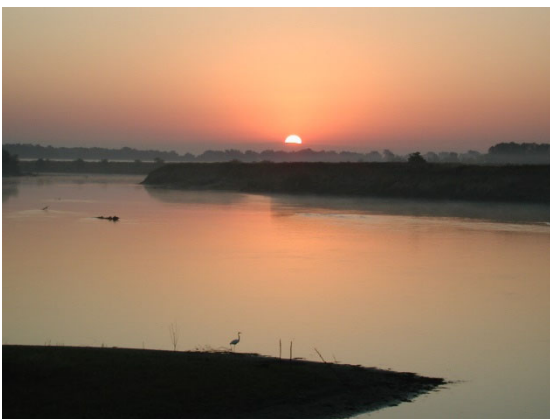


Glenn County Active Transportation Plan



Final Plan | Adopted June 20, 2019

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1. Introduction

Glenn County is committed to making walking, bicycling, and other forms of active transportation safer and more comfortable for residents and visitors.

Walking and bicycling are most common for short trips. Because of the rural nature of Glenn County, this Active Transportation Plan (ATP) focuses primarily on improving walking and bicycling within the three largest communities of Orland, Willows, and Hamilton City, as they represent the highest concentrations of people and destinations.

This Plan is an important tool guiding the development of a balanced transportation system that is pedestrian and bicycle friendly and encourages residents to use these modes of transportation. It provides a set of recommended infrastructure improvements and studies paired with education, encouragement, enforcement, and evaluation programs. This document also provides a strategy to ensure implementation of these projects and programs is manageable and fundable, recognizing that limited funding and resources will require phased implementation over many years.

The Glenn County ATP process provided opportunities for elected and appointed officials, as well as key staff and leadership of the County, cities, School Districts and community boards, commissions, and the public to participate in the development of the Plan. Ideally, the Plan should be reviewed every three to five years to update maps, project lists, and priorities as facilities are completed and new opportunities and needs arise.

The remainder of this introduction provides a guiding vision for the Active Transportation Plan, as well as related goals and the strategies to help achieve them.

Vision

Glenn County is a thriving community where walking and bicycling are fully integrated into daily life, supporting active living through safe and convenient transportation choices for people of all ages and abilities.

Goals & Strategies

This Plan uses local input, as well as best practices from cities across California, to establish goals and strategies for Glenn County as it moves forward with improving walking and bicycling. Specific goals and strategies are listed on the following pages.

Goals

- ◆ **Connectivity.** Improve bicycle and pedestrian access to community destinations within Orland, Willows, and Hamilton City.
- ◆ **Safety.** Design and maintain bicycle and pedestrian facilities that are safe and accessible for people of all ages and abilities.
- ◆ **Programs.** Increase walking and bicycling through encouragement, education, enforcement, and evaluation programs.
- ◆ **Health.** Improve health and enhance quality of life through improved access to and increased use of bicycle and pedestrian facilities.

Strategies

1. Connectivity

Improve bicycle and pedestrian access to community destinations within Orland, Willows, and Hamilton City.

- 1.1 Ensure proposed active transportation routes connect to existing facilities and to parks and schools
- 1.2 Provide safe and convenient access to current and future transit, including Glenn Ride Transit Service facilities and stops
- 1.3 Identify and eliminate gaps in existing bicycle and pedestrian facilities

2. Safety

Design and maintain bicycle and pedestrian facilities that are safe and accessible for people of all ages and abilities.

- 2.1 Ensure curb ramps are installed with all new sidewalk projects and work to increase the availability of curb ramps at existing crosswalks
- 2.2 Improve crosswalk visibility for motorists and pedestrians by providing high visibility marked crosswalks near schools, parks, and other priority destinations
- 2.3 Work with law enforcement to ensure motorists obey speed limits, traffic signs, and signals and yield to pedestrians, especially in neighborhoods and near schools
- 2.4 Work with law enforcement to ensure pedestrians and bicyclists cross the street at appropriate locations and yield to motorists when they have the right-of-way

3. Programs

Increase walking and bicycling through encouragement, education, enforcement, and evaluation programs.

- 3.1 Identify and support educational opportunities for those who drive, bicycle, and walk to learn about their rights and responsibilities
- 3.2 Encourage walking and bicycling by supporting local events such as races and walking tours that engage the community and celebrate travel by active modes
- 3.3 Work to create additional programs to encourage and enforce desired behavior and evaluate the use of bicycle and pedestrian facilities

4. Health

Improve health and enhance quality of life through improved access to and increased use of bicycle and pedestrian facilities.

- 4.1 Support and implement active transportation projects to increase the physical activity level of residents and increase the number of walking and bicycling trips
- 4.2 Develop a bicycle and pedestrian network that safely and conveniently connects residential neighborhoods to popular destinations like work, school, and grocery stores
- 4.3 Identify and implement active transportation network improvements that encourage walking and bicycling for recreation

2. Existing Conditions

About Glenn County

Glenn County lies in the north end of California’s Central Valley. At 1,327 square miles, its topography is largely flat, with hills in the western part of the county in Mendocino National Forest. The Sacramento River runs along the eastern edge of the county. There are two incorporated cities in Glenn County—Orland and the county seat of Willows—along with nine unincorporated communities. The communities are concentrated in the eastern part of the county, with the western half consisting largely of forest and agricultural land.

Demographics

Unless otherwise stated, demographics data reflect 2015 American Community Survey 5-year estimates.

Population

Glenn County is one of the smaller counties in California, home to 28,029 residents. According to the California Demographics Research Unit, the population is expected to exceed 33,000 by 2040, representing an increase of about 1 percent per year.

Age

There are many young people and seniors in Glenn County. Children under 18 years old make up 27 percent of the population, compared to 24 percent statewide. Seniors 65 and older are another 14 percent, compared with 12 percent statewide.

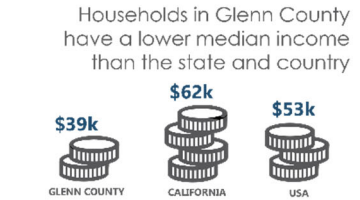
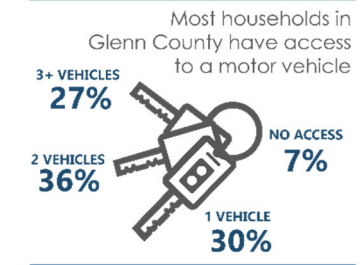
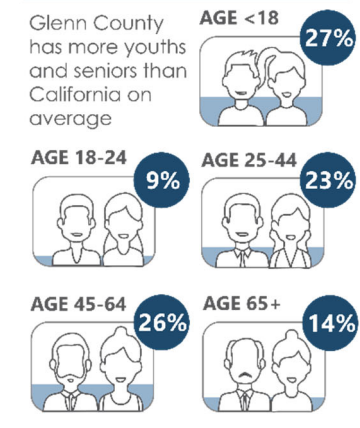
Access to Cars

Approximately 7 percent of households in Glenn County do not have access to a car. Based on the county’s average household size of 2.95 people, this means nearly 2,000 people rely on other means of transportation for their daily needs.

An additional 30 percent of households have access to only one vehicle, making them “car-light.” If these households have two or more workers, one or more may rely on other modes of transportation for their commute.

Income

Median household income in Glenn County is \$39,349 in 2015 dollars, less than the statewide median of \$61,818.



Transportation Network

Streets and Highways

Interstate 5 (I-5) is the major transportation corridor in Glenn County, running north-south in the eastern half of the county and providing connections throughout the region and the state. Smaller state routes (SR) provide connections to regional destinations and neighboring counties, including SR 32 in the northeast, SR 45 along the eastern edge, and SR 162 which runs from southeast to northwest across the county.

Many county roads provide access within the eastern part of the county, largely laid out on an irregular grid. The western part of the county is hillier and has fewer roads. The county also maintains streets in unincorporated communities.

Local streets serve the incorporated cities of Orland and Willows, both of which are bisected by I-5.

Transit

Glenn County is served by Glenn Transit Service which operates Glenn Ride, offering service Monday through Saturday between Glenn County and Chico. The route also includes multiple stops in Willows, Orland, and Hamilton City. In Orland, riders may also transfer to Tehama County transit service.

All Glenn County public transit buses are equipped with bicycle racks.

Bicycling

Caltrans designates four classes of bikeways that vary in the separation from motor vehicles they provide. For maps of existing Glenn County bikeways, see Figure 2-1 and Figure 2-2.

Class I Shared Use Paths

Class I shared use paths are off-street facilities dedicated exclusively to use by bicyclists, pedestrians, and other non-motorized travel such as roller skating and skateboarding. In some cases, they may also be used by equestrians.

There are currently no Class I paths in Glenn County.

Class II Bicycle Lanes

Class II bicycle lanes are dedicated on-street lanes for bicyclists. Some may have painted buffers on one or both sides to provide space between bicyclists and moving traffic or parked cars.

There are currently two short segments of Class II bicycle lanes in Glenn County, on SR 162 in Willows west of I-5 and on SR 32 in Orland east of Papst Avenue.

Class III Bicycle Routes

Class III bicycle routes are routes where the travel lane is shared by drivers and bicyclists. They are most suited for roadways with low traffic speeds and volumes, such as quiet residential streets. Some routes, called bicycle boulevards, may be enhanced with curb extensions, neighborhood traffic circles, or other traffic calming treatments to improve comfort for bicycling.

There are currently no Class III routes in Glenn County.

Class IV Separated Bikeways

Class IV separated bikeways are on-street bicycle facilities that include some kind of physical protection from vehicle traffic. This separation might include a curb, on-street parking, flexible bollards, or concrete planters. Class IV bikeways may provide for one-way or two-way travel on each side of the roadway.

There are currently no Class IV bikeways in Glenn County.




GLENN COUNTY ACTIVE TRANSPORTATION PLAN

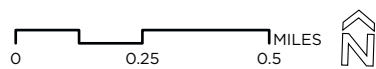
FIGURE 2-1
EXISTING BIKEWAYS

— Class II Bike Lane
(75 feet)

DESTINATIONS + BOUNDARIES

-  Schools
-  College
-  Civic/Public
-  Entertainment

-  Commercial
-  Open Space/Park
-  Industrial








GLENN COUNTY ACTIVE TRANSPORTATION PLAN

FIGURE 2-2
EXISTING BIKEWAYS

— Class II Bike Lane
(1,100 feet)

DESTINATIONS + BOUNDARIES

-  Schools
-  Civic/Public
-  Entertainment

-  Commercial
-  Open Space/Park
-  Industrial

0 0.25 0.5 MILES



Map produced August, 2017.



Walking

For maps of existing crosswalks and sidewalk gaps in Glenn County communities, see Figure 2-3 through Figure 2-5.

Sidewalks

Sidewalks form the backbone of the pedestrian transportation network. They improve safety and comfort for people walking and support daily physical activity, improve public safety, and contribute to community character.

Many sidewalk gaps currently exist in Glenn County, notably in unincorporated Hamilton City and at the periphery of Orland and Willows.

Curb Ramps

Curb ramps are necessary for people who use wheelchairs or other mobility devices, as they allow access to sidewalks and crosswalks. Ramps are also helpful to people pushing strollers, or who may have difficulty stepping onto a raised curb. The Americans with Disabilities Act (ADA) requires the installation of curb ramps with all sidewalk projects, whether new construction or retrofits. Curb ramps should ideally be placed at each end of the crosswalk (perpendicular curb ramps), although in some circumstances diagonal curb ramps may be acceptable.

Curb ramps are provided at some intersections in Orland, Willows, and Hamilton City, largely in areas with more recently constructed sidewalks. Most locations lack curb ramps, including many marked crosswalks.

Crosswalks

Crosswalks are a legal extension of the sidewalk, and are not required to be marked. However, marked crosswalks alert drivers of a pedestrian crossing point and increase yielding to pedestrians, in addition to providing guidance for pedestrians and delineating their path of travel.





Marked crosswalks are present at few intersections in Glenn County. Some intersections have only one marked crosswalk, while others are marked on all legs.

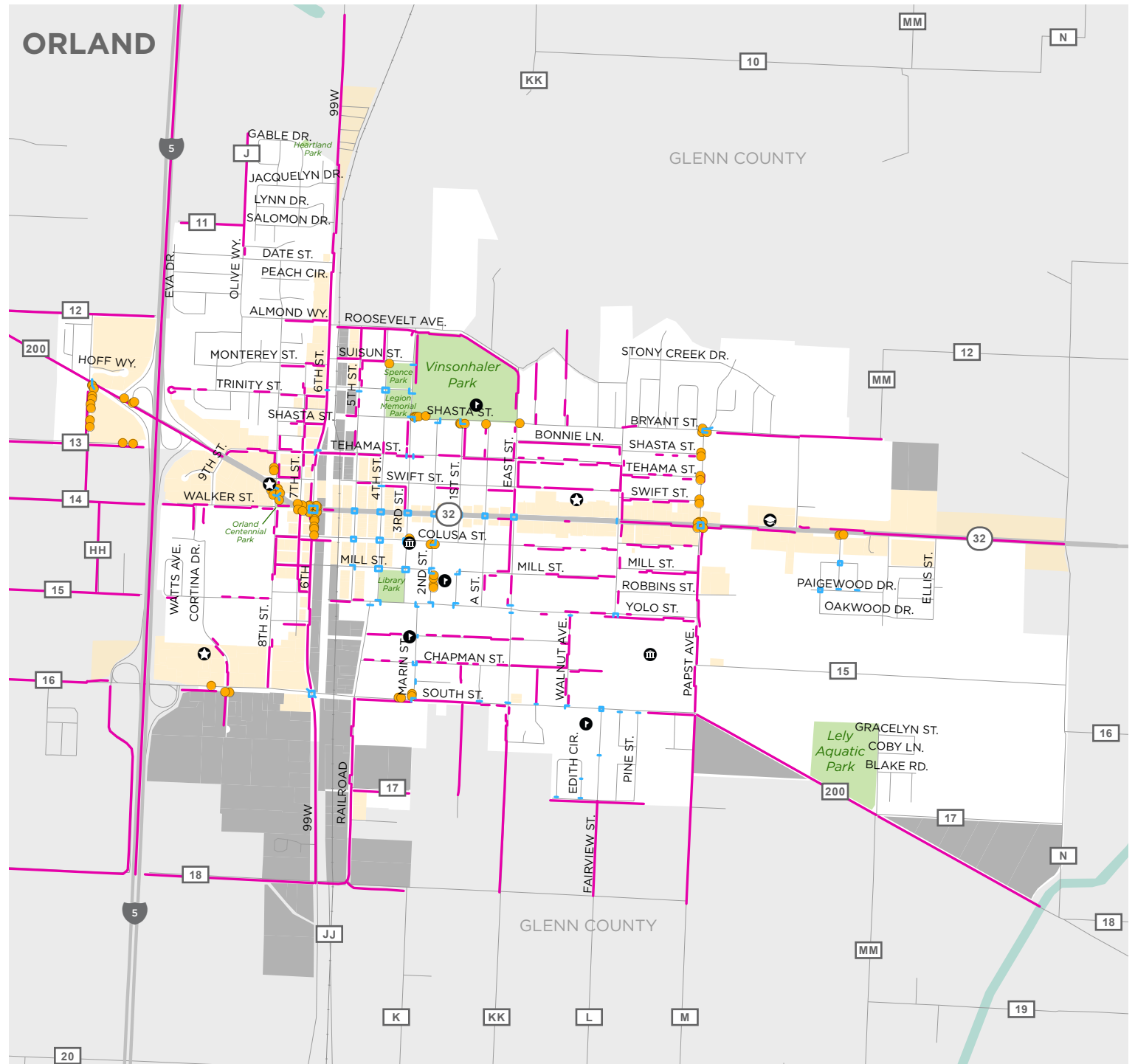
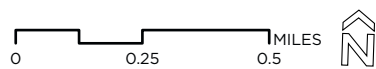
GLENN COUNTY ACTIVE TRANSPORTATION PLAN

FIGURE 2-3
EXISTING PEDESTRIAN
FACILITIES

- ADA Curb Ramps
- Crosswalks
- Sidewalk Gaps

DESTINATIONS + BOUNDARIES

-  Schools
-  College
-  Civic/Public
-  Entertainment
- Commercial
- Open Space/Park
- Industrial



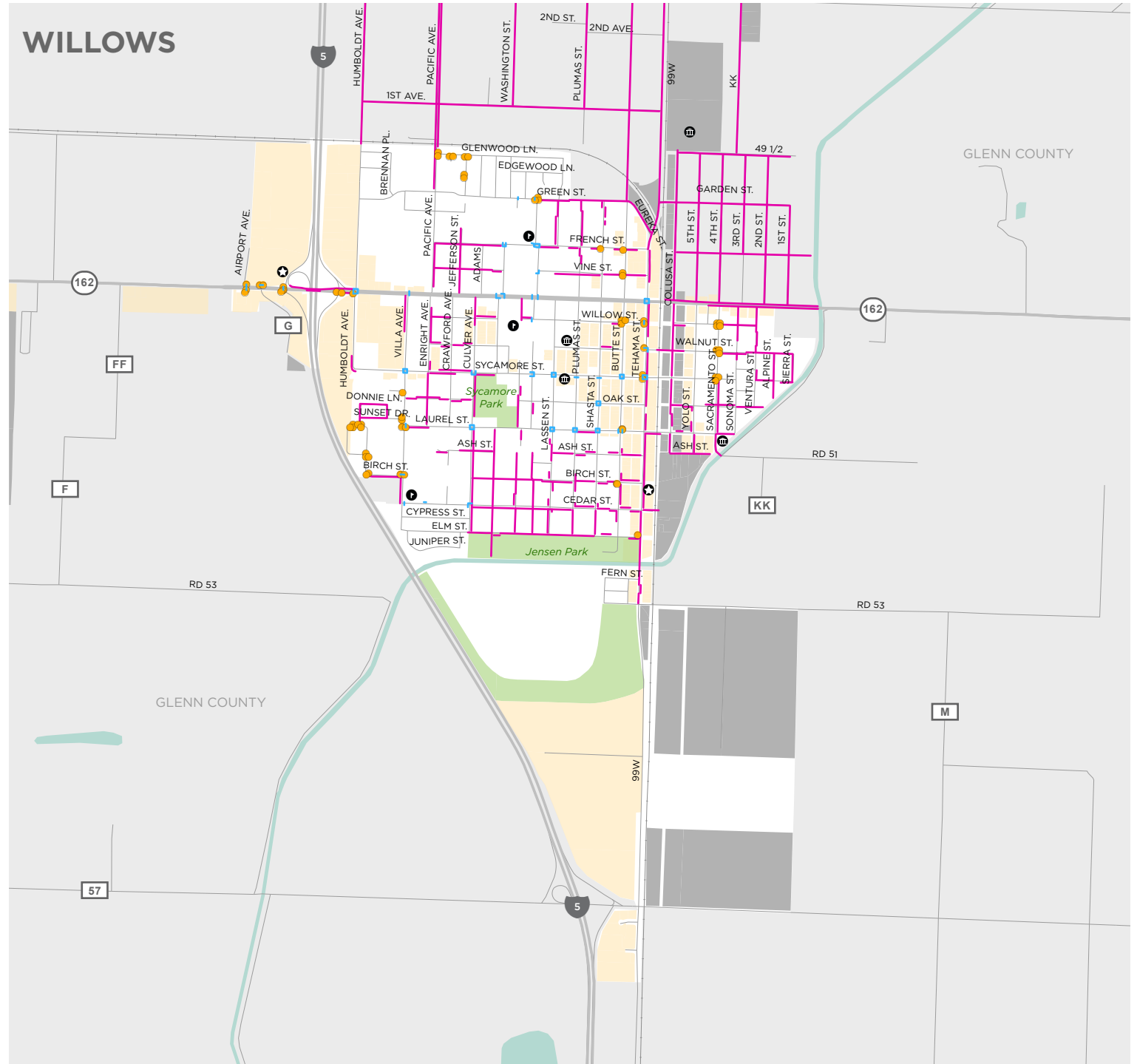
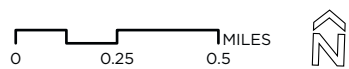
GLENN COUNTY ACTIVE TRANSPORTATION PLAN

FIGURE 2-4
EXISTING PEDESTRIAN
FACILITIES

- ADA Curb Ramps
- Crosswalks
- Sidewalk Gaps

DESTINATIONS + BOUNDARIES

- Ⓜ Schools
- Ⓜ Civic/Public
- ★ Entertainment
- Commercial
- Open Space/Park
- Industrial



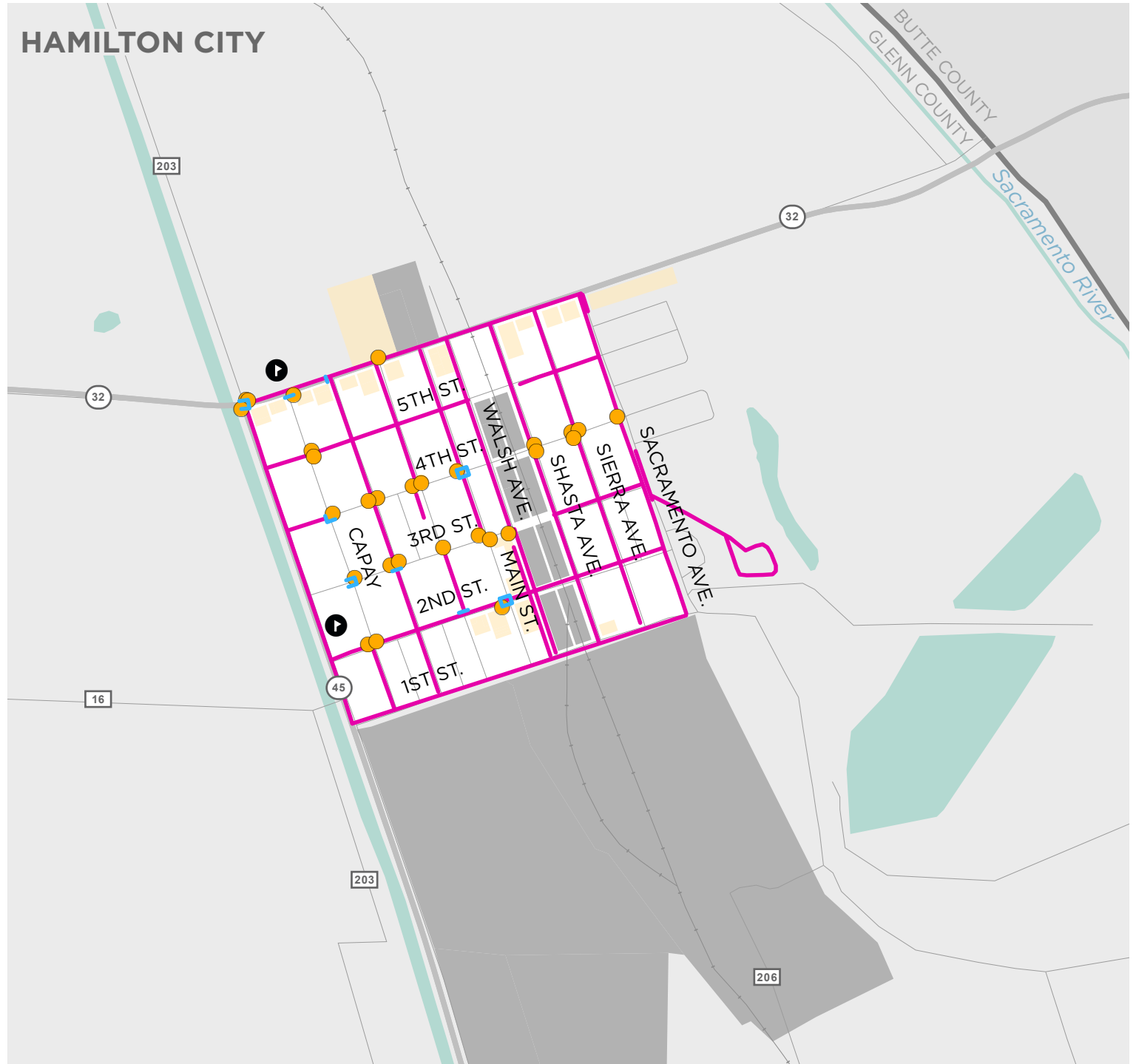
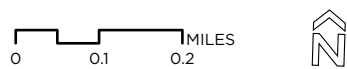
GLENN COUNTY ACTIVE TRANSPORTATION PLAN

FIGURE 2-5
EXISTING PEDESTRIAN
FACILITIES

- ADA Curb Ramps
- Crosswalks
- Sidewalk Gaps

DESTINATIONS + BOUNDARIES

- Schools
- Commercial
- Industrial



Existing Programs

Programs are a vital part of a strong walking and bicycling community, fostering an educated and engaged public, supporting safety by enforcing good behavior, and providing ongoing guidance by evaluating the bicycling environment regularly. Programs are generally described by four “E”s: education, encouragement, enforcement, and evaluation.

Recent and recurring programs in Glenn County are described in the following section.

Education

City of Willows Kiwanis Club Bicycle Rodeo

The Willows Kiwanis Club sponsors annual bicycle rodeos over several days. The bicycle rodeos are held at various elementary schools in Willows, and teach safe riding skills. California Highway Patrol officers and local fire department staff help design and facilitate the events.

Encouragement

Chico Stage Race

The Chico Stage Race is California’s season opener for the 2017 cycling season. The first stage is a closed-circuit race held at Thunderhill Raceway Park in Willows. Stage 2 is a 45 mile loop mostly located north of Glenn County. However, a small section passes through Glenn County near Black Butte Lake Recreation Area.

Run Your Tail Off 5k and 10k

The Glenn County Resource Conservation District holds an annual 5k and 10k run at Black Butte Lake to raise funds for its Connect with Kids program.

City of Orland Walking Tour

The City of Orland developed a short walking tour through historic downtown Orland. A map of the half-mile loop and information about historic points of interest are included in the Orland Visitor Guide.

Enforcement

Targeted Enforcement

Periodically, the City of Orland Police Department will increase bicycle and pedestrian safety enforcement for up to a week. The targeted enforcement efforts focus on behaviors that contribute to collisions. For motorists, this includes speeding, making illegal turns, failing to obey traffic signs or signals, failing to yield to pedestrians, and other dangerous violations. For pedestrians, this includes crossing the street unsafely or failing to yield to drivers then they have the right-of-way. For bicyclists, they can be cited for failing to follow traffic laws that apply to motorists, including riding on the wrong side of the street.

Evaluation

No evaluation programs were reported in Glenn County.

Commuter Travel

Just over 80 percent of Glenn County commuters drive alone to work. Carpooling is the second most common commute choice at 13 percent. Bicycling and walking together make up just five percent of all commute trips in Glenn County, based on 2015 American Community Survey 5-year estimates. See Figure 2-6.

Walking and bicycling are more common within the three communities of Hamilton City, Orland, and Willows, as shown in Figure 2-7.

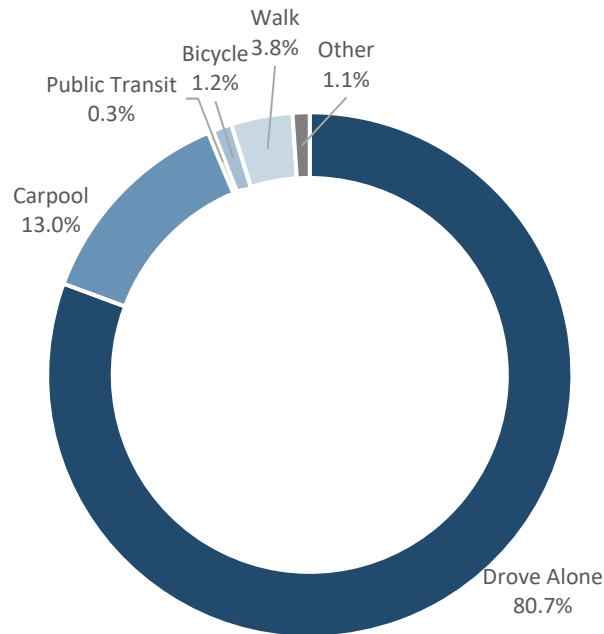


Figure 2-6: Countywide Commute Modes

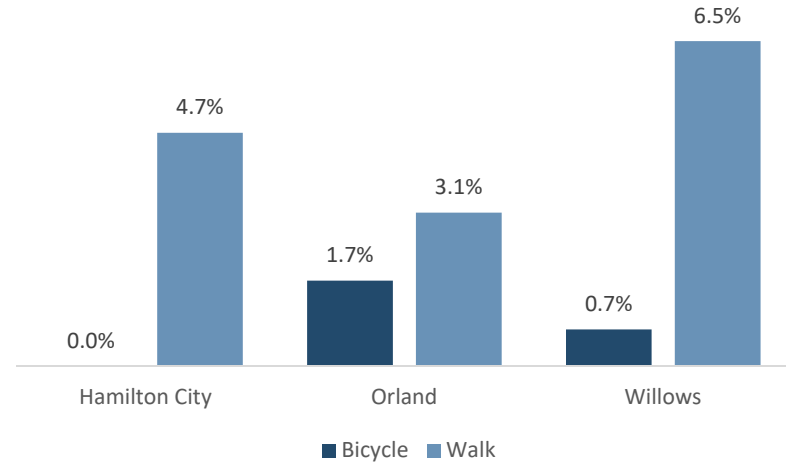


Figure 2-7: Bicycling and Walking by Community

3. Needs Analysis

This chapter presents an overview of community input and bicycle and pedestrian data analyzed to understand where there is a need for walking and bicycling improvements in the three Glenn County communities of Hamilton City, Orland, and Willows.

The results of these analyses will inform recommended projects and programs, and will aid in prioritizing investments where they are likely to offer the greatest benefit to the community.

Walking and Bicycling Demand

As part of the Glenn County Active Transportation Plan, it is important to understand the walking and biking needs of various communities. The needs of the community are influenced by several factors including the quality, age, trip type, and activity generating destinations like schools, commercial corridors, and civic buildings. This section includes an overview of the streets and areas with the highest demand throughout Hamilton City, Orland, and Willows.

