



# CITY OF WHEATLAND BIKEWAY MASTER PLAN

## OCTOBER 2014



City of Wheatland  
Community Development Department  
111 C Street  
Wheatland CA 95692



**Final  
City of Wheatland Bikeway Master Plan**

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## I. INTRODUCTION

The Introduction section provides the overall vision and purpose of the City of Wheatland Bikeway Master Plan, a discussion of the City's public outreach efforts during preparation of the Bikeway Master Plan, and a brief overview of the organization of the Bikeway Master Plan.

### VISION

The City of Wheatland recently completed a visioning process. The community vision statement is:

*Wheatland is committed to being forward thinking non-reactionary city that values its small-town feel, and its agricultural and historical heritage.*

The Community Vision of the City of Wheatland will be guided by a list of principles, one of which is:

*A community in which mobility is defined by the full range of motive options, including pedestrian, bicycle, public transit, private automobile, and development transportation technologies that may become available in the future.*

Based on the above, the vision statement for this Bikeway Master Plan is as follows:

*The City of Wheatland is committed to providing a safe, comprehensive bikeway system that supports bicycle usage by including connections for all users of all ability levels to existing and future amenities within the community and the region.*

### PURPOSE

The primary purpose of the Bikeway Master Plan is to ensure the provision and promotion of safe bicycle use by people of all ages for both commuting and recreation within the City and its surrounding environment. The City hopes to develop the Bikeway Master Plan in order to establish a comprehensive bikeway system and design new development to foster walking and bicycling. The City of Wheatland Bikeway Master Plan shall aid the City in achieving its community vision and is a direct implementation of the City of Wheatland General Plan.

### PUBLIC OUTREACH

An Ad Hoc Committee was appointed by City Council to serve as an advisory body for the preparation of the City of Wheatland Bikeway Master Plan. The Ad Hoc Committee was made up of two members of the Planning Commission and two members of the City Council. A series of Ad Hoc Committee meetings were held in order for staff to obtain direction from the Ad Hoc Committee with respect to the types of Bikeway Master Plan policies needed to ensure that the City's bikeway network is developed in a cohesive manner as future development occurs and existing areas without bicycle facilities are redeveloped. The meetings were also an opportunity for the public to provide input. As core users of the potential bicycle facilities, the community's involvement and input in the

planning process was important. Discussions at the meetings included existing bicycling conditions in the City, areas of safety concern, community needs, relevant goals, objectives, and implementation measures, and maps with potential bikeway locations. Input and feedback received at the public workshops from the Ad Hoc Committee, citizens and residents, and other interested organizations and community members were used to provide overall direction in the preparation of the City's Bikeway Master Plan. Based upon the policy direction set by the Ad Hoc Committee, and community feedback during the workshops, the Bikeway Master Plan has been developed with intentions to encourage, maximize, and ensure safe bicycling within the community.

## **ORGANIZATION OF THE BIKEWAY MASTER PLAN**

The Bikeway Master Plan begins with this Introduction and includes the following components:

- Relationship to Existing Plans – This chapter describes the relationship of the Bikeway Master Plan to other existing plans in the area, such as the City of Wheatland General Plan, the Sacramento Area Council of Governments (SACOG) Metropolitan Transportation Plan and Regional Bicycle, Pedestrian, and Trails Master Plan, and the Yuba County Bikeway Master Plan.
- Background Information – This chapter presents background information related to bicyclists needs, types of bicyclists, the classification system for bikeways, bicycle commuter projections, design standards, and local sources of bicycle-related information.
- Existing Bicycle Facilities – This chapter addresses the existing bikeways, bicycle support facilities, and options for alternative modes of transportation available to the City.
- Goals, Objectives, and Implementation Measures – This chapter presents the goals, objectives, and implementation measures of the City of Wheatland Bikeway Master Plan.
- Proposed Bikeways – This chapter presents the proposed bikeways and support facilities.
- Implementation – This chapter describes how the City will implement the Bikeway Master Plan, including a bicycle safety and education program, a public outreach program, identification of priority projects, potential project costs, and potential funding sources.

## II. RELATIONSHIP TO EXISTING PLANS

The Relationship to Existing Plans section discusses the existing transportation plans of the City of Wheatland and neighboring areas and how the City of Wheatland Bikeway Master Plan relates to the plans. The Bikeway Master Plan is intended to supplement existing transportation plans in the area by providing connections to adjacent areas and major regional destinations, as well as throughout the City.

### **CITY OF WHEATLAND GENERAL PLAN**

The City of Wheatland General Plan, Transportation and Circulation chapter outlines a series of goals and policies for non-motorized transportation. Most notable, Implementation Program 2.8 identifies that the City shall prepare a Bike Master Plan. This Bikeway Master Plan is consistent with and implements the goals and policies of the City of Wheatland General Plan.

### **YUBA COUNTY GENERAL PLAN**

The Yuba County General Plan, Transportation and Circulation as well as the Community Development Element, contain goals, policies, and standards related to bikeway facilities and recreational trails, including enhancing bicycle and pedestrian access, connections, facilities, safety, and convenience in order to encourage alternate modes of transportation. Included under Goal CD19, Freedom of Travel Mode Choice, of the General Plan are Policies CD 19.4 and CD19.12, which state the following:

*Policy CD19.4 The County will plan its investments and condition new developments to provide pedestrian, bicycle, and transit facilities designed to provide multi-modal connections within neighborhoods, within unincorporated communities, and between communities and cities in the County.*

*Policy CD19.12 The County will encourage programs that facilitate County employees' use of pedestrian, bicycle, and transit facilities to reach the workplace.*

In addition, Action CD19.1, Pedestrian and Bikeway Master Planning, of the General Plan states that the County will collaborate with other agencies during buildout of the General Plan to maintain pedestrian/bicycle master plans designed to meet growth needs. Updates to the master plan should be designed to improve bicycle and pedestrian connections between each city in the County, cities in adjacent counties, and each unincorporated community. The City of Wheatland Bikeway Master Plan would be consistent with the Yuba County goals, policies, and standards and would help to facilitate their vision of a comprehensive bicycle network.

### **SACOG METROPOLITAN TRANSPORTATION PLAN (MTP)**

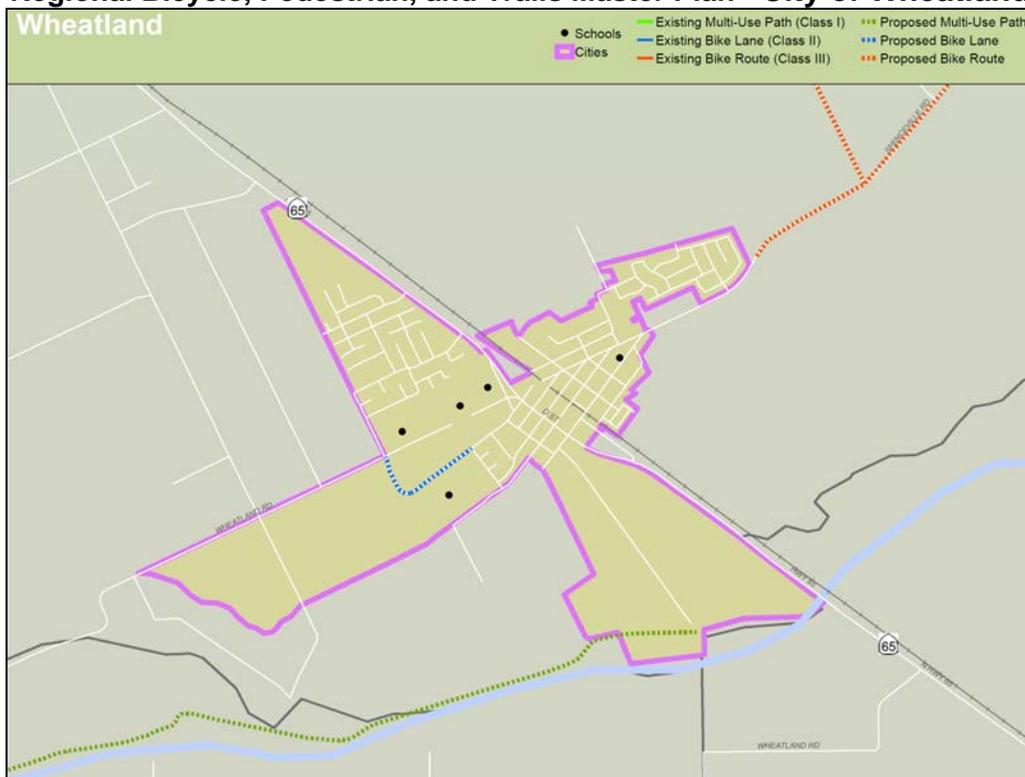
The SACOG Metropolitan Transportation Plan (MTP) 2035 provides regional-scale, long-term planning, including policies and supportive strategies, for transportation in the region. The MTP has a principle to increase investment in funding for bicycle and pedestrian facilities and introduce the concept of "complete streets" designed for many types of users and modes together instead of favoring auto use only. Land use and environmental sustainability policies set forth in the MTP encourage locally determined developments to be designed with

pedestrian, bicycle and transit as primary transportation considerations. Strategies of the MTP include, but are not limited to, the following: implementation of the SACOG Regional Bicycle, Pedestrian and Trails Master Plan; investment in safe bicycle and pedestrian routes that improve connectivity and access to common destinations; investment toward eventual creation of a regional bicycle and pedestrian network; and coordination of information sharing between jurisdictions to ensure connected routes, sharing of effective ideas, and more complete public information. For the City of Wheatland Bikeway Master Plan to be consistent with the SACOG goals and strategies the City would coordinate with SACOG and other jurisdictions before implementation of any bikeway improvement projects in order to ensure promotion of a well-connected regional bicycle network.

### SACOG REGIONAL BICYCLE, PEDESTRIAN, AND TRAILS MASTER PLAN

Consistent with the SACOG MTP, SACOG has developed the Regional Bicycle, Pedestrian, and Trails Master Plan that keeps a comprehensive list of planned regional projects and maps of the regional bicycle network. The SACOG has listed a Class I bike path in its Regional Bicycle, Pedestrian, and Trails Master Plan that would extend through southern Yuba County near the railroad tracks, over the Yuba River, and connecting to Sutter County via the Twin Cities Memorial Bridge. SACOG has also listed Class II bike lanes along Arboga Road between Erle Road and McGowan Parkway, and Lindhurst Avenue between Hammonton-Smartville Road and Scales Avenue. The map for the City of Wheatland area included in the Regional Bicycle, Pedestrian, and Trails Master Plan is shown below in Figure 1. The City would coordinate with SACOG and other jurisdictions before implementation of any bikeway improvement projects in order to ensure regional connectivity is not impeded.

**Figure 1**  
**Regional Bicycle, Pedestrian, and Trails Master Plan - City of Wheatland**

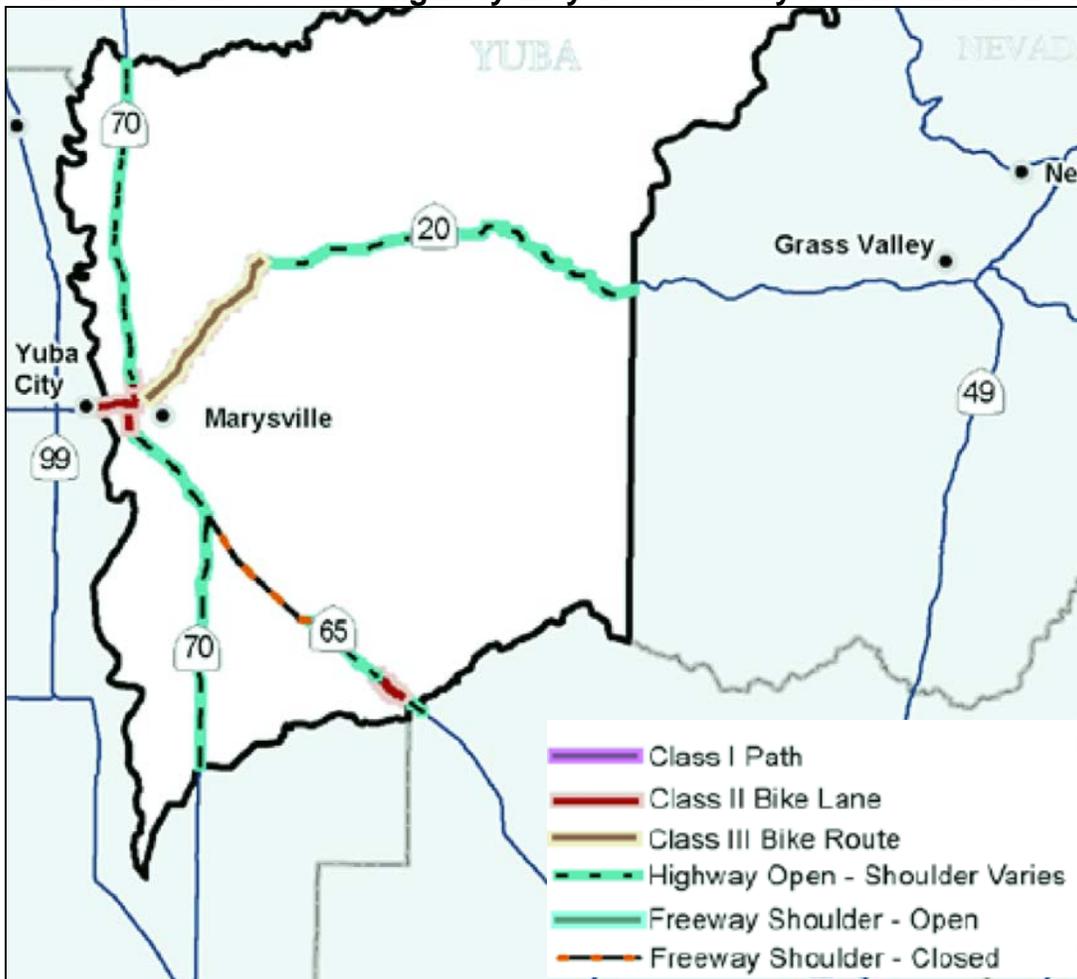


Source: Regional Bicycle, Pedestrian, and Trails Master Plan, 2013.

## CALTRANS DISTRICT 3 STATE HIGHWAY BICYCLE PLAN

The California Department of Transportation (Caltrans) District 3 State Highway Bicycle Plan was prepared in June 2013. Caltrans District 3 extends from Glenn, Butte, and Sierra counties in the north, to Colusa and Yolo counties in the west, to Sacramento and El Dorado counties in the south, and to Placer and Nevada counties in the east, with Sutter and Yuba counties in between. The purpose of the District 3 State Highway Bicycle Plan is to create the first comprehensive plan for District 3 that identifies a vision and framework for bicycle facility improvements on the State highway system. The plan provides information regarding bicycles on the State highway system along with recommended changes to improve connectivity and convenience. Direction is provided for Caltrans, regional, and local agency staff to facilitate the use of the State highway system by bicycles. The proposed bikeway system in the vicinity of the City of Wheatland from the District 3 State Highway Bicycle Plan is presented in Figure 2 below. As shown in the figure, Caltrans allows bicycles on the shoulders of SR-65 and intends to upgrade the section of SR-65 within the existing City of Wheatland limits from State Street to Evergreen Drive to include Class II bike lanes. The Wheatland Bikeway Master Plan would consider the suggestions and framework set forth by the District 3 State Highway Bicycle Plan in order to maintain consistency on the State highway system throughout the region.

**Figure 2**  
**Caltrans District 3 State Highway Bicycle Plan - City of Wheatland Area**

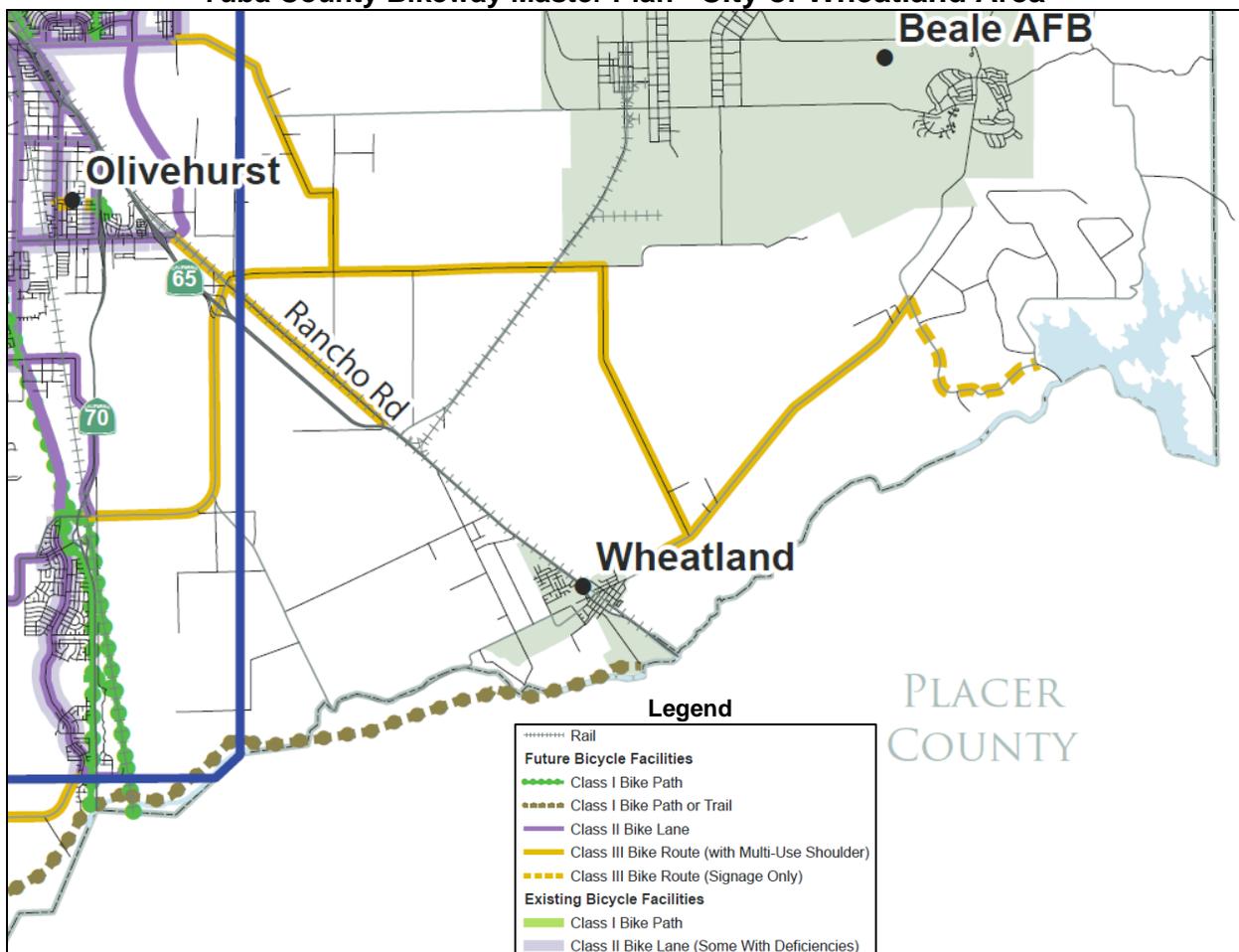


Source: Caltrans District 3 State Highway Bicycle Plan, 2013.

## YUBA COUNTY BIKEWAY MASTER PLAN

The Yuba County Bikeway Master Plan was prepared by Fehr & Peers Associates, Inc. in December 2012. The plan examines the existing level of bicycle activity and infrastructure in the County, proposes a network of bicycle facilities, and provides guidance for support facilities. In addition, existing proposed programs to improve bicycle facility usage and safety are discussed. The plan is intended to provide a framework for the implementation of bikeway facilities within the County and the incorporated cities, including the City of Wheatland. The proposed bikeway system in the vicinity of the City of Wheatland from the Yuba County Bikeway Master Plan is presented in Figure 3 below. The Wheatland Bikeway Master Plan would consider the suggestions and framework set forth by the Yuba County Bikeway Master Plan in order to maintain consistency throughout the Yuba County Bikeway Master Plan study area.

