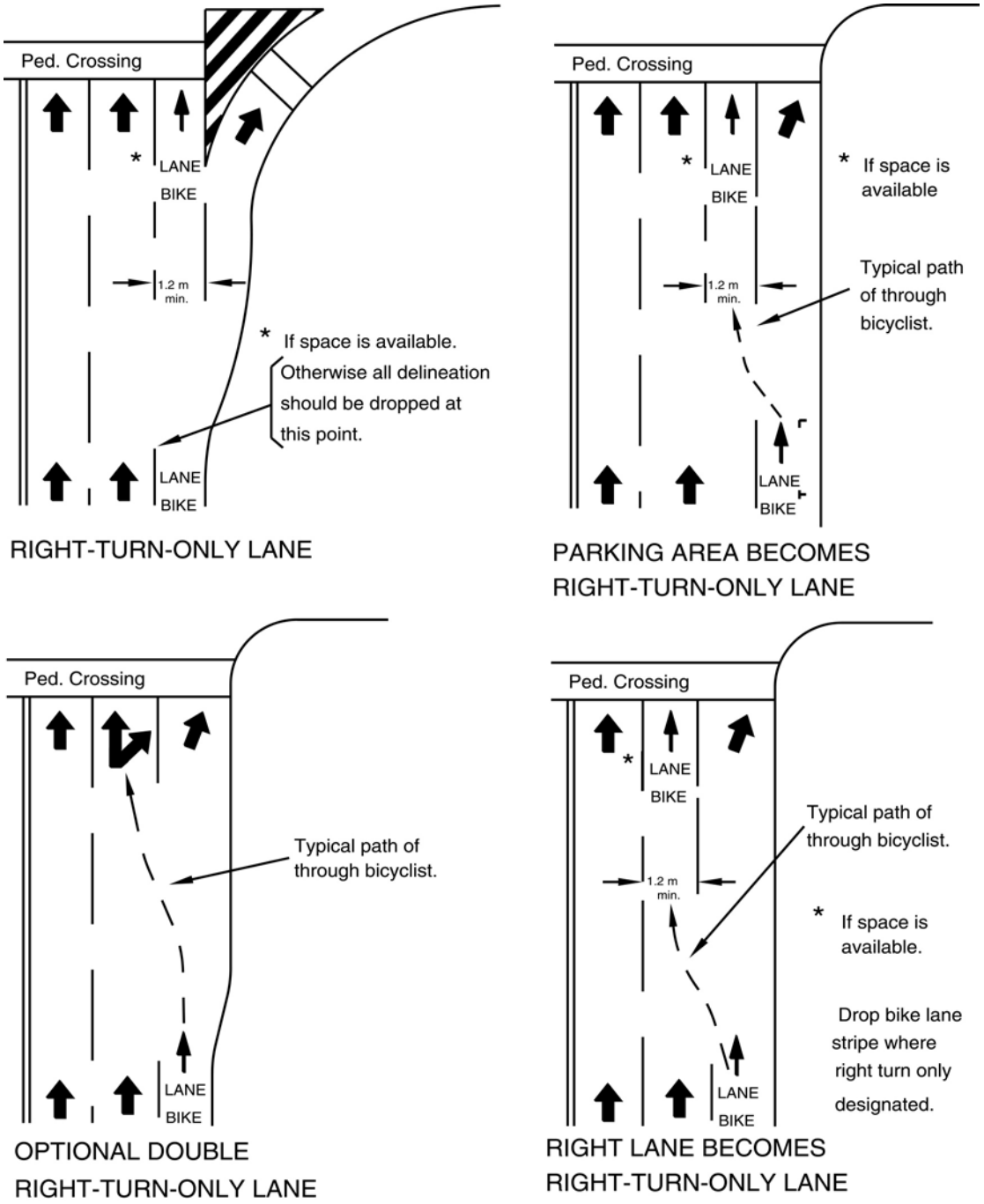


Figure 1003.2D