By understanding where people walk and bike throughout the county, we can identify locations for improvements and help prioritize the implementation of projects.

Maps were developed for each community to identify major activity generating corridors and destinations. Major corridors that generate trips include commercial uses like retail, restaurants, and employment. Within communities, major destinations include schools, parks, civic buildings like City Hall and libraries, and medical facilities.

City of Willows

Willows is located south of Orland on Interstate 5. A review of the city's existing land uses, commercial corridors, and activity generators identified the following areas as having potential high walking and biking demand:

- ◆ **Commercial Areas and Corridors**
 - N Humboldt Avenue
 - Wood Street/SR 162
 - Walmart Supercenter
 - W Sycamore Street
 - Tehama Street
 - Mar-Val Food Store
 - S Butte Street
- ◆ **Schools**
 - Murdock Elementary School
 - Willows High School
 - William Finch Charter School
 - Willows Intermediate School
 - Willows Community High School
- ◆ **Civic Buildings**
 - Post Office
 - Civic Center and Willows Public Library
- ◆ **Medical Facilities**
 - Glenn Medical Center
- ◆ **Parks**
 - Sycamore Park & Willows City Swimming Pool
 - Central Park
 - Jensen Park
 - Memorial Park
- ◆ **Glenn Ride Transit Stops**

Public outreach and an online interactive map gathered additional input on the demand for biking and walking within Willows. Specific locations noted by residents include:

- ◆ Desire for a dedicated bike route connection to Orland
- ◆ Crossing improvements needed at:
 - Enright Avenue - students cross here, could use flashing beacon
 - Villa Avenue
 - Butte Street
 - Shasta Street
- ◆ State Route 162/Wood Street needs Complete Streets treatments to be welcoming for all users
- ◆ Road 48 is a good route to Manville for employees
- ◆ Bridge over route 99 is narrow and uncomfortable for pedestrians
- ◆ Clarks Valley Road is a great place to bike, but the route along 162 to get there has no bike infrastructure
- ◆ Green Street has poor sidewalk conditions
- ◆ French Street sees a lot of U-turns and high speeds near Murdock Elementary School - School District would like to see medians
- ◆ N Murdock has high speeds
- ◆ E Walnut east of S Ventura has poor or no sidewalk and high traffic speeds

City of Orland

Orland is similar in size to Willows, west of Hamilton City. With developed commercial corridors along Walker Street as well as 6th, 5th, and 4th Streets, there is demand for pedestrian and bicycle facilities to connect these areas to residential neighborhoods. The areas identified with the greatest demand for pedestrian and bicycle connectivity include:

◆ Commercial Corridors

- Center city commercial district
- Walker Street
- Colusa Street
- 4th Street
- 5th Street
- Newville Road
- 6th Street/SR 132

◆ Schools

- North Valley High School (Roosevelt Avenue)
- Orland High School (Shasta Street)
- Mill Street School (2nd Street)
- Orland Elementary Community Day School (2nd Street)
- Price Intermediate School (Marin Street)
- Fairview Elementary School (E South Street)
- William Finch Charter School (County Road M-½)
- Butte College (E Walker Street)

◆ Civic Buildings

- Post office (4th Street)
- Orland City Hall and Police Department (4th Street)
- Orland Free Library

◆ Parks

- Library Park (Mill Street)
- Vinsonhaler Park (Shasta Street)
- Spence Park (4th Street)
- Legion Memorial Park (4th Street)

◆ Glenn Ride Transit Stops

Input received through community meetings and the online community input map also helped to identify key areas and streets with demand for biking and walking connectivity. Specific locations noted by residents include:

- ◆ Papst Avenue could use a bike route
- ◆ Bike Route on South Street toward Lely Park
- ◆ Shasta/Bryant St bike route
- ◆ Roosevelt Ave bike route
- ◆ Add path along Stony Creek irrigation canal
- ◆ 6th Street bike route
- ◆ Cortina Drive bike route from South Street to Walker Street
- ◆ Bike route to Black Butte Lake is very narrow and uncomfortable
- ◆ Route 32 to Chico
- ◆ Lack of or poor sidewalk on E Central, Yolo and 4th streets
- ◆ High traffic speeds on 4th Street
- ◆ Route 32 has no bike infrastructure and high traffic speeds

Hamilton City

Hamilton City is the smallest of the three communities in this plan, located between Orland and Chico. Areas with potential high walking and biking demand include:

- ◆ **Commercial Corridors**
 - 6th Street/SR 132
 - 2nd Street
 - Main Street
- ◆ **Schools**
 - Hamilton Elementary/Middle School
 - Hamilton High School
- ◆ **Civic Buildings**
 - Post Office
 - Library
- ◆ **Medical Facilities**
 - Ampla Health Hamilton City Medical
- ◆ **Glenn Ride Transit Stops**

Community meetings and an online interactive map were used to gather input from residents on issues and concerns. Specific locations noted by residents include:

- ◆ Capay Avenue - High vehicle speeds
- ◆ Canal Street and 6th Street/SR 132 - Crossing the intersection is challenging
- ◆ 4th Street - Currently has no traffic controls and vehicles often travel at high speed
- ◆ 3rd Street and Los Robles - Crossing improvements would provide better access to the park
- ◆ County Road 32 - Popular bicycling route to Chico

Safe Routes to School Assessments

In addition to reviewing destinations and collecting community input, site assessments were conducted to review the walking and bicycling environment around schools in Glenn County communities.

While many streets in school areas have marked crossings that support walking and bicycling, some lack signage or markings that meets current best practices or provide only standard ‘transverse’ designs that may not provide the desired level of visibility to drivers.

Additionally, some curb ramps at crossings no longer meet standards set by the most recent Americans with Disabilities Act (ADA) guidance, and some marked crosswalks lack MUTCD warning signage or pavement markings that alert drivers to be aware of pedestrians. Additional observations are summarized by community and school.

Willows

Murdock Elementary School

- ◆ Need for high visibility crosswalk markings on French Street at Murdock Avenue and at Washington Street
- ◆ Need for an improved pedestrian crossing at the eastern parking lot exit to Murdock Avenue

Willows Intermediate School

- ◆ Need for high visibility crosswalk markings at W Cedar Street and S Villa Avenue
- ◆ Need for a mid-block crossing near the school entrance on W Cedar Street

Willows High School

- ◆ Need for high visibility crosswalk markings on Wood Street/SR 162 at N Merrill Avenue and at Washington Street, and at S Murdock Avenue and W Sycamore Street
- ◆ Lack of marked crosswalks across N Marshall Avenue at Wood Street/SR 162

Willows Community High School

- ◆ Need for high visibility crosswalk markings at W Laurel Street and S Culver Avenue

Orland

Mill Street School

- ◆ Need for high visibility crosswalk markings on 1st Street, Colusa Street, and Mill Street

C.K. Price Middle School

- ◆ Need for high visibility crosswalk markings on Marin Street at South Street and at Chapman Street

North Valley Continuation High School

- ◆ High speeds around curve suggest a need for traffic calming along Roosevelt Avenue
- ◆ 3rd Street is very wide, contributing to higher vehicle speeds than desired near the school

Fairview School

- ◆ Need for high visibility crosswalk markings on E South Street at Fairview Street and at Walnut Avenue

Orland High School

- ◆ Need for high visibility crosswalk markings on Shasta Street at 1st Street, 2nd Street, and at 3rd Street, and at 3rd Street and Monterey Street
- ◆ Need improved crossings of 3rd Street at Monterey Street. 3rd Street is very wide, suggesting a need for curb extensions to reduce the crossing distance

Orland Community Day School

- ◆ Need for high visibility crosswalk markings on 2nd Street at Mill Street and at Yolo Street
- ◆ Accessibility challenges exist at the crosswalks at Yolo Street and 2nd Street

Hamilton City

Hamilton Elementary School

- ◆ Need for high visibility crosswalk markings at 3rd Street and Capay Avenue
- ◆ Lack of ADA accessibility at some crossings along school frontage

Hamilton High School & Ella Barkley High

- ◆ Lack of advance yield markings at marked crosswalk at 6th Street and Los Robles Avenue contributes to motorists encroaching on the crosswalk

School Bus and Transit Access

While walking and bicycling are best suited for short trips within Glenn County communities, providing safe and comfortable access to school bus and transit stops creates transportation choices for regional destinations.

Glenn County is served by Glenn Ride, which has one route that makes seven trips on weekdays between the communities of Willows, Artois, Orland, Hamilton City, and Chico. Three trips occur each day on weekends and holidays.

Glenn Ride serves to connect the communities to each other. The majority of route miles are on state highway and Interstate 5. Within each community, Glenn Ride does travel off the main roadway into the core of each community to make stops.

Within Willows and Orland, Glenn Ride stops are fairly well served by the existing sidewalk network. Availability of curb ramps for passengers utilizing mobility devices is not as widely available, however. With Glenn Ride serving as a cross-region mobility service for many individuals, focusing improvements where the accessibility gaps exist would be a primary priority.







In Hamilton City, there are few sidewalks, so most Glenn Ride stops are not on a connected sidewalk network.

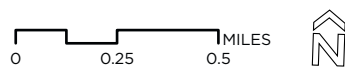
GLENN COUNTY ACTIVE TRANSPORTATION PLAN

FIGURE 3-1
EXISTING TRANSIT

— Glenn Ride


DESTINATIONS + BOUNDARIES

-  Schools
-  Civic/Public
-  Entertainment
-  Commercial
-  Open Space/Park
-  Industrial







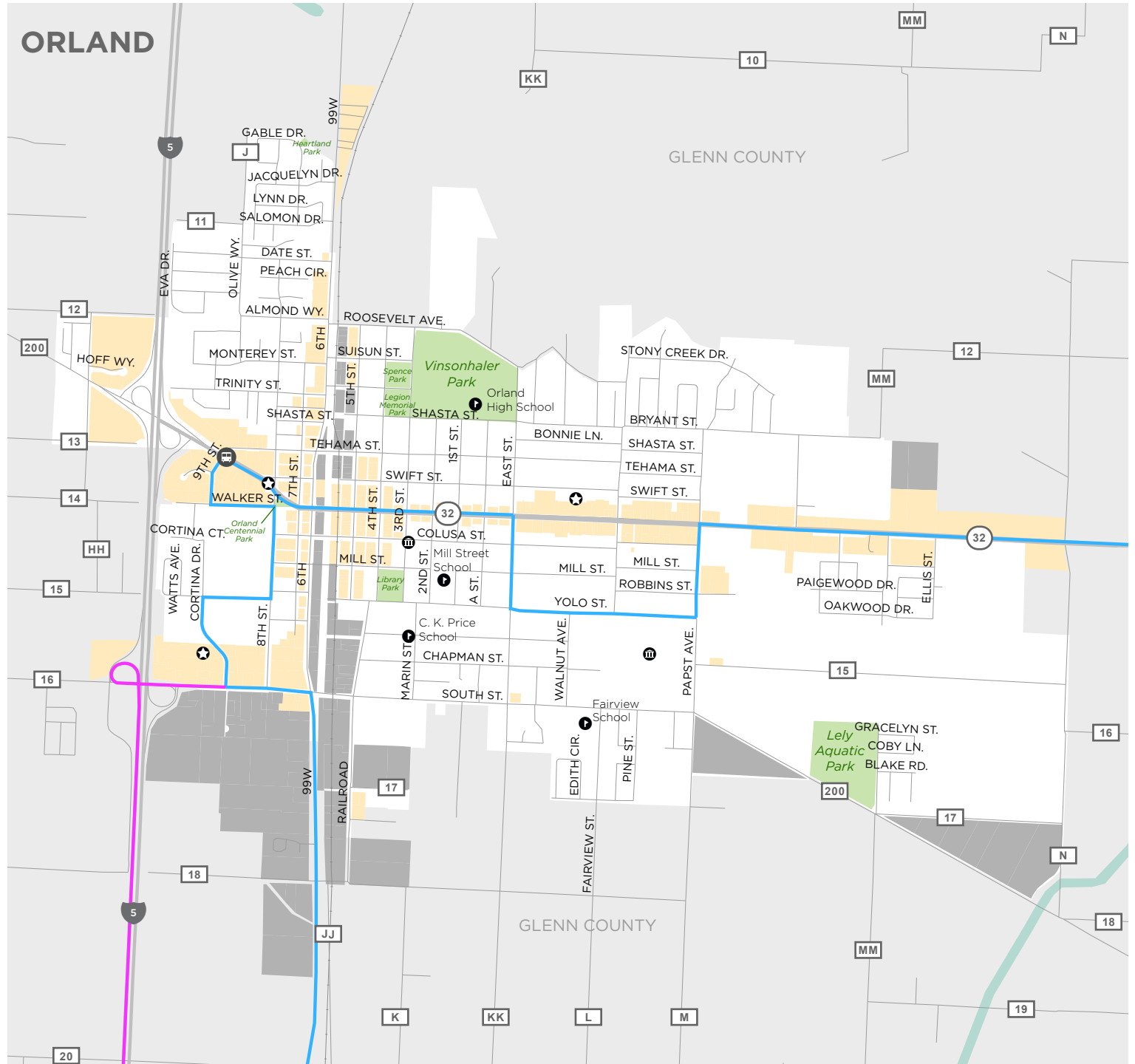
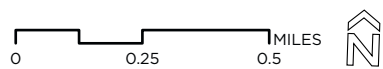
GLENN COUNTY ACTIVE TRANSPORTATION PLAN

FIGURE 3-2
EXISTING TRANSIT

- Glenn Ride
- Glenn Ride Express Route
-  Tehama Rural Area eXpress Connection

DESTINATIONS + BOUNDARIES

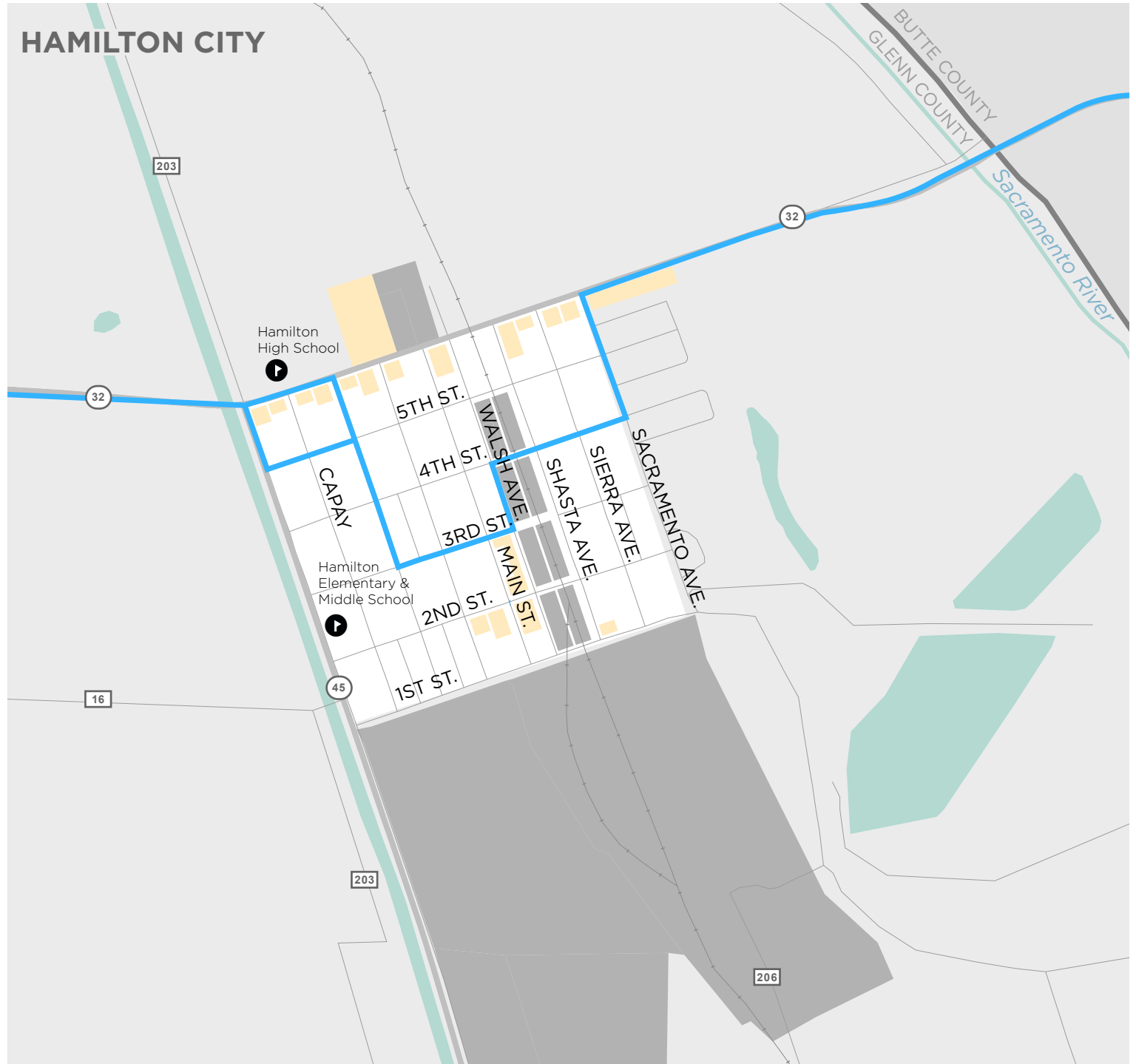
-  Schools
-  College
-  Civic/Public
-  Entertainment
- Commercial
- Open Space/Park
- Industrial






GLENN COUNTY ACTIVE TRANSPORTATION PLAN

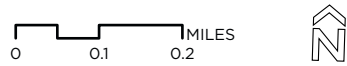
FIGURE 3-3
EXISTING TRANSIT

— Glenn Ride



DESTINATIONS + BOUNDARIES

-  Schools
-  Commercial
-  Industrial



Pedestrian and Bicycle Related Crashes

Safety can be a concern for current and potential bicyclists and pedestrians, and can be a determining factor in the decision to walk, bicycle, or use another mode of transportation. Analysis of bicycle and pedestrian related collisions provides a basis for infrastructure and program recommendations that can improve safety.

This section reviews collision data from the Statewide Integrated Traffic Records System (SWITRS), a statewide repository of collision reports submitted by local enforcement agencies. While collision data are sometimes incomplete and do not capture ‘near misses,’ they do provide a general sense of the safety issues facing pedestrians and bicyclists in Glenn County communities. Five years of data were evaluated, from 2012 to 2016.

During this five-year period, there were a total of 21 pedestrian related crashes and 12 bicycle related crashes reported in Glenn County. See Figure 3-5 through Figure 3-7.

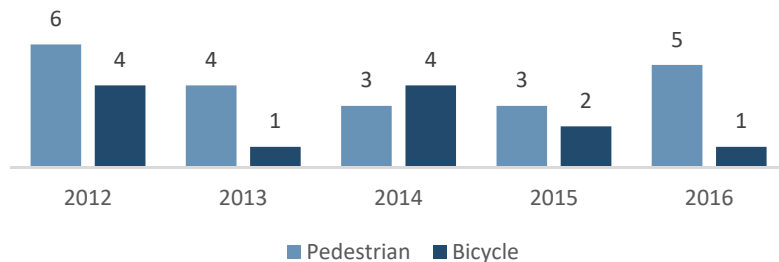


Figure 3-4: Annual Crashes

Bicycle Related Crashes

There were a total of 12 bicycle related crashes reported in the county during the study period. Six occurred in Orland, three occurred in Willows, and the remaining three occurred in unincorporated areas other than Hamilton City.

Of the five collisions where the bicyclist was determined to be at fault, two were related to bicycling on the wrong side of the road.

Pedestrian Related Crashes

There were a total of 21 pedestrian related crashes reported in the county during the study period. Six occurred in Orland, eight occurred in Willows, and three occurred in Hamilton City. The remaining four occurred in other unincorporated areas.

All four collisions where the pedestrian was determined to be at fault were reported to be related to a pedestrian violating the rules of the road.

Top Collision Locations

Both bicycle and pedestrian collisions were reported more frequently on state routes than on local streets, which may suggest a need for improved alternate routes or enhanced bicycling and walking facilities on these corridors that carry higher volumes and speeds of traffic.

Within the three communities of Orland, Willows, and Hamilton City, 14 out of 26 bicycle and pedestrian related collisions occurred on state routes.

Collision Severity

There were no reported bicyclist or pedestrian fatalities in Glenn County during the study period. Three pedestrians and two bicyclists were severely injured, while the remaining collisions resulted in minor injuries. See Table 3-1.

Table 3-1: Injury Severity

Injury	Pedestrians	Bicyclists
Severe Injury	3	2
Other Visible Injury	12	7
Complaint of Pain	6	3
Total	21	12

GLENN COUNTY ACTIVE TRANSPORTATION PLAN

FIGURE 3-5
COLLISIONS:
PEDESTRIAN - INVOLVED
(2012 - 2016)




 Minor Injury (6)

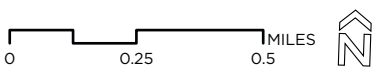
COLLISIONS:
BICYCLE - INVOLVED
(2012 - 2016)

 Minor Injury (6)

DESTINATIONS + BOUNDARIES

-  Schools
-  College
-  Civic/Public
-  Entertainment

-  Commercial
-  Open Space/Park
-  Industrial





Map produced August, 2017.





GLENN COUNTY ACTIVE TRANSPORTATION PLAN







FIGURE 3-6
COLLISIONS:
PEDESTRIAN - INVOLVED
(2012 - 2016)

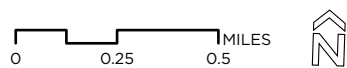
-  Severe Injury (1)
-  Minor Injury (7)

COLLISIONS:
BICYCLE - INVOLVED
(2012 - 2016)

-  Severe Injury (1)
-  Minor Injury (2)



DESTINATIONS + BOUNDARIES

-  Schools
-  Civic/Public
-  Entertainment
-  Commercial
-  Open Space/Park
-  Industrial






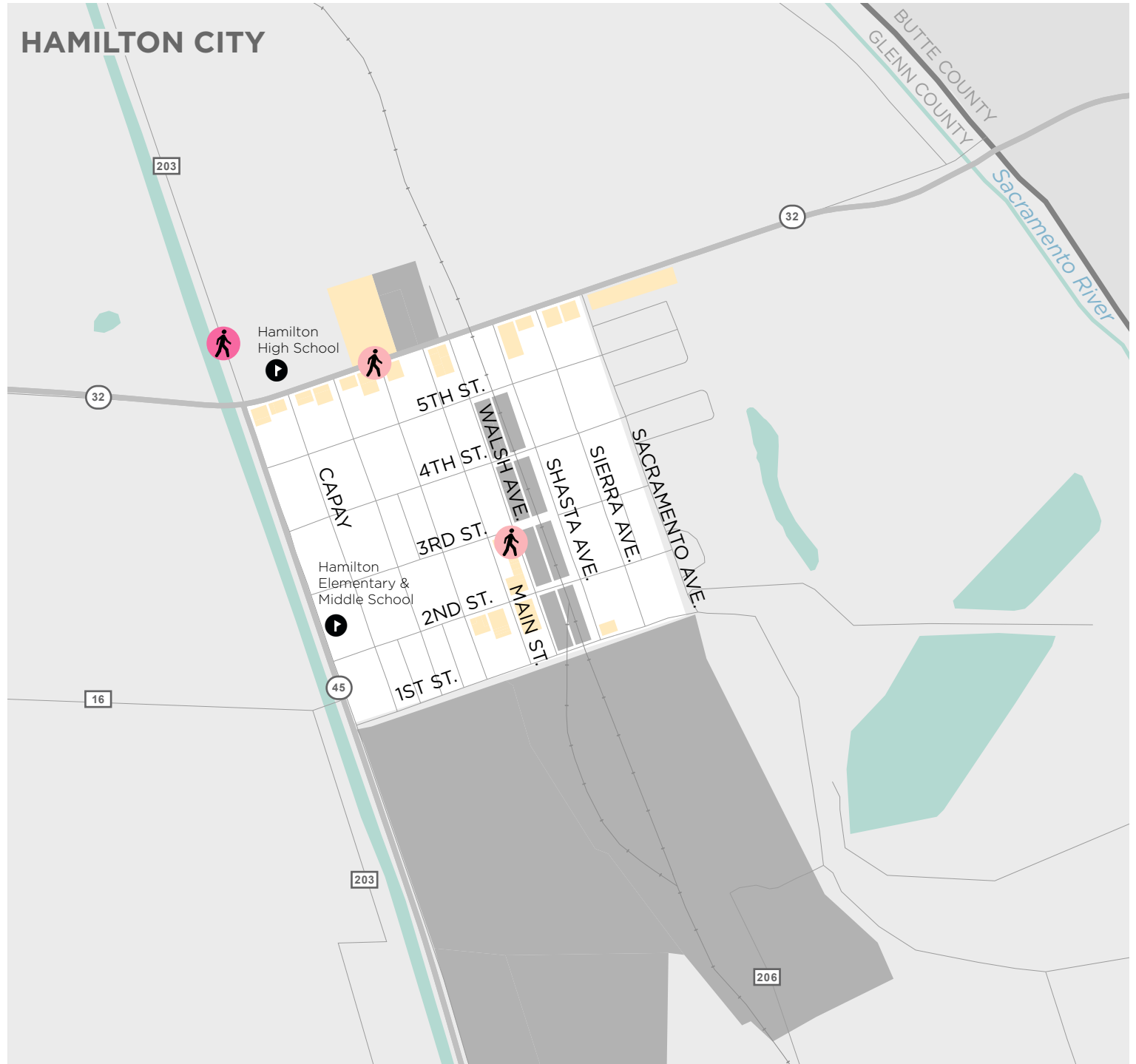
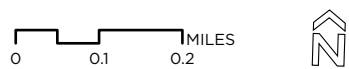
GLENN COUNTY ACTIVE TRANSPORTATION PLAN

FIGURE 3-7
COLLISIONS:
PEDESTRIAN - INVOLVED
(2012 - 2016)

-  Severe Injury (1)
-  Minor Injury (2)

DESTINATIONS + BOUNDARIES

-  Schools
-  Commercial
-  Industrial



Community Input

Workshop Series 1

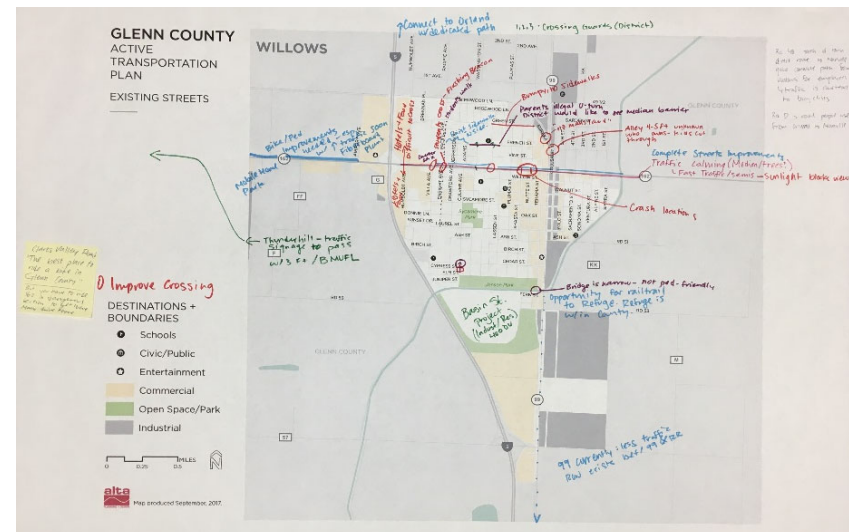
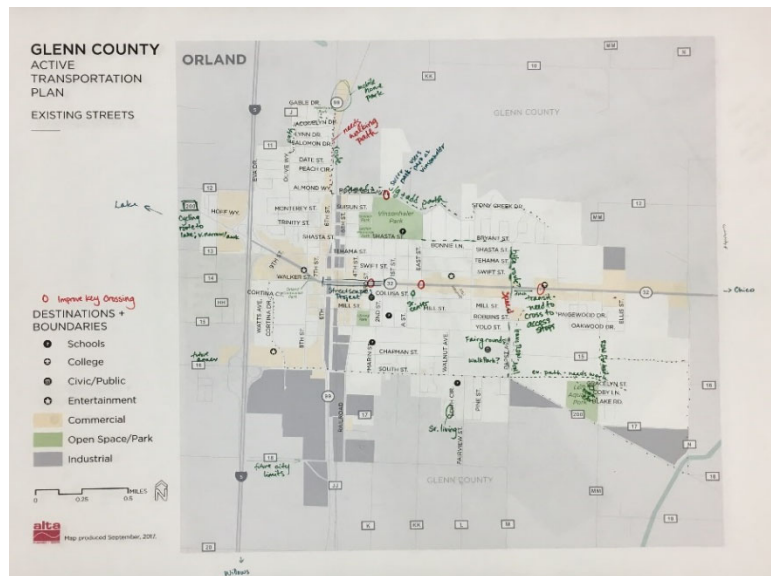
Workshops were held in the three communities to gather community input on needs and challenges related to walking and bicycling in Glenn County. Workshops were paired with existing City Council or Community Service District meetings to capture input from attendees. A summary of workshops and attendance is provided below.