**Figure 3**  
**Yuba County Bikeway Master Plan - City of Wheatland Area**



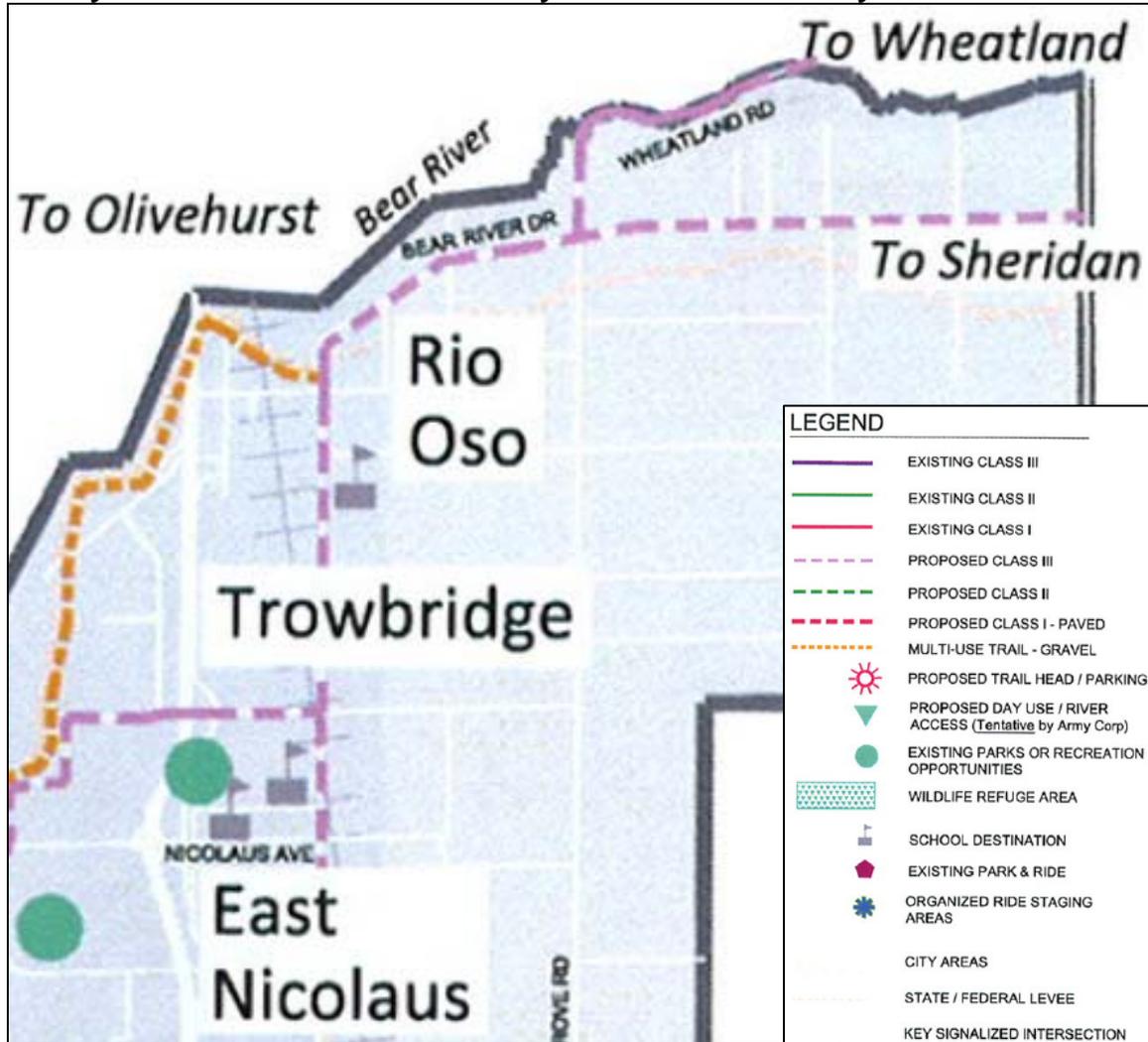
Source: Yuba County Bikeway Master Plan Update, 2012.

## COUNTY OF SUTTER PEDESTRIAN AND BICYCLE MASTER PLAN

The County of Sutter Pedestrian and Bicycle Master Plan was prepared by Omni-Means, Ltd. in 2012. The plan is intended to provide guidance for the County as the ability to build new bike facilities as funding becomes available. The proposed bikeway system in the vicinity of the City of Wheatland from the County of Sutter Pedestrian and Bicycle Master Plan is presented in

Figure 4 below. The Wheatland Bikeway Master Plan would consider the suggestions and framework set forth by the County of Sutter Pedestrian and Bicycle Master Plan in order to maintain consistency throughout the region.

**Figure 4**  
**County of Sutter Pedestrian and Bicycle Master Plan - City of Wheatland Area**

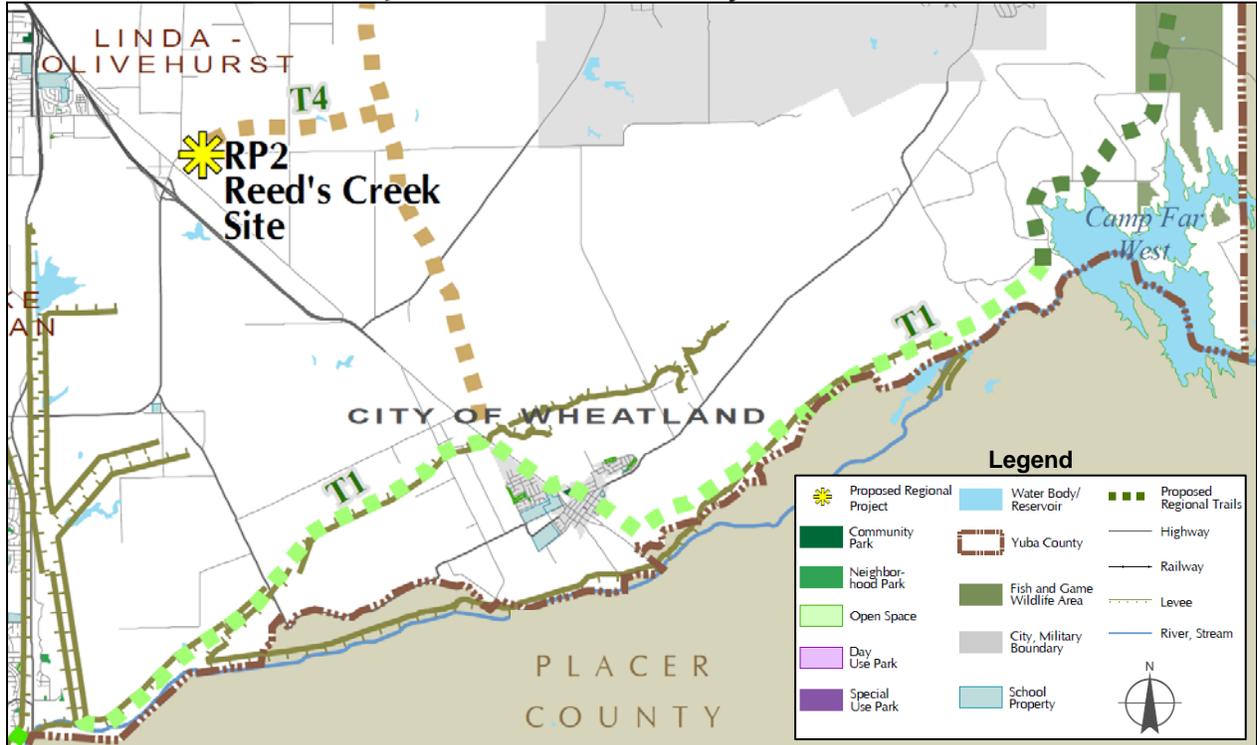


Source: County of Sutter Pedestrian and Bicycle Master Plan, 2012.

## YUBA COUNTY PARKS MASTER PLAN

The Yuba County Parks Master Plan recognizes that park users often wish to travel by bicycle. The plan provides guidance on the selection of sites for future local parks, and states that “Access to larger sized sites should be provided via a collector or arterial street with sidewalks and bicycle lanes.” The plan recommends bicycle storage as an amenity to provide at both local and regional parks, as well as at trailheads within the County. In regards to future regional trails, the Parks Master Plan states that the “trail location, connections and orientation should encourage users to walk or bicycle to the trail.” The proposed parks and trails in the vicinity of the City of Wheatland from the Yuba County Parks Master Plan are presented in Figure 5 below. The Wheatland Bikeway Master Plan would consider the locations of regional trails and parks in order to not impede connectivity throughout the County.

**Figure 5**  
**Yuba County Parks Master Plan - City of Wheatland Area**



Note: T1 = South Country Regional Trail and T4 = Regional Park Site Connector.  
Source: Yuba County Parks Master Plan, 2008.

### OTHER EXISTING BIKEWAY PLANS

The City of Wheatland Bikeway Master Plan would also consider the following bicycle plans of nearby jurisdictions to ensure consistency and connectivity:

- Butte County Bicycle Plan (2011);
- Draft 2013 Nevada County Bicycle Master Plan (2013); and
- Placer County Regional Bikeway Plan (2002).

### III. BACKGROUND INFORMATION

The Background Information section provides background information related to bikeways, including bicyclists' needs, types of bicyclists, bikeway classification system, bicycle commuter projections, overall design criteria, standards, and guidelines for bikeways, and available sources of local bicycle information.

#### **BICYCLIST NEEDS**

Bicycling is an essential mode of alternative transportation. The key factor that influences the public to use bicycles on a regular basis is the availability of a safe, efficient, and well-connected bicycle network and facilities. Narrow roadways with high traffic volumes can be considered dangerous and discouraging for bicyclists. Retrofitting and improving such roadways, such as widening roadways, providing bicycle travel lanes along roadways, and providing detours to avoid such roadways, narrow bridges, and other obstacles, could encourage bicycling. In addition, planning for bicycle facilities would help to integrate the bicycle as a regular part of the transportation system as development occurs and could increase the use of bicycles in the City.

Essential bicycle support facilities include proper signage, secure bicycle parking, and locker facilities along bikeways and at popular destinations. Signage helps to direct bicyclists to suitable routes, notify bicyclists of destinations along the way, and advise motorists that bicycles may be present. Secure and safe bicycle parking at a destination is essential as well. For commuters, locker facilities can be a critical amenity. Having a place to store gear, change outfits, and, ideally, shower could encourage more bicycle commuting. In addition, ensuring bike racks on buses could encourage bi-modal transportation.

#### **TYPES OF BICYCLISTS**

##### EXPERIENCED

Experienced bicyclists are cyclists who can operate under most traffic conditions and are comfortable on roadways operating in a similar manner as motor vehicles, such as merging across traffic lanes to make left turns. The majority of bicycle users on collector and arterial streets are experienced bicyclists and can include commuters or casual bicyclists. Direct access to destinations is preferred as well as wide curb lanes, bike lanes void of gravel and glass, and loop detectors at signals.



## NOVICE

Novice bicyclists are typically new adult and teenage riders who are less confident in their ability to operate in traffic without special provisions for bicycles. Typically, novice bicyclists are casual riders. They are unfamiliar with the rules of the road, including lane positioning when making turns, and prefer comfortable access to destinations, preferably by a direct route, using low speeds, low traffic volume streets, or designated bike facilities. Well defined separation of bicycles and motor vehicles on arterial and collector streets (bike lanes or shoulders) or separated paths or trails are preferred as well. Novice bicyclists tend to ride shorter distances than the experienced bicyclist.



Novice bicyclists also include children, or preteen riders, whose roadway use is initially monitored by parents and eventually independent. Children and their parents feel most comfortable in a bicycle transportation system with the following features: access to key destinations surrounding residential areas including schools, recreation facilities, shopping or other recreational areas; residential streets with low traffic volumes and car speeds; well defined separation of bicycles and motor vehicles on arterial and collector streets; and/or separated bike paths.

## **BICYCLE CLASSIFICATION SYSTEM**

The bicycle classification system identifies three basic classes of bikeways: Class I – Bike Path, Class II – Bike Lane, and Class III – Bike Route. The classes are further defined and discussed below.

### CLASS I BIKEWAY

Class I Bikeways, also known as “bike paths”, “shared-use paths”, or “trails” provide travel designated exclusively for bicycles, pedestrians, and other non-motorized modes of transportation on a right-of-way completely separate from any street or highway. Bike paths are primarily used for recreation and are often developed in conjunction with parks; however, many commuters use bike paths as high-speed commuter routes.

Bike paths are an important amenity to a community and are preferred by novice bicyclists.



Improvements to trail facilities, such as widening the pavement, separating bicyclists and pedestrians, and improving signage and intersection controls along the trails, can encourage bicycle and pedestrian use of the facilities.



Bike paths have a minimum paved width of eight feet for two-way traffic and five feet for one-way traffic with a two foot graded shoulder on each side. The paved width could be increased as necessary where heavy bicycle traffic is anticipated.



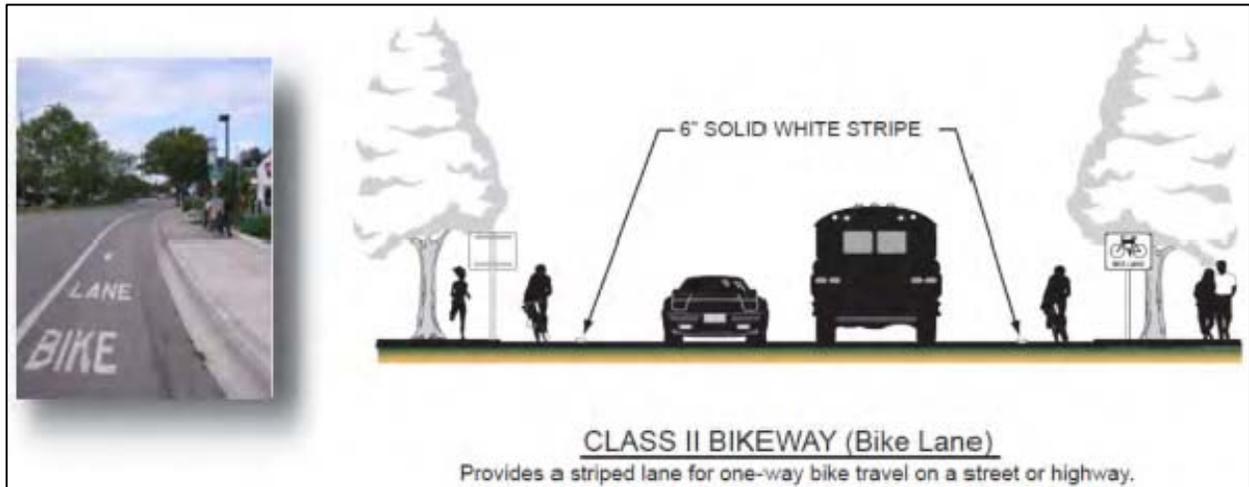
### CLASS II BIKEWAY

Class II Bikeways, often referred to as “bike lanes” provide a striped lane designated exclusively for one-way bike travel on the outside edge of roadways, including arterial streets. Bike lanes are intended to delineate the area of streets assigned to bicycles, to better accommodate bicyclists on existing streets, for safe bicycling on existing streets, and to promote orderly flow of bicycles and motor vehicle traffic.

Bike lanes are the preferred way of improving roadways for bicycle use. They provide a designated space on the roadway for which it is clear to both bicyclists and drivers that the space is dedicated to bicyclists and allow a cushion from vehicular traffic. However, bicycle lanes are not always feasible, such as on already



established roads and areas where adequate width cannot be accommodated. In such cases, bike routes are often used to connect discontinuous bike lanes in constrained areas.



Bike lanes are no less than four feet wide and no less than five feet wide where adjacent to parking or standard City curb and gutter. Delineation from vehicle traffic lanes is accomplished by a six-inch white stripe and should be marked on the pavement and/or signed as a bike lane. Bike lanes should be placed on streets in each direction.

### CLASS III BIKEWAY

Class III Bikeways, or "bike routes", are facilities shared with vehicles on the street or with pedestrians on sidewalks, where bicycle usage is secondary. Bike routes are intended to provide continuity to the bikeway system. On roads that have no bikeway designation, bicyclists share the roadway with vehicles and are allowed full use of the travel lane. Bike routes basically function the same way as bike lanes, but do not have any markings or signage. A bike route facility is typically on low-volume local neighborhood streets, but can be located on any type of street.



Bicyclists generally feel more comfortable riding apart from motor vehicles, preferably being physically separated from car traffic or at least having a dedicated travel lane. However, Class I and Class II Bikeways are often deemed infeasible due to space constraints and competing uses. Bike routes are differentiated by identifying signage, pavement stencils, or other roadway design elements. Class III Bikeways require less right-of-way space, cost less to install, and require less maintenance than Class I and Class II Bikeways.

A bike route enhancement includes the shared lane arrow pavement stencil, which demonstrates to bicyclists where to ride and alerts drivers that they may need to share the lane. On narrow roads, posting “Share the Road” signs would encourage drivers to allow for comfortable lane sharing.

Bike routes are direct connections to bikeway facilities or bicycle destinations on well-maintained roadways. Bike routes are distinguishable by signs or pavement markings along streets. Minimum widths have not been established for bike routes.



## **BICYCLE COMMUTER PROJECTIONS**

Many studies have been performed to attempt to determine the percentage of trips that include bicycling and walking. According to Caltrans' 2012 California Household Travel Survey, the percentage of California residents walking, biking, or using public transportation on a typical day has more than doubled since 2000, with currently nearly 23 percent of household trips taken by walking, biking, or using public transportation. According to the League of American Bicyclists annual assessment of bicycling in all 50 states, California was the ninth bicycle-friendliest state in the nation. The State's mild climate and high percentage of trips less than three miles in length contribute to the potential for significant increases in bicycling and walking.

The small community of the City of Wheatland has a unique opportunity for increased short, local bicycle transportation trips. However, future bicycle commuter levels are dependent upon such factors as demographics, availability of bikeway facilities, and the location, density, and type of future land development in the area. Due to the current lack of bikeway facilities and safe regional connections, the number of bicycle commuters in the City is low. Recent annexations to the City and potential development within the City's Sphere of Influence would likely increase the demand for alternative modes of transportation within the City. For example, as new development is built out including popular destinations, such as schools, parks, and employment centers, the need to provide safe routes to such destinations, including for bicyclists, would increase. However, as such new development is built out the potential for inclusion of bikeway facilities as part of new development design would increase as well. Thus, new development designed in compliance with this Bikeway Master Plan, and as improvements to the City's bikeway system are made in compliance with this Bikeway Master Plan, the number of bicyclists within the City would be expected to subsequently increase, thus, meeting the increase in demand for bicycle facilities.

## **DESIGN CRITERIA, STANDARDS, AND GUIDELINES**

The American Association of Highway and Transportation Officials (AASHTO) provide national design standards for bikeways, which are similar to the Caltrans State of California Highway Design Manual, Chapter 1000, Bikeway Planning and Design standards, which provide minimum guidelines for which cyclists are accustomed. Conformance to the standards is

necessary when pursuing certain types of regional, State and federal funding. However, bikeway design and planning standards are continuously changing and expanding.

Bicycle facilities are unique facilities that must accommodate a wide variety of user types, needs, and abilities. When designing bikeways and bicycle facilities it is important to consider users, especially children and the elderly. Twelve year old children should be considered normal users for planning and design purposes.