Bike Loop Detector
Pavement Marking

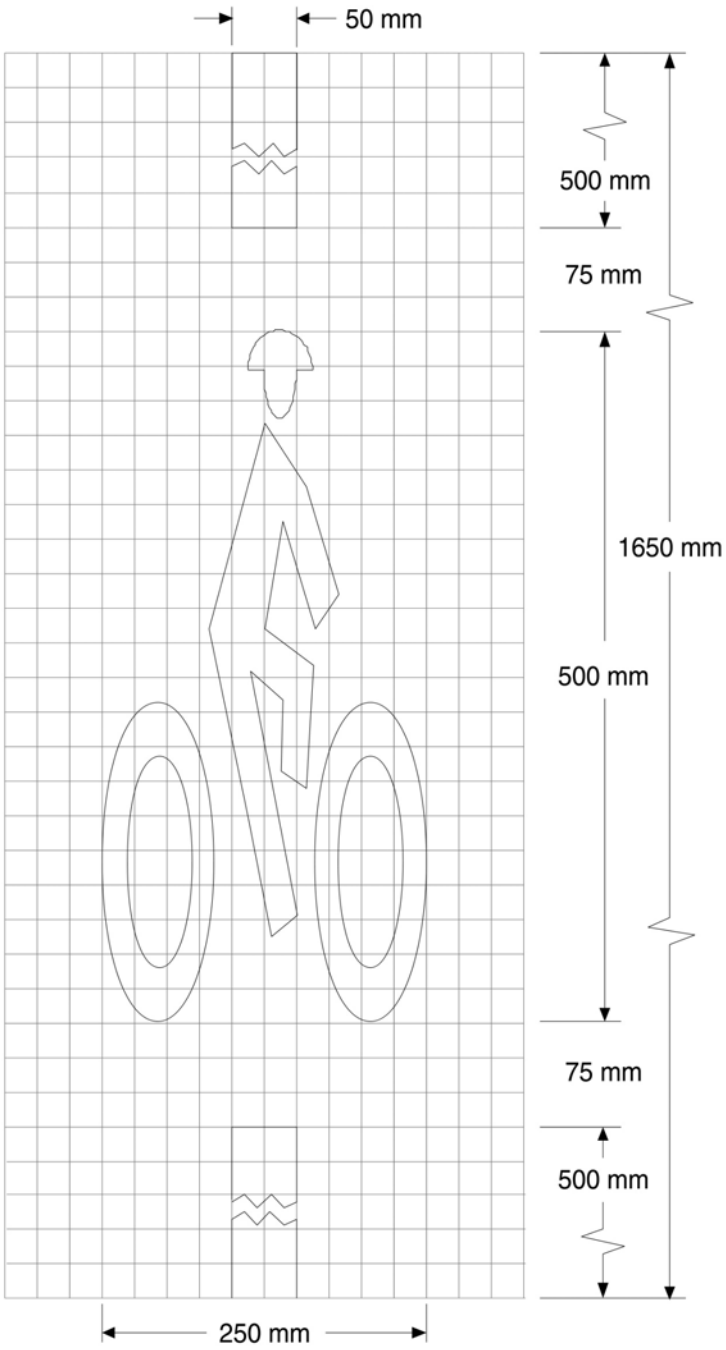