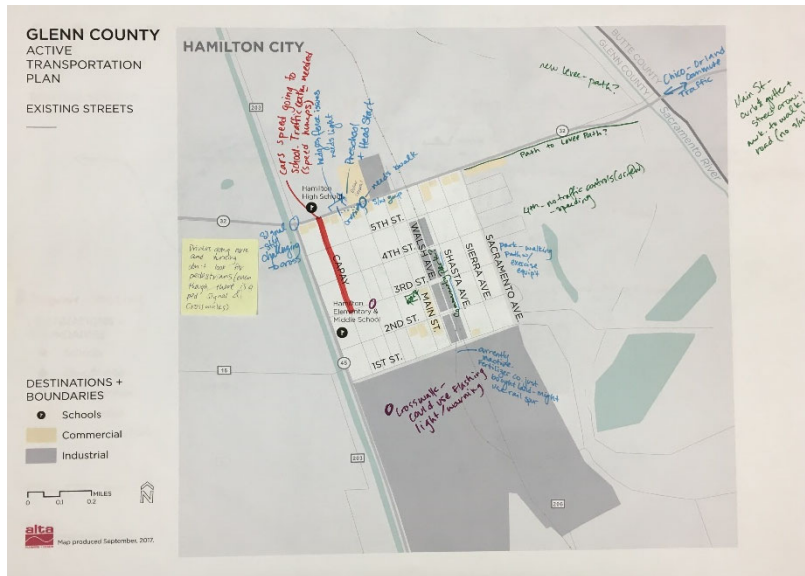
Community	Date	Meeting	Attendees
Orland	Oct. 16, 2017	City Council	7
Hamilton City	Nov. 13, 2017	Community Service District	7
Willows	Nov. 14, 2017	City Council	4

Participants at all three workshops were invited to mark up maps of the communities to show walking and bicycling challenges, popular routes, and opportunities where they would like to see improvements. Project staff were available to discuss the planning process and answer questions about bicycling and walking facilities.

Key themes from the workshop series feedback included:

- ◆ Improve crossings of state routes
- ◆ Provide paths that meet transportation needs but also provide safe and comfortable recreation opportunities
- ◆ Address speeding concerns on key neighborhood streets and school routes
- ◆ Close sidewalk gaps
- ◆ Connect regional parks and communities with shared use paths
- ◆ Provide signage on popular bicycling routes where dedicated facilities are not feasible





Online Engagement

To supplement in-person workshops at the outset of the project, a project website was established to allow online engagement of the residents of Glenn County. The website included a user-friendly map survey interface which allowed users to respond to questions regarding active transportation such as:

- ◆ Where do you like to walk and bicycle?
- ◆ Where do you dislike walking and bicycling?
- ◆ When you walk or bicycle, what is your destination?
- ◆ What barriers exist for walking and bicycling?

The website collected responses on this map survey from Fall 2017 through Spring 2018.

Responses are summarized by community.

Willows

- ◆ Elm Street and French Street are desirable East-West bicycling corridors.
- ◆ N. Villa Avenue, N. Culver Avenue, Pacific Street, and Adams Street are desirable North-South bicycling corridors.
- ◆ The vicinity of French and Murdock Streets is undesirable for walking.
- ◆ The eastern end of Walnut Street is also undesirable for walking.

Orland

- ◆ Walker Street is an important corridor for walking and bicycling, but some find it a barrier, especially on the edges of the city.
- ◆ Trinity Street, Tehama Street, Newport Avenue, and County Road 16 are desirable East-West bicycling corridors.
- ◆ Central Street is undesirable for some pedestrians.
- ◆ Residents would like to bicycle to the Lely Aquatic Park and Vinsonhaler Park.

Hamilton City

- ◆ Bicyclists enjoy riding along Highway 32 through Hamilton City.

Workshop Series 2

The Draft Active Transportation Network Recommendations were presented to the three different communities to gather feedback on the proposed improvements. Workshops were paired with existing City Council or Community Service District meetings to capture input from attendees. A summary of workshops and attendance is provided below.

Community	Date	Meeting	Attendees
Orland	Oct. 15, 2018	City Council	1
Willows	Oct. 23, 2018	City Council	4
Hamilton City	Nov. 14, 2018	Community Services District	4

Participants at all three workshops were invited to mark up maps of the communities to identify any remaining unaddressed challenges and additional opportunities to improve walking and bicycling. Project staff were available to discuss the planning process and answer questions about bicycling and walking facilities.

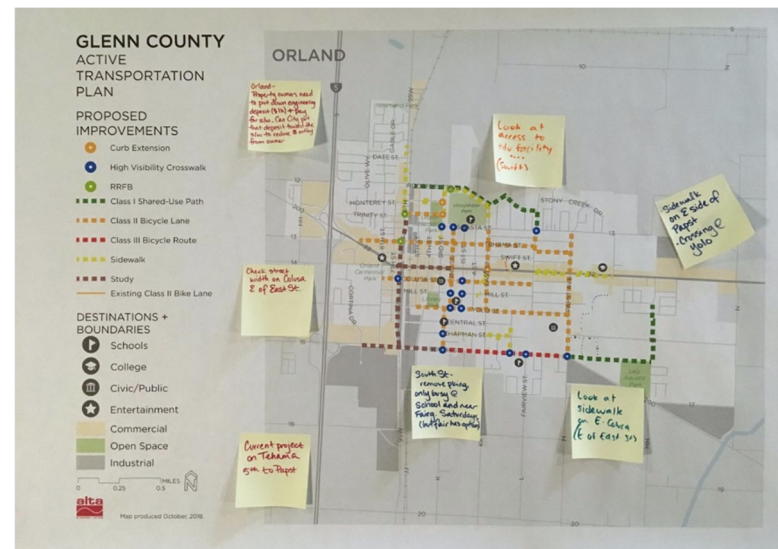
Key themes from the workshop series feedback included:

- ◆ Some additional high visibility crossings are needed
- ◆ Ensure proposed facilities connect to existing facilities
- ◆ Proposed crosswalk improvements are well-placed and will be helpful
- ◆ Closing sidewalk gaps is still a concern

Specific responses from the three communities are listed in the following sections.

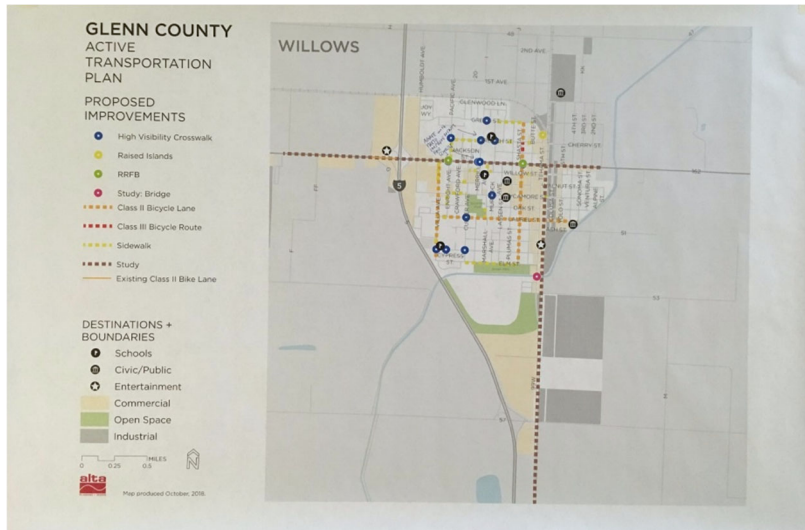
Orland

- ◆ Additional bicycling facilities are needed on Swift Street. A connection from Swift Street to the proposed network and Orland High School are desirable
- ◆ A sidewalk is needed on the east side of Papst Avenue
- ◆ The narrow width of East Colusa Street presents challenges
- ◆ The inconsistency of the sidewalk along East Colusa Street also presents challenges
- ◆ The street parking on South Street, adjacent to Fairview Elementary School, is unnecessary and should be removed.



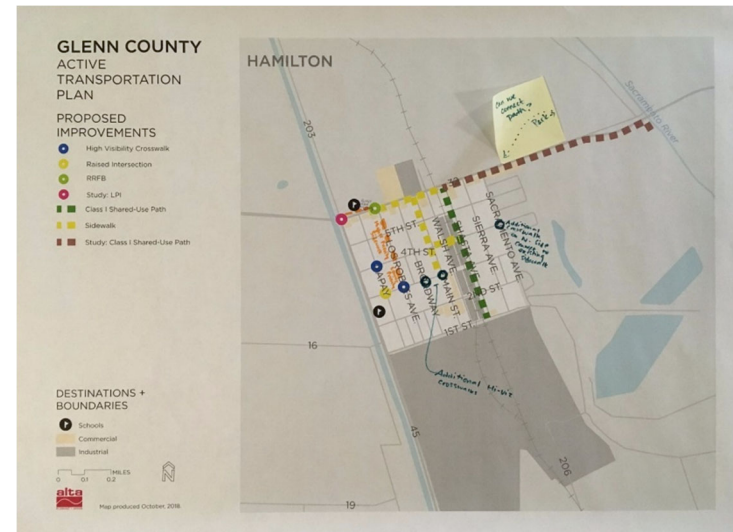
Willows

- ◆ The proposed high visibility crosswalks at Merrill Avenue and Biggs-Willows Road, Washington Street and French Street, and Enright Avenue and Biggs-Willows Road will improve access to Willows High School and Murdock Elementary School



Hamilton City

- ◆ Additional high visibility crosswalks are needed at:
 - 3rd Street and Broadway
 - 3rd Street and Main Street
 - 4th Street and Sacramento Avenue
- ◆ Ensure the proposed class I Shared Use Path at Highway 32 is connected to the Levee Path at the Sacramento River



4. Recommendations

The following chapter presents recommended engineering improvements in the three project communities of Hamilton City, Orland, and Willows. These recommendations are based on a review of existing conditions, data-driven analyses, and community input documented in the earlier chapters of this Plan.

Engineering improvements are described below, followed by a summary and map of recommended improvements for each community. Finally, recommended studies are briefly explained.

Engineering Improvement Types

Sidewalks

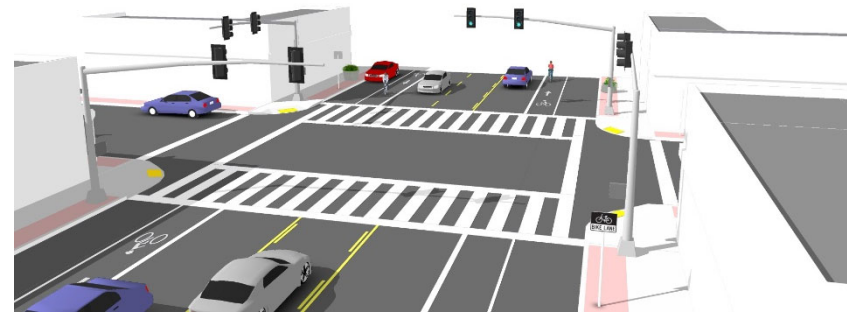
Sidewalks are an essential element of the walking environment, improving safety and comfort for pedestrians by providing an accessible place to walk separate from the roadway.



High Visibility Crosswalks

There are a number of marked crosswalk types. Standard transverse crosswalks consist of two parallel lines that mark the edges of the crosswalk.

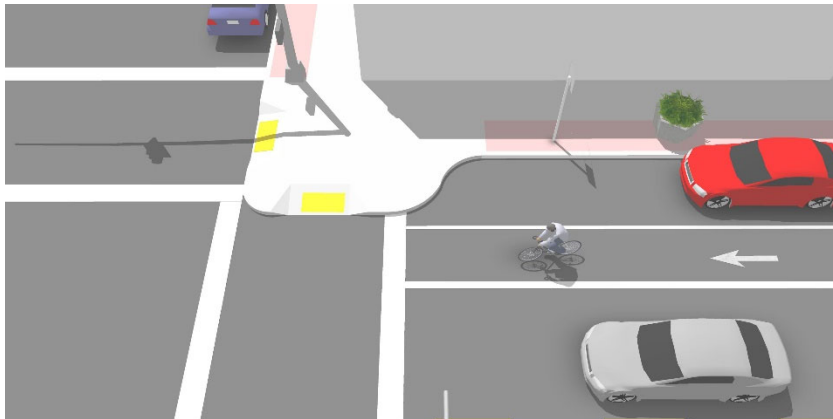
High visibility markings include ladder-style crosswalks, which include transverse lines in addition to bold bars across the crosswalk. These markings are more noticeable to drivers and are typically used near schools, at uncontrolled crossings, or where higher numbers of pedestrian related crashes have occurred. In school areas, crosswalks may be yellow.



Curb Extensions

Curb extensions extend the sidewalk or curb line out into the parking lane, reducing the effective street width. They can only be used where there is on-street parking, and should not encroach into bicycle lanes.

Curb extensions can improve pedestrian visibility and reduce the length of time that pedestrians are exposed to potential conflicts with motor vehicles while crossing the street. Curb extensions also narrow the perceived roadway width for drivers, which may reduce speeds. At signalized intersections, curb extensions can reduce delays by allowing for shorter pedestrian “walk” phases due to the reduced crossing distance.



Rectangular Rapid-Flashing Beacons (RRFBs)

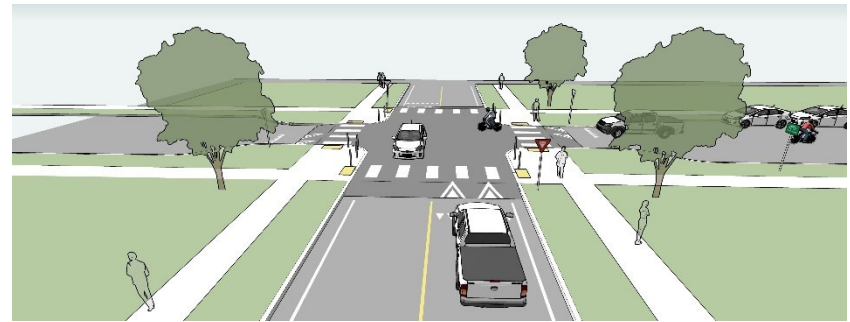
Rectangular Rapid-Flashing Beacons (RRFBs) include a pedestrian crossing sign supplemented by a pair of bright rectangular lights that flash in a rapid alternating pattern when a pedestrian presses a button. Many assemblies are solar powered standalone units that can be installed and maintained without costly wiring work.

RRFBs increase visibility of pedestrians at marked crosswalks where traffic signals or stop signs are not warranted, and have been shown to increase motorist yielding to pedestrians.



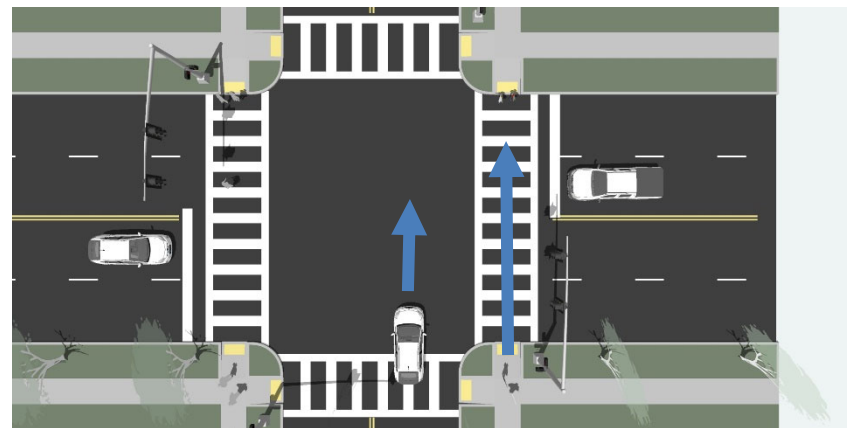
Raised Intersection

A raised intersection is similar to a speed table or raised crosswalk, filling the entire intersection to elevate crosswalks on all legs and encourage reduced speeds for drivers. Raised intersections also increase visibility of children and people in wheelchairs by elevating them further into the field of vision for drivers.



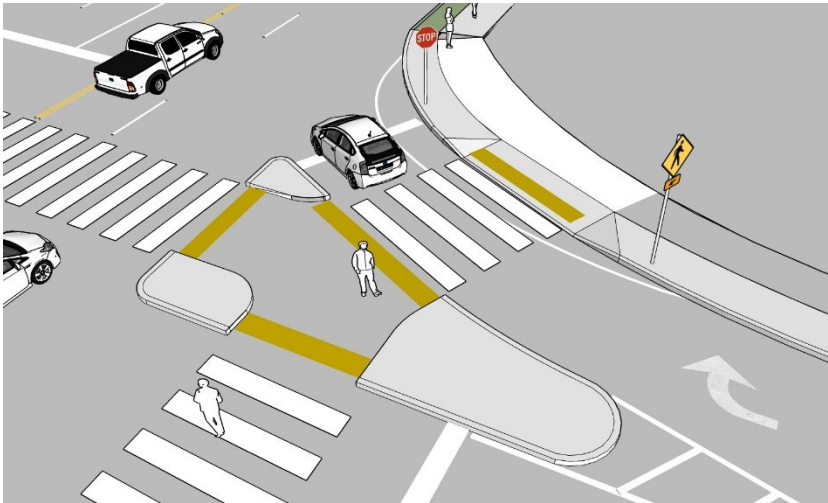
Leading Pedestrian Interval (LPI)

A Leading Pedestrian Interval (LPI) gives pedestrians a several second head start into the crosswalk before the concurrent green phase for vehicles begins. This can reduce conflicts with vehicles turning through the crosswalk by making pedestrians more visible before drivers start their turn.



Raised Islands

At wide or irregular intersections, raised islands help define the desired path for drivers. They can be used to separate a right turn lane from a through lane, and by narrowing the intersection approach they can contribute to reduced vehicle speeds. In some locations, they can also provide a waiting area or refuge for pedestrians crossing wide streets or intersections.



Class I Shared Use Path

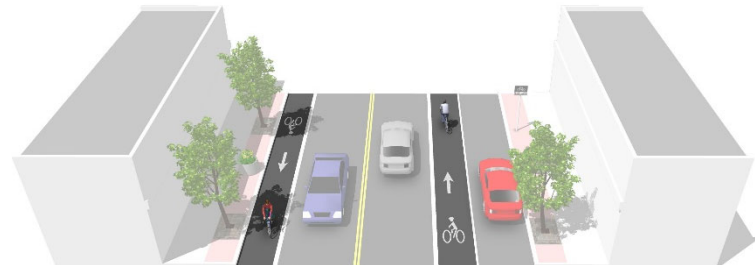
Class I shared use paths are paved bicycle and pedestrian travelways completely separated from the street. They may run parallel to a roadway within the same right-of-way, or may run through open space.



Class II Bicycle Lanes

Class II bicycle lanes are dedicated on-street space for bicycle travel market with a white stripe. Where space allows, a buffer may be provided between the bicycle lane and travel lanes, or between the bicycle lane and on-street parallel parking.

Bicycle lanes are typically not recommended in conjunction with angled parking, due to challenges with drivers backing out of parking spaces into the bicycle lanes. Angled parking on streets with recommended bicycle lanes should be converted to parallel parking.



Class III Bicycle Route

Class III bicycle routes are shared facilities, where bicyclists share the travel lane with motorists. They are typically recommended only on lower speed and volume streets, and are designated with signs. In some cases, shared lane markings or “sharrows” may also be used



Recommended Improvements

Tables and maps on the following pages summarize the recommended infrastructure improvements in the three project communities of Orland, Willows, and Hamilton City.

These recommendations are based on the data and community input reviewed in Chapter 2 and 3. Recommendations are listed alphabetically by location.

Orland

Recommended improvements in the City of Orland are listed in Table 4-1 and mapped in Figure 4-1.

Table 4-1: Orland Improvements

Location	Cross Street(s)	Improvement	Notes
2 nd St	Shasta St to Yolo St	Class II Bicycle Lanes	
3 rd St	Roosevelt Ave to Monterey St	Sidewalk	East side
3 rd St	Shasta St to 100 feet north of Tehama St	Sidewalk	West side
6 th St	Salomon Dr to Monterey St	Sidewalk	West side; some short segments exist
6 th St	Monterey St	RRFB	Upgrade south leg
6 th St	Monterey St to South St	Study	Class I Shared Use Path on east side
6 th St	Tehama St	High Visibility Crosswalk	Upgrade north and west legs; mark east leg
6 th St	Tehama St	RRFB	North leg
6 th St	Colusa St	High Visibility Crosswalk	Mark all four legs
Chapman St	Marin St	High Visibility Crosswalk	Upgrade east, south, and west legs; mark north leg
Chapman St	Marin St to East St	Sidewalk	North side; fill multiple gaps
Chapman St	East St to Walnut Ave	Sidewalk	North side
Colusa St	8 th St to East Ave	Class II Bicycle Lanes	Convert angled parking to parallel in some segments
Colusa St	East St to Woodward Ave	Class III Bicycle Route	
Colusa St	1 st St	High Visibility Crosswalk	Upgrade all three legs
Colusa St	Alley east of A St to East St	Sidewalk	Both sides









Location	Cross Street(s)	Improvement	Notes
Colusa St	250 ft east of East St to 650 ft west of Woodward Ave	Sidewalk	South side
Colusa St	125 ft west of Woodward Ave to Woodward Ave	Sidewalk	South side
Colusa St	250 ft west of Woodward Ave to Woodward Ave	Sidewalk	North side
Colusa St	125 ft east of East St to 250 ft east of East St	Sidewalk	North side
East St	Roosevelt Ave to 150 ft north of Shasta St	Sidewalk	West side
East St	Shasta St to Yolo St	Class II Bicycle Lanes	
East St	100 ft south of Walker St to Colusa St	Sidewalk	West side
Marin St	Yolo St to South St	Class II Bicycle Lanes	
Mill St	2 nd St	High Visibility Crosswalk	Upgrade all three legs
Mill St	1 st St	High Visibility Crosswalk	Upgrade both legs
Mill St	A St to alley east of A St	Sidewalk	South side
Mill St	Alley east of A St to East St	Sidewalk	North side
Monterey St	3 rd St to 6 th St	Class II Bicycle Lanes	Convert angled parking to parallel
Monterey St	3 rd St	High Visibility Crosswalk	Upgrade west and south legs; mark north leg
Monterey St	3 rd St	Curb Extensions	North and south legs
Papst Ave	Bryant Ave to South St	Class II Bicycle Lanes	
Papst Ave	100 ft south of Colusa St to 50 ft south of Robbins St	Sidewalk	West side
Roosevelt Ave	Entrance to Orland Alternative Education Center	High Visibility Crosswalk	East leg
Roosevelt Ave	Entrance to Orland Alternative Education Center	RRFB	East leg
Roosevelt Ave	3 rd St to East St	Sidewalk	South side
Shasta St	3 rd St	High Visibility Crosswalk	Upgrade north and east legs; mark south leg
Shasta St	2 nd St	High Visibility Crosswalk	Upgrade south and east legs
Shasta St	1 st St	High Visibility Crosswalk	Upgrade west and south legs
Shasta St/ Bryant St	Woodward Ave/ Road Kk 1/2	High Visibility Crosswalk	All four legs
South St	Marin St	High Visibility Crosswalk	Upgrade north and west legs; mark east leg
South St	Cortina Dr to Marin St	Study	Bicycle facility
South St	Marin St to Papst Ave	Class II Bicycle Lanes	Remove on street parking

Location	Cross Street(s)	Improvement	Notes
South St	Walnut Ave	High Visibility Crosswalk	Upgrade north leg
South St	Fairview St	High Visibility Crosswalk	Upgrade all four legs
South St	Papst Ave	High Visibility Crosswalk	Mark all four legs
South St (extension)	Papst Ave to Hambright Ave	Class I Shared Use Path	Connection to north-south path currently under development east of Papst Ave
Stony Creek Irrigation Canal	6 th St to Shasta St/Woodward Ave	Class I Shared Use Path	Underground irrigation canal
Suisun St	4 th St to 5 th St	Sidewalk	Both sides
Suisun St	3 rd St	Curb Extensions	Upgrade south leg
Tehama St	Walker St to Woodward Ave	Class II Bicycle Lanes	Create buffered bicycle lanes where width is sufficient
Tehama St	Woodward Ave to Papst Ave	Class II Bicycle Lanes	
Walker St	6 th St to 3 rd St	Study	Streetscapes project
Walker St	East St	High Visibility Crosswalk	Upgrade all four legs
Walker St	East St	Curb Extensions	All four legs
Walker St	675 ft east of East St to 750 ft east of East St	Sidewalk	South side
Walker St	Woodward Ave to County Rd M 1/2	Sidewalk	South side
Walker St	Woodward Ave to 400 ft west of Papst Ave	Sidewalk	North side
Walker St	250 ft east of Papst Ave to 500 ft west of County Rd M 1/2	Sidewalk	North side
Walnut Ave	Central St to Chapman St	Sidewalk	West side
Walnut Ave	100 ft south of Chapman St to 150 ft north of South St	Sidewalk	West side
Walters St	Chapman St to 100 ft south of Chapman St	Sidewalk	South side
Woodward Ave	Shasta St to Tehama St	Class II Bicycle Lanes	
Yolo St	2 nd St	High Visibility Crosswalk	Upgrade north and east legs
Yolo St	1 st St	High Visibility Crosswalk	Upgrade north and west legs
Yolo St	5 th St to Papst Ave	Class II Bicycle Lanes	
Yolo St	Papst Ave	High Visibility Crosswalk	Mark west leg









ORLAND

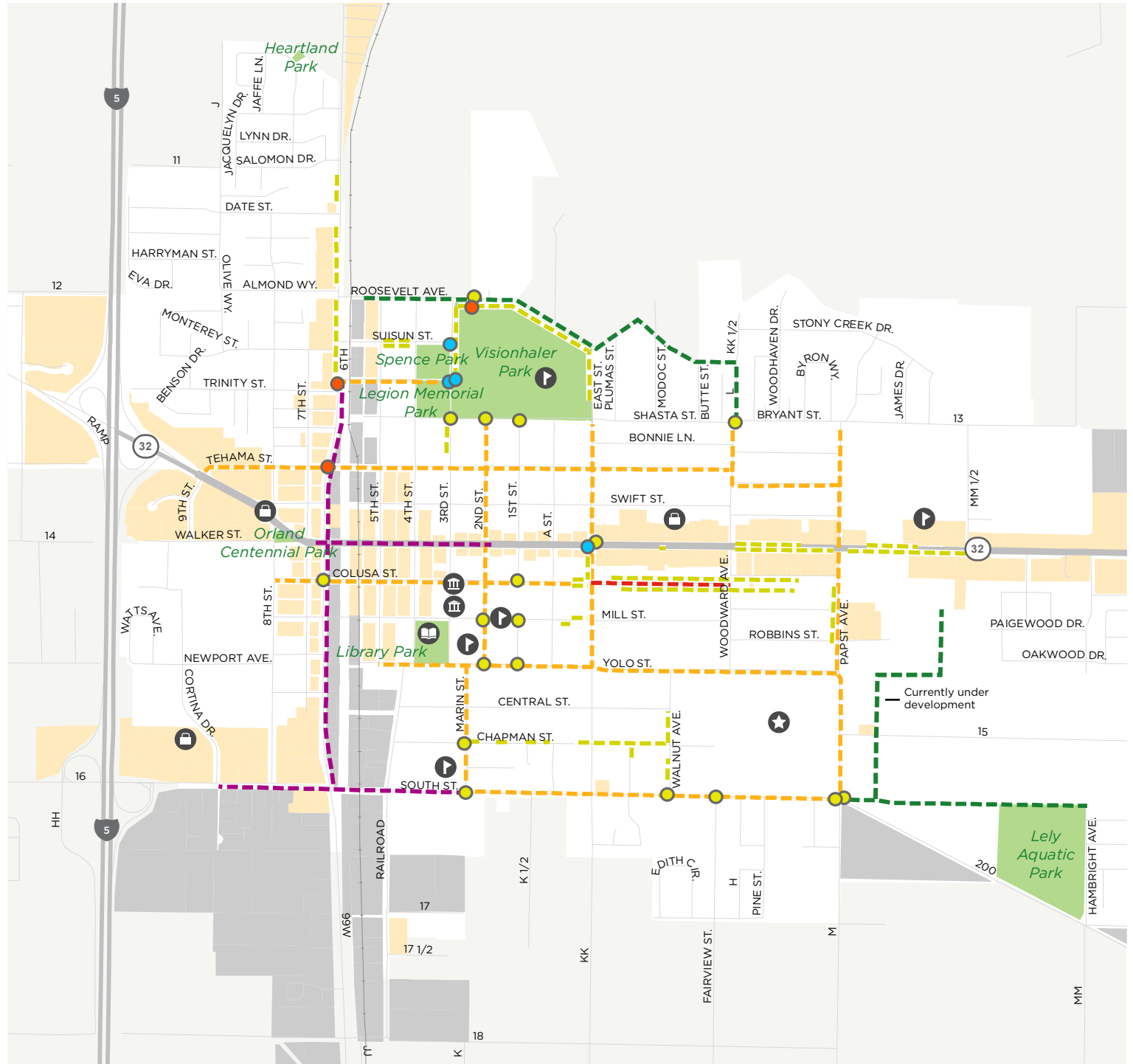
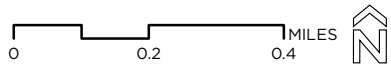
GLENN COUNTY ACTIVE TRANSPORTATION PLAN

FIGURE 4-1
PROPOSED
IMPROVEMENTS

-  Curb Extension
-  High Visibility Crosswalk
-  RRFB
-  Class I Shared-Use Path
-  Class II Bicycle Lane
-  Class III Bicycle Route
-  Sidewalk
-  Study

DESTINATIONS + BOUNDARIES

-  Civic Building
-  Entertainment
-  Library
-  School
-  Shopping
-  Commercial
-  Industrial
-  Park



Willows

Recommended improvements in the City of Orland are listed in Table 4-2 and mapped in Figure 4-2.