## BIKEWAYS

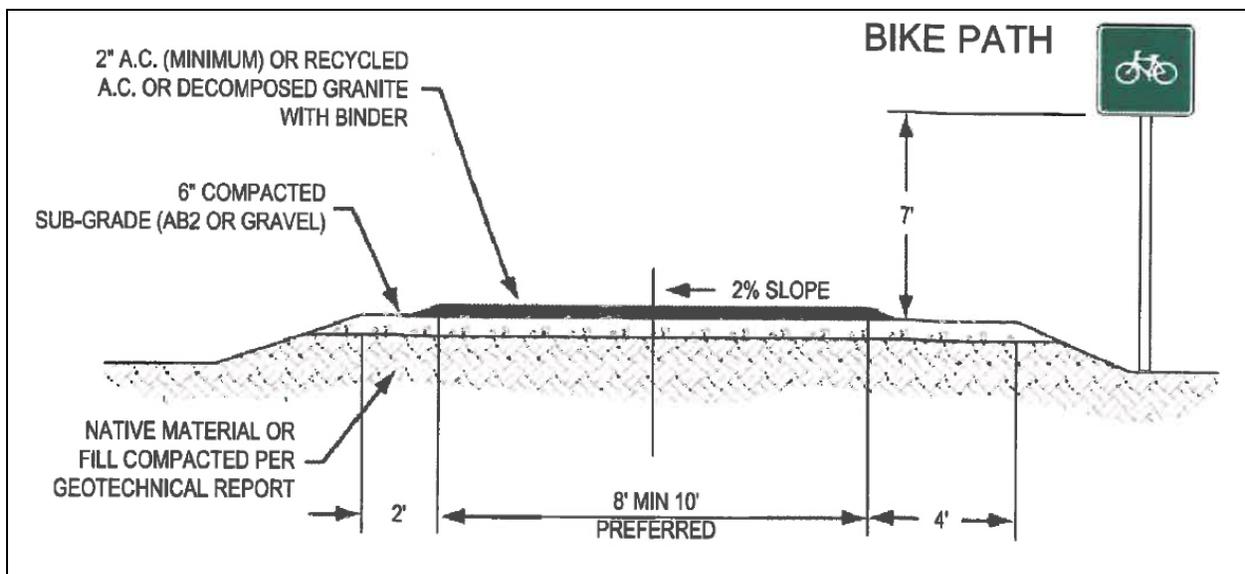
The following provides a brief overview of the basic design, standards, and innovative practices for bikeways.

### *Class I Bikeways*

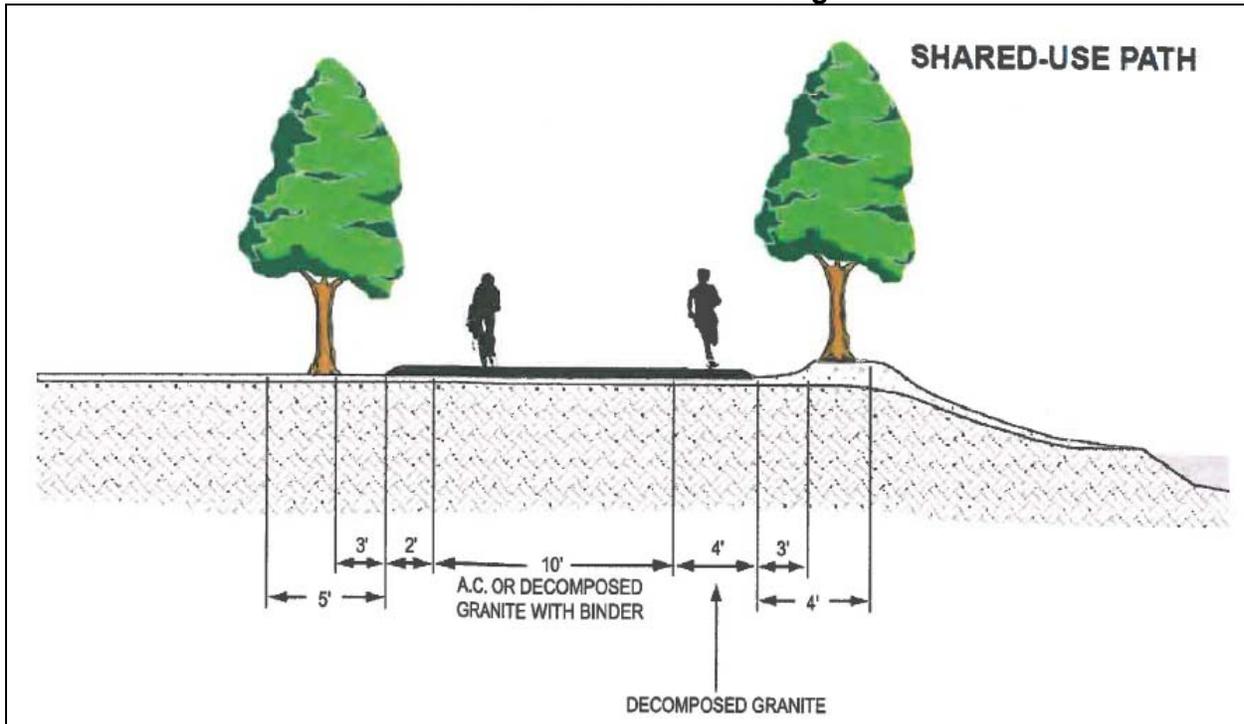
Generally, bicycles and other users on a Class I bike path should operate in a similar manner as motor vehicles on a roadway (i.e., all traffic to the right of the center line, with slower moving traffic staying as far right as possible and any stopped traffic moving off the pathway entirely). Pedestrians shall be encouraged to use an adjacent walkway, at least four feet wide rather than the bike path.

Bike Paths carrying peak period volumes in excess of 300 people per hour should provide 10 feet of width and centerline striping; over 500 people per hour should provide 12 feet of width and centerline striping, as recommended by AASHTO. In all cases, unpaved two to four feet wide shoulders should be provided wherever possible for pedestrians. Clear signage shall be provided indicating hours of operation, maximum speed, protocols for passing, and direction of flow of traffic. Cross-section views of example designs of a Class I bike path and a Class I shared-use path are presented in Figure 6 and Figure 7.

**Figure 6**  
**Class I Bike Path Design**



**Figure 7**  
**Class I Shared-Use Path Design**



Common bike path locations include rails-with-trails, rails-to-trails, and rivers with trails. Rails-with-trails are bike paths on or directly adjacent to an active railroad corridor. National standards for rails-with-trails facility design do not exist. Standards related to shared use paths, pedestrian facilities, railroad facilities, and roadway crossings of railroad rights-of-way should be used as guidance when designing rails-with-trails facilities. Rails-with-trails must meet the operational needs of railroads as well as the safety of trail users. General design guidelines for rails-with-trails facilities include:



- Maximization of setback between RWT and active railroad track. Distance of setback between a track centerline and the closest edge of RWT shall be based on type, speed, and frequency of train operations.
- Fencing and/or separation techniques shall be included in design.
- The amount of at-grade crossings shall be minimized by examining all reasonable alternatives to new at-grade track crossings and by seeking to close existing at-grade crossings.
- Trails shall divert around railroad tunnels.
- High priority security areas may need additional security or protection.

Rails-to-trails are bike paths that replace an abandoned railroad line. Rails-to-trails tend to be flat and direct, and often connect residential and business districts. Users of rails-to-trails find them convenient as both a primary means of transportation as well as for recreation. Rails-to-trails offer pleasant, safe, and traffic-free environments for pedestrians and bicyclists. Design of

rails-to-trails should follow Caltrans Class I Bike Path standards. In addition, other amenities like benches, water fountains, interpretive areas, pullouts, signs, and landscaping should be provided.

The Rivers Trails, and Conservation Assistance Program, also known as the Rivers & Trails Program or RTCA, is a community resource of the National Park Service. Rivers & Trails work with community groups, as well as local and State governments to conserve rivers, preserve open space, and develop trails and greenways. They provide a wide range of expertise, experience, and assistance in greenway efforts, from urban promenades to wildlife corridors, as well as downtown riverfronts, regional water trails, and stream restoration. Rivers with trails work in urban, rural, and suburban communities.



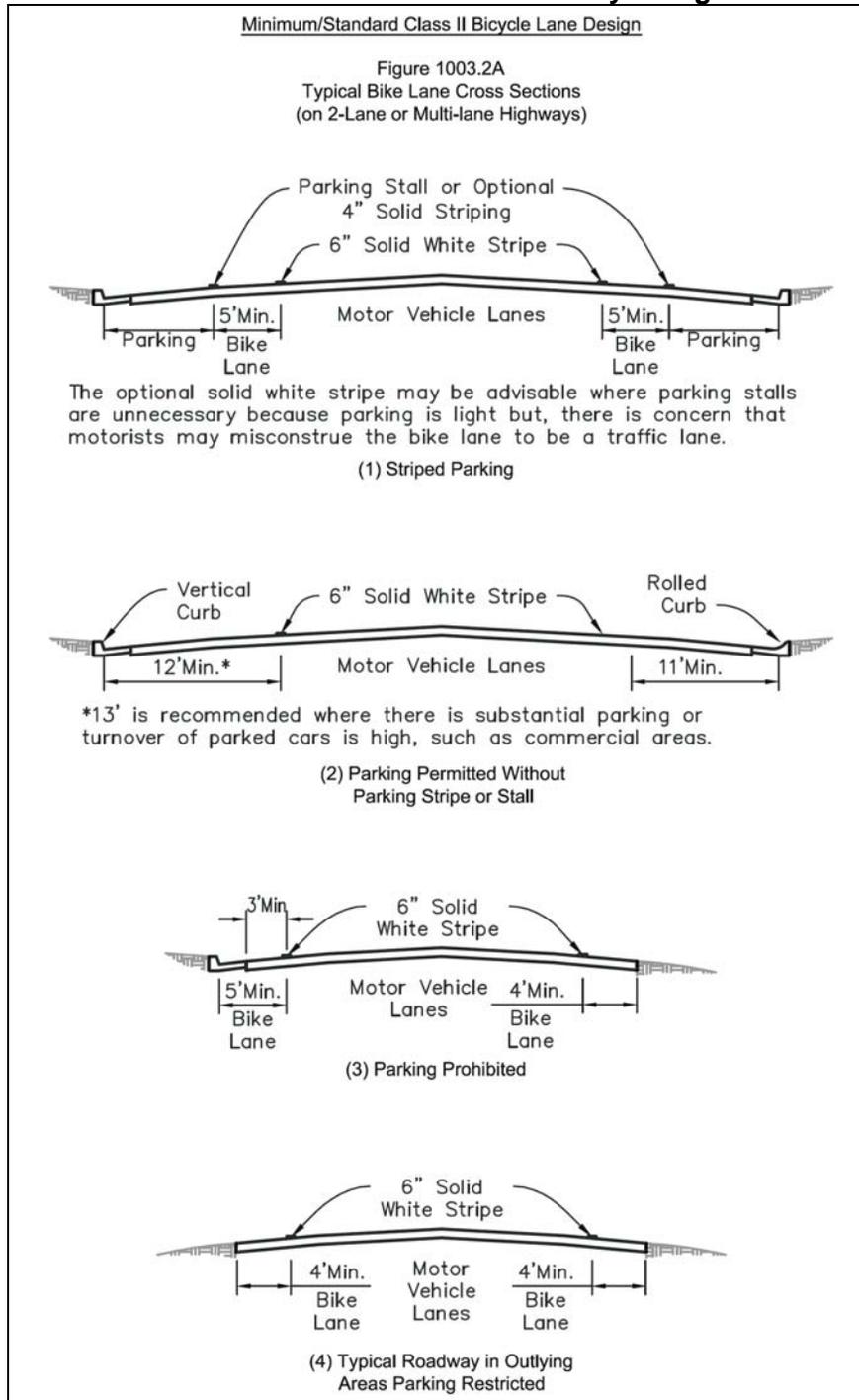
The number of at-grade crossings with streets or driveways should be limited along Class I bikeways. Poorly designed crossings put pedestrians and cyclists in a position where motor vehicle drivers do not expect them at street crossings. Where street crossings are a safety issue, under-crossings could be implemented to avoid dangers. Under-crossings are grade-separated crossings used to allow bicyclists and pedestrians to safely cross streets that have high-volumes of fast-moving traffic. The width of under-crossings is the same as the approach paved path, plus shy distances on both sides. Illumination is required in areas of poor visibility. Advantages of using under-crossings include: an opportunity to reduce approach grades; little or no additional grading required if roadway is already elevated; and potentially less expensive than an over-crossing. However, under-crossings have disadvantages as well, such as security problems, cost, and potential drainage requirements. In addition, grade separated crossings may actually endanger pedestrians, because drivers will not be expecting them if they attempt to cross at-grade. Over-crossings are generally preferred for personal security reasons. Design of at-grade crossings should feature traffic calming and crossing improvements such as: curb extensions, marked crosswalks, pedestrian refuge medians, and traffic control devices.

### *Class II Bikeways*

The minimum standard Class II bikeway designs are shown in Figure 8. Parked vehicles can pose a serious hazard to bicyclists along Class II bikeways, both by the potential of being hit by an opening door and by the act of parking itself. On streets with parked vehicles, experienced bicyclists will ride up to 4 feet away from parked vehicles even if that means riding in a travel lane. Several techniques are available to help maximize separation between bicyclist and parked vehicles, such as: minimizing the parking lane width from the traditional 8 feet to 7 feet or, in some cases, 6 feet; marking parking spaces with cross hatches to indicate the parking lane limits; bike lane stencils to advise drivers on narrow roadways with on-street parking to expect bicyclists in the travel lane; avoiding angled parking in areas of high bike traffic and

where not feasible, require reverse angle parking for greater visibility of bicyclists from vehicles entering and leaving.

**Figure 8**  
**Minimum Standard Class II Bikeway Designs**



When confronted with an intersection with a right-turn only lane, bicyclists must merge with the motorists turning right. Because bicyclists are typically traveling at speeds less than motorists, they should signal and merge where a sufficient gap exists in right-turning traffic, rather than at any predetermined location. Therefore, dropping all delineation at the approach of the right-turn only lane to permit judgment by the bicyclists is recommended. A “Bike X-ing” sign may be used to warn motorists of the potential for bicyclists crossing their path.

Bicycle-sensitive detectors are desirable in the bike lane, left-turn lanes and through lanes of intersections, as opposed to push button detectors. Push button detectors are not as satisfactory as those located in the pavement because the cyclist may have to go out of direction, lean over excessively, or traverse an undesirable portion of the bike lane in order to trigger the push button. A four-foot shoulder or wide lane would be desirable at an intersection, where space is available, for those who wish to use the pedestrian crossing.

### *Class III Bikeways*

Responsible agencies must take actions to assure that bike routes are suitable as shared routes and should be maintained in a manner consistent with the needs of bicyclists. The use of sidewalks as Class III bikeways is strongly discouraged, even for short distances, because of the introduction of potentially unsafe conditions with other users on the sidewalk. On all streets, but especially where shoulder bikeways or bike lanes are reasonable but cannot be provided due to severe physical limitations, a wide outside lane may be provided to accommodate bicycle travel. A wide outside lane would allow an average size motor vehicle to pass a bicyclist without crossing over into the adjacent lane. Any Class III bike routes on routes to school with younger bicyclists should have wider outside lane widths (14 to 16 feet). Prohibition of parking during school hours may be considered to achieve the desired width.

Some experienced cyclists prefer to ride closer to the center of roadways along Bike Routes that are too narrow and have parked cars along the side of the road. Although many motorists are unaware of the fact, riding as such is permitted by the California Vehicle Code 21202. Along such roadways, a shared lane marking would be a logical solution. The marking would encourage coexistence and improve motorist and cyclist positions in the roadway. The markings would also reduce the occasions of bicycles riding on sidewalks or in the wrong direction.

Bike routes must include appropriate signage in order to inform bicycle facility users and remind motorists that bicyclists may be present on the roadway. Caltrans recommends that signage installation on a bike route should be considered for the following purposes: to provide through and direct travel in bicycle-demand corridors; to connect discontinuous segments of bike lanes; and to notify bicyclist where street parking has been removed or restricted in order for improved safety. In addition to signage, signals are an important aspect of bike routes, such as loop detectors, which are devices placed at signalized intersections that detect bicycles and trigger actuated signals.

### **BICYCLE PARKING**

Bicycle parking is a significant bicyclist need. Every trip ends at a destination and if that destination does not meet the needs of cyclists, other means of transportation may be chosen. In addition, California Vehicle Code, Section 21210, regarding bicycle parking states that no person shall leave a bicycle lying on its side on any sidewalk, or shall park a bicycle on a sidewalk in any position so that there is not an adequate path for pedestrian traffic. Local

authorities may, by ordinance or resolution, prohibit bicycle parking in designated areas, provided that appropriate signs are erected.

Cyclists are most likely to park where they are confident their bicycle is in a secure location. Locating bicycle parking in well-lit areas increases the security of property and personal safety. Many bicycle parking options exist and choosing the correct option to meet cyclist needs depends on such factors as: whether or not the bicycle would be left unattended for long or short periods of time, weather conditions, value of bicycles, and the security of an area. Types of bicycle parking include:

- Short-term Parking – meant to accommodate visitors, customers, messengers and others expected to depart within two hours. Requires approved standard rack, appropriate location and placement, and weather protection;
- Long-term Parking - meant to accommodate employees, students, residents, commuters, and others expected to park more than two hours. A secure, weather-protected location shall be provided. Types of long-term parking will be either a bicycle locker, a locked room with standard racks and access limited to bicyclists only, or standard racks in a monitored location;
- Standard Bicycle Rack Parking - a non-enclosed rack that is designed to reasonably protect the wheels from accidental damage and allows use of a high security U-shaped lock to lock the frame and one wheel;
- Secure and Covered Parking - as invulnerable as possible to theft and the elements, depending on an appropriate combination of parking type, location, and access;
- Plentiful Parking - enough short- and long-term bicycle parking spaces to exceed peak season demand;
- Easily Accessible Parking - should not be impeded by nearby stationary objects, parked bicycles or parked cars. Indoor bicycle parking must be on a floor that has an outdoor entrance open for use and a floor location that does not require stairs to access the space; exceptions may be made for parking on upper stories with elevator access within multi-story buildings. Directional signs should be used to locate bicycle parking areas when it is not visible from the street; and
- Parking Adjacent to Destinations - short-term bicycle parking that should be located no farther from the main entrance than the closest auto parking, and within 15.2 m (50 ft) of a main entrance to the building. Close proximity to a main entrance is desirable for long-term parking but is not required.

Typical bicycle parking options include bike lockers, stations, and racks. Lockers provide long-term, secure, and covered bicycle parking. For areas where security is an issue or where weather protection is limited, enclosed bike lockers would be the best option. Bike lockers are required to be located on-site or within 750 feet of the site and at least 50 percent must be covered. Security for bike lockers could be accomplished by locating the lockers in a locked room or area enclosed by a fence with a locked gate, within view or within 100 feet of an attendant or security guard, in an area that is monitored by a security camera, or in a location that is visible from employee work areas.





Bike stations are attended facilities that offer secure bicycle parking, bicycle rentals, and other services that are usually located at major transit locations. Bike stations provide convenient operating hours, friendly and helpful staff, and information for planning commute trips. In addition, bike stations may offer bicycle repairs, bicycle and commute sales and accessories,



restroom/changing rooms and access to vehicle-sharing. Typically, local agencies subsidize bike stations as part of an effort to expand the range of their transit services and encourage bicycling.

Bike racks are the most common bicycle parking option. Hitching post or staple bike racks are highly recommended over ribbon, spiral, or freestanding racks.



### BICYCLE SIGNALS

A bicycle signal is an electrically powered traffic control device that directs bicyclists and helps in addressing a safety or an operational problem of bicycle facilities. Bicycle signals may only be used in combination with an existing traffic signal and at locations meeting the Caltrans Bicycle Signal Warrants (see Section IV., Implementation).

### **LOCAL BICYCLE INFORMATION SOURCES**

Key sources of local bicycle information are local bicycle advocacy groups, including the Sacramento Area Bicycle Advocates (SABA) and the Yuba Area Bicycle Advocates (YABA). These advocacy groups promote the use of bicycles throughout the community by advocating for improvements in infrastructure, safety, and bicycle facilities. For example, the advocacy groups review traffic impacts of proposed development projects, monitor safety hazards and demand improvements where necessary, and encourage bicycling through a variety of events, such as hosting rides and promoting a “May is Bike Month” campaign. The advocacy groups provide a substantial amount of information regarding bicycles, such as existing bikeways, planning efforts, bicycle safety, local projects, and the latest local bicycle news, via their websites. For more information, please visit the SABA website at <http://sacbike.org/> and the YABA facebook page at <https://www.facebook.com/pages/Yuba-Area-Bicycle-Advocates-YABA/409888712451931>.

## **IV. EXISTING BICYCLE FACILITIES**

The following section discusses the existing bicycle facilities and support facilities within the City of Wheatland.

### **EXISTING BIKEWAYS**

Designated bicycle facilities do not currently exist in the City.

### **EXISTING BICYCLE SUPPORT FACILITIES**

The only bicycle support facilities currently within the City of Wheatland include bike racks at existing school sites. Because the City does not currently have any designated bicycle facilities, bicycle support facilities, such as signage, bicycle parking, and locker facilities are generally absent throughout the City.