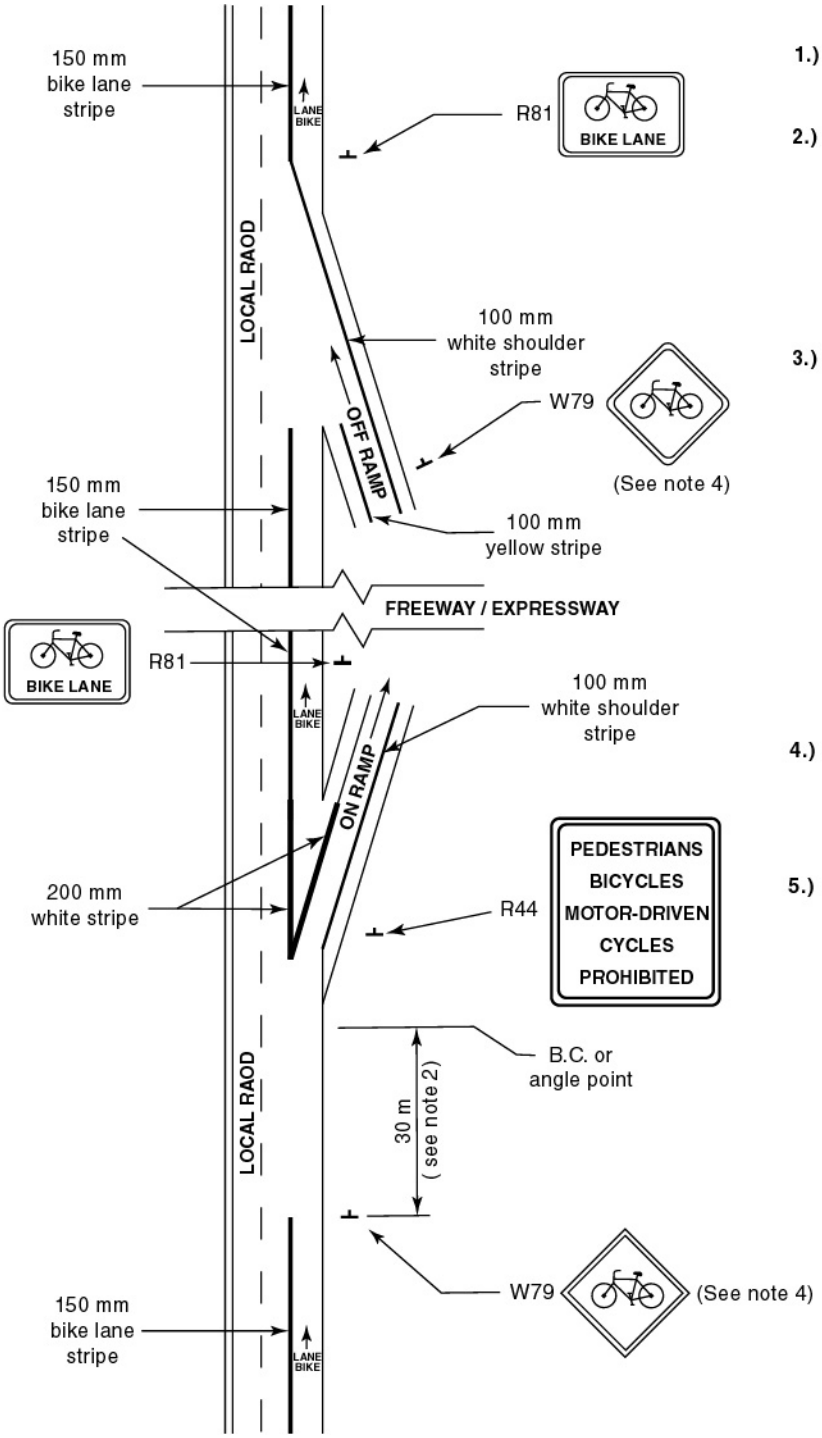