Table 4-2: Willows Improvements

Location	Cross Street(s)	Improvement	Notes
Cedar St	Willows Intermediate School driveway	High Visibility Crosswalk	Mark east leg, aligned with sidewalk
Cedar St	Culver Ave	High Visibility Crosswalk	Upgrade north and west legs
Elm St	Culver Ave to Shasta St	Sidewalk	South side
Enright Ave	100 ft north of Sycamore St to Oak St	Sidewalk	West side
Eureka St	Tehama St	Raised Islands	Narrow Eureka St approach and create right turn lane
French St	Pacific Ave	High Visibility Crosswalk	Mark north leg
French St	Pacific Ave to Washington St	Sidewalk	South side
French St	Washington St	High Visibility Crosswalk	Upgrade all three legs
French St	Murdock Ave	High Visibility Crosswalk	Upgrade all five legs (including driveway)
French St	Murdock Ave to Lassen St	Sidewalk	South side
French St	150 ft west of Plumas St to Plumas St	Sidewalk	South side
French St	175 ft west of Shasta St to Shasta St	Sidewalk	South side
French St	175 ft west of Butte St to Butte St	Sidewalk	South side
Green St	Grove Ln	High Visibility Crosswalk	Upgrade east leg
Green St	Murdock Ave to Shasta St	Sidewalk	South side
Green St	Alley west of Butte St to Butte St	Sidewalk	South side
Laurel St	Villa Ave to Enright Ave	Sidewalk	South side
Laurel St	Villa Ave to Sonoma St	Class II Bicycle Lanes	
Laurel St	Culver Ave	High Visibility Crosswalk	Upgrade all four legs
Marshall Ave	SR 162 to Willow St	Sidewalk	West side
Marshall Ave	Oak St to Laurel St	Sidewalk	West side
Pacific Ave	French St to Wood St	Sidewalk	East side
Railroad/ Hwy 99W	SR 162 to Rd 8013	Study	Shared use path to Wildlife Refuge
Shasta St	Green St to French St	Class II Bicycle Lanes	

Location	Cross Street(s)	Improvement	Notes
Shasta St	French St to Vine St	Class III Bicycle Route	
Shasta St	Vine St to Elm St	Class II Bicycle Lanes	Convert angled parking to parallel between Walnut St and Laurel St
SR 162	Willows Mobile Home & RV Park to 1 st St	Study	Complete Streets
SR 162	Enright Ave	High Visibility Crosswalk	Mark west leg
SR 162	Enright Ave	RRFB	West leg
SR 162	Washington St/ Merrill Ave	High Visibility Crosswalk	Upgrade all four legs
SR 162	Shasta St	High Visibility Crosswalk	Mark east leg
SR 162	Shasta St	RRFB	East leg
Sycamore St	100 ft east of Enright Ave to Culver Ave	Sidewalk	North side
Sycamore St	Murdock Ave	High Visibility Crosswalk	Upgrade north, east, and south legs; mark west leg
Sycamore St	Railroad	Sidewalk	Both sides
Tehama St	Canal	Study	Crossing
Villa Ave	SR 162 to 450 ft north of Sycamore St	Sidewalk	West leg
Villa Ave	SR 162 to Elm St	Class II Bicycle Lanes	Create buffered bicycle lanes where width is sufficient
Villa Ave	Birch St to Cedar St	Sidewalk	West side
Villa Ave	Cedar St	High Visibility Crosswalk	Upgrade east leg; mark north leg
Walnut St	Crawford Ave to Culver St	Sidewalk	North side
Willow St	Culver St to Merrill Ave	Sidewalk	North side
Willow St	Marshall Ave to Murdock Ave	Sidewalk	North side
Willow St	175 ft west of Butte St to Butte St	Sidewalk	South side





WILLOWS

GLENN COUNTY ACTIVE TRANSPORTATION PLAN

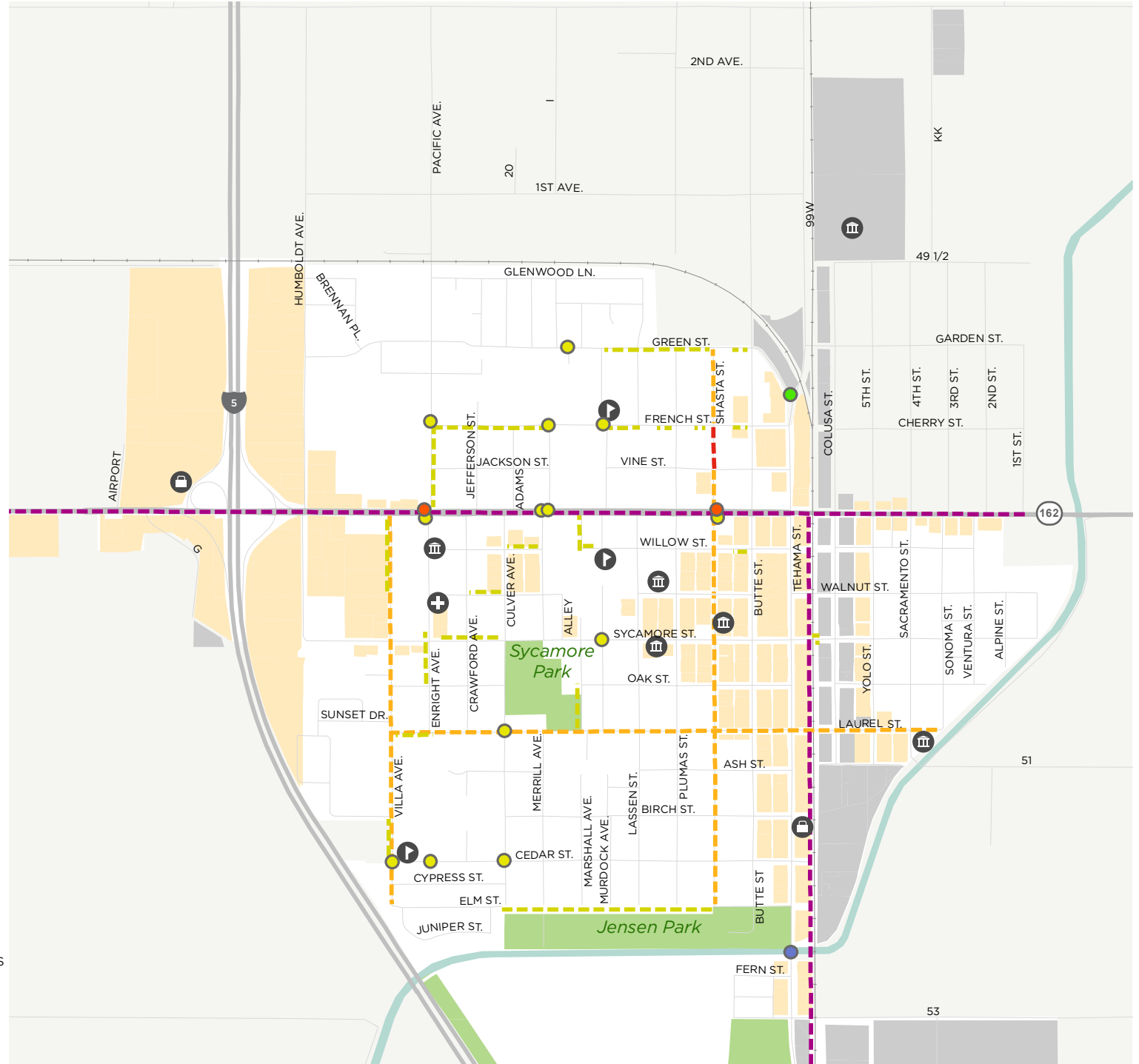
FIGURE 4-2
PROPOSED
IMPROVEMENTS

- Raised Islands
- High Visibility Crosswalk
- RRFB
- Study: Bridge
- Class II Bicycle Lane
- Class III Bicycle Route
- Sidewalk
- Study

DESTINATIONS + BOUNDARIES

-  Civic Building
-  Medical Center
-  School
-  Shopping
- Commercial
- Industrial
- Park

0 0.25 0.5 MILES



Hamilton City

Recommended improvements in the City of Orland are listed in Table 4-3 and mapped in Figure 4-3.








Table 4-3: Hamilton City Improvements

Location	Cross Street(s)	Improvement	Notes
4 th St	Main St to Railroad	Sidewalk	Both sides
Broadway	3 rd St	High Visibility Crosswalk	South leg
Capay Ave	3 rd St	Raised Intersection	
Capay Ave	4 th St	High Visibility Crosswalk	Upgrade west and south legs; mark north leg
Los Robles Ave	3 rd St	High Visibility Crosswalk	Upgrade south leg
Los Robles Ave	SR 32 to 3 rd St	Sidewalk	West side
Main St	3 rd St	High Visibility Crosswalk	South leg
Railroad	SR 32 to 1 st St	Class I Shared Use Path	Path between the railroad and Shasta Ave
Sacramento Ave	4 th St	High Visibility Crosswalk	North leg
SR 32	Los Robles Ave	RRFB	Upgrade existing crosswalk on west leg
SR 32	Los Robles Ave to Railroad	Sidewalk	South side
SR 32	Railroad to Sacramento River	Study	Shared use path on south side
SR 32	SR 45	Study	LPI
SR 32	SR 45	High Visibility Crosswalk	Upgrade existing crosswalks
SR 32	SR 45 to Los Robles Ave	Sidewalk	North side






HAMILTON CITY

GLENN COUNTY ACTIVE TRANSPORTATION PLAN

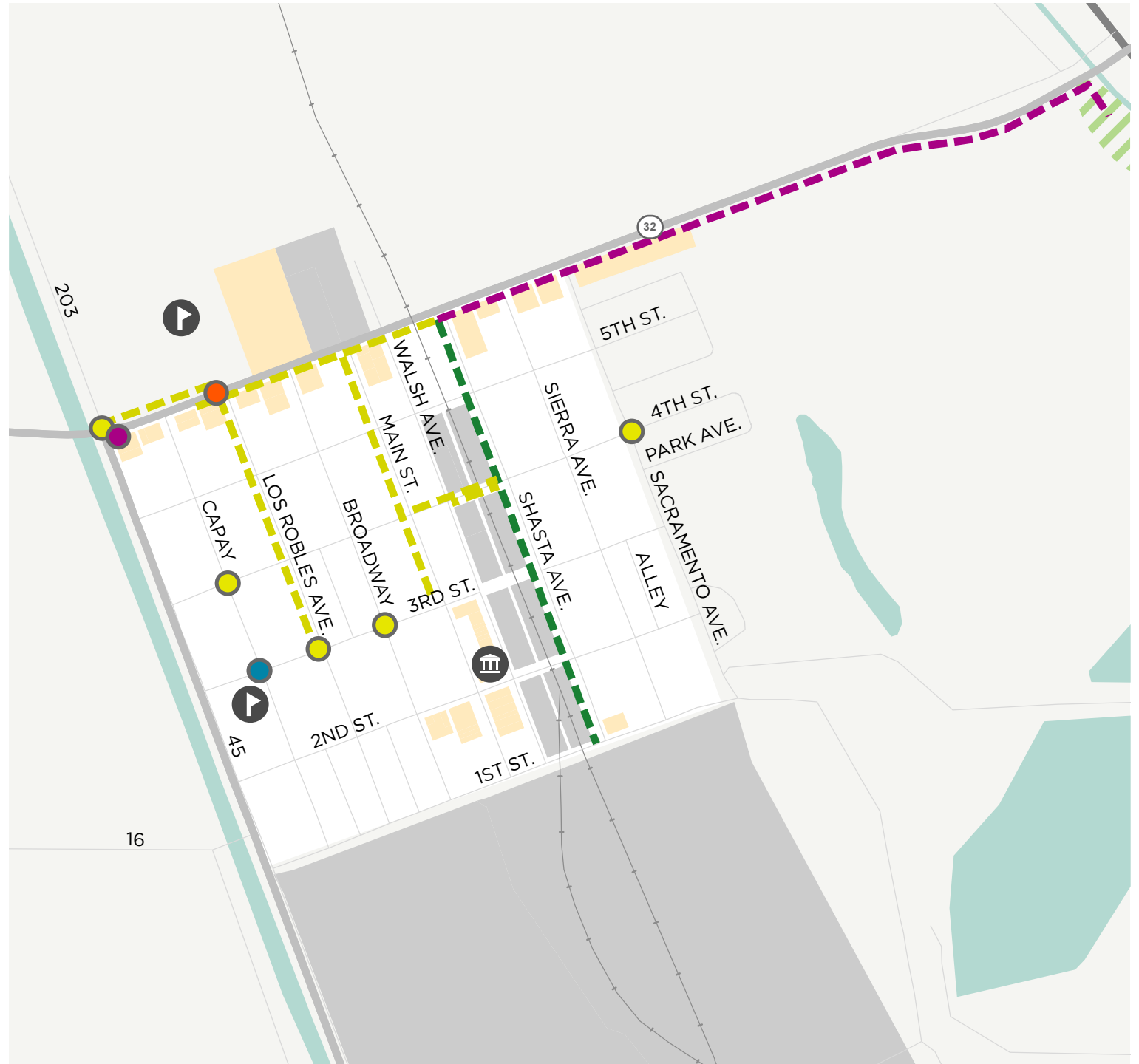
FIGURE 4-3
PROPOSED
IMPROVEMENTS

-  High Visibility Crosswalk
-  Raised Intersection
-  RRFB
-  Study: LPI
-  Class I Shared-Use Path
-  Sidewalk
-  Study

DESTINATIONS + BOUNDARIES

-  Civic Building
-  School
-  Commercial
-  Industrial
-  Boat Launch and Recreation Area

0 0.1 0.2 MILES



Studies

Orland

Shared Use Path on 6th Street

6th Street is a regional north-south connection that runs parallel to the railroad in western Orland. With limited opportunities to cross the railroad, providing a north-south facility for bicycling and walking is important to allow people to access the crossing. Due to the relatively high speeds and volumes on 6th Street, along with a history of multiple bicycle and pedestrian related collisions, a shared use path between 6th Street and the railroad is likely the most appropriate facility to support all ages and abilities.

Bicycle Facility on South Street

The section of South Street from Cortina Drive to Main Street would provide an important connection across 6th Street and the railroad for the Orland Arbor neighborhood near Cortina Drive and 8th Street. West of 6th Street, the roadway is 60 feet wide with five lanes; providing an on-street bicycle facility would require removing one or more travel lanes. East of 6th Street, providing a bicycle facility would require removing on-street parking.

Streetscapes Study on SR 32

This section of SR 32 is part of a recently completed Streetscapes Study undertaken by Caltrans. The City of Orland is currently seeking funding to implement improvements.

Willows

Canal Bridge

Tehama Street is the only crossing of the canal south of Willows that permits bicycle and pedestrian access. No bicycle facility is currently provided, and narrow sidewalks on either side offer little comfort for people walking. A study should evaluate opportunities to provide a comfortable bicycling and walking facility across the canal, including evaluating reconfiguring the existing bridge or providing a separate bridge. This study should be coordinated with the study for a shared use path south to the wildlife refuge.

Shared Use Path to Refuge

Community members identified the wildlife refuge south of Willows as a destination for people bicycling or walking. A study should evaluate options to create a shared use path between the railroad and Tehama Street/Highway 99W.

Complete Streets Study on SR 162

SR 162 functions as a Main Street through Willows, but lacks bicycle facilities through the city and lacks comfortable pedestrian facilities in some places. Four bicycle or pedestrian involved collisions were reported on the corridor between 2012 and 2016. A Complete Streets study should evaluate accommodation for bicyclists and pedestrians through the entire community. West of Humboldt Avenue, accommodation should be provided across the I-5 interchange to Willows Mobile Home & RV Park community. East of Humboldt Avenue, the roadway is approximately 62 feet wide and typically has two travel lanes in each direction. A road diet should be considered to create three travel lanes with buffered bicycle lanes and on-street parking.

Hamilton City

LPI at SR 32 and SR 45

The northwest corner of Hamilton City is formed by the intersection of SR 32 and SR 45—two higher speed, higher volume roadways that provide regional connections to nearby communities. Hamilton Union High School is located on the northeast corner of the intersection, generating increased pedestrian activity. The intersection has a traffic signal, but community members reported challenges crossing the east leg of the intersection with high volumes of northbound drivers making right turns during the concurrent green phase and pedestrian “walk” phase. An LPI at this intersection may be appropriate to increase visibility of pedestrians in the crosswalk and reduce potential conflicts.

Shared Use Path to Levee

East of Hamilton City on SR 32 a recreation area and boat launch provides access to the Sacramento River, a popular summer destination for local and regional visitors to boat, raft, or float on the river. Providing a comfortable option for walking and bicycling could reduce short vehicle trips from Hamilton City.

5. Recommended Programs

Programs such as education and enforcement campaigns are essential to the success of active transportation plans as they increase the desirability and safety of walking and bicycling in communities.

This chapter describes recommended bicycle and pedestrian related programs for Glenn County. The recommendations are organized in four E's:

- ◆ **Education** programs are designed to improve safety and awareness. They can include programs that teach students how to safely cross the street, or teach drivers where to anticipate bicyclists and how to share the road safely.
- ◆ **Encouragement** programs provide incentives and support to help people leave their car at home and try walking or bicycling instead.
- ◆ **Enforcement** programs enforce legal and respectful walking, bicycling, and driving. They include a variety of approaches, ranging from police enforcement to neighborhood signage campaigns.
- ◆ **Evaluation** programs are an important component of any investment. They help measure success at meeting the goals of this Plan and to identify adjustments that may be necessary.

The fifth E commonly included in discussions of active transportation is **Engineering**, which is reflected by the recommended infrastructure projects listed in the previous chapter.

Programs recommended on the following pages should include outreach and education in both English and Spanish to serve the diverse Glenn County community. Given limited staff time and resources available, programs should be implemented or continued as funding and resources allow. Partnering with local organizations and other agencies is a key strategy to sustainable program activity.

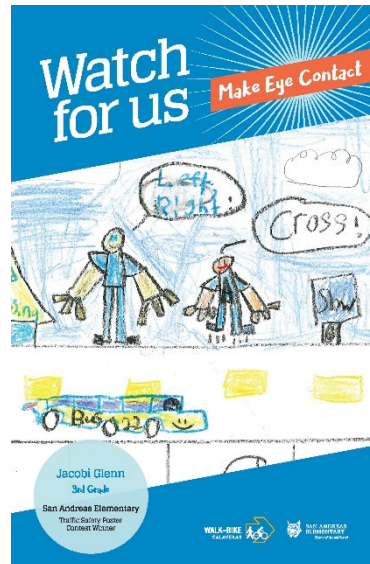
Education

Traffic Safety Poster Contest

A traffic safety poster contest is a fun way to engage students and their families in traffic safety principles, and can raise awareness of active transportation in the broader community. After learning about bicycle and pedestrian safety in school, students create posters illustrating a safety concept they learned about. This can either be done in-class as an art activity or completed at home as students discuss bicycle and pedestrian safety with their parents.

A judging panel of County staff, school staff, or other impartial adults should review poster submissions and select a winner based on the quality of the artwork and the clarity of the safety concept being illustrated. If desired, more than one winner may be selected.

Winning artwork should then be incorporated into a public safety media campaign, which may include posters, banners, or other materials. A well-produced safety campaign will be memorable, effective, and relevant to the local area. Good examples include the Sonoma County Transit Authority's "You've got a friend who bikes!" campaign, or Calaveras County's "Watch for us: Make eye contact" campaign.



In-Classroom Education

Classroom education related to safe walking and bicycling can help students learn basic traffic laws and safety rules in addition to incorporating lessons across biology, earth science, math, and art that focus on the benefits of active transportation.

California's Active Transportation Resource Center (ATRC) has a Pedestrian and Bicycle Safety Curriculum that includes nine lesson plans targeted at 4th and 5th grade levels, and many cities and counties have developed their own curricula for use at other levels. Each lesson in the ATRC curriculum is 45-90 minutes long and meets Common Core standards. They cover a variety of subjects including math, the environment, physical education activities, and art projects.

The curriculum is currently being updated to meet Americans with Disabilities Act (ADA) guidelines, and will be available on the state's website once that process is complete. In the interim, the 2015 version is available on the Sonoma County Safe Routes to School website at sonomasaferroutes.org/content/california-pedestrian-and-bicycle-safety-curriculum-grades-4-and-5.

The County can support this program by partnering with the Glenn County Office of Education to recommend teachers incorporate curricula into their lesson plans and provide curriculum resources and information as needed.

Adult Bicycling Education

Bicycling education for adults can build confidence and improve safety by incorporating both presentations and on-bike practice covering rules of the road and safe bicycling skills. The League of American Bicyclists offers multiple curricula that can be taught by League Certified Instructors in the area, or bicycling groups in the region such as Chico Velo may be interested in partnering to offer educational opportunities to Glenn County residents.

The County can support these efforts by advertising classes or providing meeting space or other in-kind donations to support education opportunities.

More information on Chico Velo is available at www.chicovelo.org.

More information on the League of American Bicyclists courses is available at bikeleague.org/ridesmart.

Encouragement

May is Bike Month Participation

May is Bike Month is a nationwide annual event to celebrate and encourage bicycling in the month of May. Each region or community participates on an individual basis, but common program activities include pledges to ride a certain number of miles over the month; friendly competitions between teams, workplaces, or other groups; “Energizer Stations” with snacks or other incentives for bicyclists, typically on a designated Bike to Work Day; and online or social media campaigns.

The County can encourage participation in May is Bike Month by advertising the event, hosting an energizer station, and creating partnerships with local community groups and businesses to expand activities in future years.

Information on the six-county Sacramento region’s May is Bike Month activities is available at www.mayisbikemonth.com.

General information from the League of American Bicyclists is available at bikeleague.org/bikemonth.

Walk & Roll to School Days

Walk & Roll to School Days are events that encourage students and families to try walking or bicycling to school. The most popular events of this type are International Walk to School Day held in early October, and Bike to School Day held in early May. Many communities choose to celebrate walking and bicycling on both days, in addition to roller skating, skateboarding, and scootering.

Families that live too far from their school to walk or bicycle the full distance should be encouraged to park at a designated location a few blocks away or up to one mile from campus. From there, parents and students can complete their trip to school by walking or rolling.

Volunteers can set up a welcome table for participating students, and may opt to provide refreshments, small incentive prizes, or an interactive poster that allows students to record their mode of transportation used that day.

Once established on an annual basis, Walk & Roll to School Days can be expanded by adding monthly or weekly events, coordinating friendly competitions between classrooms, or by organizing groups to walk or bicycle together.



Enforcement

Targeted Enforcement

Targeted enforcement efforts focus on reinforcing safety at known challenging locations, or addressing a specific behavior such as yielding to pedestrians in crosswalks. Bicycle and pedestrian collision data along with community comments received should be reviewed with local law enforcement annually to identify locations or behaviors to be addressed as time and resources allow.

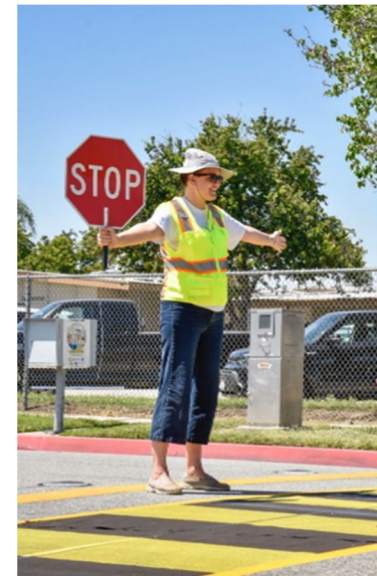
Crossing Guard Program

Crossing guards can improve safety and comfort for students and families walking to school by increasing visibility of crossing pedestrians and helping children only cross the street when oncoming traffic has yielded. Providing training and resources to volunteer crossing guards can help ensure best practices are met for equipment use and crossing protocols.

The County can support a crossing guard program by sharing training resources with schools, offering meeting space for trainings, or pursuing funding for materials including high visibility vests and stop paddles.

California offers free online resources for crossing guard training, available at:

caatpresources.org/?pid=1305.



Evaluation

Student Hand Tallies and Parent Surveys

Student hand tallies and parent surveys are two of the most commonly used tools to measure change in behavior and attitudes related to walking and bicycling. They are increasingly included as required elements on applications for competitive grant programs, or are required to be included as part of the scope of work for grant funded projects in school areas. Collecting this data may increase Glenn County’s competitiveness in these programs by having robust data to make a strong case for walking and bicycling improvements.

Teachers or volunteers collect hand tally data at the classroom level, asking students for information on how they traveled to and from school on two consecutive days that week. Tallies should be conducted each year on a Tuesday, Wednesday, or Thursday and should collect information on the day of the tallies as well as the previous day. Avoid collecting data that may reflect unusual travel patterns due to minimum schedule days, holidays, Fridays, or school events.

Parent surveys gauge knowledge and opinions of walking and bicycling to school. Surveys should be conducted once per year and can either be sent home with students or made available online.

The National Center for Safe Routes to School provides a standard survey form that gathers information on modes of travel to school, interest in and perceptions of walking and bicycling to school, barriers or challenges that prevent walking or bicycling to school, and interest in volunteer opportunities. Additional questions can be added to measure opinions on any specific challenges or opportunities within Glenn County or at the specific school site.

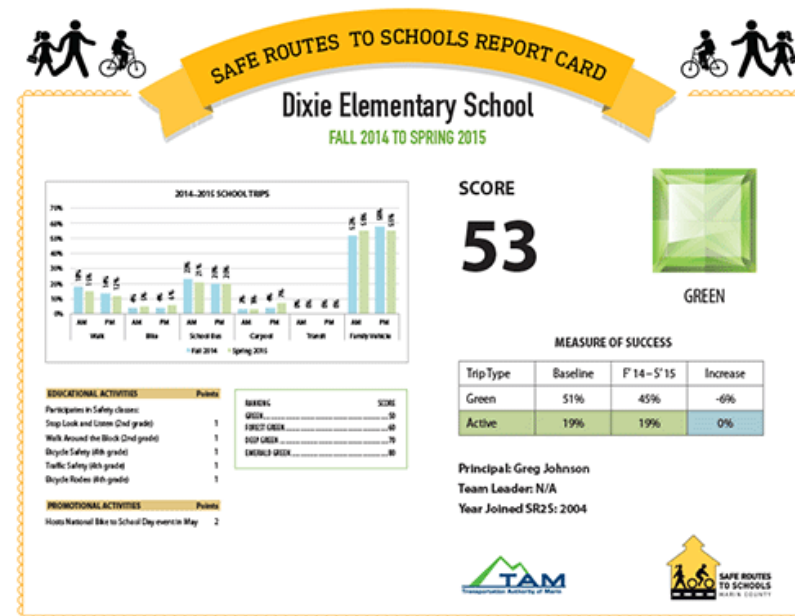
Instructions and data collection forms are available at saferoutesdata.org.

Annual Report Card

An annual report card assesses the County’s progress toward goals and objectives outlined in this Plan, implementation of its projects and programs, and changing mode splits for active transportation. Annual report cards can also incorporate a review of effectiveness to evaluate costs and benefits of various efforts and adjust investments to maximize results.

The County should engage other organizations in this annual review as needed, including law enforcement, school representatives, or community groups. Completed report cards may be shared with City Councils and community leadership to celebrate achievements and identify priorities for the following year.

Sample school report cards can be found in the Marin County Safe Routes to Schools 2016 Evaluation Report Appendix, which is available at http://www.saferoutestoschools.org/eval_reports.html.



6. Implementation Strategy

This Plan includes projects and programs intended to create active, vibrant, safer, and well-connected communities throughout Glenn County. The bicycling and walking improvements seek to increase comfort and safety while creating better connections to schools, parks, employment opportunities, and transit.

The Implementation Strategy described in this chapter reflects a thoughtful approach to fund improvements based on a high-level review of community benefit and competitiveness in typical grant funding scenarios.

This chapter includes:

- ◆ Planning-level construction cost estimates
- ◆ Maintenance cost estimates
- ◆ Implementation plan
- ◆ Potential funding sources

In addition, two appendices provide additional detail for implementation of walking and bicycling improvements in Glenn County:

- ◆ Appendix C includes concept plans for three packages of projects
- ◆ Appendix D includes a preliminary assessment of off-street bicycle routes between communities

Cost Estimates

Unit Cost Assumptions

Table 6-1 presents planning level unit cost assumptions used to develop project construction cost estimates. Unit costs are typical or average costs informed by Alta Planning + Design’s experience working with California communities.

At the planning level, cost assumptions do not consider project-specific or location-specific factors that may affect actual costs, including acquisition of right of way, significant grading, or relocation of utilities, among other factors. For some projects, actual costs may differ significantly from the planning level estimates.

Cost estimates for projects in this Plan are rounded to the nearest \$100, are in 2018 dollars, and do not include cost escalation.

Cost estimates are not provided for recommended studies in this plan. These costs can vary widely based on the included outreach and other components.

Table 6-1: Unit Cost Assumptions

Facility	Unit	Cost Est.	Notes
Class I Shared Use Path	Mile	\$1,000,000	10’ asphalt path with 2’ unpaved shoulders and minimal grading
Class II Bicycle Lanes	Mile	\$80,000	Both sides of street
Class III Bicycle Route	Mile	\$30,000	
High Visibility Crosswalk	Each	\$2,800	
Sidewalk	Linear Foot	\$200	6’ wide with curb and gutter, one side of street
RRFB	Each	\$32,000	Includes two beacon assemblies, one for each side of the crossing
Raised Intersection	Each	\$50,000	
Curb Extensions	Each	\$16,000	Includes both sides of a crossing leg
Raised Islands	Each	\$32,000	

Planning Level Cost Estimates

This plan includes a total of approximately \$9.6 million in recommended improvements. Total project costs by community are summarized below. For a list of projects, including cost estimates, see Appendix B.

Table 6-2: Summary of Orland Improvement Cost Estimates

Improvement Type	Number	Length	Cost
Class I Shared Use Path	2	1.45 mi	\$1,450,000
Class II Bicycle Lanes	11	5.71 mi	\$456,800
Class III Bicycle Route	1	0.27 mi	\$8,100
Sidewalk	24	13,620 ft	\$2,724,000
High Visibility Crosswalk	58		\$162,400
RRFB	3		\$96,000
Curb Extensions	7		\$112,000
Total			\$5,009,300

Table 6-3: Summary of Willows Improvement Cost Estimates

Improvement Type	Number	Length	Cost
Class II Bicycle Lanes	2	2.91 mi	\$232,800
Class III Bicycle Route	1	0.9 mi	\$27,000
Sidewalk	21	11,250 ft	\$2,250,000
High Visibility Crosswalk	29		\$81,200
RRFB	2		\$64,000
Raised Islands	1		\$16,000
Total			\$2,108,500

Table 6-4: Summary of Hamilton City Improvement Cost Estimates

Improvement Type	Number	Length	Cost
Class I Shared Use Path	1	0.53 mi	\$530,000
Sidewalk	4	4,800 ft	\$960,000
High Visibility Crosswalk	10		\$28,000
RRFB	1		\$32,000
Raised Intersection	1		\$50,000
Total			\$1,360,000

Maintenance Cost Estimates

Maintaining the walking and bicycling environment once improvements have been implemented preserves the investment and will help support a high quality of life for Glenn County residents.