### **EXISTING ALTERNATIVE MODES OF TRANSPORTATION OPTIONS**

Various modes of transportation are currently available to the citizens of Wheatland. Many school-age pedestrians walk to school in the morning and afternoon in the area of the SR-65 / First Street intersection, as several schools are located near the area. An adult crossing guard regularly stops traffic on SR-65 in order to allow students to pass. Approximately 60 to 80 pedestrians cross at the crossing guard location in one day, with another 40 to 60 students crossing at other uncontrolled locations. Sidewalks currently exist intermittently throughout the City. In downtown Wheatland along SR-65, from First Street to Main Street, sidewalks are provided. Many of the streets in residential areas have sidewalks along the roadways. Sidewalks also exist along the south side of First Street and Wheatland Road as far as the western boundary of Wheatland High School. According to the City of Wheatland General Plan, the "Safe Route to Schools – 2nd Cycle" program, aimed at improving pedestrian safety, includes construction of curb, gutter, and sidewalks on various City streets.

Yuba-Sutter Transit offers round trip service to Wheatland. The Wheatland Route provides roundtrip service once each Tuesday from Linda and Marysville. The bus can pick up and drop off at any address in Wheatland. Currently, the basic one-way fare is \$2.00. Reduced senior and youth fares are available. Amtrak and Greyhound services are not available in Wheatland. The nearest Amtrak and Greyhound service available is in Marysville. The Union Pacific Railroad (UPRR) tracks bisect Wheatland and run generally parallel to and along the east side of SR-65. A total of four crossings of the UPRR currently exist within the downtown area of Wheatland.

## V. GOALS, OBJECTIVES, AND IMPLEMENTATION MEASURES

The Goals, Objectives, and Implementation Measures section identifies the specific goals of the Bikeway Master Plan and how the City aims to reach them through objectives and implementation measures. The following is a detailed list of the goals, objectives, and implementation measures of the City of Wheatland Bikeway Master Plan.

**Goal 1: Promote bicycle safety in the community through roadway and bikeway facility design.**

Objective 1.1: Develop a visually prominent bikeway system that clearly defines the boundaries between bicycle and motorist rights-of-way.

Implementation Measure 1.1.1: Class II and Class III bikeways shall include adequate signage along roadways alerting motorists of bicycle facilities.

Implementation Measure 1.1.2: Provide adequate lighting along bikeways, particularly in areas with high bicycle, pedestrian, and automobile traffic.

Implementation Measure 1.1.3: Implement traffic calming devices (e.g., traffic circles, roundabouts, etc.) where appropriate and feasible.

Implementation Measure 1.1.4: Include “share the road” signs at all Class III facilities, and Class II facilities, if necessary and feasible.

Objective 1.2: Minimize bicycle accidents through preventative measures including the provision of properly designed and maintained bikeway facilities.

Implementation Measure 1.2.1: Separate motorist, bicycle, and pedestrian facilities from each other whenever feasible to reduce conflicts.

Implementation Measure 1.2.2: Restrict on-street parking in new development, as well as existing development where necessary and feasible along designated bikeways, only after careful investigation and approval by the City Community Development Department and Public Works Department staff.

- Implementation Measure 1.2.3: Ensure that new development provides safe routes to and around new schools such that trips could be made by bicycling or walking.
- Implementation Measure 1.2.4: Require new development to accommodate safe travel for all users, including bicyclists and pedestrians. Bicycle and pedestrian safety shall be considered when reviewing all development proposals.
- Implementation Measure 1.2.5: Retrofit existing facilities when feasible, particularly in identified locations of concern.
- Implementation Measure 1.2.6: Take steps to improve safety and security at crosswalks, transit stops, and along main access routes to transit, particularly in the vicinity of schools, by applying technological improvements such as flashing lights, crosswalk buttons, and bike detection where necessary and feasible.
- Objective 1.3: Incorporate provisions for safe bicycle travel and/or detours in traffic control plans and through construction zones where feasible.
- Objective 1.4: Emphasize coordination with law enforcement to create safe environments for bicycling and walking using a variety of resources available (e.g., enhanced enforcement of traffic laws, feedback signs), especially around schools and other high bicycle and pedestrian traffic areas.
- Implementation Measure 1.4.1: Ensure that new police employee training standards include the importance of enforcement of speed limits, specifically associated with bicycle safety.
- Implementation Measure 1.4.2: Place feedback signs along roadways with heavy traffic or high speed limits where necessary and feasible, particularly in areas where designated bikeways are present.
- Implementation Measure 1.4.3: Coordinate with law enforcement to develop an approach for improving the enforcement of speed limits on City roadways, particularly along roadways with designated bikeways.
- Objective 1.5: Consider including safety features along Class I bikeways with high numbers of users.

Implementation Measure 1.5.1: Include minimal lighting and mile markers (or other location markers) at certain intervals along all Class I bikeway facilities.

**Goal 2: Develop a comprehensive bicycle safety education program.**

Objective 2.1: Coordinate with public safety officials, school districts, and community volunteers to develop a comprehensive bicycle safety education program for bicyclist of all ages, as well as for motorists.

Implementation Measure 2.1.1: Encourage bicycle safety curriculum into existing motorist education and training.

Implementation Measure 2.1.2: Coordinate with City Police and Fire Departments to provide public outreach programs.

Implementation Measure 2.1.3: Coordinate with school districts to provide school assemblies or “bike rodeos” held at school facilities. At the assemblies, children will learn about the rules of the road, bicycle safety, safe riding techniques, etc. This measure could be coordinated with Implementation Measure 5.1.2.

Implementation Measure 2.1.4: Develop fundraising opportunities and community events to support local bikeway facility improvements in coordination with public safety officials, school districts, bicycle advocacy groups such as the Yuba Area Bicycle Advocates (YABA), and community volunteers. This measure could be coordinated with Implementation Measure 5.1.2.

Implementation Measure 2.1.5: Encourage a bicycle helmet donation program and/or event as part of the public outreach programs to promote bicycle safety in the community (e.g., donation, giveaway, or contest). This measure could be coordinated with Implementation Measure 5.1.2.

Implementation Measure 2.1.6: Develop and make available to the public educational materials to inform the community (i.e., pamphlets, maps, etc.). This measure could be coordinated with Implementation Measures 5.1.1 and 5.3.1.

**Goal 3: Develop a bikeway system that increases and improves bicycle access and mobility, while balancing the need for directness with concerns for safety and user convenience, for residents and visitors of all ages and abilities.**

Objective 3.1: Develop a dual system which serves both the experienced and novice bicyclist.

Implementation Measure 3.1.1: Include signage along Class I bikeways informing users of the standard operating procedures (e.g., “pass on left”, “pedestrians keep right”, speed limits, etc.).

Implementation Measure 3.1.2: Provide two designated lanes along Class I bikeways for pedestrians and novice/recreational bicyclists and experienced bicyclists, where necessary and feasible.

Implementation Measure 3.1.3: Bikeways shall provide wheelchair (motorized and non-motorized) access where required.

Objective 3.2: Emphasize development of Class I and Class II bikeways wherever feasible in the City while limiting Class III bikeways.

Objective 3.3: Provide direct connections between residential neighborhoods and regional employment areas, schools, parks, and shopping centers in new development, as well as in existing areas where feasible.

Implementation Measure 3.3.1: Remove existing physical barriers to walking and biking throughout the community.

Implementation Measure 3.3.2: Add crossings where necessary and feasible.

Implementation Measure 3.3.3: For existing developed areas of the City, provide links and gap closures (e.g., Olive Street) where necessary and feasible.

Implementation Measure 3.3.4: Restrict new development from building new circulation barriers.

Implementation Measure 3.3.5: Improve existing roadways for bicycle usage when and where feasible.

Implementation Measure 3.3.6: Provide bikeway connections across creeks, freeways, and high speed/high volume roadways where feasible.

- Objective 3.4: Provide adequate bicycle support facilities at pivotal designations such as schools, parks, and shopping centers throughout the community to complement the bikeway network.
- Implementation Measure 3.4.1: The City, when updating its Zoning Code, shall include a provision for minimum standard bicycle support facilities (e.g., bike corrals, lockers, bike parking, showers, bike storage, water fountains, etc.) applicable for each zoning designation (e.g., ratio of bike racks per required parking stall, etc.), particularly office and industrial uses.
- Implementation Measure 3.4.2: Implement support facilities (e.g., bike corrals, bike parking, water fountains, etc.) at pivotal locations within the bikeway network (e.g., parks, Civic Center, high volume transit stations, converging non-motorized network trails and paths, commercial areas, and activity centers).
- Implementation Measure 3.4.3: Ensure the needs of bicyclists are met during review of development proposals and when completing other transportation planning projects (e.g., adequate bicycle support facilities, bikeway facilities and connections, etc.).
- Objective 3.5: Encourage the use of existing natural and manmade corridors such as creeks and inactive railroad rights of way for future bikeway alignments, particularly Class I bikeways.
- Objective 3.6: Develop a recreational bikeway system that uses lower volume streets, off-street bike paths, and serves regional historic and natural destinations
- Objective 3.7: Encourage strategic location of new bicycle and pedestrian facilities, as well as new key destinations (e.g., parks, shopping centers, schools, employment areas), where existing or planned development patterns offer the greatest opportunity for high use.
- Implementation Measure 3.7.1: The City shall review all development plans to ensure locations of bicycle and pedestrian facilities, as well as key destinations are feasible.

Implementation Measure 3.7.2: The City shall ensure that bikeway locations are planned for anticipated high use areas.

Implementation Measure 3.7.3: The City shall ensure that high use areas are planned where opportunities for bikeways exist.

Objective 3.8: Plan bicycle facilities to be an integral part of the City's transportation network including provision of bikeway connections with other modes of transportation, such as driving, walking, and public transportation.

Implementation Measure 3.8.1: Facilitate linkages between bicycle infrastructure and transit services.

Implementation Measure 3.8.2: Coordinate with local and regional transit agencies to ensure adequate bike racks or storage space for bicycles are provided at terminals, on buses, or trains.

Implementation Measure 3.8.3: Encourage development patterns that provide safe and efficient pedestrian and bicycle access to transit stops and trunk commuter transit lines.

Implementation Measure 3.8.4: Pursue strategic road expansion that supports effective transit services, walking and bicycling.

Implementation Measure 3.8.5: Provide adequate bicycle storage at park and ride lots.

**Goal 4: Coordinate with surrounding jurisdictions to create a comprehensive regional bikeway system within and between communities in the region.**

Objective 4.1: Provide for a seamless bikeway connection between the City of Wheatland and Yuba County.

Implementation Measure 4.1.1 Coordinate with Yuba County to ensure that the City's bikeway network provides regional connections consistent with the Yuba County Bikeway Master Plan, and that the City's planned bikeway network per the City's Bikeway Master Plan is reflected in any updates to the Yuba County Bikeway Master Plan.

Objective 4.2: The City shall work with Yuba County on their coordinating efforts with Sutter County and Nevada County regarding regional bikeway connectivity.

Objective 4.3: Coordinate with Placer County to the extent feasible to ensure that the City of Wheatland's planned bikeway network per the City's Bikeway Master Plan does not preclude any future plans or designs for connections between the City and the County.

Implementation Measure 4.3.1: The City shall follow the status of the Placer County bikeway master plan and coordinate with the County regarding associated future planned bikeway facilities.

Objective 4.4: Coordinate with Beale Air Force Base to the extent feasible to ensure that the City's planned bikeway network per the City's Bikeway Master Plan does not preclude any future plans or designs for connections between the City and the Air Force Base.

Objective 4.5: Participate in facilitating a regional wayfinding system to encourage bicycle and pedestrian travel on the network of streets, bikeways, and walkways, if and when resources allow.

Implementation Measure 4.5.1: The City shall provide maps and information regarding bikeways and associated facilities on the City's website.

**Goal 5: Encourage bicycle usage for commuting and recreation throughout the community.**

Objective 5.1: Develop a coordinated City outreach program to encourage bicycling in the community.

Implementation Measure 5.1.1: Develop and maintain a bikeway map for public distribution reflecting new bicycle facilities and information. This measure could be coordinated with Implementation Measure 2.1.6.

Implementation Measure 5.1.2: Sponsor and support community bicycle events (e.g., May is Bike Month, Bike to Work Week, Bike Nights) in coordination with local bicycle advocacy groups such as the Yuba Area Bicycle Advocates (YABA). This measure could be coordinated with Implementation Measures 2.1.3 through 2.1.5.

Objective 5.2: Encourage the coordination of bicycling advocacy groups, such as cycling clubs and coalitions.

Objective 5.3: Promote bicycle use as an alternative to automobile use and as a pleasurable form of fitness and recreation through public awareness of the widespread benefits of bicycling.

Implementation Measure 5.3.1 Develop and make available to the public educational materials (e.g., pamphlets) informing the community of the benefits of a bikeway network and increased bicycling and walking, including increased public health, property values, recreational benefits, and environmental benefits. This measure could be coordinated with Implementation Measure 2.1.6 and 5.1.1.

**Goal 6: Maximize funding opportunities for bikeway improvements in the City of Wheatland.**

Objective 6.1: Develop a City bikeway funding program that would include City funds, regional, State, and federal funding programs (e.g., Safe Routes to School, Highway Safety Improvement Program, Bicycle Transportation Account, etc.), funding opportunities administered through SACOG, and developer funds.

Implementation Measure 6.1.1: Utilize regional, State, and federal funding programs to the extent feasible.

Implementation Measure 6.1.2: Require developers to fund bicycle access and safety improvements within new development projects.

Implementation Measure 6.1.3: Update the Bikeway Master Plan as necessary to maintain eligibility for State and federal funds.

Objective 6.2: Consider multi-jurisdictional funding applications for the regional bikeway system whenever feasible.

Implementation Measure 6.2.1: Coordinate with Yuba County, Beale Air Force Base, Placer County, and other nearby jurisdictions regarding funding efforts. Seek joint funding when applicable and feasible.

Objective 6.3: Develop and maintain a prioritized list of citywide improvements along with detailed cost estimates, and identify appropriate funding sources for each proposal.

Implementation Measure 6.3.1: Include citywide bikeway improvements in the City's Capital Improvement Plan.

Objective 6.4: Encourage the formation of reliable local, regional, and State funding sources which can be used to leverage federal funds.

Implementation Measure 6.4.1: Coordinate grant writing with SACOG, adjacent counties, and City staff.

Objective 6.5: Schedule bikeway expansion projects to occur with other roadway improvement projects, such as roadway maintenance or new roadway construction.

Objective 6.6: Provide for implementation of bicycle support facilities through regional funding programs as feasible and appropriate.

**Goal 7: Maintain the quality and functionality of the bikeway network and the Bikeway Master Plan.**

Objective 7.1: Support improved connectivity, as well as increased safety and security through maintaining the bikeway facilities in good working order.

Implementation Measure 7.1.1: Perform regular maintenance of bicycle facilities, including pavement conditions and quality, striping, stenciling, and signage, to ensure that the bikeway facilities are in good condition.

Implementation Measure 7.1.2: Perform routine maintenance of existing crossings (e.g., river, freeway, rail) and other structural barriers.

Implementation Measure 7.1.3: Perform regular maintenance of streets and bikeway facilities for the clearing of debris and litter, especially in curbed and shared-use areas (e.g., Class II bikeways).

Objective 7.2: Develop an internal City system for reporting and responding to maintenance problems on the bikeway system.

Implementation Measure 7.2.1: Establish a bikeway maintenance reporting protocol (e.g., posting signage with contact information for complaints, etc.).

Implementation Measure 7.2.2: The City's bikeway maintenance reporting and responding system shall include a log of the maintenance complaint (i.e., person filing complaint, when complaint filed, details of complaint), responding City staff

member, response date, and maintenance performed.

Implementation Measure 7.2.3: Establish bikeway maintenance response time goals.

Objective 7.3: Maintain the Bikeway Master Plan to meet the community's growth needs.

Implementation Measure 7.3.1: Update the Bikeway Master Plan every five years, or as necessary.

Implementation Measure 7.3.2: Identify future needs and specific recommendations for facilities and programs in the Bikeway Master Plan updates.

Implementation Measure 7.3.3: Ensure that the Bikeway Master Plan remains consistent with the most current regional, State, and federal bikeway regulations and maintains eligibility for State and federal funds.

## VI. PROPOSED BIKEWAYS

Because the City does not currently have any existing bikeways or associated support facilities, a variety of opportunities are available for bicycle facilities in the City of Wheatland, including retrofitting existing areas and including bicycle facilities in new development. The Proposed Bikeways section addresses the proposed bikeway facilities for the City of Wheatland.

### BIKEWAY FACILITY PLANNING CRITERIA

The following criteria were utilized in developing the City of Wheatland Bikeway Master Plan, in conjunction with input obtained during public outreach efforts:

- Coverage – The bikeway system should improve bicycle access and mobility within the City and regionally for all types of bicyclists.
- Connectivity – The bikeway system should provide connections to major activity centers through the City and to routes that provide access to neighboring cities and counties. Activity centers include: schools, parks, shopping centers, employment centers, government centers, transit centers, and other recreational opportunities.
- Designated Bikeway Location – Class I and Class II bikeways should be emphasized where feasible due to the safety and recreational benefits, while Class III bikeways should be limited.

### PROPOSED BIKEWAYS

The proposed bikeways per the City of Wheatland Bikeway Master Plan are presented in Figure 9 below. As shown in the figure, the City proposes the following bikeway types: Unpaved Bike Trail; Paved Bike & Pedestrian Path; Super Sidewalk; and Bike Lane. Each of the bikeway types and proposed locations are discussed in further detail below.

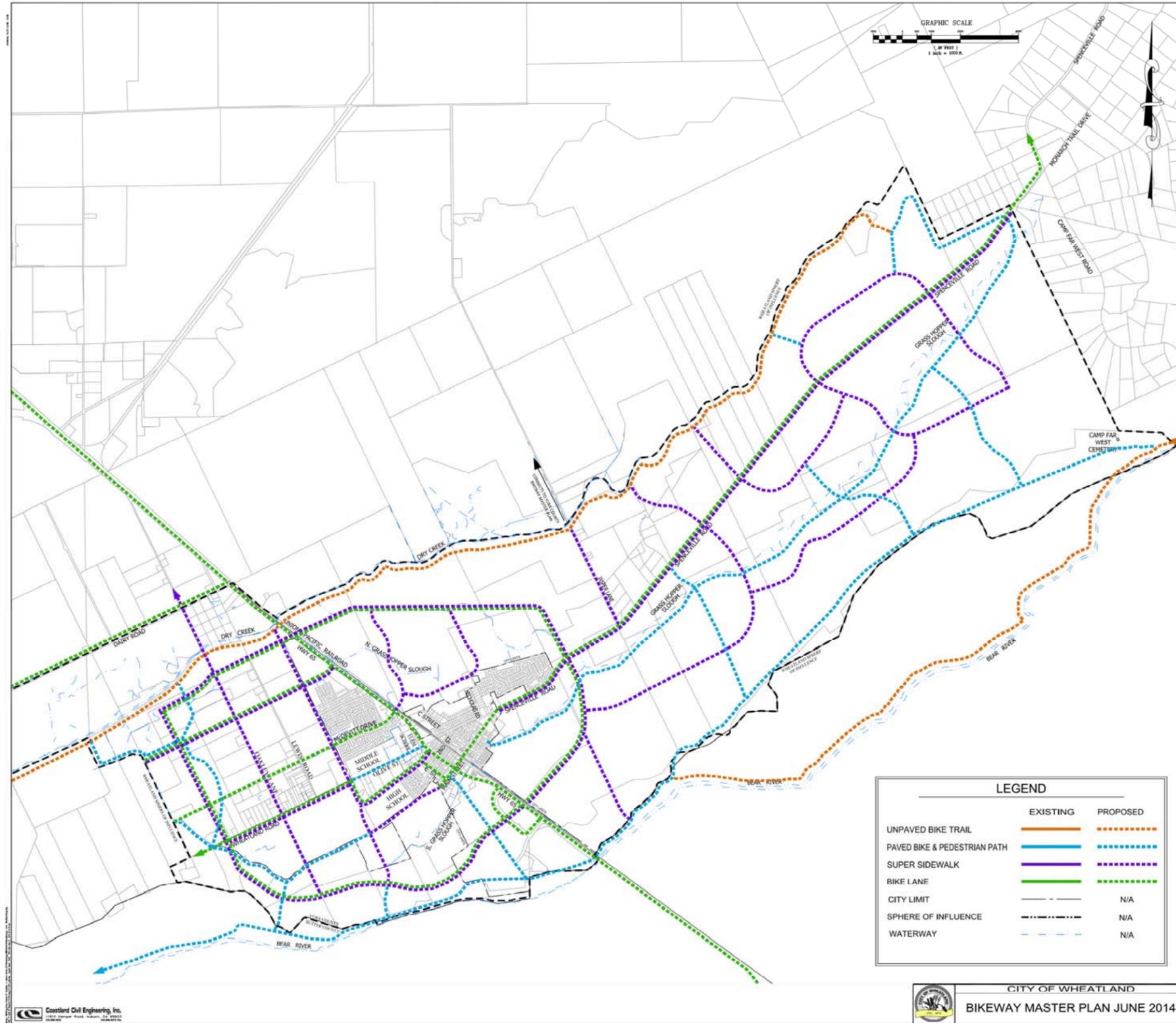
#### PROPOSED UNPAVED BIKE TRAILS

Unpaved bike trails would be unpaved Class I bikeways. The unpaved bike trails would be predominantly utilized by bicyclists, due to their proposed locations, but could accommodate other modes of transportation such as pedestrians. Two unpaved bike trail locations are proposed:

1. Bear River Bike Trail – The Bear River Bike Trail would be located along the Bear River levee south of the City's Sphere of Influence. The trail would connect the Bear River Bike Path to the west and extend east to the Camp Far West area.
2. Dry Creek Bike Trail – The Dry Creek Bike Trail would follow Dry Creek through the northwestern portion of the City's Sphere of Influence and along the northeastern Sphere of Influence boundaries.