Figure 1003.2E

Bike Lanes Through Interchanges



Notes:

1.) See Index 1003.2 (4) for additional information.

2.) At additional on-ramps within the interchange the signing & striping as shown shall be repeated. Where the on-ramps intersect at the local road at or near 90 degrees, the striping should follow Figure 1003.2C.

3.) The shoulder width shall not be reduced through the interchange area. The minimum shoulder width shall match the approach roadway shoulder width, but not less than 1.2 m or 1.5 m if a gutter exists. If the shoulder width is not available, the designated bike lane shall end at the previous llocal raod intersection.

4.) The W79 signs are optional and should be used only when determined appropriate by the Engineer.

5.) See Index 1003.3 (4) for information on Bike Routes Through Interchanges.

Figure 1003.6A
Railroad Crossings

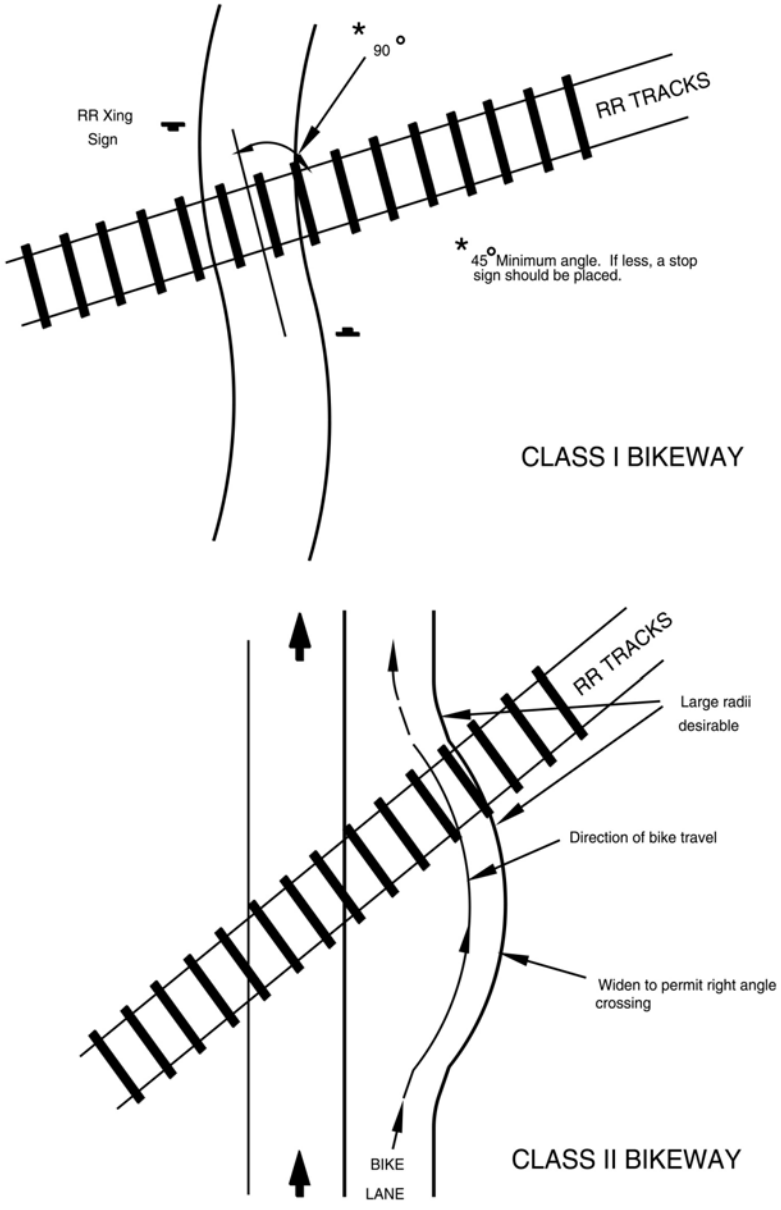


Figure 1003.6B

Obstruction Markings

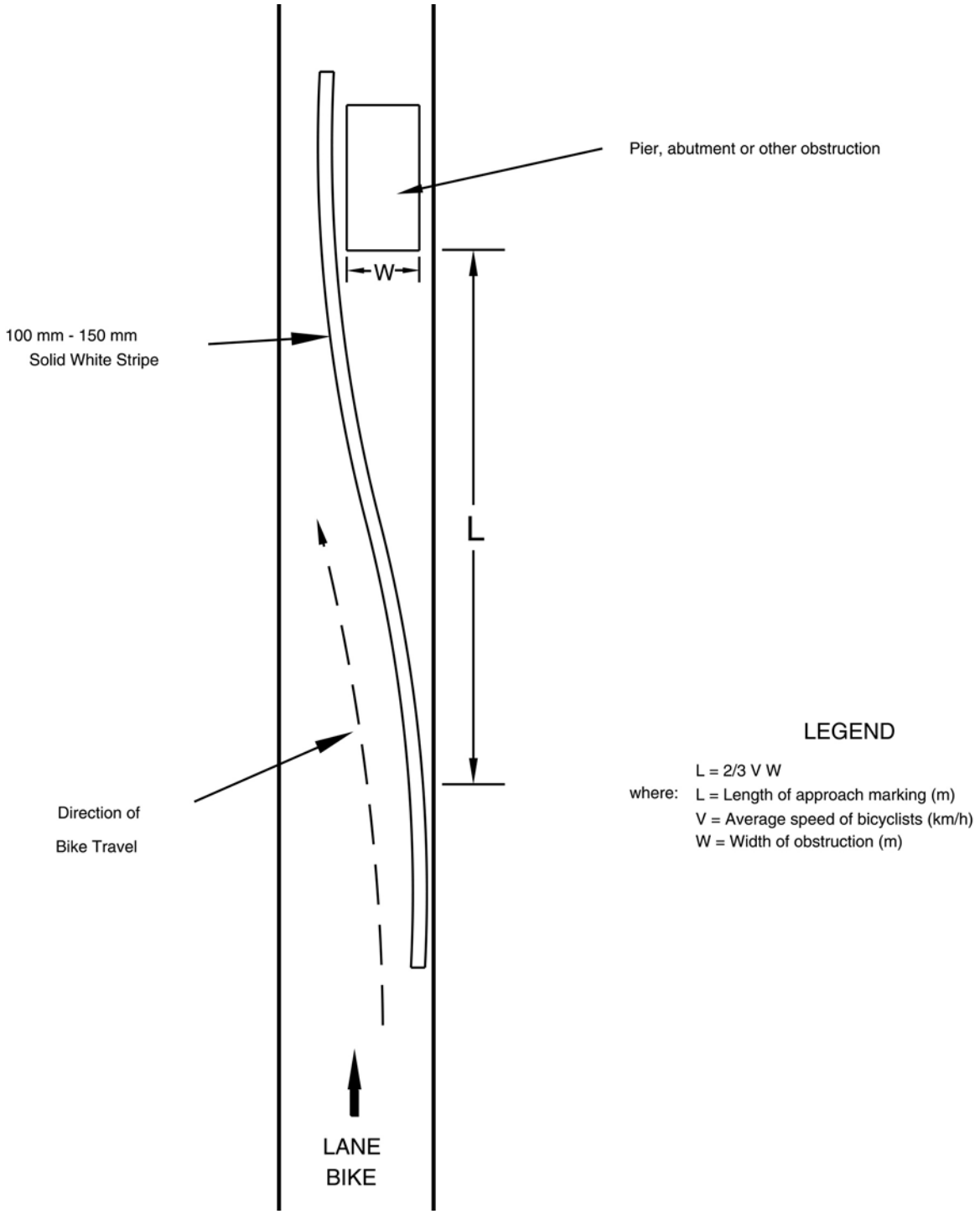
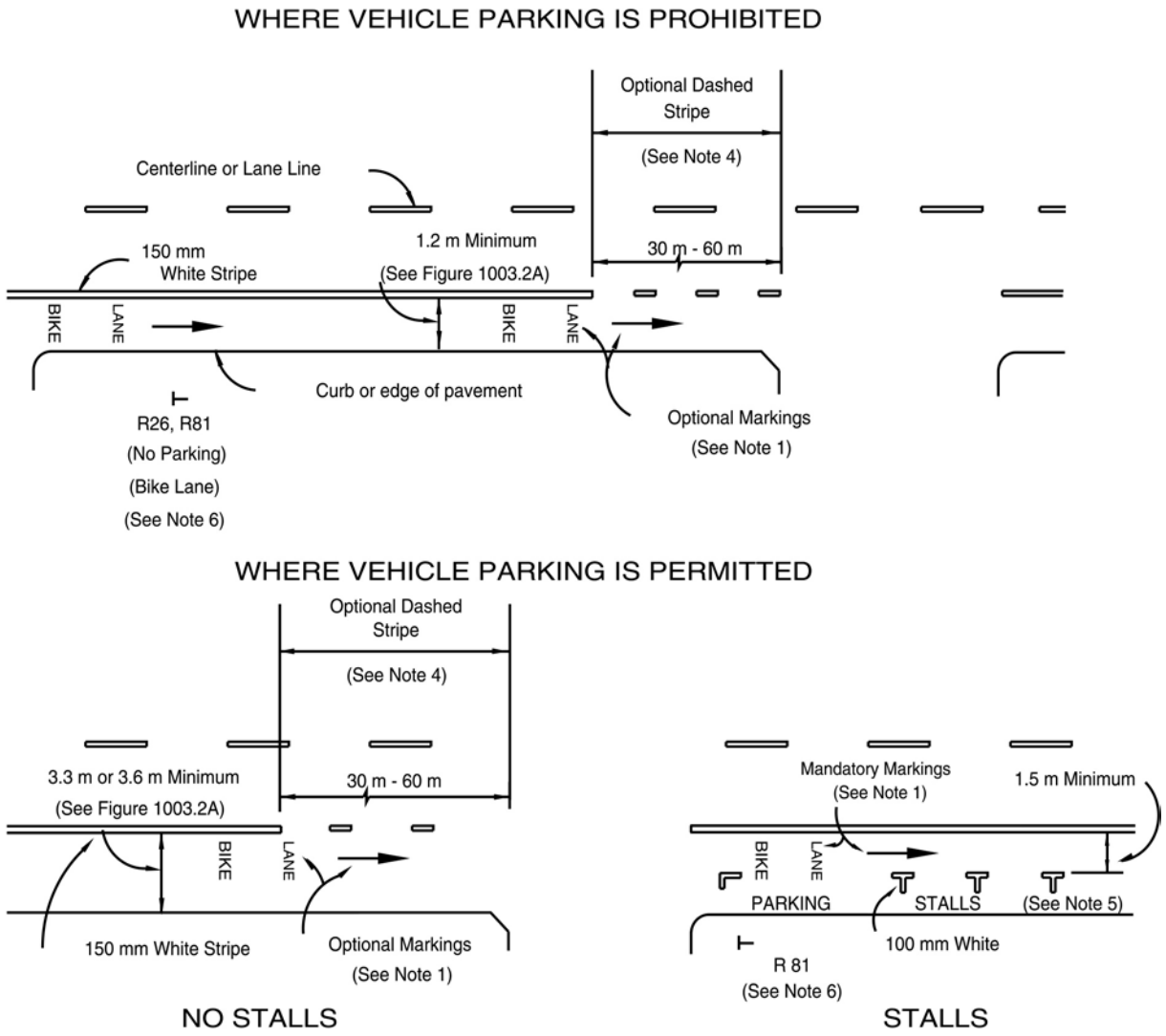