On-street bikeways should be maintained as part of the normal roadway maintenance program, with emphasis placed on keeping bicycle lanes and roadway shoulders clear of debris and keeping vegetation overgrowth from blocking visibility.

Table 6-5 lists typical maintenance activities, frequencies, and costs. All estimated costs are in 2018 dollars.

Table 6-5: Maintenance Cost Estimates

Activity	Frequency	Unit	Cost Est.
Crosswalk restriping	5-7 years	Each	\$2,800
Sidewalk and curb ramp repair	As needed		Varies
Class I Path repair	Ongoing, annually	Mile	\$8,750
Sign repair	As needed	Each	\$300
Class II Bicycle Lane restriping, replacing signs/stencils	Ongoing, annually	Mile	\$2,000

Implementation Plan

Given limited available funding and resources in Glenn County, competitive grant funding programs will likely be the primary tool used to implement the projects and studies in this Plan. Rather than ranking individual projects in a countywide process, the following implementation plan identifies three to five logical groups of improvements or studies in each community that are likely to be competitive packages for popular funding programs.

This approach provides Glenn County and the incorporated cities of Orland and Willows with the tools and background to pursue grant funding for one or more package as staff time and resources permit. In some cases, agencies may elect to combine two or more of these packages into a comprehensive community-wide grant application. Additionally, some projects may fit into more than one package, and should be included in whichever application is pursued first.

Each suggested group of improvements is described on the following pages, including a description of the projects or studies included. Many are oriented around Safe Routes to School (SRTS), as this tends to be a consistently competitive application approach in many funding programs.

Where relevant, typical criteria and thresholds that may qualify an application area as a Disadvantaged Community or otherwise contribute to a more competitive application are also included. This information is based on recent application cycles of large active transportation funding programs; specific guidelines may vary between programs or application cycles.

In addition, projects that include only low-cost elements such as signs and pavement markings are noted with an asterisk in the following lists. When opportunities arise, these projects may be implemented as part of roadway repaving or other routine maintenance activities.

Conceptual plans for three of the improvement packages are included in Appendix C.

Orland

Orland High School Safe Routes to School

This package of improvements includes the bicycling and walking improvements around Orland High School north of SR 32, including the shared use path proposed on top of the irrigation canal at the north edge of the community. Improvements may also benefit students attending William Finch Charter School and Butte College at the eastern edge of the community. Class II bicycle lane projects that cross SR 32 may either be included in this package or in the South Orland SRTS package.

These projects support active transportation access to the high school campus, including improved crossings of two barriers in the community: the Old Highway 99/Railroad corridor, and SR 32. Access across these barriers is important, as Orland High School is the only high school in the city and draws students from the west and south. The shared use path over the irrigation canal also provides an off-street option to travel to school for many students.

While Orland High School may not qualify as a disadvantaged school community based on free and reduced-price meal eligibility (only 66 percent of students qualified in the 2017-2018 school year), the City of Orland as a whole may qualify as a disadvantaged community based on median household income. A history of bicycle and pedestrian crashes in the area, particularly on old Highway 99, may also support a grant application.

This package has a total estimated cost of \$3,383,200, or \$3,181,600 if the north-south bicycle lanes across SR 32 are excluded. Due to its high cost, the Class I shared use path on the irrigation canal may be pursued independently with an estimated cost of \$960,000.







See Figure 6-1 on page 6-5.

ORLAND HIGH SCHOOL SAFE ROUTES TO SCHOOL









FIGURE 6-1

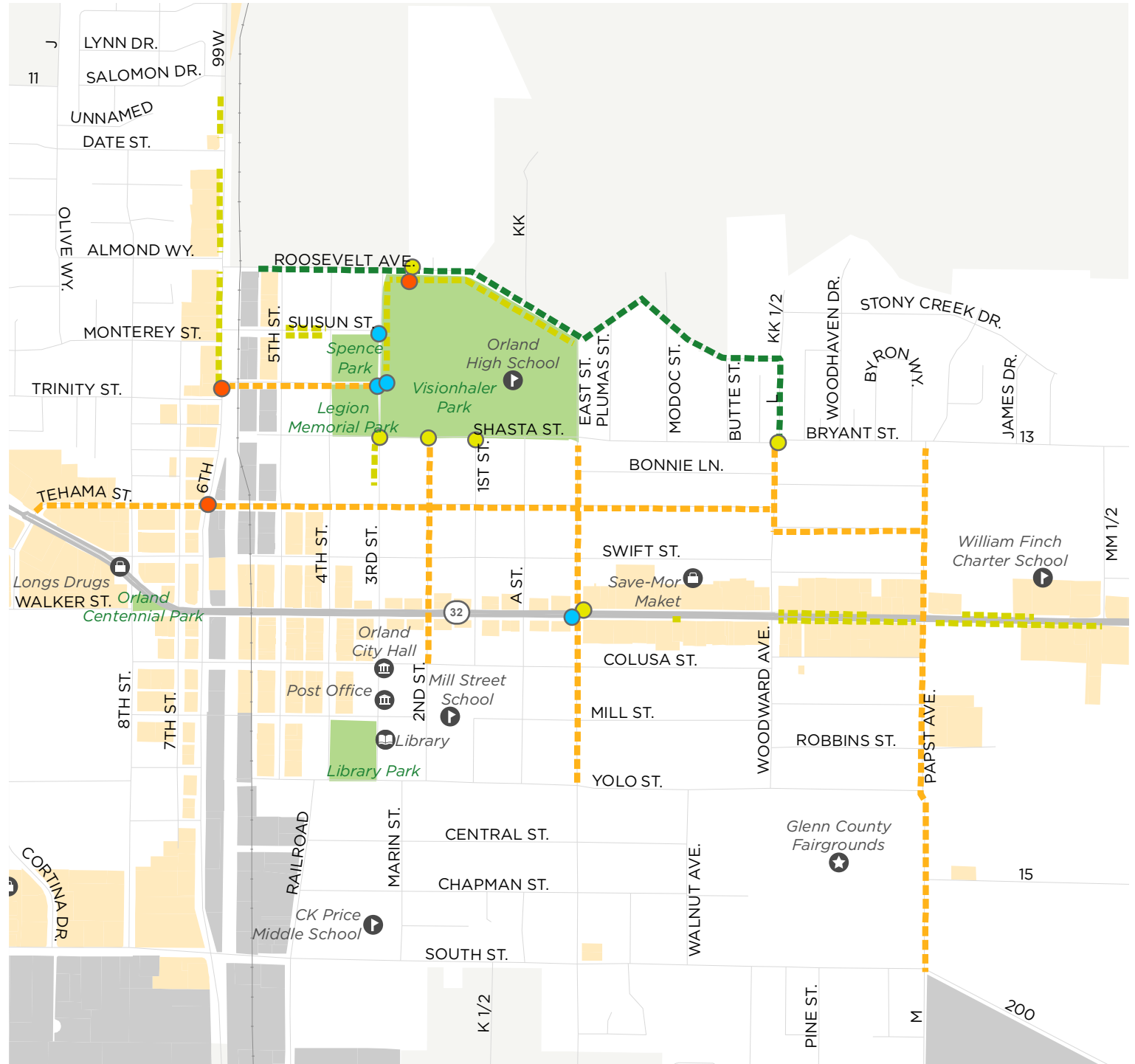
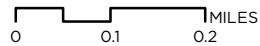
GLENN COUNTY ACTIVE TRANSPORTATION PLAN

Proposed Improvements

-  Curb Extension
-  High Visibility Crosswalk
-  RRFB
-  Class I Shared-Use Path
-  Class II Bicycle Lane
-  Sidewalk

Major Destinations

-  Civic Building
-  Entertainment
-  Library
-  School
-  Shopping
-  Commercial
-  Industrial
-  Park



South Orland Safe Routes to School

This package of improvements includes bicycling and walking improvements around Mill Street School, CK Price Intermediate School, and Fairview Elementary School south of SR 32 in Orland. Class II bicycle lane projects that cross SR 32 may either be included in this package or in the Orland High School SRTS package.

These improvements support active transportation for students and families at three schools, all of which may qualify as disadvantaged based on the percent of students eligible for free or reduced-price meals: 85 percent at Fairview Elementary, 82 percent at Mill Street Elementary, and 80 percent at Price Intermediate in the 2017-2018 school year.

The projects also improve crossings of two barriers in the community: the Old Highway 99/Railroad corridor, and SR 32. Similar to the Orland High School SRTS package, addressing these barriers is important to support South Orland SRTS because there are no elementary or intermediate schools north of SR 32 or west of the Old Highway 99 corridor.

There have been a few bicycle and pedestrian related collisions in South Orland, but they are dispersed and not concentrated in any particular location or corridor.

This package has a total estimated cost of \$1,337,700, or \$1,136,100 if the north-south bicycle lanes across SR 32 are excluded.

See Figure 6-2 on page 6-7.

Orchard Trail

The Orchard Trail is a Class I Shared Use Path in southeast Orland through an existing orchard and along the old South Street alignment east of Papst Avenue. This path would support active transportation access to Lely Aquatic Park, and would connect students in the residential neighborhood around Linwood Drive and Paigewood Drive to schools in South Orland without having to walk or bicycle along SR 32.

This project is considered separate from the South Orland SRTS package because it may require coordination with property owners to secure an easement for the trail. If this preliminary work is completed, the project could be combined with the South Orland SRTS package.

Like the South Orland SRTS package, a grant application for planning or construction funds may be competitive based on a disadvantaged school community approach.

The City of Orland is currently constructing one segment near the residential neighborhood, east of Papst Avenue. County efforts to study or implement this trail should be coordinated with the City.

This package has a total estimated cost of \$490,000.






See Figure 6-3 on page 6-8.

SOUTH ORLAND SAFE ROUTES TO SCHOOL









FIGURE 6-2

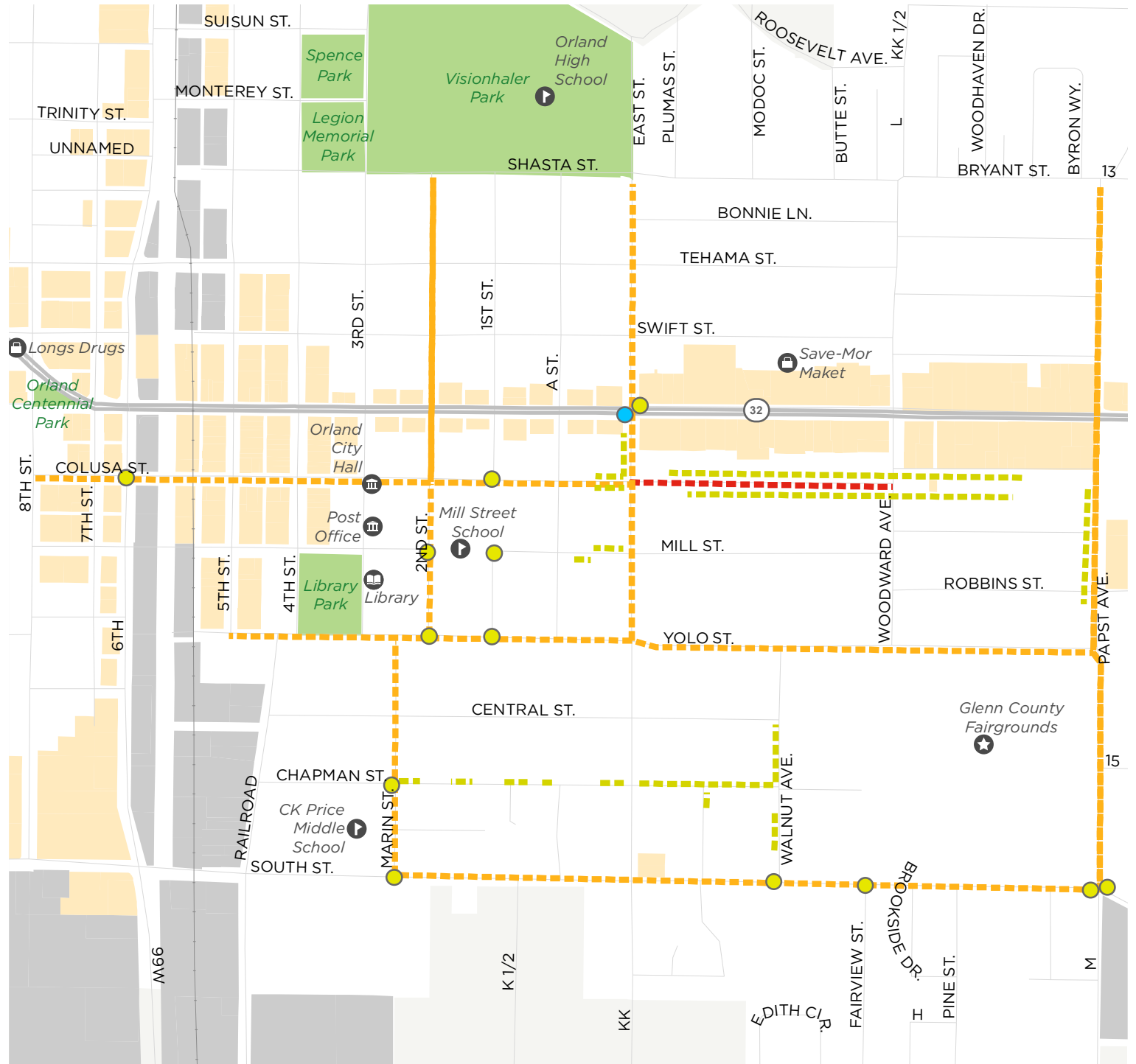
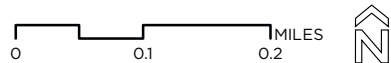
GLENN COUNTY ACTIVE TRANSPORTATION PLAN

Proposed Improvements

-  Curb Extension
-  High Visibility Crosswalk
-  Class II Bicycle Lane
-  Class III Bicycle Route
-  Sidewalk

Major Destinations

-  Civic Building
-  Entertainment
-  Library
-  School
-  Shopping
-  Commercial
-  Industrial
-  Park



ORCHARD TRAIL

FIGURE 6-3

GLENN COUNTY ACTIVE
TRANSPORTATION PLAN

Proposed Improvements

Class I Shared-Use Path

Major Destinations

- Commercial
- Industrial

0 0.05 0.1 MILES



Railroad/Old Hwy 99 Trail Study

This study should evaluate feasibility of a Class I Shared Use Path between Old Highway 99 and the railroad from Monterey Street to South Street. Old Highway 99, designated as 6th Street in Orland, is a relatively high-speed and high-volume corridor with a history of bicycle and pedestrian involved collisions. It currently lacks bicycle facilities, and has incomplete sidewalks.

In addition to challenges for people walking and bicycling along Old Highway 99, the railroad which parallels the street to the east creates a barrier due to limited crossing opportunities. This means people often have to travel along the corridor on incomplete or missing active transportation facilities to reach one of the few streets that crosses the railroad. Providing a separated path would support north-south travel to reach a crossing location.

Estimated costs are not provided for studies due to variability in scope.

See Figure 6-4 on page 6-10.

South Street Study

This study should evaluate feasibility for an on-street bicycle facility on South Street between Cortina Drive and Marin Street. This section of South Street would provide an important connection across Old Highway 99 and the railroad for the Orland Arbor neighborhood on Cortina Drive and 8th Street. This connection would support active transportation to school for students living in this neighborhood, which could be a competitive argument for a grant application.

West of Old Highway 99, South street is approximately 60 feet wide with five lanes; creating room for on-street bicycle facilities would likely require removing at least one travel lane. East of Old Highway 99, accommodating bicycle lanes would require removing on-street parking from any segments where it exists.

Estimated costs are not provided for studies due to variability in scope.

See Figure 6-5 on page 6-11.

SR 32 Streetscapes Project

This is a recently completed Caltrans Streetscape project that was ongoing at the time of writing. The scope included SR 32 from Old Highway 99 to 2nd Street.

See Figure 6-6 on page 6-12.

RAILROAD HIGHWAY 99 TRAIL STUDY








FIGURE 6-4

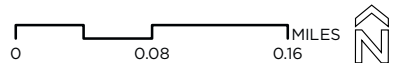
GLENN COUNTY ACTIVE
TRANSPORTATION PLAN

Proposed Improvements

 Study

Major Destinations

-  Civic Building
-  Library
-  School
-  Shopping
-  Commercial
-  Industrial
-  Park



SOUTH STREET STUDY

FIGURE 6-5

GLENN COUNTY ACTIVE
TRANSPORTATION PLAN

Proposed Improvements

Study

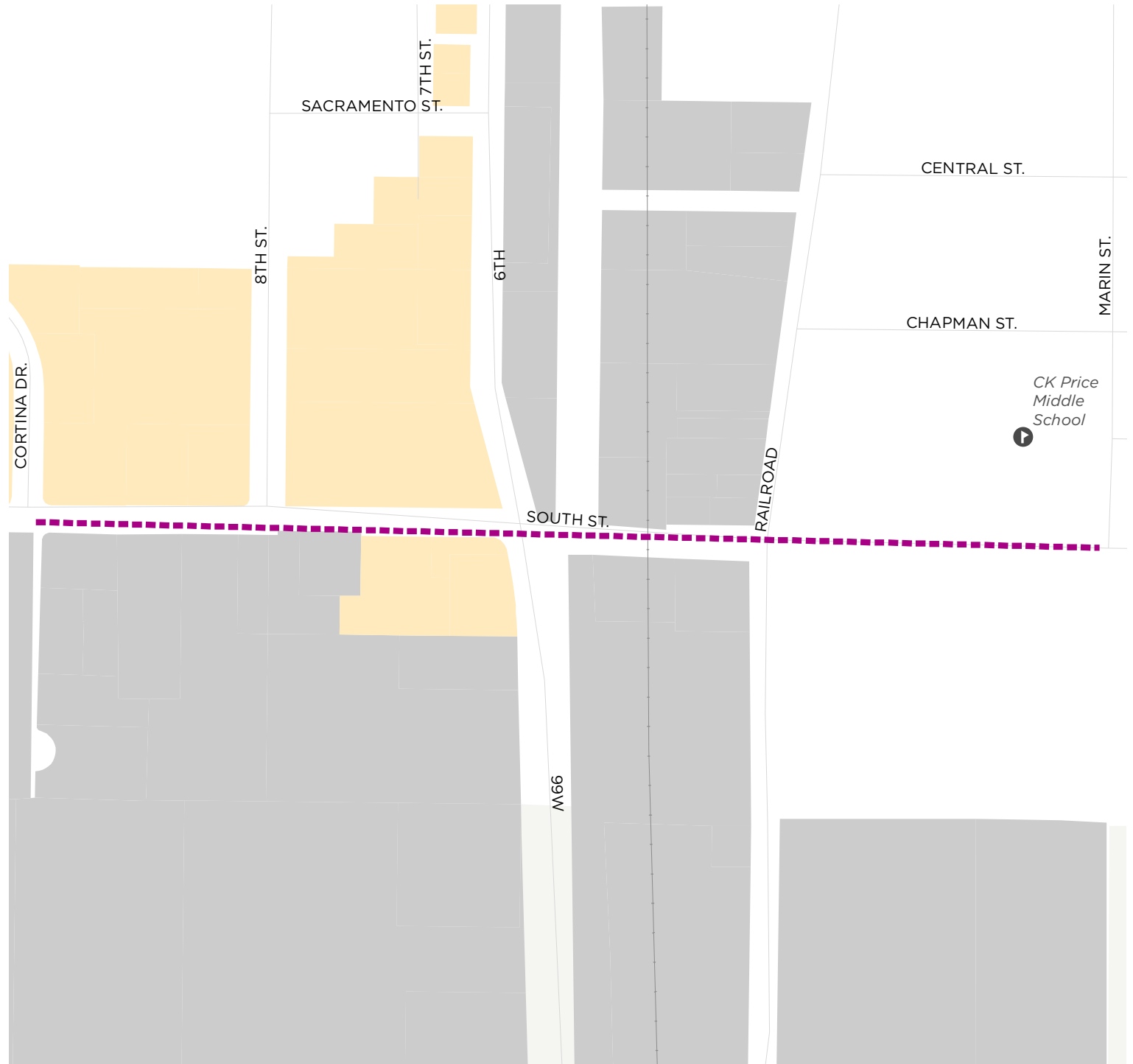
Major Destinations

School

Commercial

Industrial

0 0.045 0.09 MILES



SR 32 STREETSCAPES PROJECT

FIGURE 6-6

GLENN COUNTY ACTIVE
TRANSPORTATION PLAN

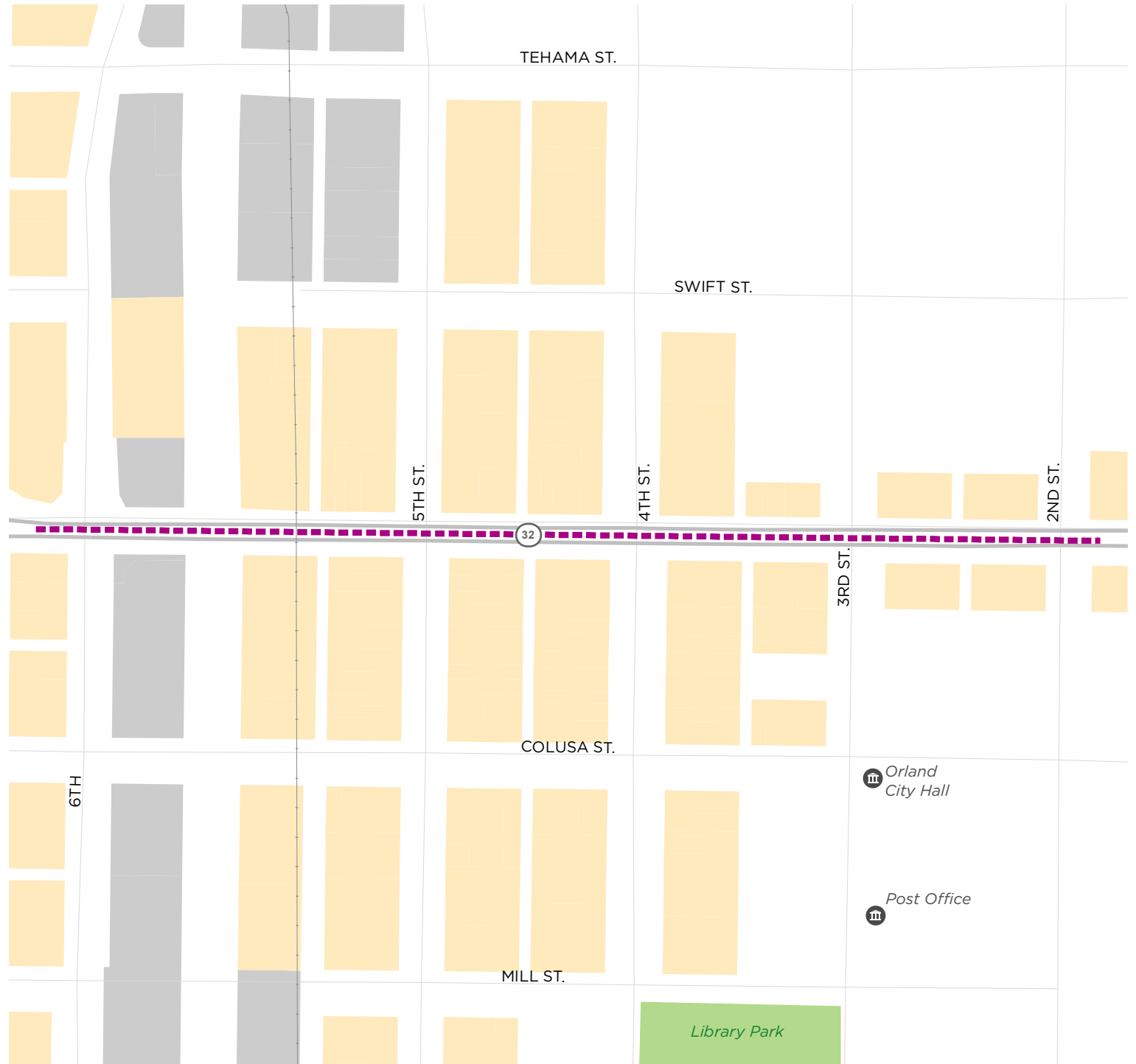
Proposed Improvements

Study

Major Destinations

- Civic Building
- Commercial
- Industrial

0 0.03 0.06 MILES



Willows

Murdock Elementary Safe Routes to School

This project package includes the sidewalk and crossing improvements north of SR 162 in Willows, including crossing improvements on SR 162 at Pacific Ave and at Shasta Street. These SR 162 crossings and on-street bikeways on Shasta Street from Green Street to Elm Street can either be included in this package or in the South Willows SRTS package.

Murdock Elementary may qualify this package of improvements as a disadvantaged community project with 77 percent of students eligible for free or reduced-price meals in the 2017-2018 school year. Closing sidewalk gaps along important routes to the school can improve safety for students by providing a place to walk outside of the street, and crossing improvements of SR 162 support active transportation for students who live south of the highway. As the only elementary school in the city, it is likely that Murdock Elementary draws families from south of SR 162.

This package has an estimated cost of \$1,054,200, or \$903,800 if the Shasta Street bikeway and SR 162 crossings are excluded.

See Figure 6-7 on page 6-14 and a concept plan in Appendix C.

South Willows Safe Routes to School

This package includes sidewalks and crossing improvements south of SR 162 in Willows, in addition to on-street bikeways on Villa Avenue, Shasta Street, and Laurel Street. Crossing improvements on SR 162 at Enright Avenue and at Shasta Street, along with bicycle facilities on Shasta Street from Green Street to Elm Street, may either be included in this package or in the Murdock Elementary SRTS package.

While SRTS projects tend to be consistently competitive in many grant funding programs, this package may not qualify as disadvantaged based on free and reduced-price meal data. Willows High School and Willows Intermediate School had 56 percent and 69 percent of students eligible in the 2017-2018 school year, respectively. This package may be considered a disadvantaged community project based on income; Willows had a median household income of \$50,429 according to 2017 5-year estimates from the American Community Survey, equivalent to approximately 75 percent of the statewide median household income (\$67,169).

If the SR 162 crossings and Shasta Street bicycle facilities are included, an argument may also be made for addressing the barrier created by SR 162. Its higher speed and higher traffic volumes can make crossing the highway on foot or by bicycle difficult. Several bicycle and pedestrian involved collisions were reported on SR 162 near Shasta Street, which reinforces the need for improvements at this location. In addition, bicycle lanes on Laurel Street and sidewalk projects on Sycamore Street support active transportation across the railroad corridor for students and families in east Willows.

This package has an estimated cost of \$1,767,200, or \$1,616,800 if the Shasta bikeway and SR 162 crossings are excluded.

See Figure 6-8 on page 6-15.