The unpaved bike trails would encourage recreational bike usage, as well as provide connections between open space areas to other bikeways, allowing increased bicycle access between recreational areas, residential areas, and other popular destinations such as parks, schools, and employment centers.

Figure 9  
Proposed Bikeway Facilities



## PROPOSED PAVED BIKE & PEDESTRIAN PATHS

Paved bike and pedestrian paths would be paved Class I bikeways. The paved bike and pedestrian paths would provide connections between unpaved bike trails and other proposed bikeway facilities. The proposed locations of the paved bike and pedestrian paths maximize opportunities for recreational bicycling, while taking advantage of preservation of green belt and natural open space areas. The paved bike and pedestrian paths would encourage recreational usage and allow for preservation of natural habitats and open spaces, while also providing connections to other bikeways, allowing increased bicycle access between recreational areas, residential areas, and other popular destinations such as parks, schools, and employment centers. Bicycle commuting would be encouraged through providing such connections.

As shown in Figure 9, the primary proposed locations for paved bike and pedestrian paths are as follows:

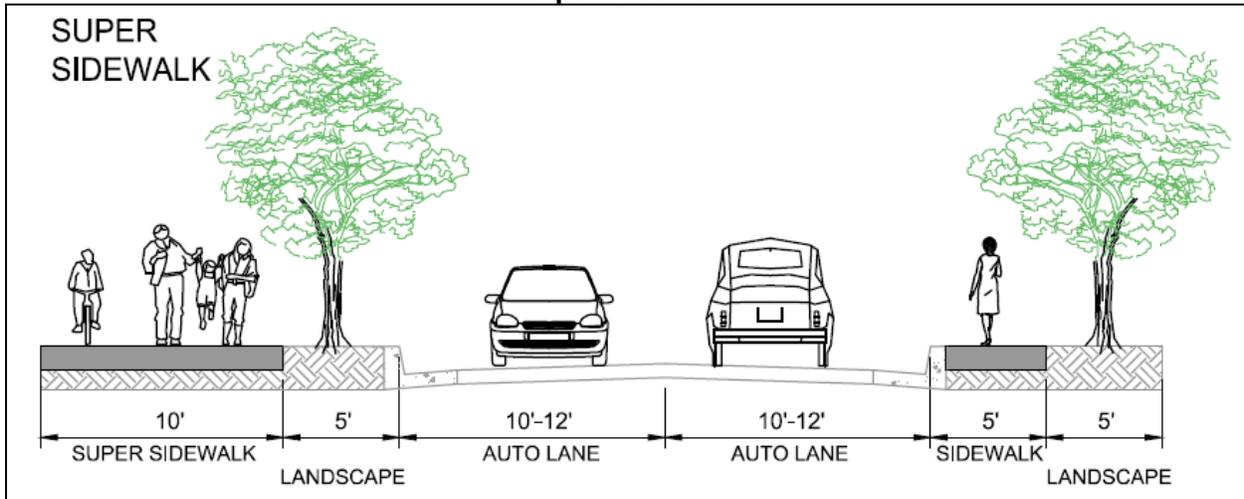
1. Grasshopper Slough Bike and Pedestrian Path – The Grasshopper Slough Bike and Pedestrian Path would be located along Grasshopper Slough from the existing City limits to the west, to the eastern boundary of the City's Sphere of Influence. As shown in Figure 9, a number of additional paved bike and pedestrian paths would intersect the Grasshopper Slough Bike and Pedestrian Path, providing connections between the path and other bikeway facilities.
2. Bear River Bike and Pedestrian Path – The Bear River Bike and Pedestrian Path would be located along the southern boundary of the City's Sphere of Influence. The Bear River Bike and Pedestrian Path would extend west along the Bear River levee and east to the Camp Far West area, with connections to the Bear River Bike Trail provided south of the City's Sphere of Influence, east of SR-65, and at the southeastern point of the City's Sphere of Influence. A number of additional paved bike and pedestrian paths would intersect the Bear River Bike and Pedestrian Path, providing connections to the north between the path and other bikeway facilities, including the Grasshopper Slough Bike and Pedestrian Path, and the existing City limits.

Other paved bike and pedestrian path locations include a connection between the Dry Creek Bike Trail and a Super Sidewalk located in the northeaster portion of the City's Sphere of Influence, as well between SR-65 along Olive Street and Wheatland Road.

## PROPOSED SUPER SIDEWALKS

Super Sidewalks would be a hybrid of a Class I and Class II bikeway, where a paved bike and pedestrian path would be located along a roadway, but completely separated from the vehicle travel lanes of the roadway by a raised, vegetated landscape area. An example of a Super Sidewalk is shown in Figure 10 below. As shown in the Figure, on roadways where a Super Sidewalk is proposed, a 10-foot-wide Super Sidewalk would be located along one side of the roadway, separated by an approximately 5-foot-wide landscape area, and would accommodate bicycle and pedestrian travel. The other side of the roadways would include a standard, 5-foot-wide sidewalk. Super Sidewalks are proposed to be located along the majority of existing and proposed arterial roadways, as well as along a number of proposed collector roadways. The Super Sidewalks would provide connections between other proposed bikeways allowing increased access and connectivity to encourage bicycle commuting and recreation.

**Figure 10**  
**Super Sidewalk**



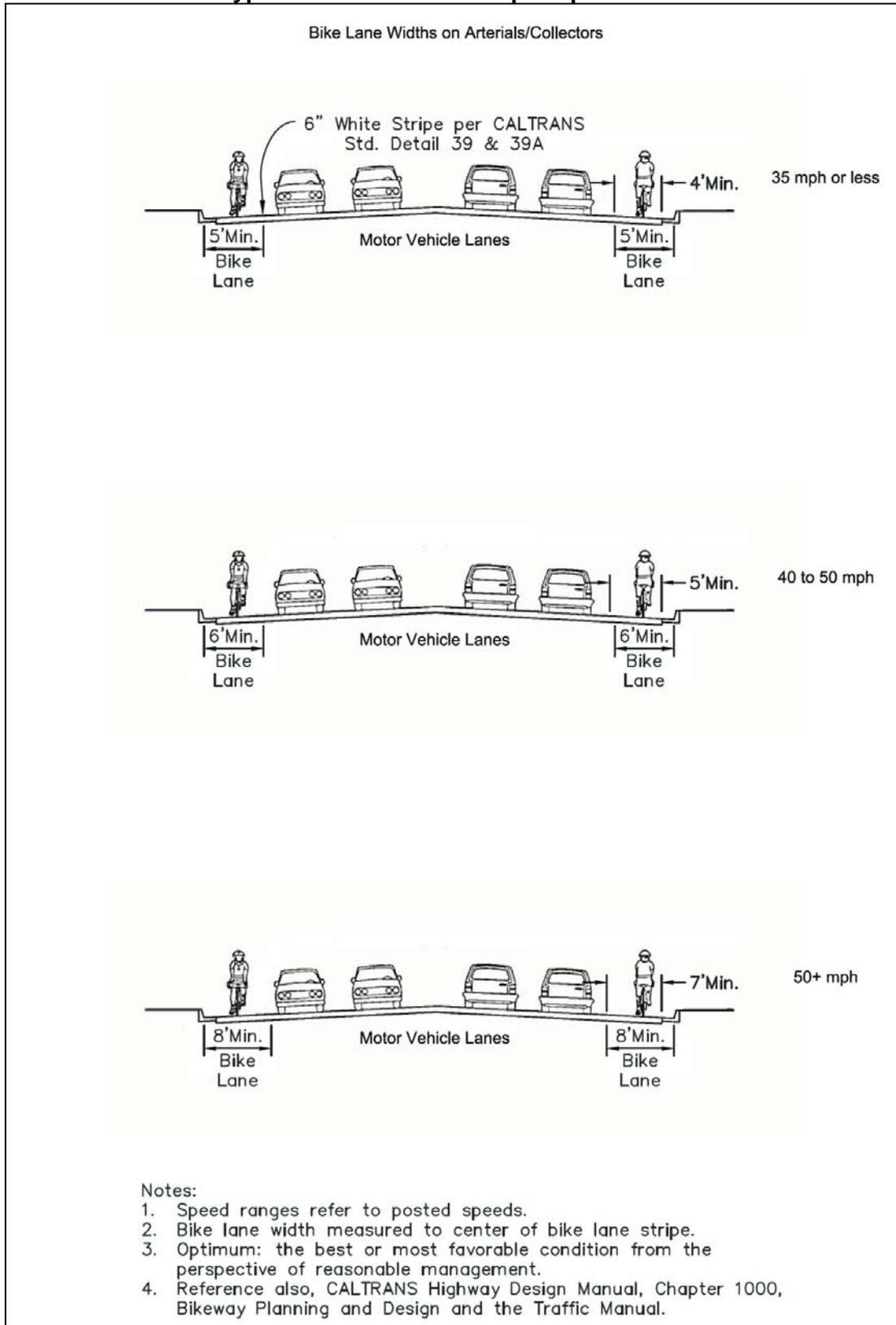
### PROPOSED BIKE LANES

Bike lanes would be standard Class II bikeways. The locations of bike lanes are proposed for roadways that currently experience or are anticipated to experience heavy vehicle traffic, including along SR-65, Spenceville Road, Dairy Road, Main Street, E Street, and Wheatland Road. It should be noted that Caltrans currently intends to upgrade only the section of SR-65 within the existing City of Wheatland limits from State Street to Evergreen Drive to include Class II bike lanes, as the pavement is currently not wide enough to accommodate a classified bike lane. As SR-65 would need to be widened to accommodate bike lanes, Caltrans is exploring the feasibility of constructing bike lanes along SR-65 outside of Wheatland city limits. However, should the relinquishment of any section of SR-65 occur and the City of Wheatland take ownership of the facility, then Caltrans would no longer have the approval role on any or all modifications to SR-65 within the segment relinquished to the City. As the City of Wheatland Bikeway Master Plan is intended to be a long-range planning tool with ideal bikeway goals for the City, the Bikeway Master Plan includes proposed Class II bike lanes along the entirety of SR-65 within the vicinity of the City.

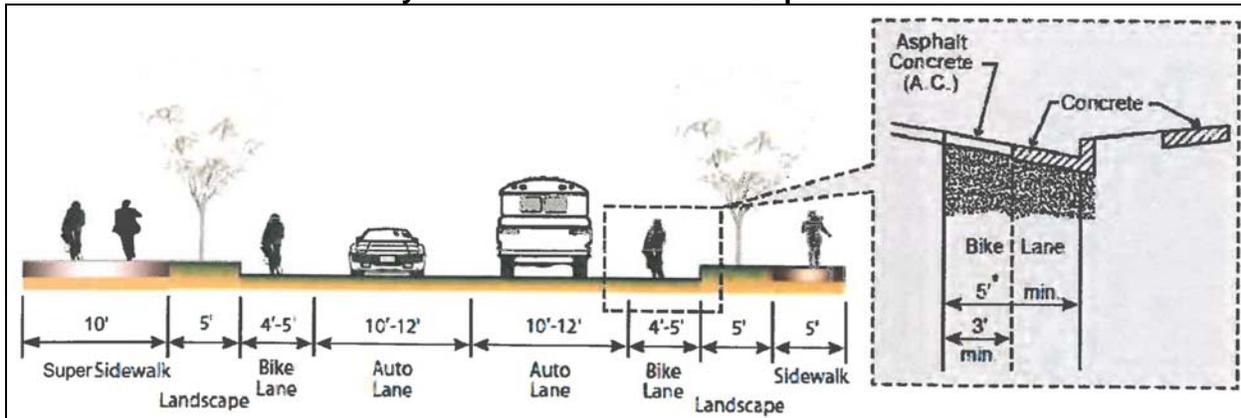
In areas where the roadways have sufficient width to accommodate a bike lane, only roadway striping and signing would be required. Some roadway sections would require only minor widening of less than four feet in order to accommodate a bike lane, while some roadway sections would require major widening of more than four feet and possible drainage work to accommodate a bike lane. The width of the bike lanes would vary based on the speed limit of the roadway. Typical bike lane widths in comparison to speed limits are shown in Figure 11.

As can be seen in Figure 9, some roadways are proposed to include both a bike lane and a Super Sidewalk. Such locations are proposed along major existing or proposed arterial roadways where heavy traffic is anticipated, including along Spenceville Road and Wheatland Road. The combination of a bike lane and a Super Sidewalk is intended to provide a high-speed commute opportunity for experienced bicyclists, while also providing an area along the same roadway sufficient to accommodate the novice bicyclist and pedestrians. An example of a roadway with a bike lane and a Super Sidewalk is provided in Figure 12.

**Figure 11**  
**Typical Bike Lane Widths per Speed Limit**



**Figure 12**  
**Roadway with a Bike Lane and a Super Sidewalk**



### PROPOSED CLASS III BIKEWAYS

Class III bike routes would be the primary designation for many of the roads outside of the urban areas where low traffic volumes occur (e.g., neighborhood streets).

### **PROPOSED BICYCLE SUPPORT FACILITIES**

Bicycle support facilities would be emphasized and required in new development, particularly for pivotal destinations, such as schools, parks, shopping centers, and other activity centers. The City intends to include a provision when updating the Zoning Code for minimum standard support facilities applicable for each zoning designation, particularly for office and industrial uses, such as a ratio of bicycle racks per required parking stall. In addition, existing pivotal destinations should add bicycle parking facilities when and where feasible and appropriate.

Signing, striping, crossing guards, flashing beacons, under/overcrossings, bicycle detectors, and pedestrian actuated signals (when warranted by engineering standards) shall be implemented at street crossings with high levels of pedestrian and bicycle demand along the designated bikeway system. Timing for such improvements should be coordinated with other intersection and/or roadway improvements, and should be based on demand, safety, and funding opportunities.

## VII. IMPLEMENTATION

The Implementation section describes how the City will generally proceed to implement a project once the City of Wheatland Bikeway Master Plan is adopted. The section also roughly estimates bikeway project costs and identifies potential funding resources for implementing the Bikeway Master Plan.

### PLAN FLEXIBILITY AND EXPANSION

The Bikeway Master Plan shall be updated periodically, every five years or so, to meet the changing needs of the community, update priority projects, and reflect new policies and/or requirements for bicycle and pedestrian funding. The updates should also be expanded to address integration with other modes of transportation such as rail, transit, and air as they develop.

### BICYCLE SAFETY AND EDUCATION

The bikeway system shall be developed to create a more balanced bicycle/pedestrian/automobile environment to increase bicycle usage in the City. Implementation of a successful bikeway system includes more than construction of facilities. Bicycle safety and education is an important element of any bicycle transportation system. Cyclists, motorists, and pedestrians must be educated to respect the rights of each other and to understand the safety benefits. Community involvement in education of bicyclists and motorists is important and shall include businesses, law enforcement, and education. In addition, educating youths of proper rules on the road as they begin to ride bicycles and drive is effective. Safe and cautious use of bikeways must be encouraged along with a “share the road” attitude in order for success. Education and encouragement must be complemented by enforcement of traffic laws.

The City intends to develop a comprehensive bicycle safety education program, including, but not limited to, the following:

- Including bicycle safety curriculum into existing motorist education and training;
- Public outreach programs;
- Providing school assemblies where children would learn about the rules of the road, bicycle safety, etc.;
- Encouraging a bicycle helmet donation program and/or event;
- Sponsoring and supporting community bicycle events in coordination with local bicycle advocacy groups; and
- Developing and providing public education materials.

In addition, a number of safety features are intended to be included in the design of bikeways within the City, such as adequate signage, pavement markings, lighting, mile-markers along Class I bikeways, and improvements at crosswalks, transit stops, and along main access routes.

## PUBLIC OUTREACH PROGRAM

In order to encourage bicycling in the community, the City intends to develop a coordinated City outreach program, which would include developing and maintaining a bikeway map, as well as other public education materials (e.g., pamphlets), for public distribution. The City will promote bicycle use through public awareness of the widespread benefits of bicycling, such as environmental benefits including air quality and congestion, as well as health and fitness benefits. The recreational benefits of bicycling will be promoted as well.

## DETERMINING PRIORITY PROJECTS

Prioritizing projects help to guide the City in determining the best way to allocate funding and other resources for bikeway projects. Projects are prioritized based on existing conditions, need, demand, location, and feasibility. Portions of the proposed bikeway system that have a high anticipated use, close gaps throughout the City, link neighborhoods, or can be easily implemented would be given the highest priority. In addition, projects that would make the City eligible for certain funding sources, such as California's Safe Routes to School (SR2S) program and the Bicycle Transportation Account (BTA) would be considered priority as well. Other criteria for selecting priority projects, including projects that would provide the greatest community benefit, include the following:

- History of requests and/or complaints at a location;
- Traffic volumes and travel speeds on roadways;
- Curb-to-curb width;
- Destinations served;
- Topography and gradients;
- Integration into the regional system;
- Presence of reasonable alternatives for bicyclists; and
- Directness and connectivity to key destinations.

Project details are subject to change, as design details are a subsequent implementation step for the Bikeway Master Plan. The priority projects set forth by this Bikeway Master Plan could be expected to span over the next ten years. Table 1 below presents the bikeway improvements that were chosen as high priority based on the above mentioned criteria:

<b>Project</b>	<b>Description</b>
SR-65	Provide bike lanes along SR-65 (priority would be through the downtown area, but would ideally eventually extend out from the City's Sphere of Influence boundaries)
Connection to Placer County	Provide safe connection from southern City Sphere of Influence limits into Placer County
Spenceville Road	Provide bike lanes along Spenceville Road
Main Street	Provide bike lanes along Main Street
E Street	Provide bike lanes along E Street from Main Street to Wheatland Road
Wheatland Road	Provide bike lanes along Wheatland Road

The following design criteria and standards should be considered when designing specific, individual Bikeway Maser Plan projects.

### CLASS I BIKEWAYS

The following standards shall apply to development of Class I bikeways (i.e., Unpaved Bike Trails, Paved Bike & Pedestrian Paths, and Super Sidewalks, where applicable):

- Bikeway Continuity - Off-street bikeways do not need to be continuous but need to connect to other types of facilities at each end of the bikeway to provide an interconnected system.
- Right-of-way Opportunities - The City shall utilize existing or acquire new easements or right-of-ways for Class I bikeways. Opportunities for such may include: connecting dead-end streets in new developments with existing neighborhoods, along streets with excess width and unpaved right of way, along drainage channels or creeks, or along abandoned railroad rights-of-way.
- Design Standards - Two-way Class I bikeways shall be constructed with a minimum width of eight feet and a preferred width of 10 feet (5 feet for one-way travel). Caltrans design standards shall be used for other design elements such as drainage slope, clearance, signing and striping, and where bikeways intersect streets.