Figure 1004.3
Bike Lane Signs and Markings



NOTES:

1. The Bike Lane pavement markings shall be placed on the far side of each intersection, and may be placed at other locations as desired.

2. The use of the bicycle symbol pavement marking to supplement the word message is optional.

3. The G93 Bike Route sign may be placed intermittently along the bike lane if desired.

4. Where motorist right turns are permitted, the solid bike lane line shall either be dropped entirely, or dashed as shown, beginning at a point between 30 m and 60 m in advance of the intersection. Refer to Detail 39A in the Traffic Manual for striping pattern dimensions.

5. In areas where parking stalls are not necessary (because parking is light), it is permissible to paint a 100 mm solid white stripe to fully delineate the bike lane. This may be advisable where there is concern that motorists may misconstrue the bike lane to be a traffic lane.

6. The R81 bike lane sign shall be placed at the beginning of all bike lanes, on the far side of every arterial street intersection, at all major changes in direction, and at maximum 0.8 km intervals.

Figure 1004.4
Bike Lane Symbol

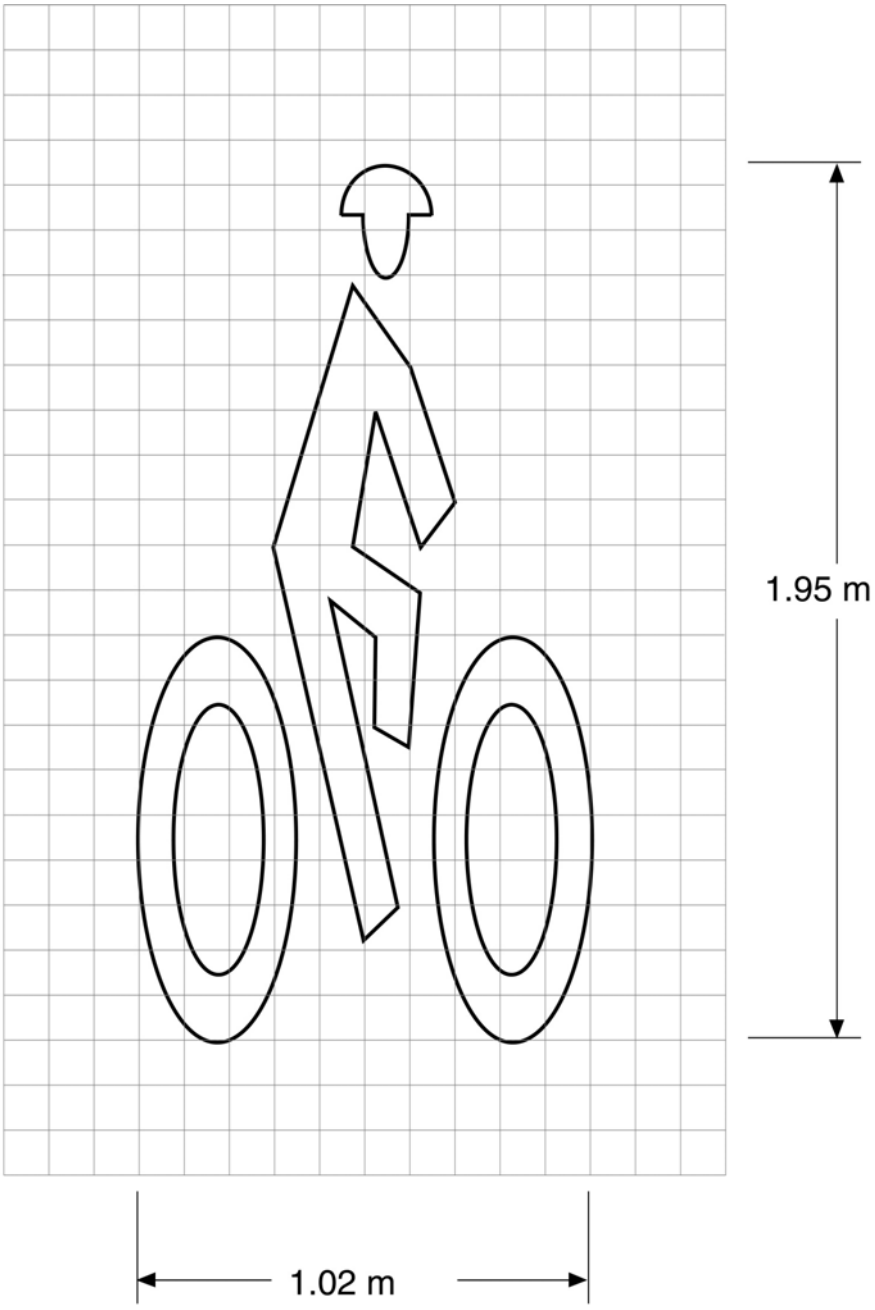
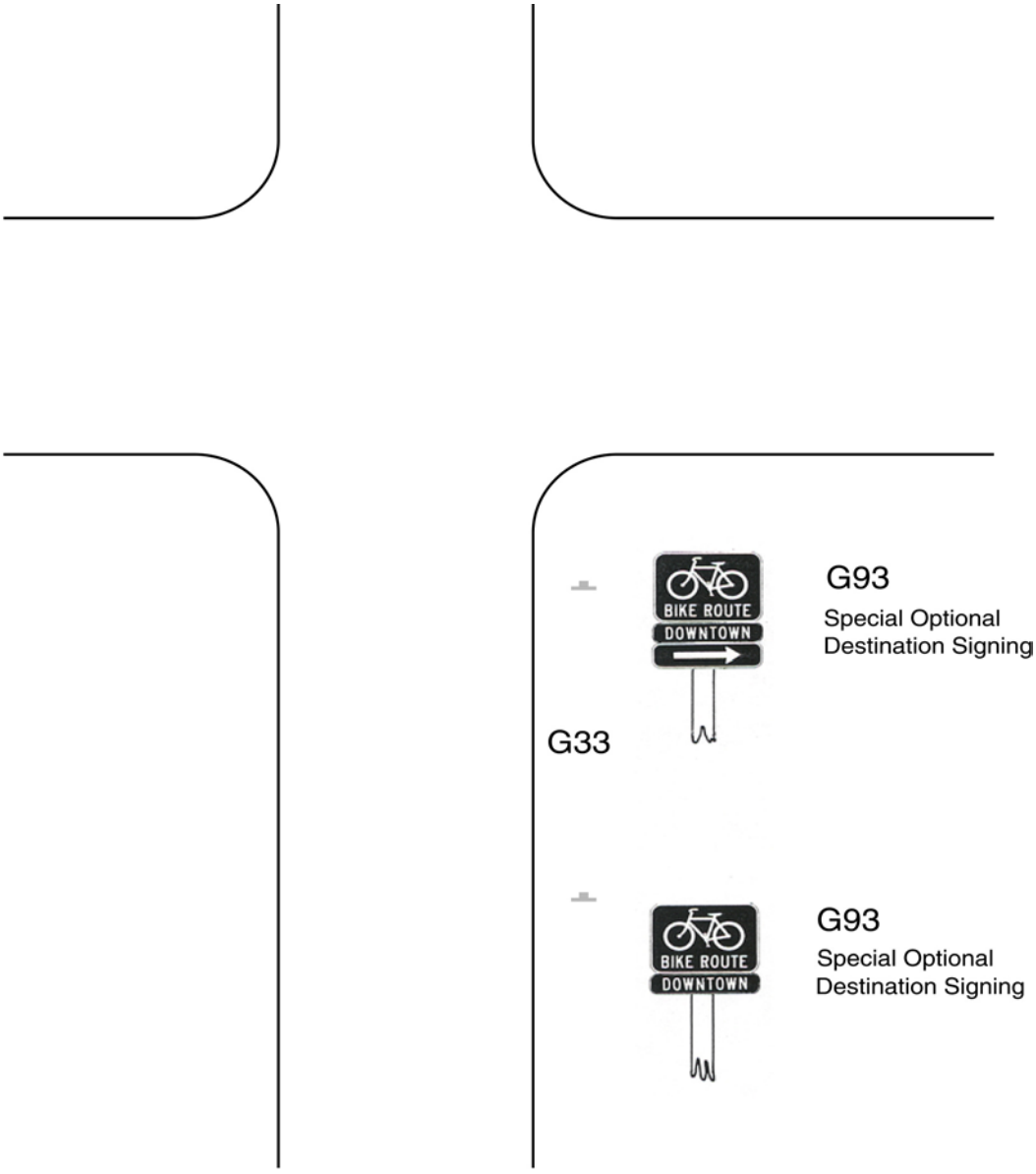


Figure 1004.5

Bike Route Signing



NOTES: The G93 Bike Route signs shall be placed at all points where the route changes direction and periodically as necessary.