MURDOCK ELEMENTARY SAFE ROUTES TO SCHOOL

FIGURE 6-7

GLENN COUNTY ACTIVE TRANSPORTATION PLAN

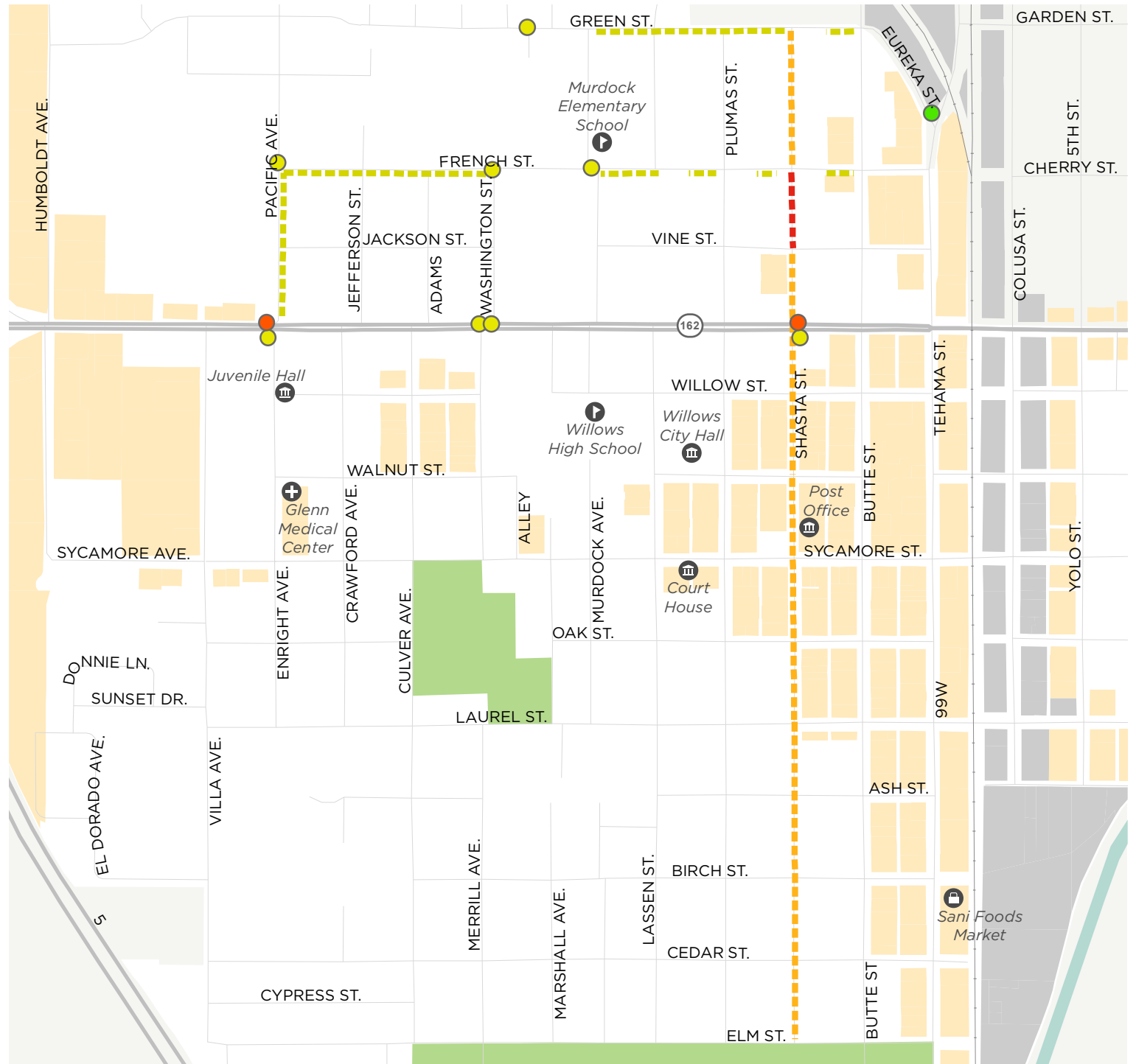
Proposed Improvements

- Raised Islands
- High Visibility Crosswalk
- RRFB
- Class II Bicycle Lane
- Class III Bicycle Route
- Sidewalk

Major Destinations

- Ⓜ Civic Building
- + Medical Center
- ▶ School
- 🛒 Shopping
- Commercial
- Industrial
- Park

0 0.1 0.2 MILES



SOUTH WILLOWS SAFE ROUTES TO SCHOOL

FIGURE 6-8

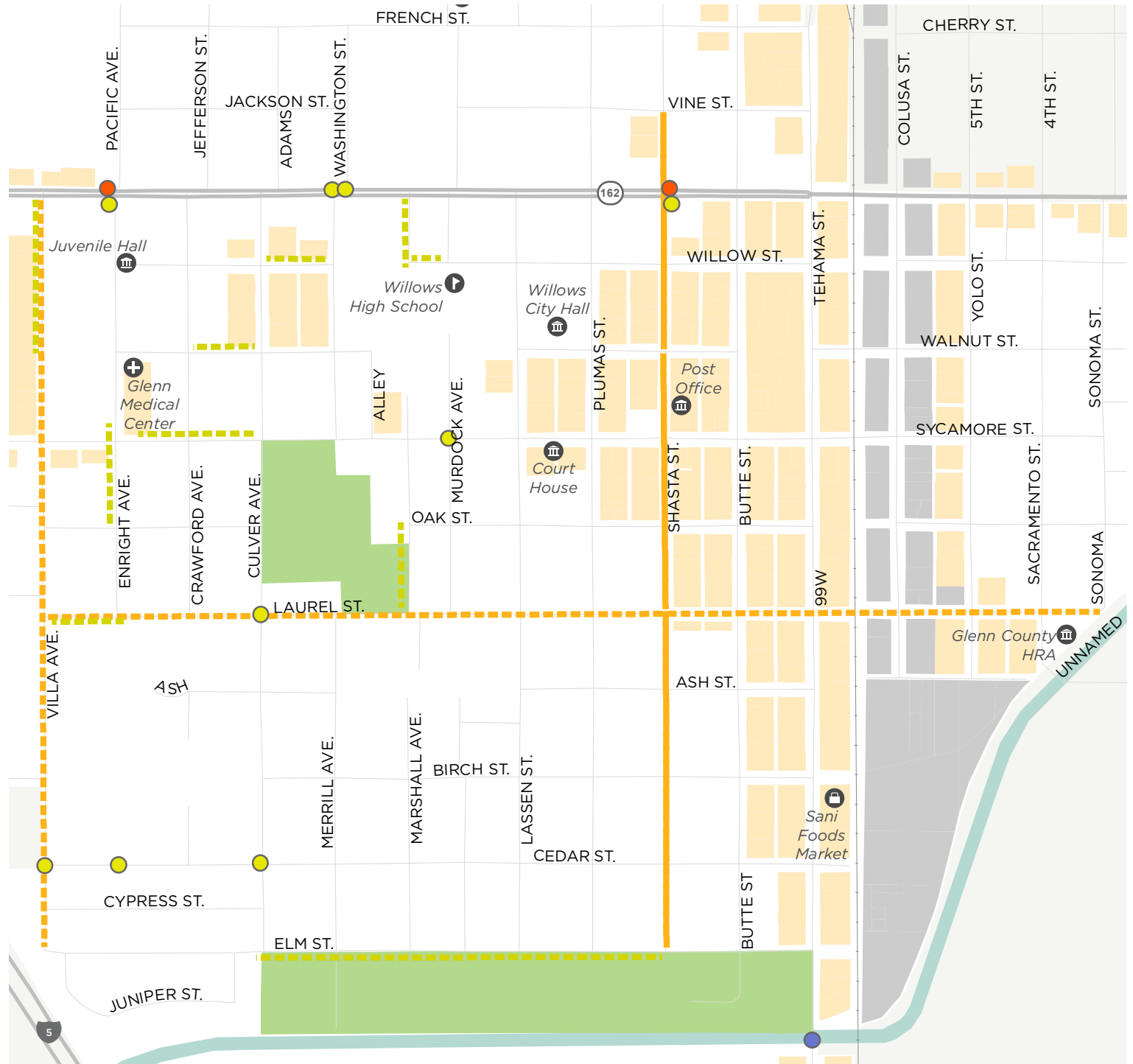
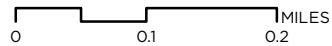
GLENN COUNTY ACTIVE TRANSPORTATION PLAN

Proposed Improvements

- High Visibility Crosswalk
- RRFB
- Study: Bridge
- Class II Bicycle Lane
- Sidewalk

Major Destinations

- Ⓜ Civic Building
- + Medical Center
- ▶ School
- 🛒 Shopping
- Commercial
- Open Space
- Industrial
- Park



Caltrans Complete Streets Study

SR 162 runs east-west through Willows, and currently lacks bicycle facilities. West of Humboldt Avenue, bicycle and pedestrian facilities should be evaluated to provide accommodation for active transportation across the I-5 interchange to Willows Mobile Home and RV Park. East of Humboldt Avenue, the corridor is approximately 62 feet wide and typically has two travel lanes in each direction with a center turn lane.

This study should evaluate feasibility of reallocating the roadway width to accommodate on-street bicycle facilities, including narrowing or removing vehicle lanes to create buffered bicycle lanes and on-street parking, and identify opportunities to improve crossings of the SR 162 corridor. These improvements would support active transportation both along and across the highway, increasing access to schools on opposite sides of SR 162 and access to Wal Mart and other commercial destinations west of I-5.

Willows' median household income of \$50,429—75 percent of the statewide median of \$67,169—may qualify this study as serving a disadvantaged community, or school community eligibility for free and reduced-price meal data can be used. If a SRTS approach is used, emphasis should be placed on studying crossings to support access to schools north and south of SR 162.

Estimated costs are not provided for studies due to variability in scope.

See Figure 6-9 on page 6-17.

Wildlife Refuge Trail Study

The Sacramento National Wildlife Refuge is approximately 8 miles due south of Willows, just west of I-5 and the parallel railroad line. This study should evaluate opportunities for a Class I shared use path from SR 162 to the refuge along the railroad corridor, including creating a crossing of the canal at the south edge of Willows.

If a comfortable canal crossing is included in this study, there may be some transportation utility for the trail within Willows. Given the lack of residential or employment opportunities between Willows and the refuge, however, this study and construction funding for the trail will likely be most competitive if pursued as a recreation asset for the region.

Estimated costs are not provided for studies due to variability in scope.

See Figure 6-10 on page 6-18.

CALTRANS COMPLETE STREETS STUDY









FIGURE 6-9

GLENN COUNTY ACTIVE
TRANSPORTATION PLAN

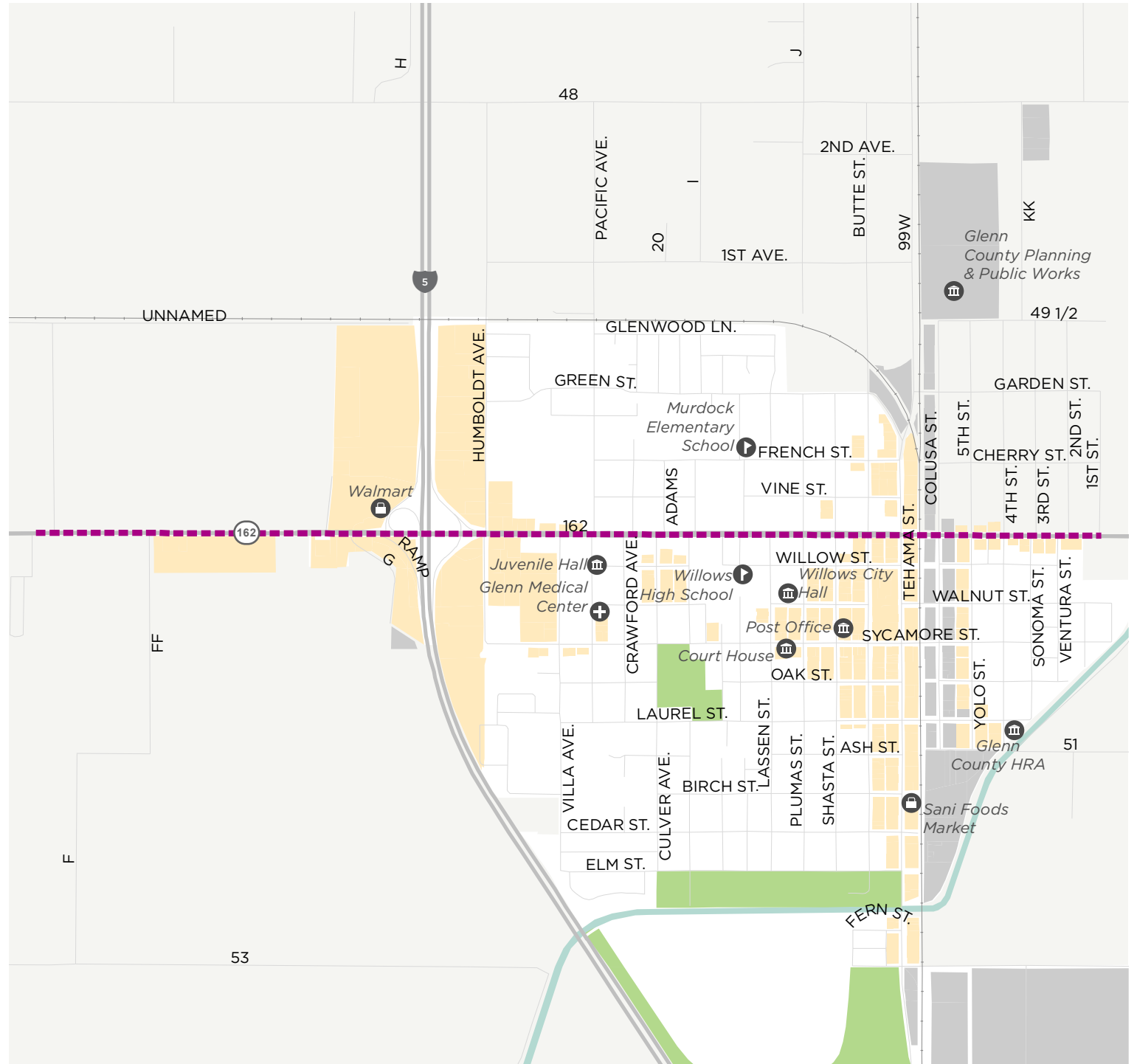
Proposed Improvements

Study

Major Destinations

-  Civic Building
-  Medical Center
-  School
-  Shopping
-  Commercial
-  Open Space
-  Industrial
-  Park

0 0.2 0.4 MILES



WILDLIFE REFUGE TRAIL STUDY









FIGURE 6-10

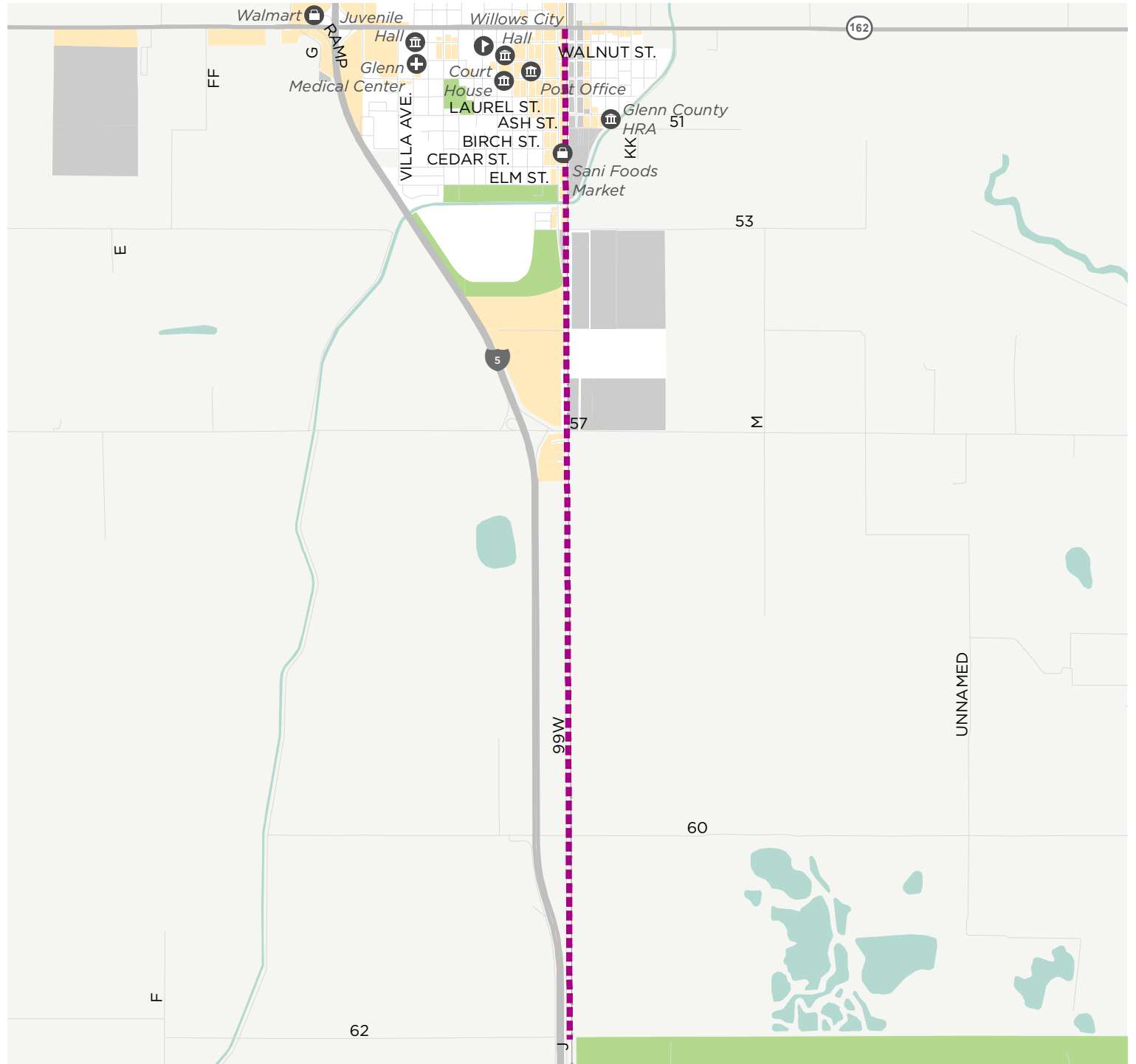
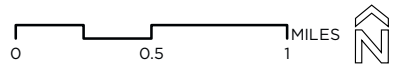
GLENN COUNTY ACTIVE TRANSPORTATION PLAN

Proposed Improvements

Study

Major Destinations

-  Civic Building
-  Medical Center
-  School
-  Shopping
-  Commercial
-  Open Space
-  Industrial
-  Park



Hamilton City

Hamilton City Safe Routes to School

Hamilton City is a small enough community that most of the projects can be combined into a single SRTS package for funding applications. This package includes all sidewalk and crossing projects in Hamilton City with the exception of the LPI study at SR 32 and SR 45. These improvements will support active transportation to school by creating dedicated walking routes with improved facilities to both schools in the community, including improved crossings to reach Hamilton High School on the north side of SR 32.

Because this package of improvements will likely be pursued through an infrastructure funding program, the study to evaluate an LPI at the intersection of SR 32 and SR 45 should be completed by the County independently.

While Hamilton High School may not qualify as a disadvantaged school with only 64 percent of students eligible for free or reduced-price meals, Hamilton Elementary School had 90 percent of students eligible in the 2017-2018 school year. The community may also qualify as disadvantaged based on income; 2017 5-year estimates from the American Community Survey reported Hamilton City has a median household income of \$46,705, approximately 70 percent of the statewide median of \$67,169.

This package has a total estimated cost of \$1,070,000.

See Figure 6-11 on page 6-20 and a concept plan in Appendix C.

Railroad Park Trail

This package includes the Class I shared use path between Shasta Avenue and the railroad from SR 32 to 1st Street.

The railroad line through Hamilton City has no developed parcels between it and Shasta Avenue to the east, save for a small gas station at the northeast corner near SR 32. This open space could be transformed to a linear park with the addition of a trail with small seating areas or other amenities. Hamilton City currently has limited open space within its boundaries, and providing a comfortable place to walk and bicycle will support both active transportation and active recreation in the community.

This package has a total estimated cost of \$530,000.

See Figure 6-12 on page 6-21.

River Trail Study

Hamilton City is less than one mile west of the Sacramento River, and the Irvine Finch River Access Area off SR 32 provides a boat launch and other amenities to support recreation on the river.

This study should evaluate feasibility for a Class I shared use path on the south side of SR 32 from Shasta Avenue in Hamilton City to the river. Because there is unlikely to be significant transportation utility for this trail, recreational trails funding sources may be most appropriate and a competitive application may emphasize the health benefits of increased outdoor activity as well as tourism and economic benefits of creating an attractive experience for visitors to the area.

Estimated costs are not provided for studies due to variability in scope.




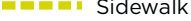
See Figure 6-13 on page 6-22.

HAMILTON CITY SAFE ROUTES TO SCHOOL





FIGURE 6-11

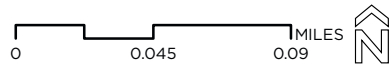
GLENN COUNTY ACTIVE
TRANSPORTATION PLAN

Proposed Improvements

-  High Visibility Crosswalk
-  Raised Intersection
-  RRFB
-  Sidewalk

Major Destinations

-  Civic Building
-  School
-  Commercial
-  Industrial



RAILROAD PARK TRAIL

FIGURE 6-12

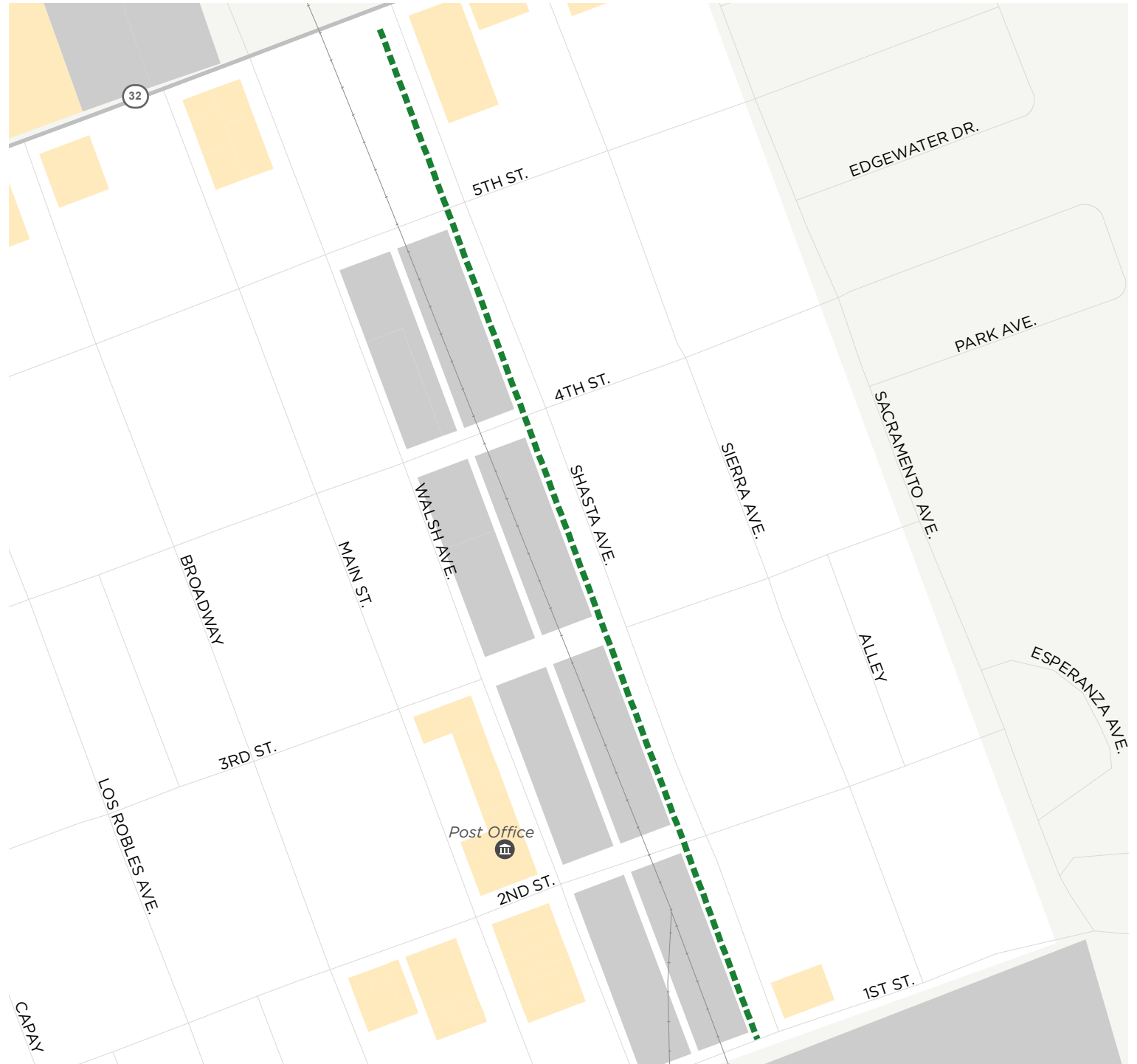
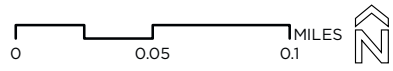
GLENN COUNTY ACTIVE
TRANSPORTATION PLAN

Proposed Improvements

■ ■ ■ ■ Class I Shared-Use Path

Major Destinations

- Ⓜ Civic Building
- Commercial
- Industrial



RIVER TRAIL STUDY

FIGURE 6-13

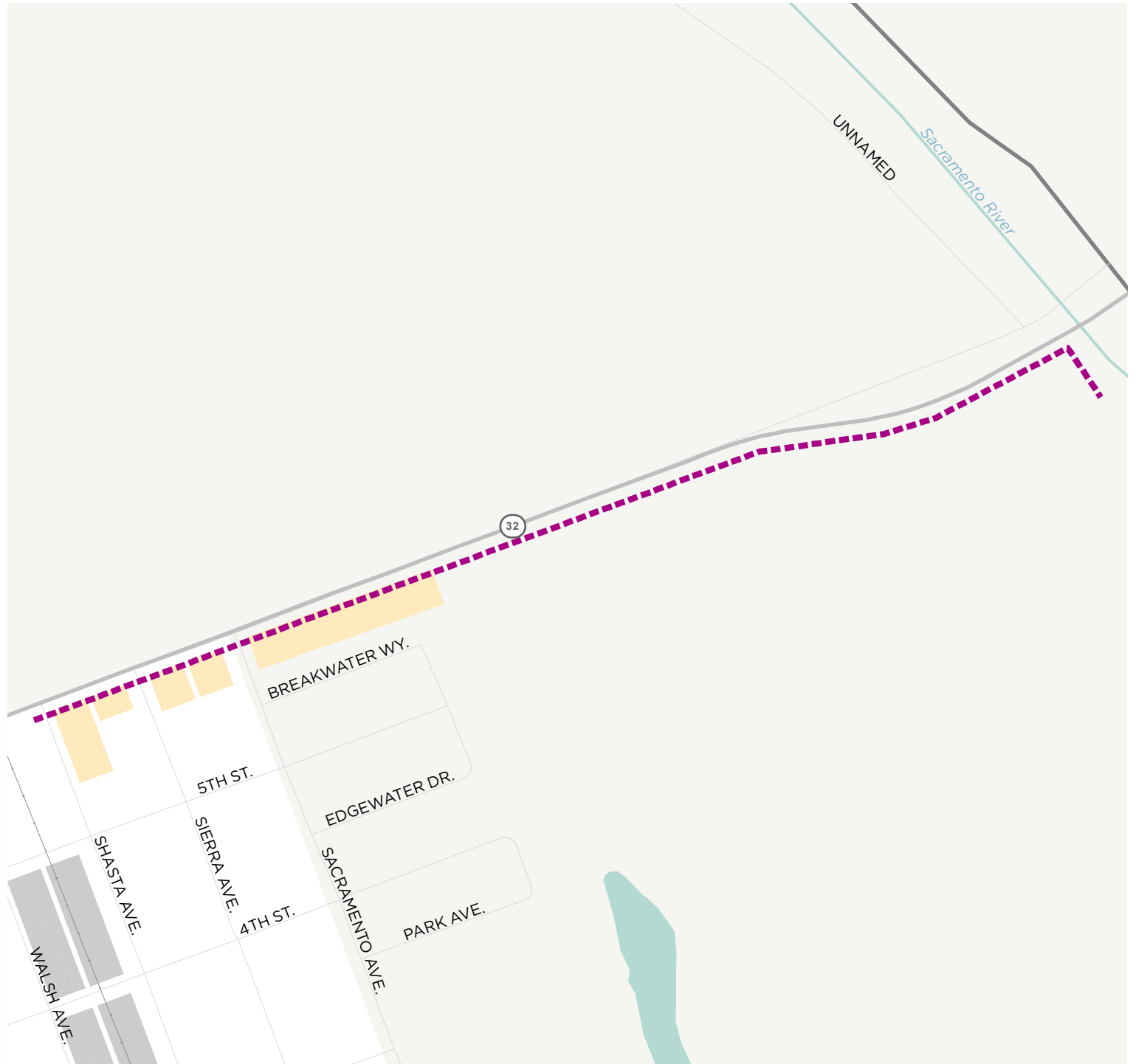
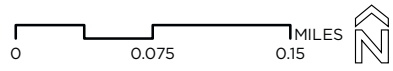
GLENN COUNTY ACTIVE
TRANSPORTATION PLAN

Proposed Improvements

Study

Major Destinations

- Commercial
- Industrial



Funding Sources

A variety of bicycle and pedestrian funding sources exist. As stated previously, some bicycle and pedestrian funding sources allow use for maintenance of existing facilities. Others are limited to new construction. Local and regional funding sources for bicycle and pedestrian improvements, along with competitive grant programs, are described below.

Local & Regional Opportunities

No information was available about tax measures or other funding sources specifically dedicated to transportation projects in Glenn County. Opportunities should be explored to implement bicycle or pedestrian improvements through general funds and in cooperation with partner agencies, as discussed below.

General Fund & Existing Projects

When possible, bicycle or pedestrian projects from this Plan should be incorporated into the County or City's annual budget for transportation improvements. Some improvements may also be folded into larger, complementary projects. For example, bicycle lanes can be added inexpensively to a street when it is being restriped after routine repaving.

Partner Agencies

Multiple local partners may be interested in joining with Glenn County or its communities to improve health and safety through bicycling and walking improvements. Relationships with local tribal governments, including the Wintun-Wailaki Indians, and philanthropic groups should be fostered. Partners should be invited to discussions about projects that would benefit all stakeholders. Partner agencies may also be able to provide matching or leveraging funds for competitive grant programs, if available.

Competitive Grant Programs

The eligible activities and other information about the following competitive grant programs is based on application cycles that occurred prior to August 2018. Because funding programs often change application forms or program guidelines, future application cycles may have updated eligibilities or requirements.

California Active Transportation Program

California's Active Transportation Program (ATP) funds infrastructure and non-infrastructure projects that support the program goals of shifting trips to walking and bicycling, reducing greenhouse gas emissions, and improving public health. Competitive application cycles occur every one to two years, typically in late Spring or Summer.

Eligible projects include construction of new bicycling or walking facilities, new or expanded program activities, or projects that include a combination of infrastructure and program components. ATP funding can be used for all project phases, including design, environmental documents, and securing right of way in addition to construction.

Competitive projects in past cycles tend to be those that serve schools, address high-crash locations, incorporate public health concerns, and benefit disadvantaged communities—defined by the ATP as those with low median household income, high pollution burdens based on CalEnviroScreen, or high percentages of students who qualify for free or reduced price meals. Typically no local match is required, although points are awarded to communities who do identify leveraging funds.

Funds are programmed by the California Transportation Commission (CTC).

Transportation Planning Grants

Caltrans Transportation Planning Grants are available to communities for planning, study, and design work to identify and evaluate projects, including conducting outreach or implementing pilot projects. Applications are accepted multiple times per year. Communities are typically required to provide at least an 11.47 percent local match, but staff time or in-kind donations may be used for this match.

Competitive applications typically demonstrate strong potential to reduce greenhouse gas emissions, integrate land use planning with transportation, and articulate a strong project need, including crash data, health burdens, and environmental concerns.

Funds are programmed by Caltrans.

Highway Safety Improvement Program

Caltrans offers applications for Highway Safety Improvement Program (HSIP) grants every one to two years. Projects on any publicly owned road or active transportation facility are eligible, including bicycle and pedestrian improvements.

HSIP guidelines place a strong emphasis on safety, specifically by reducing crashes. Competitive projects should be able to demonstrate a strong need based on crash data at the project location, include nationally recognized crash reduction countermeasures, are cost-effective, and are implementation-ready.

Funds are programmed by Caltrans.

Solutions for Congested Corridors Program

Funded by SB1, the Congested Corridors Program strives to reduce congestion in highly traveled and congested corridors through performance improvements that balance transportation improvements, community impacts, and environmental benefits. This program can fund a wide array of improvements including bicycle facilities and pedestrian facilities.