### CLASS II BIKEWAYS

The following standards shall apply to development of Class II Bikeways (i.e., Bike Lanes and Super Sidewalks, where applicable):

- Design Standards - Caltrans design standards shall be used for Class II facilities, where minimum widths are five feet adjacent to on-street parking or vertical curb without on-street parking, and four feet on streets without curb and gutter. Appropriate signage and pavement markings shall be provided to identify the bicycle lane. Caltrans standards for markings or transitions at intersections shall be used.
- Required Street Width - The standard street width of 40 feet curb-to-curb can accommodate Class II bike lanes in both directions if parking is eliminated from one side of the street and vehicle travel lanes are reduced to 11 feet. Bike lanes shall be provided in both directions where feasible. Where on-street parking is critical, an alternative would be to prohibit parking on one side of the street during certain hours of the day to accommodate bicyclists.

### CLASS III BIKEWAYS

On all streets, but especially where shoulder bikeways or bike lanes are reasonable but cannot be provided due to severe physical limitations, a wide outside lane may be provided to accommodate bicycle travel. Bike routes should include appropriate signage in order to inform bicycle facility users and remind motorists that bicyclists may be present on the roadway. Caltrans recommends that signage installation on a bike route should be considered for the following purposes: to provide through and direct travel in bicycle-demand corridors; to connect discontinuous segments of bike lanes; and to notify bicyclist where street parking has been removed or restricted in order for improved safety.

## BICYCLE SIGNALS

Bicycle signals may only be used in combination with an existing traffic signal and at locations meeting the Caltrans Bicycle Signal Warrants. The following are the volume and collision or volume and geometric warrants that would need to be met in order for a bicycle signal to be considered:

- Volume - When  $W = B \times V$  and  $W > 50,000$  and  $B > 50$ .

Where:

- W is the volume warrant.
  - B is the number of bicycles at the peak hour entering the intersection.
  - V is the number of vehicles at the peak hour entering the intersection.  
(B and V shall use the same peak hour.)
- Collision - When 2 or more bicycle/vehicle collisions of types susceptible to correction by a bicycle signal have occurred over a 12-month period and the responsible public works official determines that a bicycle signal will reduce the number of collisions.
  - Geometric - (a) Where a separate bicycle/multi use path intersects a roadway, and (b) at other locations to facilitate a bicycle movement that is not permitted for a motor vehicle.

Loop detectors should be located on all new or rebuilt actuated traffic signals, and retrofitting existing signals with loop detectors on designated bikeways should be a priority.

## ROADWAY DESIGN

Roadways in new development should be designed to better accommodate bicyclists, pedestrians, and other modes of transportation. Most existing roadways could be retrofitted to incorporate bicyclists. The following presents ways of encouraging bicycle usage through roadway design.

### *Freeway ramps*

Bikeway design through freeway interchanges shall minimize confusion of motorists and bicyclists. The bikeway designs shall include interchange locations carefully selected and that meet applicable design standards.

### *Retrofitting streets for bicycles*

Bike lanes are typically the best option for retrofitting streets to accommodate bicyclists on busy roadways in urban areas; however, many roadways in urban areas were built without the incorporation of bike lanes. The easiest means of retrofitting streets to incorporate bike lanes would require reducing travel lane widths. In many instances, simply reducing travel lane widths would not be the simplest solution and unique and creative alternatives would need to be applied. The need for full-width travel lanes decreases with speed limits. When street width is limited, lane widths may be reduced to AASHTO minimums. In addition, travel lanes on Caltrans facilities may be reduced to 11 feet wide. For 30 to 40 miles per hour (mph) speed limits, travel lane widths may be 11 feet, and center turn lane width may be 12 feet. For 45 mph or greater

speed limits, a 12-foot outside travel lane and a 14-foot center turn lane, if there are high truck volumes, may be applied.

Roadways must provide a safe riding surface for bicyclists. Resurfacing roadways where heavy bicycle traffic occurs or is expected to occur should be a high priority. Roadway resurfacing ensures smooth transition along the roadway between the asphalt surface of the roadway and the gutter pan. Smooth longitudinal gutter joints shall be accomplished by grinding and/or milling prior to applying the overlay. The depth of the milled wedge should be equal to the depth of the asphalt. The concrete overlay is typically two inches on arterial streets and one and a half inches on local streets. The finished surface should match the level of the gutter to within a quarter inch. The aforementioned is Caltrans standard practice and is standard practice in several California cities.

## BIKEWAY DEVELOPMENT AND IMPROVEMENT COSTS

As stated above, project details are subject to change, as design details are a subsequent implementation step for the Bikeway Master Plan. Costs are likely to vary based on site conditions, choice of contractor, external issues, and other factors. The estimated costs are based on the *Costs for Pedestrian and Bicyclist Infrastructure Improvements, A Resource for Researchers, Engineers, Planners, and the General Public*, prepared for the Federal Highway Administration in October 2013. The average cost, median cost, and the absolute low and high cost ranges are provided to create both a price estimate and price range for each infrastructure element. Generally, the estimated infrastructure cost information includes engineering, design, mobilization, furnish, and installation costs.

### CLASS I BIKEWAYS

Class I bikeways often accommodate both pedestrians and bicyclists, are usually at least eight feet in width, and can be both paved and unpaved. Costs will vary substantially based on the materials used, right-of-way costs, and other factors. For the purposes of standardizing the units, Class I bikeways are assumed to be eight feet in width, with costs given in miles. Table 2 below presents the estimated costs for both a paved and an unpaved Class I Bikeway (i.e., Unpaved Bike Trail and Paved Bike & Pedestrian Path). Separated bikeways typically cost between \$536,664 and \$4,293,320 per mile, depending on site conditions, path width, and materials used.

<b>Infrastructure</b>	<b>Description</b>	<b>Median</b>	<b>Average</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Cost Unit</b>
Class I Bikeway	Unpaved Bike Trail	\$83,870	\$121,390	\$29,520	\$412,720	Mile
Class I Bikeway	Paved Bike & Pedestrian Path	\$261,000	\$481,140	\$64,710	\$4,288,520	Mile

*Source: Costs for Pedestrian and Bicyclists Infrastructure Improvements, 2013.*

### CLASS II BIKEWAYS

For the purposes of standardizing the units, Class II bikeways, or bike lanes, are assumed to be five feet in width, with costs given in miles. The typical cost for implementing a bike lane is presented in Table 3 below.

<b>Table 3 Class II Bikeway Costs</b>						
<b>Infrastructure</b>	<b>Description</b>	<b>Median</b>	<b>Average</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Cost Unit</b>
Class II Bikeway	Bike Lane	\$89,470	\$133,170	\$5,360	\$536,680	Mile
<i>Source: Costs for Pedestrian and Bicyclists Infrastructure Improvements, 2013.</i>						

### CLASS III BIKEWAYS

Indicated by bike route signs, signed bike routes are used to direct bicyclists to safer facilities and/or are located on lightly trafficked roads. The types of bicycle treatments will vary greatly due to differences in project specifications and the scale and length of the treatment. The general cost associated with implementation of a signed bike route is presented Table 4.

<b>Table 4 Class III Bikeway Costs</b>						
<b>Infrastructure</b>	<b>Description</b>	<b>Median</b>	<b>Average</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Cost Unit</b>
Class III Bikeway	Signed Bike Route	\$27,240	\$25,070	\$5,360	\$64,330	Mile
<i>Source: Costs for Pedestrian and Bicyclists Infrastructure Improvements, 2013.</i>						

### SUPER SIDEWALKS

Because Super Sidewalks are not included as a bikeway classification and is a common bikeway design, the cost of implementing a Super Sidewalk is speculative at this time. However, typical sidewalk costs are presented in Table 5 below. As shown in the table, sidewalk materials vary substantially, including concrete, asphalt, brick, or other materials, which will affect costs. As sidewalks are generally approximately 5 feet in width, assuming the Super Sidewalk would be double the width of a standard sidewalk, the cost for implementing a Super Sidewalk could be assumed to be double the costs shown in Table 5.

<b>Table 5 Standard Sidewalk Costs</b>						
<b>Infrastructure</b>	<b>Description</b>	<b>Median</b>	<b>Average</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Cost Unit</b>
Sidewalk	Asphalt Paved Shoulder	\$5.81	\$5.56	\$2.96	\$7.65	Square Foot
Sidewalk	Asphalt Sidewalk	\$16	\$35	\$6.02	\$150	Linear Foot
Sidewalk	Brick Sidewalk	\$60	\$60	\$12	\$160	Linear Foot
Sidewalk	Concrete Paved Shoulder	\$6.10	\$6.64	\$2.79	\$58	Square Foot
Sidewalk	Concrete Sidewalk	\$27	\$32	\$2.09	\$410	Linear Foot
Sidewalk	Concrete Sidewalk - Patterned	\$38	\$36	\$11	\$170	Linear Foot
Sidewalk	Concrete Sidewalk - Stamped	\$45	\$45	\$4.66	\$160	Linear Foot
Sidewalk	Concrete Sidewalk + Curb	\$170	\$150	\$23	\$230	Linear Foot
Sidewalk	Sidewalk Unspecified	\$34	\$45	\$14	\$150	Linear Foot
Sidewalk	Sidewalk Pavers	\$70	\$80	\$54	\$200	Linear Foot
<i>Source: Costs for Pedestrian and Bicyclists Infrastructure Improvements, 2013.</i>						

## BICYCLE PARKING

Depending on bike parking design and materials, costs may vary widely. For example, a bicycle rack may be as simple as an inverted U rack designed for two bikes, but may also include more elaborate designs, such as wave design or ornamental bike racks that hold multiple bikes. The general cost for implementing a bike rack and a bike locker are presented in Table 6. The costs are presented per unit.

<b>Infrastructure</b>	<b>Description</b>	<b>Median</b>	<b>Average</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Cost Unit</b>
Bike Parking	Bike Locker	\$2,140	\$2,090	\$1,280	\$2,680	Each
Bike Parking	Bike Rack	\$540	\$660	\$64	\$3,610	Each

*Source: Costs for Pedestrian and Bicyclists Infrastructure Improvements, 2013.*

Bike Stations are buildings or structures designed to provide secure bicycle parking and often incorporate other amenities. Substantial data regarding costs of bike stations is not available; however, the approximate cost of a bike station is estimated to be \$250,000. Bus racks are estimated to cost approximately \$730. Removing a bike rack costs approximately \$1,000.

## BICYCLE SIGNALS

Pedestrian and bicycle detection devices are used to determine if a pedestrian or bicyclist is waiting for the signal. Bicycle detectors are usually loop detectors embedded in the pavement and cost approximately \$1,920, on average, but can range from \$1,070 to \$2,680.

## SIGNAGE

Signs provide important information that can improve road safety by letting people know what to expect so that they can react and behave appropriately. Typical signs for bikeways include, but are not limited to, the following:

- Bike route signage, estimated to cost approximately \$160 each;
- In-pavement yield paddles, estimated to cost approximately \$240 each;
- Trail regulations sign, estimated to cost approximately \$160 each; and
- Trail wayfinding/informational sign, estimated to range in cost from \$530 to \$2,150 each.

## STRIPING AND PAVEMENT MARKING

Striping includes bicycle symbols, textured pavement, and painted island/curb/sidewalks. Average cost for island marking per square foot is \$1.94, but ranges from \$0.41 to \$11 per square foot. Painted curb/sidewalk cost is approximately \$3.40 per square foot or \$3.06 per linear foot, on average, but can range from \$0.44 to \$12 per square foot or \$1.05 to \$10 per linear foot. A shared lane/bicycle marking symbol costs approximately \$180, on average, to implement, but can range from \$22 to \$600. Costs will vary due to the type of paint used and the size of the symbol, as well as whether the symbol is added at the same time as other road treatments.

## FUNDING SOURCES

A variety of funding sources are available for bikeway improvement projects, including federal, State, regional, and local funding programs.

### FEDERAL

Federal funds shall be sought for large scale projects or projects with little or no adverse environmental effects. Most federal funding programs require an extensive application process and are highly competitive. Federal funding applications shall be sure to show that the proposed project would be consistent with any applicable plans, has community involvement and support, serves the basic needs of the community, interfaces with other transportation systems, is CEQA compliant, commits local resources, and is cost effective.

#### *TEA 21 and SAFETEA-LU*

In 1998 the Federal Highway Administration reauthorized the Federal Highway Act. What was "ISTEA" is now "TEA21" or Transportation Equity Act for the 21<sup>st</sup> Century. The SAFETEA-LU (Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users) funding, enacted in 2005, is administered through the state and regional governments. Funds are typically used for transportation oriented projects, rather than recreational, including projects that reduce auto trips and provide intermodal connection.

#### *Transportation Enhancement Activities (TEA) Program*

The Federal Transportation Enhancement Activities program is primarily for smaller community-based projects. Ten percent of each state's annual Surface Transportation Program (STP) must be set aside for Transportation Enhancement Activities. Three of the twelve defined TEA categories are bicycle and pedestrian related, which include provisions of facilities for bicyclists and pedestrians and safety and educational activities for pedestrians and bicyclists, and preservation of abandoned railway corridors. Therefore, projects eligible for TEA funds include construction of bicycle and pedestrian facilities, renovation of historic transportation facilities, purchase of open space, main street revitalization, and educational projects such as training, brochures, and route maps related to safe bicycle use.

#### *Congestion Mitigation and Air Quality (CMAQ) Improvement Program*

The CMAQ Program directs funds to projects that contribute to meeting the attainment of national ambient area air quality standards (NAAQS). Projects must be primarily for transportation rather than recreation. Eligible projects include those that increase ridesharing and carpooling alternatives and improve bicycle and pedestrian facilities in areas where air quality is a problem. In addition, educational or other non-construction projects, such as training, brochures, and route maps related to safe bicycle use, would be eligible for funding. Projects that bring sidewalks into compliance with the Americans with Disabilities Act (ADA) are also eligible for CMAQ funds.

#### *Regional Surface Transportation Program (RSTP)*

The RSTP is a block grant program that makes approximately \$500 million available annually statewide. RSTP funds are the most flexible funding source. TEA-21 requires states to set aside 10 percent of their RSTP funds for safety construction activities and another 10% for the

Transportation Enhancement activities (TEA) program. The State of California distributes sixty-two and one half percent of RSTP funds according to regional population. The remaining thirty-seven and one half percent may be spent anywhere in the state. Many types of projects are eligible, including road repair, wheelchair accessible sidewalks, bicycle systems, transit stations, and freeway expansion. Eligible applicants are cities, counties, metropolitan planning organizations (MPOs), transit operators, and the California Department of Transportation. Non-profit organizations and special districts may apply for funds, but must be sponsored by a city, county or transit operator and, in some cases, administer the project.

#### *Hazard Elimination Safety (HES) Program*

The HES Program is a federal safety program that provides funds for safety improvements on all public roads and highways. HES funds are intended to eliminate or reduce the number and/or severity of traffic accidents at locations selected for improvement. The amount of funds allocated to the local HES Program each Federal Fiscal Year may range from \$10 million to \$16 million. Each year, local agencies compete for HES funds by submitting candidate safety projects to Caltrans for review and analysis. Caltrans prioritizes these projects statewide, and releases an annual HES Program Plan that identifies the projects that are approved for funding.

#### *National Highway System (NHS) Funds*

NHS funds may be used for construction of bicycle and pedestrian facilities on land adjacent to any highway on the National Highway System (other than the Interstate System). Eligible projects must be primarily for transportation rather than recreation and must be located and designed pursuant to an overall plan developed by each metropolitan planning organization (MPO) and State.

#### *Federal Transit Funds*

California receives nearly a billion dollars annually in federal transit funding to supplement other state and local sources. Federal transit funds are more flexible than ever and may be used for bicycle and pedestrian access to transit facilities and bike racks on buses.

#### *Federal Lands Highway Funds*

Federal Lands Highway funds may be used to construct bicycle and pedestrian facility improvements in conjunction with roads, highways and parkways. The facilities must be primarily for transportation rather than recreation and must be located and designed pursuant to an overall plan developed by each metropolitan planning organization (MPO) and State.

#### *Scenic Byways Program Funds*

Scenic Byways program funds may be used to construct facilities along the highway for the use of pedestrian and bicyclists.

### STATE

Similar to federal, State funding applications shall be sure to show that the proposed project would be consistent with any applicable plans, has community support, serves the basic needs of the community, interfaces with other transportation systems, and is cost effective.

### *Bicycle Transportation Account (BTA)*

The State BTA is an annual statewide discretionary program that funds 90% of city and county bicycle projects that improve safety and convenience for bicycle commuters. Funding is available as grants to local jurisdictions for a large variety of projects that benefit bicycling for commuting purposes, including new bikeways, secure bicycle parking, bike racks, traffic control devices, education, improvement and maintenance of existing roadways and bikeways.

### *Transportation Development Act Article III (SB 821)*

Transportation Development Act funds originated from the state gasoline tax and are awarded annually to local jurisdictions for planning, design, and construction of bicycle and pedestrian projects in California. The Regional Transportation Planning Agencies distribute the funds to local jurisdictions.

### *Safe Routes to School (SB 10)*

The SR2S program is a state program using federal transportation funds. SR2S is meant to improve school commute routes through rehabilitation and new construction of bicycle and pedestrian safety and traffic calming. A local match of 11.5% is required for this competitive program, which allocates \$18 million annually. Because SR2S is a capital program, planning grants are not available through this program; however, SR2S funding supports projects related to construction, education, enforcement, and encouragement.

### *California Office of Traffic Safety (OTS)*

The mission of the California OTS is to obtain and effectively administer traffic safety grant funds to reduce deaths, injuries and economic losses resulting from traffic related collisions in California. California OTS grants fund traffic safety priorities including pedestrian and bicycle safety and roadway safety. Projects eligible for OTS funds include those that increase safety and awareness, such as safety programs, education, enforcement, traffic safety and bicycle rodeos, safety helmet distribution, and court diversion programs for safety helmet violators; however, OTS funds cannot be used for program maintenance, research, rehabilitation, or construction. OTS distributes federal funding apportioned to California under the National Highway Safety Act and the SAFETEA-LU (formerly TEA-21).

### *Recreational Trails Fund*

The Recreational Trails Program provides funds for developing and maintaining recreational trails and trail-related facilities. Funds may be used for a variety of projects beneficial to bicyclists, pedestrians and other non-motorized and motorized trail users, such as maintaining and restoring existing trails, construction of new trails, and educational programs. Projects must be consistent with a Statewide Comprehensive Outdoor Recreation Plan required by the Land and Water Conservation Fund Act. Half of the annual appropriation is distributed based on the amount of non-highway/recreational fuel used in each State. Within each State, 30 percent of the funds are allocated for non-motorized uses and 40 percent among trail uses at the discretion of the State. The funds are available on a competitive basis with applications submitted on an annual or biennial basis.

### *Community-Based Transportation Planning (CBTP) Grants*

The CBTP grant program assists local agencies in transportation planning, developing alternatives for addressing growth, and assessing efficient infrastructure to meet community needs. Planning activities are expected to help implement projects that promote sustainable economies, expand transportation alternatives, and reflect community values. CBTP funding is provided by 80 percent Federal/State and 20 percent local match.

### *Caltrans Loan Programs*

#### *Caltrans SHA Loan Program (AB 1012)*

The Caltrans SHA Loan Program offers short-term (maximum four-year) construction loans to local entities for State Transportation Improvement Program (STIP)-eligible projects included within an adopted Regional Transportation Plan. Total project costs must be greater than \$10 million; however, for counties with populations under 500,000, this requirement may be waived.

#### *Caltrans Grant Anticipation Revenue Vehicles (Garvee Bonds)*

GARVEE Bond funding offers local entities the means to accelerate construction of critical transportation projects to provide congestion relief benefits significantly sooner than traditional funding mechanisms. Debt service on the bonds is repaid through future county or interregional share allocations. Projects must be STIP-eligible for federal funds apportioned to the State, have environmental clearance, a completed project design, and must meet all applicable federal requirements. Funding is limited to right-of-way and construction costs.