Competitive projects must be detailed in an approved corridor-focused planning document. These projects must include aspects that benefit all modes of transportation using an array of strategies that can change travel behavior, dedicate right of way for bikes and transit, and reduce vehicle miles traveled.

Funds are programmed by the CTC.

Office of Traffic Safety

Under the Fixing America's Surface Transportation (FAST) Act, five percent of Section 405 funds are dedicated to addressing nonmotorized safety. These funds may be used for law enforcement training related to pedestrian and bicycle safety, enforcement campaigns, and public education and awareness campaigns.

Funds are programmed by the California Office of Traffic Safety.

Recreational Trails Program

The Recreational Trails Program helps provide recreational trails for both motorized and nonmotorized trail use. Eligible products include: trail maintenance and restoration, trailside and trailhead facilities, equipment for maintenance, new trail construction, and more.

Funds are programmed by the California Department of Parks and Recreation.

Affordable Housing and Sustainable Communities Program

The AHSC program funds land-use, housing, transportation, and land preservation projects that support infill and compact development that reduces greenhouse gas emissions. Projects must fall within one of three project area types: transit-oriented development, integrated connectivity project, or rural innovation project areas. Fundable activities include: affordable housing developments, sustainable transportation infrastructure, transportation-related amenities, and program costs.

Funds are programmed by the Strategic Growth Council and implemented by the Department of Housing and Community Development.

Cultural, Community and Natural Resources Grant Program – Proposition 68

Proposition 68 authorizes the legislature to appropriate \$40 million to the California Natural Resources Agency to protect, restore, and enhance California’s cultural, community, and natural resources. One type of eligible project that this program can fund are projects that develop future recreational opportunities including: creation or expansion of trails for walking, bicycling, and/or equestrian activities and development or improvement of trailside and trailhead facilities, including visitor access to safe water supplies.

Funds are programmed by the California Natural Resources Agency.

Urban Greening Grants

Urban Greening Grants support the development of green infrastructure projects that reduce GHG emissions and provide multiple benefits. Projects must include one of three criteria, most relevantly: reduce commute vehicle miles travels by constructing bicycle paths, bicycle lanes or pedestrian facilities that provide safe routes for travel between residences, workplaces, commercial centers, and schools. Eligible projects include green streets and alleyways and non-motorized urban trails that provide safe routes for travel between residences, workplaces, commercial centers, and schools.

Funds are programmed by the California Natural Resources Agency.

Funding Eligibility Table

Table 6-6: Funding Source Eligibilities by Project Type

Funding Source	On-Street Bikeways	Trails	Safe Routes to School	Safe Routes to Transit	Crossings/ Intersections	Programs	Studies
Local and Regional Sources							
City and County General Funds	●	●	●	●	●	●	●
Partner Agencies	●	●	●	●	●	●	●
Competitive Grant Programs							
Active Transportation Program (CTC)	●	●	●	●	●	●	
Sustainable Transportation Planning Grants (Caltrans)							●
Highway Safety Improvement Program (Caltrans)	●		●	●	●		
Solutions for Congested Corridors (CTC)	●	●			●		
Office of Traffic Safety (CA OTS)						●	
Recreational Trails Program (CA DPR)		●					
Affordable Housing & Sustainable Communities (CA HCD)	●			●		●	
Cultural, Community, and Natural Resources (CA NRA)		●					
Urban Greening Grants (CA NRA)	●	●	●	●			

Appendix A. Plan & Policy Review

This appendix presents a review of existing and relevant local, regional, and state-level planning and policy documents for Glenn County. The table at right shows the plans reviewed.

Local Plans	Date
Orland General Plan	2008
Orland ADA Transition Plan	2015
Willows General Plan	2015
Willows ADA Transition Plan	2015
Willows Bicycle Transportation Plan	2008
Regional Plans	
Glenn County General Plan	1993
Glenn County Regional Transportation Plan	2015
Glenn County ADA Transition Plan	2015
Caltrans District 3 Complete Streets Plan	2017
Caltrans District 3 Bicycle Facility Plan	2013
District System Management and Development Plan	2013
Statewide Plans and Policies	
AB 32 Global Warming Solutions Act & SB 375 Sustainable Communities and Climate Protection Act	2006/2009
AB 1358 - Complete Streets Act	2008
SB 99 - Active Transportation Program Act	2013
California Transportation Plan 2040	2016
Toward an Active California	2017
Caltrans Complete Streets Policy & Deputy Directive 64	2001/2008
Federal Plans and Policies	
US DOT Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations	2010

Local Plans

Orland General Plan (2008)

Circulation Element

Pedestrian

City standards require sidewalks along all improved streets except in the industrial areas. The City is currently planning for a pedestrian facility to include a multi-use path along Stony Creek. Additionally, the City has planned to provide multi-use trails within the right-of-ways of undergrounded canals, which could be utilized as pedestrian pathways.

Bicycle

Presently there are no formally designated bike lanes or bicycle facilities in the City. However, the City understands the need to move people through the community. As mentioned above, the City is planning for a multi-use pathways along Stony Creek, as well as multi-use pathways within the right-of-ways of undergrounded canals. Additionally, street widths can accommodate bicycle traffic in some areas and bike racks are available at schools and parks.

2008 GPU Community Survey Summary

As part of the 2008 General Plan Update effort, a survey similar to that of the 2003 Update was prepared. The survey aimed to inform the 2008 General Plan Update process by collecting the input and opinions of the community...outlook on widening streets to add capacity was neutral. Parking in the downtown commercial area is seen as generally sufficient. Respondents stated that they generally feel that the City should provide additional bike lanes and pedestrian options, as well as expand the Glenn Ride transit service.

The following policies are relevant to the Glenn County Active Transportation Plan:

Policy 3.7.B: The City should utilize canal rights-of-way and drainage facilities for multi-use purposes, to include trails.

Policy 3.7.D: The City shall prioritize the establishment of a pedestrian crossing of Highway 32 linking residences to parks.

Policy 3.8.A: Adequate sidewalks shall be planned and constructed in connection with street construction work in the City. Where existing roads may require additional right-of-way to accommodate full improvements including sidewalks, and where it is impractical to acquire sufficient right-of-way, the vehicle travelway will be the first priority.

Policy 3.8.B: Subdivision layouts shall include designs that promote pedestrian circulation in a safe and efficient manner.

Policy 3.8.C: Bicycle lanes should be established where feasible along Major and Minor Collectors in newly developing areas. A bicycle route system should be identified which serves the existing developed City. Where bicycle lanes are proposed, they should be considered a shared facility with vehicular traffic on the street.

Policy 3.8.D: The City shall encourage existing facilities and require future facilities to conform to the American Disabilities Act provisions requiring access for disabled persons.

Policy 3.8.E: The City shall maximize the use of rights-of-way, easements, and utility corridors through the installation of pedestrian and bicycle facilities.

Policy 3.9.A: The City shall maintain and improve, where possible, environmental quality by the design of the circulation system and alternate forms of transportation.

Housing Element

Building Codes and Standard Constraints

The City has established land division improvement standards for subdivisions. Improvements include, but are not limited to, dedication of streets, curbs, gutters, and sidewalks. The standard width for all sidewalks is 4.5 feet, except increased width may be required in commercial zones to match existing sidewalk widths. The standard provides adequate width to accommodate a person in a wheelchair. City standards for

sidewalks also indicate that ramps for handicapped persons are to be installed at all street intersections. Therefore, the City’s land division improvement standards take into consideration persons with disabilities. All other improvement standards are the minimum standards to assure adequate functioning of infrastructure and the safety and health of City residents.

Land Use Element

The following policies are relevant to the Glenn County Active Transportation Plan:

Policy 2.3.B: The City shall create walkable neighborhoods that incorporate trails, open space, and other amenities to help encourage pedestrian traffic and minimize the use of motor vehicles.

Orland ADA Transition Plan (2015)

The Orland ADA Transition Plan and Survey was conducted in 2015. It contains 6,266 separate recommendations for curb ramps, sidewalks, and paths of travel that would make traveling safe and comfortable for all roadway users.

Willows General Plan (2015)

This plan was not available at the time of the policy and plan review.

Willows ADA Transition Plan (2015)

The Willows ADA Transition Plan and Survey was conducted in 2015. It contains 5,673 separate recommendations for curb ramps, sidewalks, and paths of travel that would make traveling safe and comfortable for all roadway users.

Willows Bicycle Transition Plan (2008)

The City of Willows currently lacks any bicycle facilities. The 2008 plan identified several roadways to install bicycle facilities. Figure A-1 shows the locations of these facilities. The total cost for the installation of the bicycle lanes and routes (including traffic control, striping, signing, engineering, and

construction management), is estimated at \$265,860, in 2008 dollars.

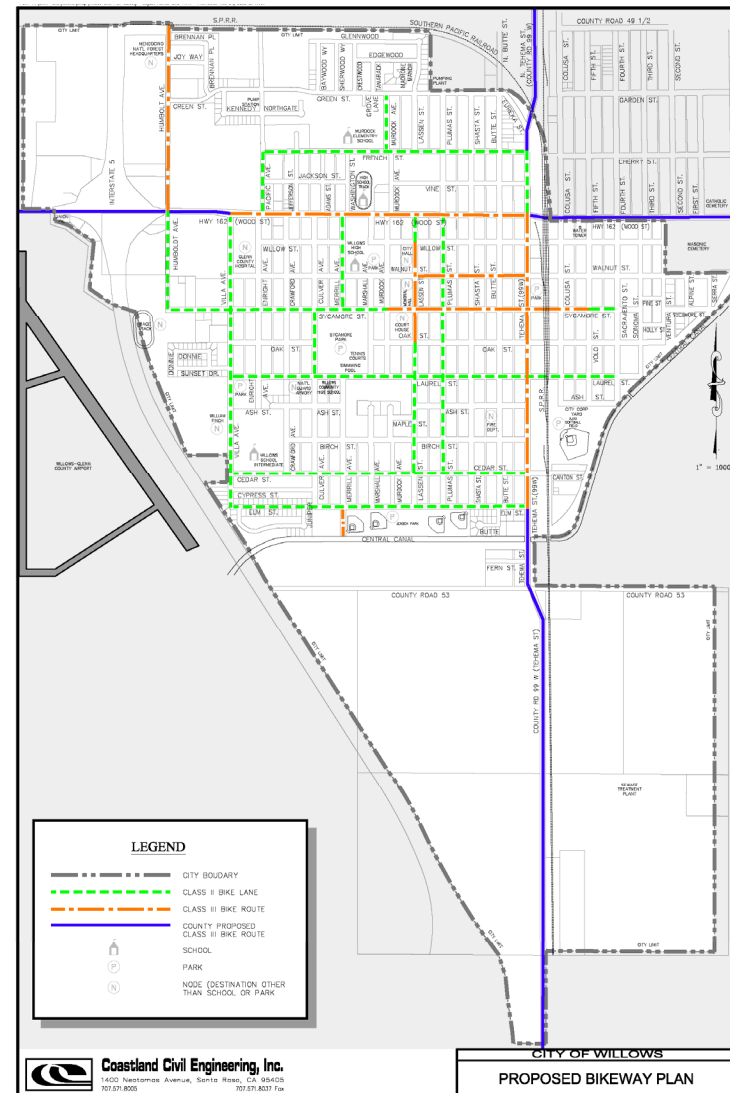


Figure A-1: Proposed bicycle facilities from the 2008 Willows Bicycle Transportation Plan

Regional Plans

Glenn County General Plan (1993)

Glenn County last updated the General Plan in 1993. Some elements, such as the Housing Element, has been updated more recently.

Bicycles are not mentioned in the 1993 General Plan. It does state that curbs and sidewalks should be incorporated in the design for the “urban” roadways such as Urban Principal Arterials and Urban Minor Collectors.

The following policies relate to active transportation in the General Plan:

PSP-37 Encourage design of new development which minimizes automobile trips and maximizes other modes of transportation.

CDP-86 Utilize a countywide bicycle plan that identifies long-range needs for routes and facilities to serve commuters and recreational riders.

Glenn County Regional Transportation Plan (2015)

The Glenn County Regional Transportation Plan aims to develop a coordinated and balanced multi-modal regional transportation system that is financially constrained to the revenues anticipated over the life of the plan (between 2015 and 2035). The balance is achieved by considering investment and improvements for moving people and goods across all modes including roads, transit, bicycle, pedestrian, trucking, railroad, and aviation.

The Glenn County RTP includes sections for Bicycles and Pedestrians. It recognizes that due to the rural nature of Glenn County, longer travel distances, and the lack of existing facilities, current and future travel by walking or by bicycle will be relatively low when compared with urban areas. School age children are expected to be the highest category of commuter bikeway system users. A field survey of bicycle parking

available at small communities was conducted in June, 1996. In general, bicycle parking is not abundant or even readily available; parking is most commonly found at schools and major shopping areas. It acknowledges that bicycle demand is expected to grow especially as bicycle and pedestrian facilities are built.

General bicycle and pedestrian-focused policies include:

- ◆ Encourage local agencies to develop bicycle and pedestrian master plans and project identification and development.
- ◆ Encourage performance monitoring and data collection for school zones and other priority bicycle and pedestrian connection areas. This information will help future ATP applications compete for funding.
- ◆ Support encouragement programs like bike to school week/month and national walk to school day.

Specific policies and implementation measures include:

- ◆ Policy 2.2 Support the implementation of improved safety measures.
 - Implementation Strategy: Provide facilities as justified for pupil transportation to and from schools by walking or bicycles. Explore funding for school safety projects through the Active Transportation Program.
- ◆ Policy 8.1 Identify and serve existing and future bicycle travel demand for commuters and recreational purposes.
 - Implementation Strategy: Create a safe and efficient network of bicycle facilities which enhances bicycle use as a viable alternative mode of transportation for both commuter and recreational activity.
- ◆ Policy 8.2 Promote a bikeway system that provides a safe and comfortable experience for bike riders.
 - Implementation Strategy: Develop a bicycle master plan that can be incorporated into the planning and construction activities for all County departments and by the Cities of Orland and Willows, recreation

and park districts, and other governmental agencies to efficiently plan, construct, and operate the bikeway system. This reflects an opportunity to incorporate the concept of Complete Streets into street design to increase safety, accessibility, and livability.

Glenn County ADA Transition Plan (2015)

The Glenn County ADA Transition Plan and Survey was conducted in 2015. It contains 1,139 separate recommendations for curb ramps, sidewalks, and paths of travel that would make traveling safe and comfortable for all roadway users.

Caltrans District 3 Complete Streets Plan (2017)

The Caltrans District 3 Complete Streets Plan provides a framework for implementing complete streets improvements on the State Highway System within the varied communities throughout the district, including Glenn County. The plan compiles all the existing complete streets planning work with an inventory of existing and planned complete streets projects. It provides guidance on how District 3 and partner agencies can work together to implement complete streets in the region to serve the needs of the traveling public. Lastly, the plan identifies segments on the State Highway System where complete streets improvements would address gaps and needs in the complete streets network. In Glenn County, a short segment of SR 162 in Orland is identified for Class II Bicycle Lanes.

Caltrans District 3 Bicycle Facility Plan (2013)

The District 3 State Highway Bicycle Facility Plan (D3 Plan) was the first District-wide comprehensive plan that identified a vision and framework for bicycle facility improvements on the State Highway System in District 3. The plan provides information regarding bicycles on the SHS along with recommended changes to improve connectivity and convenience. Several of the recommendations from the Caltrans District 3 plan differ from the Glenn County Regional Transportation Plan due to ridership levels and cost to implement. The Glenn County Active Transportation Plan will

take both suggestion lists into account when developing project recommendations.

District System Management and Development Plan (2013)

The Caltrans District 3 District System Management and Development Plan identifies key policies, programs and projects that are needed to maintain, manage and, ultimately, enhance overall mobility within District 3, with a primary focus on the role of the State Highway System. It provides high level guidance on how the District is approaching long-term transportation needs in the region. Sections include:

- ◆ Transportation System Improvement Needs and Priorities - Details the three priority areas of system maintenance, system completion, and congestion relief.
- ◆ Background - Outlines the legislative mandates and the policies that guide the planning, design, and funding of the complex network of the multi-modal transportation system.
- ◆ District Transportation Planning Policies - Identifies policies that apply performance measures and safety considerations to a facility that lead to projects that address changes in operation. Also touches on the relationship between land use and transportation decisions through concepts such as complete streets and context sensitive solutions that lead to more efficiently planned and healthier communities.
- ◆ District Profile - Describes existing facilities and conditions within the District, including State Highways, bus/carpool lanes, goods movement network, local and regional transit, intercity rail, bicycle facilities, park and ride lots and rest areas.

Statewide Plans and Policies

AB 32 – Global Warming Solutions Act (2006) & SB 375 – Sustainable Communities and Climate Protection Act (2009)

The past ten years have seen an expansion of legislative and planning efforts in California to reduce emissions of greenhouse gases (GHGs) in order to mitigate climate change. Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006, aims to reduce the state’s GHG emissions to 1990 levels by 2020 and to 80 percent below 1990 levels by 2050. Meanwhile, Senate Bill (SB) 375, passed into law in 2008, is the first in the nation that will attempt to control GHG emissions by directly linking land use to transportation. The law required the state’s Air Resources Board to develop regional targets for reductions in GHG emissions from passenger vehicles for 2020 and 2035 as a way of supporting the targets in AB32. These bills apply to counties with populations greater than 50,000.

AB 1358 – Complete Streets Act (2008)

In future years, all jurisdictions will have to incorporate complete streets into their planning. Assembly Bill 1358 requires “that the legislative body of a city or county, upon any substantive revision of the circulation element of the general plan, modify the circulation element to plan for a balanced, multimodal transportation network that meets the needs of all users [including] motorists, pedestrians, bicyclists, children, persons with disabilities, seniors, movers of commercial goods, and users of public transportation....” This provision of the law went into effect on January 1, 2011, and has resulted in a new generation of circulation elements and a surge in complete streets policies around the state as general plans continue to be updated over time.

SB 99 – Active Transportation Program Act (2013)

The Active Transportation Program was established by this legislation in 2013, and serves as the mechanism for distributing federal funds for local and regional efforts to promote walking and bicycling. It specifies goals that the funding will be disbursed to help meet, including increasing the mode shares of biking and walking trips, increasing safety for non-motorized users, and providing support to disadvantaged communities to promote transportation equity.

California Transportation Plan 2040 (2016)

The California Transportation Plan (CTP 2014) is a long-range policy plan that presents a vision for California’s future transportation system. It takes a comprehensive approach to provide for the state’s future mobility needs in a manner that is economically, equitably, and environmentally responsible, and supports the overall vision of a low carbon and sustainable transportation system that enhances the quality of life. The CTP 2040 addresses the existing status and expected needs of the state’s transportation system to optimize the movement of people, goods, services, and information to meet the state’s future multimodal mobility needs for the people who live, work, and visit California. Through defined goals, policies, and strategies, the plan provides a common framework to help guide transportation decisions and investments that support a statewide, sustainable, and integrated multimodal transportation system.

Toward an Active California: California State Bicycle and Pedestrian Plan (2017)

This Bicycle and Pedestrian Plan is the first for California. Mainly a policy document, the plan supports agencies as they undertake their own efforts to improve the walking and bicycling environment in California. While Caltrans has the greatest control over state transportation facilities, it exerts considerable influence on bicycling and walking facilities on local roads through funding programs, design, and design guidance. Relevant objectives and strategies include:

Safety

S1: Safer Streets & Crossings

S1.1 Develop equity focused plans at the regional or district level to proactively identify opportunities for safer highway crossings, including addressing personal safety

S1.2 Work with regional and local agencies to apply the guidelines in Caltrans' Complete Intersections Guide, Main Street California Guide, and National Association of City Transportation Officials guidelines

S2: Education

S2.4 Provide universal elementary school bicycle and pedestrian curriculum

S2.5 Advance an adult-oriented safe bicycling and walking curriculum

S2.6 Incorporate ADA awareness into all active transportation educational programs

S4: Enforcement

S4.1 Support updates to police officer training to curb road user behaviors that pose the greatest risk of collision, injury, and fatality

S4.2 Support and fund diversion programs for bicyclists and pedestrians cited for a traffic offense. Preliminary target of making diversion programs available to 25% of Californians

S4.3 Explore use of technology and engineering methods to reduce speeding and aggressive driving

S4.4 Research methods for setting and enforcing speed limits

Mobility

M1: Connected and Comfortable Networks

M1.2 Provide ongoing implementation of existing Caltrans Complete Streets education and hands-on training

M1.3 Increase state investment and encourage local and regional investment in complete bicycle and pedestrian networks

M1.5 Consider bicyclist and pedestrian comfort when designing new or improved facilities for state highways, and encourage use of this approach by local agencies

M2: Multimodal Access

M2.2 Identify bicycle parking needs at transit, rail and park and ride services and define appropriate bicycle accommodation policies

M4: Network and Travel Data

M4.3 Improve state travel surveys to better represent bicycle and pedestrian travel

M4.4 Work with the Federal Highway Administration and other partners to develop a standard for bicycle and pedestrian infrastructure and data

M4.5 Appropriately consider bicycling, pedestrian, and transit concerns in traffic analysis methods

M5: Statewide Trails

M5.2 Coordinate with state and local convention and visitors bureaus to market bicycling and walking options to tourists

M6: Encouragement

M6.1 Support and promote bicycling and walking events for all ages

M6.2 Implement model encouragement programs to incentivize walking and bicycling to work for state and partner agency employees

Preservation

P1: Quality of Condition

P1.1 Develop a standardized menu of services and condition expectations/quality service standards for bicycle and pedestrian facilities and update the existing maintenance manual

P1.2 Require consideration of bicyclists and pedestrians during temporary traffic control for construction or maintenance

P1.3 Explore changes to sidewalk maintenance responsibility in California to reduce the burden on individual property owners of ongoing maintenance for priority pedestrian routes

P2: Coordination

P2.1 Incorporate bicycle and pedestrian needs into asset management plans and associated programming and prioritization processes

P2.2 Develop an Adopt-a-Bikeway program to assist with maintenance of bicycle facilities, similar to Adopt-a-Highway

Social Equity

E2: Equity Lens

E2.2 Consider access to economic opportunity as a critical component to serving disadvantaged communities

E3: Access to Funding

E3.3 Evaluate funding efforts to determine how grant funds address bicycle and pedestrian network needs

E3.4 Explore joint funding of active transportation plans and programs with county public health agencies, tribal governments, transit agencies, parks and recreation departments, and other potential partners

E3.5 Highlight successful non-traditional funding partnerships as models for other communities

Caltrans Complete Streets Policy (2001) and Deputy Directive 64 (2008)

In 2001, the California Department of Transportation (Caltrans) adopted Deputy Directive 64, “Accommodating Non-Motorized Travel,” which contained a routine accommodation policy. The directive was updated in 2008 as “Complete Streets – Integrating the Transportation System.” The policy includes the following language:

The Department views all transportation improvements as opportunities to improve safety, access, and mobility for all travelers in California and recognizes bicycle, pedestrian, and transit modes as integral elements of the transportation system.

The Department develops integrated multimodal projects in balance with community goals, plans, and values. Addressing the safety and mobility needs of bicyclists, pedestrians, and transit users in all projects, regardless of funding, is implicit in these objectives. Bicycle, pedestrian and transit travel is facilitated by creating “complete streets” beginning early in system planning and continuing through project delivery and maintenance operations.

In part to address these issues, Caltrans adopted the Complete Streets Implementation Action Plan in 2010. The plan sets forth actions under seven categories to be completed by various Caltrans districts and divisions within certain timelines to institutionalize complete streets concepts and considerations within the department. The action categories include updating departmental plans, policies, and manuals; raising awareness; increasing opportunities for training; conducting research projects; and actions related to funding and project selection. As one of its implementation activities, Caltrans updated the Highway Design Manual in large part to incorporate multimodal design standards.

Federal Plans and Policies

US DOT Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations (2010)

The United States Department of Transportation (US DOT) issued this Policy Statement to support and encourage transportation agencies at all levels to establish well-connected walking and bicycling networks. The following Policy Statement and actions are relevant to the Plumas County ATP.

Policy Statement

The DOT policy is to incorporate safe and convenient walking and bicycling facilities into transportation projects. Every transportation agency, including DOT, has the responsibility to improve conditions and opportunities for walking and bicycling and to integrate walking and bicycling into their transportation systems. Because of the numerous individual and community benefits that walking and bicycling provide – including health, safety, environmental, transportation, and quality of life – transportation agencies are encouraged to go beyond minimum standards to provide safe and convenient facilities for these modes.

Recommended Actions

The DOT encourages States, local governments, professional associations, community organizations, public transportation agencies, and other government agencies, to adopt similar policy statements on bicycle and pedestrian accommodation as an indication of their commitment to accommodating bicyclists and pedestrians as an integral element of the transportation system. In support of this commitment, transportation agencies and local communities should go beyond minimum design standards and requirements to create safe, attractive, sustainable, accessible, and convenient bicycling and walking networks. Such actions should include:

- ◆ Considering walking and bicycling as equals with other transportation modes: The primary goal of a

transportation system is to safely and efficiently move people and goods. Walking and bicycling are efficient transportation modes for most short trips and, where convenient intermodal systems exist, these non-motorized trips can easily be linked with transit to significantly increase trip distance. Because of the benefits they provide, transportation agencies should give the same priority to walking and bicycling as is given to other transportation modes. Walking and bicycling should not be an afterthought in roadway design.

- ◆ Ensuring that there are transportation choices for people of all ages and abilities, especially children: Pedestrian and bicycle facilities should meet accessibility requirements and provide safe, convenient, and interconnected transportation networks. For example, children should have safe and convenient options for walking or bicycling to school and parks. People who cannot or prefer not to drive should have safe and efficient transportation choices.
- ◆ Going beyond minimum design standards: Transportation agencies are encouraged, when possible, to avoid designing walking and bicycling facilities to the minimum standards. For example, shared-use paths that have been designed to minimum width requirements will need retrofits as more people use them. It is more effective to plan for increased usage than to retrofit an older facility. Planning projects for the long-term should anticipate likely future demand for bicycling and walking facilities and not preclude the provision of future improvements.
- ◆ Integrating bicycle and pedestrian accommodation on new, rehabilitated, and limited-access bridges: DOT encourages bicycle and pedestrian accommodation on bridge projects including facilities on limited-access bridges with connections to streets or paths.
- ◆ Collecting data on walking and biking trips: The best way to improve transportation networks for any mode is to collect and analyze trip data to optimize investments. Walking and bicycling trip data for many communities are

lacking. This data gap can be overcome by establishing routine collection of non-motorized trip information. Communities that routinely collect walking and bicycling data are able to track trends and prioritize investments to ensure the success of new facilities. These data are also valuable in linking walking and bicycling with transit.

- ◆ Setting mode share targets for walking and bicycling and tracking them over time: A byproduct of improved data collection is that communities can establish targets for increasing the percentage of trips made by walking and bicycling.
- ◆ Improving non-motorized facilities during maintenance projects: Many transportation agencies spend most of their transportation funding on maintenance rather than on constructing new facilities. Transportation agencies should find ways to make facility improvements for pedestrians and bicyclists during resurfacing and other maintenance projects.

Appendix B. Project List

This appendix presents a list of projects and studies recommended in this plan. Each community is a separate table. Within each table, projects are listed alphabetically by location.

Orland projects begin on page B-1.

Willows projects begin on page B-6.

Hamilton City projects begin on page B-9.