#### *Transportation Finance Bank (TFB)*

The U.S. Department of Transportation (US DOT) designated California to participate in its State Infrastructure Bank (SIB) Pilot Program, authorized under the National Highway System Designation Act of 1995. The SIB Program was established to provide flexible project financing through loans, debt service guarantees, lines of credit, and other capital financing support. California established its SIB, the Transportation Finance Bank, to offer credit assistance to public and private entities for any stage of an eligible highway construction or transit capital project.

## REGIONAL

### *Transportation Development Act*

The Transportation Development Act created a Local Transportation Fund (LTF) in each county, which is funded from one-quarter cent of the seven-cent sales tax collected statewide. The one-quarter cent is returned to the county in accordance with the amount collected in the county. Local agencies may expend a portion of the LTF to develop pedestrian and bicycle facilities. Public Utilities Code Sections 99233.3, 99234, and 99400 describe types of projects that are eligible and how funds are to be administered.

### *Regional Transportation Improvement Program (RTIP)*

The RTIP funds are a portion of the State Transportation Improvement Program (STIP) and are allocated by the acting Regional Transportation Planning Agency in the area, which would be SACOG for the Sacramento region.

### LOCAL

Local funds for bicycle and pedestrian projects typically come from Transportation Development Act (TDA) funding, which is prorated to each county based on return of gasoline taxes.

#### *Direct Local Jurisdiction Funding*

A variety of sources are available for local jurisdictions to fund bicycle and pedestrian projects. Often, a City's general funds are earmarked for non-motorized transportation projects, especially sidewalk improvements.

#### *Impact Fees*

A potential source of funding would be from developer impact fees. In order to reduce trip generation rates and traffic impacts produced by a proposed project, a developer may pay for on- and off-site pedestrian and bikeway improvements. In addition, parking fees could be used to help construct new or improved bicycle parking. Impact fees must be consistent with the proposed project's impacts and the connection must be established clearly to avoid potential misinterpretations and legal dispute.

#### *Special Taxing Districts*

Within specific areas, special taxing districts could be used to finance new infrastructure including trails and sidewalks. Property assessments could be placed on the properties directly benefited by an improvement project. In a tax increment financing, or TIF, district, taxes are collected on property value increases above the base year assessed property value, which could be used for improvements within the district. A special taxing district is established by a petition from landowners to a local government. The districts could operate independently from local government and could be established for a single purpose, such as roadway construction.

### OTHER

Other potential funding opportunities for implementing a pedestrian and bicycle system include: local sales taxes, fees, and permits; parking meter revenues; volunteer work parties and programs; use of bikeway or pedestrian improvement project as a school project; donations from local companies; and local business "adopts" a bikeway and helps to construct and maintain the facility.

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# **APPENDIX**

## **AD HOC COMMITTEE MEETINGS SUMMARY OF DISCUSSIONS**



# City of Wheatland

111 C Street – Wheatland, California 95692  
Tel (530) 633-2761 – Fax (530) 633-9102

SACOG GRANT AD HOC COMMITTEE WORKSHOP

APRIL 1, 2014

## SUMMARY OF DISCUSSION

**Subject: City of Wheatland Bikeway Master Plan**

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### **Discussion: Task #1: Consideration of Additional Bikeway Classification**

- Ad Hoc Committee accepted consideration of a separated Class II Bikeway (potentially Class IV bikeway if AB 1193 is approved)
- Ad Hoc Committee noted that the more bikeway options available, the better

### **Discussion: Task #2: Consideration of Bikeway Master Plan Vision**

- Bikeway improvements should focus on new development areas
- Retrofitting for bikeway improvements in existing areas should be considered, where/if feasible
- Wheatland should be a bike friendly community, but not necessarily a bike-oriented community
- Bikeway Master Plan should develop a plan that would support the bicycle community
- Ad Hoc Committee noted the most important aspects of the Bikeway Master Plan should be:
  - Providing safe routes;
  - Encouraging bicycle use in community; and
  - Providing connections from neighborhoods to regional destinations.

### **Discussion: Primary areas of safety concern**

- Highway 65
  - Currently no bikeway facilities along roadway
  - No signage alerting motorists of bicyclists
  - Some areas not wide enough to accommodate bicycle travel with automobile travel
  - Should provide for bicycle travel, as Highway 65 is a primary access point to and through the City

- Connecting to Placer County
  - Currently the only existing crossing option is the bridge along Highway 65, which is not wide enough to accommodate bicycle travel with automobile travel
    - Would need to eight bypass with a Class I bikeway or retrofit bridge to accommodate bicyclists (e.g., add a Class II bikeway)
  - Would ideally like to connect to Sheridan, where existing bicycle facilities and further connections exist
- Spenceville Road
  - Currently no bikeway facilities along roadway
  - No signage alerting motorists of bicyclists
  - Some areas not wide enough to accommodate bicycle travel with automobile travel
  - Should provide for bicycle travel, as Spenceville Road is a primary access point to and through the City
- All highways – because highways are the only regional routes out of the City, they need to be safe for bicyclists
- Wheatland Ranch and old school district – sidewalk has been removed

### **Discussion: Task #3: Develop draft goals and objectives**

The key noted of the discussions regarding each goal and objective discussed at the meeting are summarized below.

#### **Goal: Safety and Education**

- Ad Hoc Committee accepted the inclusion of a goal related to bicycle safety and education to be included in the Bikeway Master Plan

#### **Objective: Educational Programs**

- Ad Hoc Committee recommended educational programs to include school assemblies
  - Also could be called “bike rodeos”
  - Assemblies could be held 2-3 times per year
  - Could assign a resource officer at schools
  - Children would learn about the rules of the road, bicycle safety, safe riding techniques, etc. at the assemblies
- Ad Hoc Committee recommended development of a City program
  - City to work with school districts to include implementation of the assemblies/bike rodeos
  - Needs to be a coordinated effort between City and safety officials (police, fire), school districts, community volunteers
- City could develop other community events that would act as fundraising events as well, where proceeds would go towards bikeway improvements
- Police department should be involved and should be the main face of safety education program
  - Could assign a police officer to be a school outreach officer
- Could work with community volunteers to coordinate assemblies/rodeos, other bicycling events
  - A community volunteer could be the school resource officer

### Objective: Bicycle Safety

- Ad Hoc Committee recommend that safety efforts focus on preventative measures/features, rather than reactionary
- Ad Hoc Committee accepted inclusion of an objective or implementation measure in the Bikeway Master Plan for a visually prominent bikeway system clearly defining bicycle/motorist right-of-way boundaries
- Ad Hoc Committee accepted inclusion of an objective or implementation measure in the Bikeway Master Plan for promoting a “share the road” atmosphere
- Ad Hoc Committee accepted inclusion of an objective or implementation measure in the Bikeway Master Plan for limiting on-street parking
  - On-street parking would provide better visibility for both bicyclists and motorists along roadway
  - Limiting on-street parking should be specific to new development
  - Some existing development areas would benefit from limiting on-street parking, but the Ad Hoc Committee noted that it would be hard to implement in existing areas (e.g., near fire station)
  - The Bikeway Master Plan will have to establish standards for existing development versus new development

### **Goal: Design and Planning**

- Ad Hoc Committee accepted the inclusion of a goal associated with the design and planning of bikeway facilities within the community to be included in the Bikeway Master Plan

### Objective: Improve bicycling conditions

- Ad Hoc Committee accepted an objective to be included in the Bikeway Master Plan for improving bicycling conditions within the community
- Ad Hoc Committee recommends that other objectives or implementation measures in the Bikeway Master Plan should include the following:
  - Provide direct routes between residential neighborhoods and regional destinations
  - Provide bicycle support facilities (bike racks, bike lockers, shower facilities, etc.)
  - Provide adequate amounts of bicycle parking at regional destinations
- A question was brought up whether there should be a consistent design for bike racks, lockers, etc. throughout the City
  - An example was presented such that Yuba County has an ordinance for new development requiring certain design standards, which has proven to be cost effective
  - Ad Hoc Committee considers provision of adequate amounts of support facilities to be more important for the City than a cohesive, citywide design
- Potential locations for bike lockers were discussed including the following:
  - Transit centers
  - Schools – Ad Hoc Committee noted that bike racks might be better suited for schools
  - Ad Hoc Committee feels that it would be most important to provide support facilities at office and industrial uses, especially for new development

- Bicycle support facilities should not be geared toward general commercial such as shopping centers, but should be focused more on office and industrial uses
  - Could set a design standard for number of racks or lockers per employee
  - Shower facilities should be encouraged at office and industrial uses, particularly in new development
- The Bikeway Master Plan should not only focus on improving bicycle conditions for City employees and commuters, but should also consider employees from surrounding communities as well (e.g., Edgewater, Plumas, etc.)
  - This brought up the question of whether the Bikeway Master Plan should include provisions for connections specific to such areas or should just not hinder any connections to such areas
    - Can/will discuss at later meetings once further in planning process
- An issue was brought up that developers may not agree with the requirements set forth by the Bikeway Master Plan
  - Ad Hoc Committee noted that the bikeway improvements have the potential to become amenities for new development, from which developers would benefit
- A question was brought forth whether the Bikeway Master Plan should specify certain bikeways on certain roadway types (e.g., all arterials should include Class II bikeways, etc.)
  - Ad Hoc Committee noted that it would be better to set such design standards for new development only
  - Can/will discuss further based on the developed goals and objectives of the Bikeway Master Plan

Objective: Coordinate with surrounding jurisdictions

- Ad Hoc Committee acknowledged the importance of coordinating with surrounding jurisdictions and accepted the inclusion of a related objective in the Bikeway Master Plan
- Ad Hoc Committee noted the importance of reaching out to Placer County in order to coordinate an adequate connection between the County and the City
- Ad Hoc Committee noted the importance of reaching out to Beale Air Force Base, as the Base represents a portion of the Wheatland population
  - The Bikeway Master Plan should include provisions for connectivity to the growing Air Force Base area
- The City should coordinate with other local jurisdictions on regional bikeway projects
- An overall goal for the Bikeway Master Plan should be to develop a comprehensive regional bikeway system

Objective: Funding for bikeway improvements

- Ad Hoc Committee acknowledged the importance of funding opportunities for bikeway improvements in the City of Wheatland and recommends that the Bikeway Master Plan include such as an overall goal
- A few known funding opportunities were discussed, including
  - Safe Routes to School
  - Funding administered for the region by SACOG
    - Ad Hoc Committee noted that the City should focus on these funding opportunities
  - Active Transport Plan (ATP), a federal grant

- 40% of funds are supposed to be for lower population communities such as Wheatland
  - Fund money is said to become available in June
  - Staff is to research the ATP federal grant for applicability for the City of Wheatland
- Staff is to research additional funding options (regional, federal, State, etc.)
- Ad Hoc Committee noted that developers would likely be required to provide funding for new development areas
- Ad Hoc Committee suggested an objective or implementation measure to be included in the Bikeway Master Plan should be for the City to create funding program
  - The City's program would need to leverage regional, federal, State, or other funding to include developers
  - The City should encourage developers to participate in the City's funding program



# City of Wheatland

111 C Street – Wheatland, California 95692  
Tel (530) 633-2761 – Fax (530) 633-9102

SACOG GRANT AD HOC COMMITTEE WORKSHOP

APRIL 15, 2014

## SUMMARY OF DISCUSSION

**Subject: City of Wheatland Bikeway Master Plan**

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### Summary of Committee discussion from workshop #1 held on April 1, 2014

- A bikeway facility connection going north to Linda/Olivehearst area should be considered
- Roads (e.g., Ostrom Road and Forty Mile Road) have a lack of adequate shoulder space for bicyclists with vehicles traveling at high speeds
- Vandalism along future bikeway facilities and support facilities
- Coordination with the Reclamation Districts should be considered
  - Bikeways could be located along Reclamation District easements (e.g., levees, creeks, etc.)
- Include language protecting any property owners located along bikeways (e.g., Dry Creek) with respect to property rights
- Vision of the Bikeway Master Plan
  - New development shall follow standards set forth by the Bikeway Master Plan
  - Bikeway Master Plan shall not focused on retrofitting existing areas, but should include where necessary and feasible
  - Provision of connections between key locations within the City, as well as in surrounding jurisdictions

### Committee discussion regarding goals and objectives

Below is a list of the goals, objectives, and implementation measures presented at the meeting. Specific modifications to the text of the goals, objectives, or implementation measures recommended by the committee are shown as double underline for new text and ~~strike through~~ for deleted text. Any further discussion regarding the goals, objectives, and implementation measures are presented below in *italics*.

**Goal 1: Promote bicycle safety in the community through roadway and bikeway facility design, as well as a comprehensive bicycle safety education program.**

- *Ad Hoc Committee suggests this goal be split into two separate goals:*
  - *Goal 1: Promote bicycle safety in the community through roadway and bikeway facility design; and*
  - *Goal 2: Develop a comprehensive bicycle safety education program.*

Objective 1.1:            Develop a visually prominent bikeway system that clearly defines the boundaries between bicycle and motorist rights-of-way.

Implementation Measure 1.1.1:        Include adequate signage along roadways alerting motorists and bicyclist of Class II and Class III facilities.

Implementation Measure 1.1.2:        Provide adequate lighting along bikeways, particularly in areas with high bicycle, pedestrian, and automobile traffic.

Implementation Measure 1.1.3:        Implement traffic calming devices (e.g., traffic circles, roundabouts, etc.) where appropriate and feasible.

Implementation Measure 1.1.4:        Include “share the road” signs at all Class III facilities, and Class II facilities, if necessary and feasible.

- *A question was raised whether this measure would be feasible for existing areas (particularly with concern for associated costs of improvements)*
- *The Ad Hoc Committee accepted that it would indeed be reasonable/feasible and should apply to both new development and existing areas*

Implementation Measure 1.1.5:        Provide visual indications in excess of minimum design standards (e.g., reflective painting for pavement stencils, ~~painting entire Class II lane with solid color,~~ etc.).

- *Ad Hoc Committee notes that reflective painting may already be included as a minimum design standard*
- *Staff is to check with the appropriate standards documentation and the City Engineer to verify*
- *If reflective painting is a minimum design standard, this measure should be removed; if not, the measure should remain*

~~Objective 1.2:            Promote a cooperative “share the road” atmosphere amongst bicyclists and motorists.~~

Objective 1.3: Coordinate with public safety officials, school districts, and community volunteers to develop a comprehensive bicycle safety education program for bicyclist of all ages, as well as for motorists.

- *This objective and associated measures shall be moved to be under the new Goal 2*

Implementation Measure 1.3.1: ~~Incorporate~~ Encourage bicycle safety curriculum into existing motorist education and training.

- *Ad Hoc Committee notes that this measure would require coordination with high school in order to be included in the Driver's Education program*

Implementation Measure 1.3.2: Coordinate with City Police and Fire Departments to provide public outreach programs.

- *An issue was brought forth whether this would increase the demand for Police and Fire personnel and costs for services*
- *Ad Hoc Committee notes that the departments already do community outreach to school and bicycle safety would just be added to the list of discussion topics during outreach events*

Implementation Measure 1.3.3: Coordinate with school districts to provide school assemblies or "bike rodeos" held at school facilities ~~two to three times per year~~. At the assemblies, children will learn about the rules of the road, bicycle safety, safe riding techniques, etc. This measure could be coordinated with Implementation Measure 4.1.3.

Implementation Measure 1.3.4: Develop fundraising opportunities and community events to support local bikeway facility improvements in coordination with public safety officials, school districts, bicycle advocacy groups such as the Yuba Area Bicycle Advocates (YABA), and community volunteers. This measure could be coordinated with Implementation Measure 4.1.3.

Implementation Measure 1.3.5: ~~Create~~ Encourage a bicycle helmet ~~giveaway~~ donation program and/or event as part of the public outreach programs to ~~encourage~~ promote bicycle safety in the

community (e.g., donation, giveaway, or contest). This measure could be coordinated with Implementation Measure 4.1.3.

- *Ad Hoc Committee noted that this measure needs to be clear that the helmets would not be provided using City funds and suggested creating a donation event*

Implementation Measure 1.3.6: Develop and make available to the public educational materials to inform the community (i.e., pamphlets, maps, etc. This measure could be coordinated with Implementation Measures 4.1.1 and 4.3.1.

Objective 1.4: ~~Reduce~~ Minimize bicycle accidents through preventative measures including the provision of properly designed and maintained bikeway facilities.

- *The change to this measure is due to the currently low number of bike accidents in the City of Wheatland*

Implementation Measure 1.4.1: Separate motorist, bicycle, and pedestrian facilities from each other whenever feasible to reduce conflicts.

Implementation Measure 1.4.2: Restrict on-street parking in new development, as well as existing development where necessary and feasible along designated bikeways, only after careful investigation and approval by the City Community Development Department and Public Works Department staff.

Implementation Measure 1.4.3: Ensure that new development provides safe routes to and around new schools such that trips could be made by bicycling or walking.

Implementation Measure 1.4.4: Require new development to accommodate safe travel for all users, including bicyclists and pedestrians. Bicycle and pedestrian safety shall be considered when reviewing all development proposals.

Implementation Measure 1.4.5: Retrofit existing facilities when feasible, particularly in identified locations of concern.

- *The Ad Hoc Committee was asked what level of detail would be needed for this measure (i.e., exact locations and/or type of retrofit to implement)*

- *The questions shall be directed to the City Engineer to determine potential locations, feasibility, etc.*

Implementation Measure 1.4.6: Take steps to improve safety and security at crosswalks, transit stops, and along main access routes to transit, particularly in the vicinity of schools, by applying technological improvements such as flashing lights, crosswalk buttons, and bike detection.

- *The Ad Hoc Committee was asked what level of detail would be needed for this measure (i.e., exact locations and/or improvements)*
- *The questions shall be directed to the City Engineer to determine exact locations, type, etc.*
- *The Ad Hoc Committee noted that this measure should be focused to schools and main access routes*

Objective 1.5: Incorporate provisions for safe bicycle travel and/or detours in traffic control plans and through construction zones where feasible.

Objective 1.6: ~~Increase~~ Emphasize coordination with law enforcement to create safe environments for bicycling and walking using a variety of resources available (e.g., enhanced enforcement of traffic laws, feedback signs), especially around schools and other high bicycle and pedestrian traffic areas.

- *The Ad Hoc Committee suggested potential implementation measures for this objective that could include:*
  - *Enforcing speed limit*
  - *Placement of feedback signs*
  - *Ensure that new police employee training standards include the importance of enforcement of speed limits specifically related to bicycle safety (e.g., along roadways with designated bikeways)*

Objective 1.7: Consider including ~~lighting and emergency call boxes~~ safety features along Class I bikeways with high numbers of users.

- *The Ad Hoc Committee was asked whether this objective is necessary for the City of Wheatland and the committee determined that minimal lighting would be sufficient, but call boxes would not be necessary*
- *The Ad Hoc Committee suggests that mile markers or other ways to identify location while on Class I facilities should be included as a safety feature*
- *Based on the discussion, implementation measures for this objective should include minimal lighting and mile markers along all Class I facilities, such as follows:*

Implementation Measure 1.7.1:      Include minimal lighting and mile markers (or other location markers) along all Class I bikeway facilities.

**Goal 2:**      **Develop a bikeway system that increases and improves bicycle access and mobility, while balancing the need for directness with concerns for safety and user convenience, for residents and visitors of all ages and abilities.**

Objective 2.1:      Develop a dual system which serves both the experienced and novice bicyclist.

- *The Ad Hoc Committee noted potential implementation measures for this objective, which could include the following:*
  - *Include signage along bikeways informing users of the standard operations along bikeways, particularly for Class I bikeways (e.g., “pass on your left”, bikes on left, walkers and joggers on right, etc.)*
  - *Provide two lanes along Class I bikeways*
  - *Designate bikeways specifically for novice versus experienced bicyclists*
- *The Ad Hoc Committee discussed whether Spenceville Road should have a Class II facility or a separate Class I facility that runs parallel*
  - *The consensus was to include either one or the other, not both*
- *Questions were brought forth whether equestrians and NEVs should have access to bikeway facilities*
  - *It was noted that the City’s vision document might have included a provision for equestrian access and/or NEV connections*
    - *Staff shall research and determine language within the City’s vision document*

Objective 2.2:      Emphasize Class I (bike paths) and Class II (bike lanes) over Class III (bike routes) wherever feasible.

Objective 2.3:      Provide direct connections between residential neighborhoods and regional employment areas, schools, parks, and shopping centers.

- *The Ad Hoc Committee noted that this objective and associated implementation measures should focus on new development, but should include improvements to existing areas where feasible*

Implementation Measure 2.3.1:      Remove existing physical barriers to walking and biking throughout the community.

Implementation Measure 2.3.2:      Add crossings where necessary and feasible.

- Implementation Measure 2.3.3: For existing developed areas of the City, provide links and gap closures (e.g., Olive Street) where necessary and feasible.
- Implementation Measure 2.3.4: Restrict new development from building new circulation barriers.
- Implementation Measure 2.3.5: Improve existing roadways for bicycle usage when and where feasible.
- Implementation Measure 2.3.6: Provide bikeway connections across creeks, freeways, and high speed/high volume roadways where feasible.

Objective 2.4: Provide adequate bicycle support facilities at pivotal designations such as schools, parks, and shopping centers throughout the community to complement the bikeway network.

Implementation Measure 2.4.1: The City, when updating its Zoning Code, shall include a provision for minimum standard bicycle support facilities. Require all new office and industrial developments to include adequate support facilities such as (e.g., bike corrals, lockers, bike parking, showers, bike storage, water fountains, etc.) applicable for each zoning designation (e.g., ratio of bike racks per employee, etc.), particularly office and industrial uses.

- *The Ad Hoc Committee noted that this measure might be excessive*
- *The Ad Hoc Committee suggested that the measure not set forth any standards, but be revised to refer to the City's zoning code due to the following:*
  - *The amount of support facilities would differ between developments (e.g., larger size buildings would require more support facilities, etc.)*

Implementation Measure 2.4.2: Implement support facilities (e.g., bike corrals, bike parking, water fountains, etc.) at pivotal locations within the bikeway network (e.g., parks, Civic Center, high volume transit stations, converging non-motorized network trails and paths, schools, parks, commercial areas, and activity centers).

Implementation Measure 2.4.3: Ensure the needs of bicyclists are met during review of development proposals and when completing other transportation planning projects (e.g., adequate bicycle support facilities, bikeway facilities and connections, etc.).

- *The Ad Hoc Committee noted that they want to keep an implementation measure under this objective related to/focusing on minimum bike rack requirements*

Objective 2.5: Encourage the use of existing natural and manmade corridors such as creeks and ~~railroad~~ rights of ways for future bikeway alignments, particularly Class I bikeways.

~~Objective 2.6: Class I bikeways will meet accessibility standards wherever practicable.~~

- *The Ad Hoc Committee noted that the minimum requirements would already be required to be met, but noted that the City Engineer should verify that the final designs do meet the minimum standards*

Objective 2.7: Develop a recreational bikeway system that uses lower volume streets, off-street bike paths, and serves regional historic and natural destinations.

Objective 2.8: Encourage strategic location of new bicycle and pedestrian facilities, as well as new key destinations (e.g., parks, shopping centers, schools, employment areas), where existing or planned development patterns offer the greatest opportunity for high use.

- *The Ad Hoc Committee suggested potential implementation measures for this objective, which could include the following:*
  - *The City should review all development plans to ensure locations are feasible*
  - *Bikeways should be planned for high use areas*
  - *Key destinations or high use areas should be planned in locations where opportunities for bikeways exists*

Objective 2.9: Plan bicycle facilities to be an integral part of the City's transportation network including provision of bikeway connections with other modes of transportation, such as driving, walking, and public transportation.

- *Provisions for equestrian connections were discussed*
- *Potential for a future commuter train was discussed*

- *Current transit services were discussed, including that transit services are not provided to south of the City and the only existing bus route available to the community is a bus to Marysville*
- *The existing transit stop is at Spruce Avenue*
- *Because the transit services in the City are currently nearly non-existent, this objective is primarily for planned facilities*

Implementation Measure 2.9.1: Facilitate linkages between bicycle infrastructure and transit services.

Implementation Measure 2.9.2: Coordinate with local and regional transit agencies to ensure adequate bike racks or storage space for bicycles are provided at terminals, on buses, or trains.

- *The Ad Hoc Committee noted that this is an existing problem that could/should be dealt with now (i.e., existing buses available to community do not currently have bike racks)*

Implementation Measure 2.9.3: Encourage development patterns that provide safe and efficient pedestrian and bicycle access to transit stops and trunk commuter transit lines.

- *The Ad Hoc Committee noted that the City does not currently have trunk commuter transit lines, but wants to leave language for future development of City*

Implementation Measure 2.9.4: Pursue strategic road expansion that ~~reduces congestion and~~ supports effective transit services, walking and bicycling.

- *The Ad Hoc Committee suggested reevaluating this measure and focusing more on encouraging bicycle use, rather than reducing congestion*

Implementation Measure 2.9.5: Provide adequate bicycle storage at park and ride lots.

- *The Ad Hoc Committee was asked whether this measure was applicable for the City and whether park and ride lots currently exist*
- *The Ad Hoc Committee noted that the City does not currently have park and ride lots, but wants to leave language for future development of City*

**Goal 3: Coordinate with surrounding jurisdictions to create a comprehensive regional bikeway system within and between communities in the region.**

Objective 3.1: Provide for a seamless bikeway connection between the City of Wheatland and Yuba County.

Implementation Measure 3.1.1      Coordinate with Yuba County to ensure that the City's bikeway network provides regional connections consistent with the Yuba County Bikeway Master Plan, and that the City's planned bikeway network per the City's Bikeway Master Plan is reflected in any updates to the Yuba County Bikeway Master Plan.

Objective 3.2:      Coordinate with Placer County to the extent feasible to ensure that the City of Wheatland's planned bikeway network per the City's Bikeway Master Plan does not preclude any future plans or designs for connections between the City and the County.

- *The Ad Hoc Committee suggested that the potential implementation measures include the following:*
  - *Determine the current status of the County's bikeway master plan*
  - *Coordinate with the County regarding future planned facilities*

Objective 3.3:      Coordinate with Beale Air Force Base to the extent feasible to ensure that the City's planned bikeway network per the City's Bikeway Master Plan does not preclude any future plans or designs for connections between the City and the Air Force Base.

- *The Ad Hoc Committee noted that the City needs to reach out the Air Force Base whether bikeway access to Air Force Base would be feasible*
- *It was noted that with more people commuting via bicycle to and from Beale Air Force Base, vehicle congestion would be less along Spenceville Road*
- *It was determined that connections would need to be provided to gate accesses to the base (e.g., south gate is in Yuba County, gate in Wheatland would need to be accessed from Spenceville Road)*
- *Other roadways discussed for consideration for improvements in order to provide bicycle connections to Beale Air Force Base included Jasper Lane, Ostrom Road, South Beale, and Wheatland Road*

Objective 3.4:      Participate in facilitating a regional wayfinding system to encourage bicycle and pedestrian travel on the network of streets, bikeways, and walkways, if and when resources allow.

- *A discussion of potential wayfinding tools were discussed, including providing maps and information on the City's website, pamphlets, and along trails*

**Goal 4: Encourage bicycle usage for commuting and recreation throughout the community.**

Objective 4.1: Develop a coordinated ~~marketing strategy~~ City outreach program to encourage bicycling in the community.

Implementation Measure 4.1.1: Develop and maintain a bikeway map for public distribution reflecting new bicycle facilities and information. This measure could be coordinated with Implementation Measure 1.3.6.

Implementation Measure 4.1.2: Quantify the estimated future benefits of bicycling in terms of air quality, congestion, and health and distribute the information to the public. This measure could be coordinated with Implementation Measure 4.3.1.

- *Ad Hoc Committee noted that implementation of this measure needs to be justified (i.e., City would spend money to implement this measure and would like to see some sort of return for the efforts)*
  - *Staff is to research if any incentives for the City exist associated with this measure (e.g., air quality credits, certification, etc.)*

Implementation Measure 4.1.3: Sponsor and support community bicycle events (e.g., May is Bike Month, Bike to Work Week, Bike Nights) in coordination with local bicycle advocacy groups such as the Yuba Area Bicycle Advocates (YABA). This measure could be coordinated with Implementation Measures 1.3.3 through 1.3.5.

Objective 4.2: Encourage the coordination of bicycling advocacy groups, such as cycling clubs and coalitions.

Objective 4.3: Promote bicycle use as an alternative to automobile use and as a pleasurable form of fitness and recreation through public awareness of the widespread benefits of bicycling.

Implementation Measure 4.3.1 Develop and make available to the public educational materials (e.g., pamphlets) informing the community of the benefits of a bikeway network and increased bicycling and walking, including increased public health, property values, recreational

benefits, and environmental benefits. This measure could be coordinated with Implementation Measure 1.3.6, 4.1.1, and 4.1.2.

- *The Ad Hoc Committee noted that an objective or implementation measure of the Bikeway Master Plan should include maintenance of streets and bikeway facilities for debris/litter clearing, specifically for curbed areas and shared-use areas (e.g., Class II bikeways)*
  - *The Ad Hoc Committee mentioned that perhaps a street sweeper could be purchased for the City*



# City of Wheatland

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Tel (530) 633-2761 – Fax (530) 633-9102

SACOG GRANT AD HOC COMMITTEE WORKSHOP

APRIL 29, 2014

## SUMMARY OF DISCUSSION

**Subject: City of Wheatland Bikeway Master Plan**

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### **Committee review of Goals 1 through 5 discussed at April 15, 2014 meeting**

A review of goals 1 through 5 presented at the Ad Hoc Committee meeting on April 15 was presented, with additional implementation measures discussed. Only those goals, objectives, or implementation measures with comments or changes made at the meeting are presented below. The Ad Hoc Committee accepted all goals and associated objectives and implementation measures, unless otherwise modified as shown below. Specific modifications to the text of the goals, objectives, or implementation measures recommended by the committee are shown as double underline for new text and ~~striketrough~~ for deleted text. Any further discussion regarding the goals, objectives, and implementation measures are presented below in *italics*.

- |                               |  |
|-------------------------------|--|
| Implementation Measure 1.1.1: | <u>Class II and Class III bikeways shall</u><br><del>include</del> adequate signage along roadways alerting motorists <del>and bicyclist</del> of <u>the bicycle Class II and Class III facilities</u> . |
| Implementation Measure 1.4.1: | Ensure that new police employee training standards include the importance of enforcement of speed limits, specifically associated with bicycle safety.   |
| Implementation Measure 1.4.2: | Place feedback signs along roadways with heavy traffic or high speed limits where necessary and feasible, particularly in areas where designated bikeways are present.                                   |
| Implementation Measure 1.4.3: | Coordinate with law enforcement to develop an approach for improving the enforcement   |

of speed limits on City roadways, particularly along roadways with designated bikeways.

- *Ad Hoc Committee accepted the addition of Implementation Measures 1.4.1 through 1.4.3.*
- *Community Development Director is to coordinate the measures with the Police Chief regarding input and verification of feasibility.*

Implementation Measure 1.5.1: Include minimal lighting and mile markers (or other location markers) at certain intervals along all Class I bikeway facilities.

Implementation Measure 3.1.1: Include signage along Class I bikeways informing users of the standard operating procedures (e.g., “pass on left”, “pedestrians keep right”, speed limits, etc.).

Implementation Measure 3.1.2: Provide two designated lanes along Class I bikeways for pedestrians and novice/recreational bicyclists and experienced bicyclists, where necessary and feasible.

- *Ad Hoc Committee accepted the addition of Implementation Measure 3.1.2 as written.*

Implementation Measure 3.1.3: ~~Bikeways shall provide golf cart and motorized wheelchair access where required necessary and feasible, consistent with Policy 2.C.5 of the City of Wheatland Community Vision.~~

Objective 3.2: Emphasize development of Class I (bike paths) and Class II (bike lanes) bikeways wherever feasible in the City while limiting Class III (bike routes) bikeways wherever feasible.

- *Ad Hoc Committee suggests possibly developing a threshold to determine the type of bikeway facility appropriate per roadway (e.g., speed limit)*

~~Implementation Measure 3.4.4 — New development shall provide adequate bicycle storage (i.e., meet the minimum bike rack standard requirements per the City’s Zoning Code).~~

Objective 3.5: Encourage the use of existing natural and manmade corridors such as creeks and inactive railroad rights of ways

for future bikeway alignments, particularly Class I bikeways.

Objective 4.2: ~~The City shall work with Yuba County on their coordinating efforts with Sutter County and Nevada County regarding regional bikeway connectivity.~~

Objective 4.23: Coordinate with Placer County to the extent feasible to ensure that the City of Wheatland's planned bikeway network per the City's Bikeway Master Plan does not preclude any future plans or designs for connections between the City and the County

Implementation Measure 4.23.1: The City shall follow the status of the Placer County bikeway master plan and coordinate with the County regarding associated future planned bikeway facilities.

Objective 4.34: Coordinate with Beale Air Force Base to the extent feasible to ensure that the City's planned bikeway network per the City's Bikeway Master Plan does not preclude any future plans or designs for connections between the City and the Air Force Base.

Objective 4.45: Participate in facilitating a regional wayfinding system to encourage bicycle and pedestrian travel on the network of streets, bikeways, and walkways, if and when resources allow.

Implementation Measure 4.45.1: The City shall provide maps and information regarding bikeways and associated facilities on the City's website.

### **Committee discussion of Goals 6 through 7**

Below is a list of Goals 6 through 7 and the associated objectives and implementation measures presented at the meeting. Specific modifications to the text of the goals, objectives, or implementation measures recommended by the committee are shown as double underline for new text and ~~striketrough~~ for deleted text. Any further discussion regarding the goals, objectives, and implementation measures are presented below in *italics*.

**Goal 6: Maximize funding opportunities for bikeway improvements in the City of Wheatland.**

Objective 6.1: Develop a City bikeway funding program that would include City funds, regional, State, and federal funding

programs (e.g., Safe Routes to School, Highway Safety Improvement Program, Bicycle Transportation Account, etc.), funding opportunities administered through SACOG, and developer funds.

- *Ad Hoc Committee brings forth questions regarding whether City could apply development impact fees to use for improvements in existing areas. Community Development Director noted that such would not be legal; however, Development Agreements between future developers/project applicants and the City could potentially come to an agreement regarding payment for improvements. Development Agreements would be on a project-by-project basis and would not likely continually include such agreements.*

Implementation Measure 6.1.1: Utilize regional, State, and federal funding programs to the extent feasible.

Implementation Measure 6.1.2: Require developers to fund bicycle access and safety improvements within new development projects.

Implementation Measure 6.1.3: Update the Bikeway Master Plan as necessary to maintain eligibility for State and federal funds.

Objective 6.2: Consider multi-jurisdictional funding applications for the regional bikeway system whenever feasible.

Implementation Measure 6.2.1: Coordinate with Yuba County, Beale Air Force Base, Placer County, and other nearby jurisdictions regarding funding efforts. Seek joint funding when applicable and feasible.

Objective 6.3: Develop and maintain a prioritized list of citywide improvements along with detailed cost estimates, and identify appropriate funding sources for each proposal.

- *Ad Hoc Committee noted that the list should be specific for new development versus existing and be prioritized by where deficiencies occur.*

Implementation Measure 6.3.1: Include citywide bikeway improvements in the City's Capital Improvement Plan.

Objective 6.4: Encourage the formation of reliable local, regional, and State funding sources which can be used to leverage federal funds.

Implementation Measure 6.4.1: Coordinate grant writing with SACOG, adjacent counties, and City staff.

Objective 6.5: Schedule bikeway expansion projects to occur with other roadway improvement projects, such as roadway maintenance or new roadway construction.

Objective 6.6: Provide for implementation of bicycle support facilities through regional funding programs as feasible and appropriate.

**Goal 7: Maintain the quality and functionality of the bikeway network and the Bikeway Master Plan.**

Objective 7.1: Support improved connectivity, as well as increased safety and security through maintaining the bikeway facilities in good working order.

Implementation Measure 7.1.1: Perform regular maintenance of bicycle facilities, including pavement conditions and quality, striping, stenciling, and signage, to ensure that the bikeway facilities are in good condition.

Implementation Measure 7.1.2: Perform routine maintenance of existing crossings (e.g., river, freeway, rail) and other structural barriers.

Implementation Measure 7.1.3: Perform regular maintenance of streets and bikeway facilities for the clearing of debris and litter, especially in curbed and shared-use areas (e.g., Class II bikeways).

- *Ad Hoc Committee noted the importance of the City getting a street sweeper if bikeways are present.*

Objective 7.2: Develop an internal City system for reporting and responding to maintenance problems on the bikeway system.

Implementation Measure 7.2.1: Establish bikeway maintenance response time goals.

Implementation Measure 7.2.2: Establish a bikeway maintenance reporting protocol (e.g., posting signage with contact information for complaints, etc.).

Implementation Measure 7.2.3:      The City’s bikeway maintenance reporting and responding system shall include a log of the maintenance complaint (i.e., person filing complaint, when complaint filed, details of complaint), responding City staff member, response date, and maintenance performed.

Objective 7.3:                      Maintain the Bikeway Master Plan to meet the community’s growth needs.

Implementation Measure 7.3.1:      Update the Bikeway Master Plan every five years, or as necessary.

Implementation Measure 7.3.2:      Identify future needs and specific recommendations for facilities and programs in the Bikeway Master Plan updates.

Implementation Measure 7.3.3        Ensure that the Bikeway Master Plan remains consistent with the most current regional, State, and federal bikeway regulations and maintains eligibility for State and federal funds.

**Committee discussion regarding potential bikeway locations**

The Ad Hoc Committee was presented with the draft City of Wheatland Bikeway Master Plan diagram, as well as the City of Wheatland General Plan Circulation Diagram for comparison purposes. The Ad Hoc Committee generally accepted the draft diagram; however, the following key discussion points were made:

- The bikeway types noted in the legend seemed to be unclear. The bikeway type names shall be revised to clarify.
- The northwest quadrant within the City’s Sphere of Influence seems bare in terms of bikeways in comparison with the remaining areas of the diagram. The diagram shall be revised to include a more extensive bikeway network in the northwest quadrant based on anticipated future development per the General Plan.
- Ad Hoc Committee liked locations of bike paths, as they are located along water features and near cultural resources, and the paths could represent linear parkways in the future.



# City of Wheatland

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SACOG GRANT AD HOC COMMITTEE WORKSHOP

MAY 27, 2014

## SUMMARY OF DISCUSSION

**Subject: City of Wheatland Bikeway Master Plan**

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### **Committee review of changes to Goals 1 through 5 discussed at April 29, 2014 meeting**

A review of the changes related to goals 1 through 5 based on discussions at the Ad Hoc Committee meeting on April 29 was presented. The Ad Hoc Committee accepted all goals and associated objectives and implementation measures, with the exception of the Implementation Measure presented below with the requested changes. Modifications to the text are shown as double underline for new text and ~~strikethrough~~ for deleted text.

Implementation Measure 3.1.3: Bikeways shall provide ~~motorized~~ wheelchair (motorized and non-motorized) access where required.

### **Committee review of changes to Goals 6 through 7**

A review of the changes related to goals 6 through 7 based on discussions at the Ad Hoc Committee meeting on April 29 was presented, including new implementation measures. Only those goals, objectives, or implementation measures with comments or changes made at the May 27, 2014 meeting are presented below. The Ad Hoc Committee accepted all goals and associated objectives and implementation measures, unless otherwise modified as shown below. Specific modifications to the text of the goals, objectives, or implementation measures recommended by the committee are shown as double underline for new text and ~~strikethrough~~ for deleted text. Any further discussion regarding the goals, objectives, and implementation measures are presented below in *italics*.

Objective 7.2: Develop an internal City system for reporting and responding to maintenance problems on the bikeway system.

- Implementation Measure 7.2.~~31~~: Establish bikeway maintenance response time goals.
- Implementation Measure 7.2.~~12~~: Establish a bikeway maintenance reporting protocol (e.g., posting signage with contact information for complaints, etc.).
- Implementation Measure 7.2.~~23~~: The City's bikeway maintenance reporting and responding system shall include a log of the maintenance complaint (i.e., person filing complaint, when complaint filed, details of complaint), responding City staff member, response date, and maintenance performed.

**Committee review of changes to Bikeway Master Plan diagram**

The Ad Hoc Committee was presented with the revised City of Wheatland Bikeway Master Plan diagram. The Ad Hoc Committee accepted the revised diagram.