Orland

Table B-1: Orland Project List

Location	Cross Street(s)	Improvement	Notes	Est. Cost	Package
2 nd St	Shasta St to Yolo St	Class II Bicycle Lanes		\$26,400	Orland High SRTS or South Orland SRTS
3 rd St	Roosevelt Ave to Monterey St	Sidewalk	East side	\$102,000	Orland High SRTS
3 rd St	Shasta St to 100 feet north of Tehama St	Sidewalk	West side	\$48,000	Orland High SRTS
6 th St	Tehama St	High Visibility Crosswalk	Upgrade north and west legs; mark east leg	\$8,400	Orland High SRTS
6 th St	Colusa St	High Visibility Crosswalk	Mark all four legs	\$11,200	South Orland SRTS
6 th St	Monterey St	RRFB	Upgrade south leg	\$32,000	Orland High SRTS
6 th St	Tehama St	RRFB	North leg	\$32,000	Orland High SRTS
6 th St	Salomon Dr to Monterey St	Sidewalk	West side; some short segments exist	\$320,250	Orland High SRTS
6 th St	Monterey St to South St	Study	Class I Shared Use Path on east side	Varies	Railroad/Old Highway 99 Trail Study
Chapman St	Marin St	High Visibility Crosswalk	Upgrade east, south, and west legs; mark north leg	\$11,200	South Orland SRTS
Chapman St	Marin St to East St	Sidewalk	North side; fill multiple gaps	\$90,000	South Orland SRTS
Chapman St	East St to Walnut Ave	Sidewalk	North side	\$117,000	South Orland SRTS

Location	Cross Street(s)	Improvement	Notes	Est. Cost	Package
Colusa St	8 th St to East St	Class II Bicycle Lanes	Convert angled parking to parallel in some segments	\$50,400	South Orland SRTS
Colusa St	East St to Woodward Ave	Class III Bicycle Route		\$8,100	South Orland SRTS
Colusa St	1 st St	High Visibility Crosswalk	Upgrade all three legs	\$8,400	South Orland SRTS
Colusa St	Alley east of A St to East St	Sidewalk	Both sides	\$45,000	South Orland SRTS
Colusa St	250 ft east of East St to 650 ft west of Woodward Ave	Sidewalk	South side	\$21,000	South Orland SRTS
Colusa St	125 ft west of Woodward Ave to Woodward Ave	Sidewalk	South side	\$18,750	South Orland SRTS
Colusa St	250 ft west of Woodward Ave to Woodward Ave	Sidewalk	North side	\$37,500	South Orland SRTS
Colusa St	125 ft east of East St to 250 ft east of East St	Sidewalk	North side	\$18,750	South Orland SRTS
East St	Shasta St to Yolo St	Class II Bicycle Lanes		\$39,200	Orland High SRTS or South Orland SRTS
East St	Roosevelt Ave to 150 ft north of Shasta St	Sidewalk	West side	\$78,000	Orland High SRTS
East St	100 ft south of Walker St to Colusa St	Sidewalk	West side	\$37,500	South Orland SRTS
Marin St	Yolo St to South St	Class II Bicycle Lanes		\$20,000	South Orland SRTS
Mill St	2 nd St	High Visibility Crosswalk	Upgrade all three legs	\$8,400	South Orland SRTS
Mill St	1 st St	High Visibility Crosswalk	Upgrade both legs	\$5,600	South Orland SRTS
Mill St	A St to alley east of A St	Sidewalk	South side	\$22,500	South Orland SRTS

Location	Cross Street(s)	Improvement	Notes	Est. Cost	Package
Mill St	Alley east of A St to East St	Sidewalk	North side	\$22,500	South Orland SRTS
Monterey St	3 rd St to 6 th St	Class II Bicycle Lanes	Convert angled parking to parallel	\$16,800	Orland High SRTS
Monterey St	3 rd St	Curb Extensions	North and south legs	\$32,000	Orland High SRTS
Monterey St	3 rd St	High Visibility Crosswalk	Upgrade west and south legs; mark north leg	\$8,400	Orland High SRTS
Papst Ave	Bryant Ave to South St	Class II Bicycle Lanes		\$60,800	Orland High SRTS or South Orland SRTS
Papst Ave	100 ft south of Colusa St to 50 ft south of Robbins St	Sidewalk	West side	\$88,500	South Orland SRTS
Roosevelt Ave	Entrance to Orland Alternative Education Center	High Visibility Crosswalk	East leg	\$2,800	Orland High SRTS
Roosevelt Ave	Entrance to Orland Alternative Education Center	RRFB	East leg	\$32,000	Orland High SRTS
Roosevelt Ave	3 rd St to East St	Sidewalk	South side	\$223,500	Orland High SRTS
Shasta St	3 rd St	High Visibility Crosswalk	Upgrade north and east legs; mark south leg	\$8,400	Orland High SRTS
Shasta St	2 nd St	High Visibility Crosswalk	Upgrade south and east legs	\$5,600	Orland High SRTS
Shasta St	1 st St	High Visibility Crosswalk	Upgrade west and south legs	\$5,600	Orland High SRTS
Shasta St/ Bryant St	Woodward Ave/ Road Kk 1/2	High Visibility Crosswalk	All four legs	\$11,200	Orland High SRTS
South St	Marin St to Papst Ave	Class II Bicycle Lanes	Remove on street parking	\$59,200	South Orland SRTS
South St	Marin St	High Visibility Crosswalk	Upgrade north and west legs; mark east leg	\$8,400	South Orland SRTS
South St	Marin St	High Visibility Crosswalk	Upgrade north and west legs; mark east leg	\$8,400	South Orland SRTS

Location	Cross Street(s)	Improvement	Notes	Est. Cost	Package
South St	Walnut Ave	High Visibility Crosswalk	Upgrade north leg	\$2,800	South Orland SRTS
South St	Fairview St	High Visibility Crosswalk	Upgrade all four legs	\$11,200	South Orland SRTS
South St	Papst Ave	High Visibility Crosswalk	Mark all four legs	\$11,200	South Orland SRTS
South St	Cortina Dr to Main St	Study	Bicycle facility	Varies	South Street Study
South St (extension)	Papst Ave to Hambright Ave	Class I Shared Use Path	Connect to north-south path under development east of Papst Ave	\$490,000	Orchard Trail
Stony Creek Irrigation Canal	6 th St to Shasta St/Woodward Ave	Class I Shared Use Path	Underground irrigation canal	\$960,000	Orland High SRTS
Suisun St	3 rd St	Curb Extensions	Upgrade south leg	\$16,000	Orland High SRTS
Suisun St	4 th St to 5 th St	Sidewalk	Both sides	\$90,000	Orland High SRTS
Tehama St	Walker St to Woodward Ave	Class II Bicycle Lanes	Create buffered bicycle lanes where width is sufficient	\$84,000	Orland High SRTS
Tehama St	Woodward Ave to Papst Ave	Class II Bicycle Lanes		\$16,800	Orland High SRTS
Walker St	East St	Curb Extensions	All four legs	\$64,000	Orland High SRTS or South Orland SRTS
Walker St	East St	High Visibility Crosswalk	Upgrade all four legs	\$11,200	Orland High SRTS or South Orland SRTS
Walker St	675 ft east of East St to 750 ft east of East St	Sidewalk	South side	\$11,250	Orland High SRTS
Walker St	Woodward Ave to County Rd M 1/2	Sidewalk	South side	\$367,500	Orland High SRTS
Walker St	Woodward Ave to 400 ft west of Papst Ave	Sidewalk	North side	\$103,500	Orland High SRTS
Walker St	250 ft east of Papst Ave to 500 ft west of County Rd M 1/2	Sidewalk	North side	\$81,000	Orland High SRTS

Location	Cross Street(s)	Improvement	Notes	Est. Cost	Package
Walker St	6 th St to 3 rd St	Study	Streetscapes project	Varies	SR 32 Streetscapes
Walnut Ave	Central St to Chapman St	Sidewalk	West side	\$51,000	South Orland SRTS
Walnut Ave	100 ft south of Chapman St to 150 ft north of South St	Sidewalk	West side	\$33,000	South Orland SRTS
Walters St	Chapman St to 100 ft south of Chapman St	Sidewalk	South side	\$15,000	South Orland SRTS
Woodward Ave	Shasta St to Tehama St	Class II Bicycle Lanes		\$9,600	Orland High SRTS
Yolo St	5 th St to Papst Ave	Class II Bicycle Lanes		\$73,600	South Orland SRTS
Yolo St	1 st St	High Visibility Crosswalk	Upgrade north and west legs	\$5,600	South Orland SRTS
Yolo St	Papst Ave	High Visibility Crosswalk	Mark west leg	\$2,800	South Orland SRTS
Yolo St	2 nd St	High Visibility Crosswalk	Upgrade north and east legs	\$5,600	South Orland SRTS

Willows

Table B-2: Willows Project List

Location	Cross Street(s)	Improvement	Notes	Est. Cost	Package
Cedar St	Willows Intermediate School driveway	High Visibility Crosswalk	Mark east leg, aligned with sidewalk	\$2,800	South Willows SRTS
Cedar St	Culver Ave	High Visibility Crosswalk	Upgrade north and west legs	\$5,600	South Willows SRTS
Elm St	Culver Ave to Shasta St	Sidewalk	South side	\$333,000	South Willows SRTS
Enright Ave	100 ft north of Sycamore St to Oak St	Sidewalk	West side	\$82,500	South Willows SRTS
Eureka St	Tehama St	Raised Islands	Narrow Eureka St approach and create right turn lane	\$16,000	Murdock SRTS
French St	Pacific Ave	High Visibility Crosswalk	Mark north leg	\$2,800	Murdock SRTS
French St	Washington St	High Visibility Crosswalk	Upgrade all three legs	\$8,400	Murdock SRTS
French St	Murdock Ave	High Visibility Crosswalk	Upgrade all five legs (including driveway)	\$14,000	Murdock SRTS
French St	Pacific Ave to Washington St	Sidewalk	South side	\$176,250	Murdock SRTS
French St	Murdock Ave to Lassen St	Sidewalk	South side	\$50,250	Murdock SRTS
French St	150 ft west of Plumas St to Plumas St	Sidewalk	South side	\$22,500	Murdock SRTS
French St	175 ft west of Shasta St to Shasta St	Sidewalk	South side	\$26,250	Murdock SRTS
French St	175 ft west of Butte St to Butte St	Sidewalk	South side	\$26,250	Murdock SRTS
Green St	Grove Ln	High Visibility Crosswalk	Upgrade east leg	\$2,800	Murdock SRTS
Green St	Murdock Ave to Shasta St	Sidewalk	South side	\$165,000	Murdock SRTS
Green St	Alley west of Butte St to Butte St	Sidewalk	South side	\$22,500	Murdock SRTS

Location	Cross Street(s)	Improvement	Notes	Est. Cost	Package
Laurel St	Villa Ave to Sonoma St	Class II Bicycle Lanes		\$88,000	South Willows SRTS
Laurel St	Culver Ave	High Visibility Crosswalk	Upgrade all four legs	\$11,200	South Willows SRTS
Laurel St	Villa Ave to Enright Ave	Sidewalk	South side	\$60,000	South Willows SRTS
Marshall Ave	SR 162 to Willow St	Sidewalk	West side	\$56,250	South Willows SRTS
Marshall Ave	Oak St to Laurel St	Sidewalk	West side	\$70,500	South Willows SRTS
Pacific Ave	French St to Wood St	Sidewalk	East side	\$126,000	Murdock SRTS
Railroad/ Hwy 99W	SR 162 to Rd 8013	Study	Shared use path to Wildlife Refuge	Varies	Refuge Trail Study
Shasta St	Green St to French St	Class II Bicycle Lanes		\$12,800	Murdock SRTS
Shasta St	Vine St to Elm St	Class II Bicycle Lanes	Convert angled parking to parallel between Walnut St and Laurel St	\$69,600	Murdock SRTS or South Willows SRTS
Shasta St	French St to Vine St	Class III Bicycle Route		\$27,000	Murdock SRTS
SR 162	Enright Ave	High Visibility Crosswalk	Mark west leg	\$2,800	Murdock SRTS or South Willows SRTS
SR 162	Washington St/ Merrill Ave	High Visibility Crosswalk	Upgrade all four legs	\$11,200	Murdock SRTS or South Willows SRTS
SR 162	Shasta St	High Visibility Crosswalk	Mark east leg	\$2,800	Murdock SRTS or South Willows SRTS
SR 162	Enright Ave	RRFB	West leg	\$32,000	Murdock SRTS or South Willows SRTS
SR 162	Shasta St	RRFB	East leg	\$32,000	Murdock SRTS or South Willows SRTS
SR 162	Willows Mobile Home & RV Park to 1st St	Study	Complete Streets	Varies	SR 162 Complete Streets Study
Sycamore St	Murdock Ave	High Visibility Crosswalk	Upgrade north, east, and south legs; mark west leg	\$11,200	South Willows SRTS

Location	Cross Street(s)	Improvement	Notes	Est. Cost	Package
Sycamore St	100 ft east of Enright Ave to Culver Ave	Sidewalk	North side	\$96,000	South Willows SRTS
Sycamore St	Railroad	Sidewalk	Both sides	\$33,000	South Willows SRTS
Tehama St	Canal	Study	Crossing	Varies	Refuge Trail Study
Villa Ave	SR 162 to Elm St	Class II Bicycle Lanes	Create buffered bicycle lanes where width is sufficient	\$62,400	South Willows SRTS
Villa Ave	Cedar St	High Visibility Crosswalk	Upgrade east leg; mark north leg	\$5,600	South Willows SRTS
Villa Ave	SR 162 to 450 ft north of Sycamore St	Sidewalk	West leg	\$126,000	South Willows SRTS
Villa Ave	Birch St to Cedar St	Sidewalk	West side	\$67,500	South Willows SRTS
Walnut St	Crawford Ave to Culver St	Sidewalk	North side	\$50,250	South Willows SRTS
Willow St	Culver St to Merrill Ave	Sidewalk	North side	\$48,750	South Willows SRTS
Willow St	Marshall Ave to Murdock Ave	Sidewalk	North side	\$22,500	South Willows SRTS
Willow St	175 ft west of Butte St to Butte St	Sidewalk	South side	\$26,250	South Willows SRTS

Hamilton City

Table B-3: Hamilton City Project List

Location	Cross Street(s)	Improvement	Notes	Est. Cost	Package
4th St	Main St to Railroad	Sidewalk	Both sides	\$168,000	Hamilton SRTS
Broadway	3rd St	High Visibility Crosswalk	South leg	\$2,800	Hamilton SRTS
Capay Ave	4th St	High Visibility Crosswalk	Upgrade west and south legs; mark north leg	\$8,400	Hamilton SRTS
Capay Ave	3rd St	Raised Intersection		\$50,000	Hamilton SRTS
Los Robles Ave	3rd St	High Visibility Crosswalk	Upgrade south leg	\$2,800	Hamilton SRTS
Los Robles Ave	SR 32 to 3rd St	Sidewalk	West side	\$252,000	Hamilton SRTS
Main St	3rd St	High Visibility Crosswalk	South leg	\$2,800	Hamilton SRTS
Railroad	SR 32 to 1st St	Class I Shared Use Path	Path between the railroad and Shasta Ave	\$530,000	Railroad Park Trail
Sacramento Ave	4th St	High Visibility Crosswalk	North leg	\$2,800	Hamilton SRTS
SR 32	SR 45	High Visibility Crosswalk	Upgrade existing crosswalks	\$8,400	Hamilton SRTS
SR 32	Los Robles Ave	RRFB	Upgrade existing crosswalk on west leg	\$32,000	Hamilton SRTS
SR 32	Los Robles Ave to Railroad	Sidewalk	South side	\$184,500	Hamilton SRTS
SR 32	SR 45 to Los Robles Ave	Sidewalk	North side	\$115,500	Hamilton SRTS
SR 32	Railroad to Sacramento River	Study	Shared use path on south side	Varies	River Trail Study
SR 32	SR 45	Study	LPI	Varies	n/a

Appendix C. Concept Plans

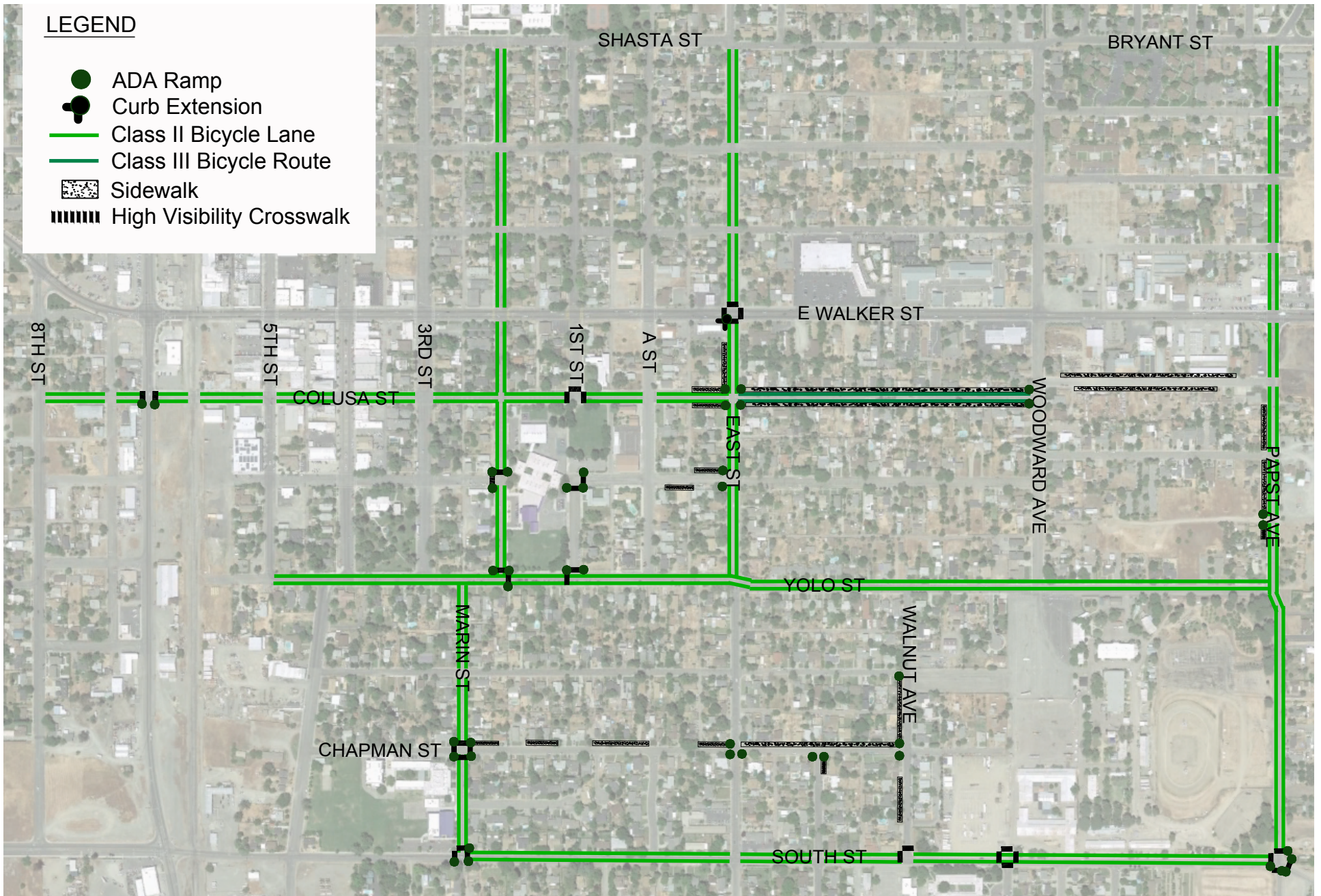
This appendix presents concept plans for three Safe Routes to School improvement packages described in Chapter 6. One concept was developed for each project community.

- ◆ South Orland Safe Routes to School
- ◆ Murdock Elementary Safe Routes to School in Willows
- ◆ Hamilton City Safe Routes to School

These concept plans are shown on the following pages.

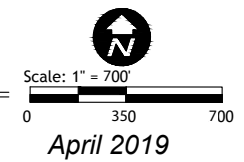
LEGEND

- ADA Ramp
- Curb Extension
- Class II Bicycle Lane
- Class III Bicycle Route
- ▨ Sidewalk
- ▨▨▨▨ High Visibility Crosswalk








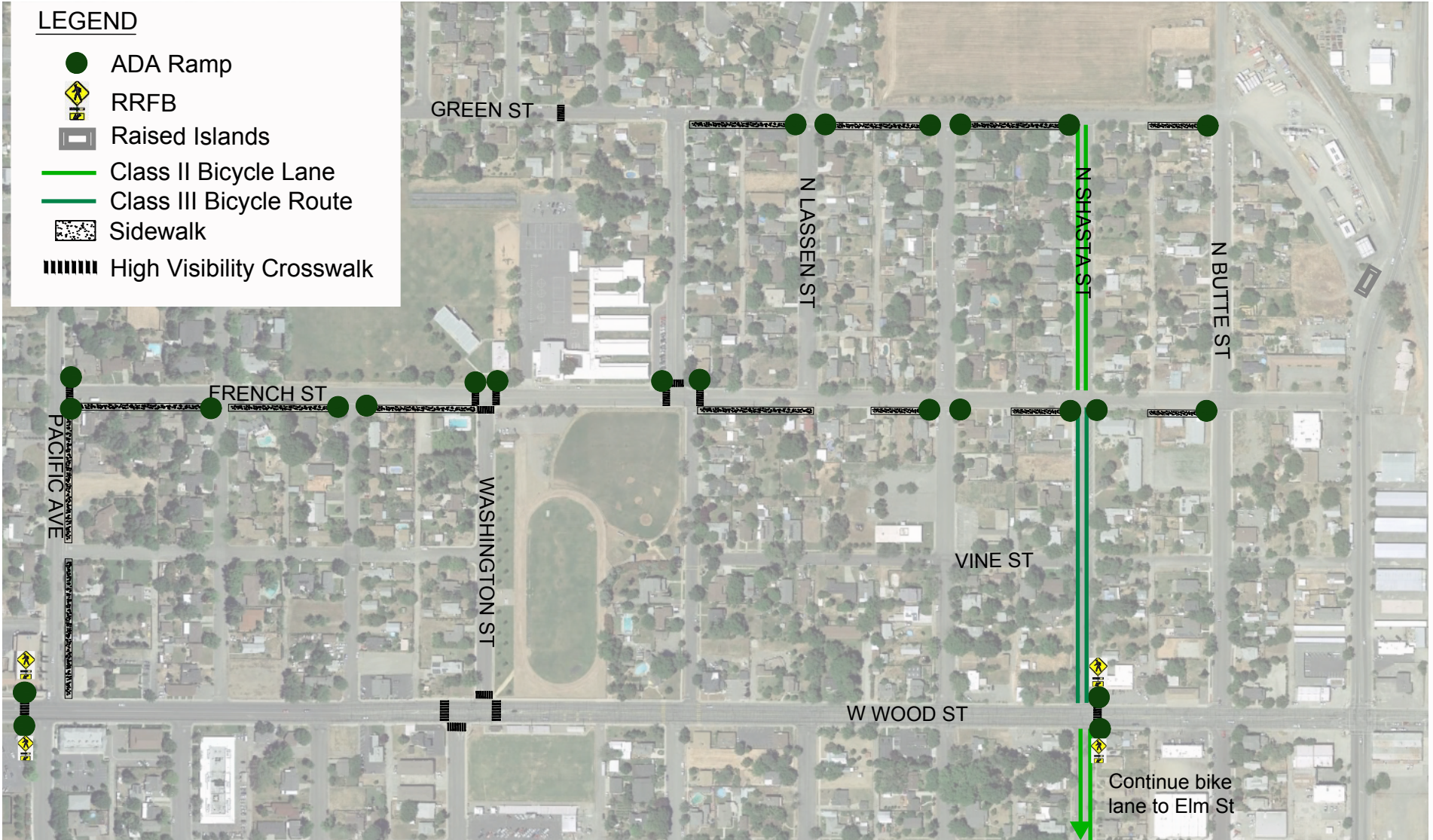
South Orland Safe Routes to School Improvements Sheet 1

Orland, CA



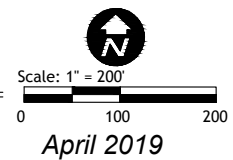
LEGEND

-  ADA Ramp
-  RRFB
-  Raised Islands
-  Class II Bicycle Lane
-  Class III Bicycle Route
-  Sidewalk
-  High Visibility Crosswalk



Murdock Elementary Safe Routes to School Improvements Sheet 1

Willows, CA



April 2019

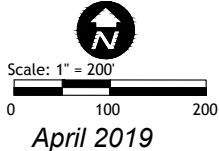


LEGEND

- ADA Ramp
- Sidewalk
- High Visibility Crosswalk
- RRFB
- Raised Intersection

Hamilton City Safe Routes to School Improvements Sheet 1

Hamilton City, CA



Appendix D. Regional Connections

This appendix presents a preliminary assessment of two potential off-street bicycle routes in Glenn County that could establish better connections between its communities and increase options for active transportation and recreation. It's envisioned that these routes would primarily be used for recreational purposes but could conceptually be used for journey to work (commute) trips as well.

Potential Off-Street Routes

The key considerations identified below are sufficiently broad that they can be applied to the County's evaluation of other off-street trail concepts whether along the canal networks or not. In further identifying and prioritizing future off-street routes, it's recommended that County staff evaluate alignments against these considerations.

Route A: Hamilton City to Willows via the Glenn-Colusa Main Canal

Start Point: Hamilton City

End Point: Willows

Distance: Approximately 19 miles (one way)

Why: Based on a preliminary assessment, the canal roads present an excellent opportunity to create a scenic off-street trail. This route would primarily use the existing vehicular maintenance roads that parallel most of the GCID Main Canal. It would provide a fairly direct connection between these two communities and depending on ability to establish access, the majority of the route would be off-street, offering a lower stress amenity for a wider range of ages and abilities. The highly scenic value of the route is also an asset that the County could market to visiting bicyclists from throughout the region.

Key Considerations:

- 1) **Ownership:** It appears that all or most of this route would be within GCID right-of-way. As a first step in examining route feasibility further, county staff should confirm who owns the dirt roads that parallel most of the canal and the right-of-way extents.
- 2) **Access:** As a second step, County staff should confirm whether it currently has an access easement to any portions of the canal route/maintenance roads. If so, it should confirm whether the provisions of that easement permit public, recreational access. If no easement currently exists, county staff should reach out to the District to determine whether there is a process to pursue one.
- 3) **Flood Plain Evaluation:** County staff should review current floodplain maps to determine whether any portions of the route are within the delineated floodplain. For any portions that are, there may be limitations / exclusions on the types of improvements that can be considered. More specifically, there may be restrictions prohibiting the addition of any hard surface (i.e. cement/concrete) trail surface.
- 4) **Surface Options:** Nearly all of the vehicular maintenance roads that serve the GCID canal between Hamilton City and Willows are single lane, dirt surface roads. Assuming that the addition of hard surface roadways (i.e. cement) would not be permitted or would be cost-prohibitive, we recommend the county discuss the feasibility of a crusher fine surface with GCID.
- 5) **Maintenance:** If any improvements are made, county should consider whether it can enter into a Memorandum of Agreement with GCID establishing what the terms of access would be to allow for any required maintenance of the trail or supporting infrastructure (i.e. signage).

- 6) **Installation of Signage:** The County should confirm whether or not GCID would permit the installation of wayfinding signage at select locations along the route for purposes of route confirmation, mileage markers, and distance to destinations.
- 7) **Emergency Access:** Consideration should be given to whether emergency responders (police and EMTs) would have access to all portions of the route in the event of a call.
- 8) **Motorized restrictions:** If public access were established, county staff should determine whether there be exclusions prohibiting use of recreational motorized vehicles such as ATVs.
- 9) **Focused Implementation:** County staff should consider whether implementation of a trail along the GCID canal or other canals could be phased and implemented in discrete segments. If so, staff should consider whether implementation of a pilot project would provide an opportunity to test improvements on a more focused section to better determine the overall feasibility of the route. It's recommended that any pilot be conducted as close as possible to Willows where a larger population (than Hamilton City) will increase the likelihood of a facility being used and effectively 'tested'. In addition, greater usage will increase the ability of staff to conduct intercept surveys (at trailheads or on trail [survey by bike]), and will help them better understand the appetite for an expanded facility on the GCID canal.

Route B: Hamilton City to Bidwell-Sacramento River State Park

Start Point: Hamilton City

End Point: Bidwell-Sacramento River State Park

Distance: Approximately 4.5 miles (one-way)

Why: In comparison to Route A, this route would offer a shorter, more family-friendly recreational ride to and from the State Park. Although it's envisioned that Hamilton City residents would be the primary users of this route, it could also serve those seeking longer rides throughout the County and along the canal and river system.

Key Considerations:

- 1) **Ownership:** It's understood that the Nature Conservancy owns land between Hamilton City and Bidwell State Park along the Sacramento River. As a first step in exploring this option further, county staff should confirm the physical extent of that ownership and whether the Conservancy would permit any physical improvements or public access for purposes of walking, hiking, or bicycling.
- 2) **Route/Alignment:** For the greatest benefit to Hamilton City residents, we recommend that the County determine whether an easement can be identified on one of the unimproved roads that extends south east from the corner of First Street and Sacramento Avenue (in Hamilton City) toward the river. This off-highway route would provide a lower stress facility for a greater number of ages and abilities. A potential alternative is that the first part of this route would be on-street and follow Route 32 east from Hamilton City for approximately a half-mile before connecting with an off-street facility adjacent to the river.

Key Considerations 3–9 identified above for Route A also apply to this route and should be considered by county staff in looking more closely at this option.

Other Facility and On-Street Improvements

Due to the predominance of two-lane roads with narrow shoulders, the greatest level of comfort for most bicyclists in Glenn County will come through the availability of off-street facilities. However, there are likely numerous locations where on-street spot improvements could potentially increase comfort and safety for bicyclists. Given the expanse of the County, staff should consider the following factors or criteria to take a focused and prioritized approach to where improvements should occur.

- ◆ Would the improvement address a known safety concern or issue (i.e. an intersection or highway interchange) where the potential for conflict is higher or a disproportionately high number of near misses or car on bicycle crashes are occurring?
- ◆ Would the improvement be in a location where the greatest number of existing and potential users are likely to experience the benefits or is the location remote such that a very limited number of users may not warrant or justify the improvement in the near term?
- ◆ Would the improvement serve journey to work active transportation trips as well as recreational trips?
- ◆ Where could improvements be made through an annual pavement overlay or resurfacing project and would that project present an opportunity to widen shoulders within the existing right-of-way?
- ◆ Is right-of-way available adjacent to the road, but off-pavement, where a crusher fine surface trail could be installed?
- ◆ In areas where narrow shoulders do exist, can plastic flex posts be installed on the fog line (outside lane striping) to differentiate the motorized travel lane from shoulder?
- ◆ Can MUTCD signage be added to better signify the presence of bicyclists (i.e. Watch for Bicycles, Share the Road, Bicycles May Use Full Lane)?

- ◆ Can sharrow symbols be stamped on the pavement to help signify that it's a shared facility and bicyclists are welcome?

These factors should be considered for the two potential routes below as well as other on-street routes.

Willows west to the Fiberboard Factory Via County Road 162 or 48

Improvements on one of both of these routes could help improve comfort and safety for commuter bicyclists traveling from Willow to the factory and vice versa. It's approximately 3.5 miles from the center of Willows to the factory and the route is almost entirely flat making it an accessible bicycle commuting option. The ideal would be to create an off-street rail-with-trail path along the existing rail line extending west from downtown to the Factory.

If on-street routes between the factory and downtown, however, present the better option for short term improvements, county staff should consider the bullet points above. A combination of signage, sharrows, and flex posts on the fog line may improve comfort and safety.

Orland to the Black Butte Recreation Area on SR 32/County Road 200

The trip from Orland westward to the Recreation Area is approximately 8 miles one-way. The majority of the route offers one lane in each direction and narrow shoulders, most of which contain a rough semi-gravel surface. Given distance and the current profile of the road, it's assumed that this route is best suited to more seasoned recreational bicyclists accustomed to biking comparatively longer distances and sharing the road with motor vehicles.

In this context, an ideal improvement would be adding a fresh layer of pavement to the semi-paved shoulders and widening each one by a foot. County staff should determine if this can be achieved through an upcoming resurfacing or overlay project. It's understood that drainage or irrigation ditches closely parallel the roadway along much of this corridor and this is likely to limit the extent of widening that's possible.

Regardless of whether or not shoulder paving/widening is possible, county staff should consider the addition of sharrow symbols within the existing lanes accompanied by the MUTCD signage described above (i.e. Watch for Bicycles, Share the Road, Bicycles May Use Full Lane).