

GoShasta

Regional Active Transportation Plan

DRAFT January 2018

SHASTA REGIONAL TRANSPORTATION AGENCY

ACKNOWLEDGMENTS

SHASTA REGIONAL TRANSPORTATION AGENCY BOARD OF DIRECTORS

Leonard Moty, *Chair, County of Shasta*
Greg Watkins, *Vice Chair, City of Shasta Lake*
Pam Giacomini, *County of Shasta*
David Kehoe, *County of Shasta*
Susie Baugh, *City of Anderson*
Francie Sullivan, *City of Redding*
Kristen Schreder, *Redding Area Bus Authority*

STAFF TEAM

Dan Little, AICP, *Executive Director*
Dan Wayne, *Senior Transportation Planner*
Keith Williams, AICP, *Associate Transportation Planner*

GOSHASTA STEERING COMMITTEE

Kristen Schreder – Council Member, City of Redding; Redding Area Bus Authority (RABA) Representative
Francie Sullivan – Council Member, City of Redding
Leonard Moty – Supervisor, County of Shasta – District 2

GOSHASTA CITIZENS ADVISORY COMMITTEE

Peter Alexander
Carson Blume
Bill Campbell
Andy Decker
Kathy Hill
Casey Kerrigan
Allen Kost
Michael Kuker
Linda Masterson
Ted Palfini
David Runyan
Ryan Russell
Don Talkington
Anne Thomas
Jarret Yount

AGENCY PARTNERS

Caltrans, District 2
City of Anderson
City of Redding
City of Shasta Lake
County of Shasta
Healthy Shasta
North State Super Region (NSSR) Pit River Tribe
Redding Area Bus Authority (RABA)
Redding Rancheria (Yana, Wintu, Pit River)
Shasta Senior Nutrition Program (SSNP)
Unincorporated Town of Burney

TOOLE DESIGN GROUP

Brooke DuBose, AICP
Michael Hintze, AICP
Brian Almdale
Sara Schooley
Megan Wooley-Ousdahl, AICP
Shailah Handy
Megan Seib

KITTELSON & ASSOCIATES, INC

Matt Braughton
Erin Ferguson

LOCAL GOVERNMENT COMMISSION

Alison Pernell
Paul Zykofsky

FUNDING PROVIDED BY

California Transportation Commission's Active Transportation Program

CONTENTS

How to use this Plan iv

Introduction 1

CHAPTER 1: POLICY AND ACTION FRAMEWORK 2

Where We Are Today 2

Where We Want to Be 3

How We Will Get There 3

Themes 8

CHAPTER 2: PROGRAM RECOMMENDATIONS 15

Education 16

Bike Theft Prevention Initiatives 17

Encouragement 19

Enforcement 24

Evaluation 25

CHAPTER 3: PROJECT RECOMMENDATIONS 27

Process to Develop Recommendations 27

Pedestrian Network Recommendations 27

Bikeway Network Recommendations 40

CHAPTER 4: IMPLEMENTATION 53

Project Prioritization 53

Funding 57

REGIONAL BICYCLE NETWORK MAP 62

REGIONAL PEDESTRIAN NETWORK MAP 63

APPENDICES

Appendix A: Public Outreach

Appendix B: Existing Conditions

Appendix C: Programmatic Recommendations Background

Appendix D: Network Development and Prioritization

Appendix E: Active Transportation Project List

How to use this Plan

This Plan was designed for use by practitioners, SRTA staff, jurisdictional partners, and the general public. The table below offers a quick reference for some of the topics that may be of most interest to readers:

Topic	Page
Support Programs and Recommendations	15-25
Wayfinding	19-20
Existing and Proposed Bike Parking	20-21 and Appendix C
Bike and Pedestrian Connections with Transit	23
Proposed Pedestrian Facilities	27-39
Proposed Bicycle Facilities	40-50
Implementation Plan	53-60
Project Lists	54-56
Community Outreach Completed for the Plan	Appendix A
Bicycle and Pedestrian Collisions and Analysis	Appendix B
Existing Pedestrian Facilities	Appendix B
Existing Bicycle Facilities	Appendix B
Estimated Bicycle and Pedestrian Demand	Appendix D



Introduction

The GoShasta Regional Active Transportation Plan (ATP) presents a visionary, yet implementable plan that will strategically guide the development of programs and infrastructure for walking, bicycling, and connecting to transit in the Shasta Region. This ATP builds upon the public's support and enthusiasm for developing a connected network of active transportation facilities throughout the Shasta Region.

Improving bicycle and pedestrian connections throughout the region supports active transportation, links to transit, and provides people with viable means to travel longer distances without using a car. Improved connections also provide more opportunities for recreational riding, walking for exercise, and building a healthy, more economically competitive community. In addition to infrastructure recommendations, this plan also provides recommendations for support programs and initiatives to encourage people to walk, bike, and ride transit.

This ATP presents projects and action lists for Shasta County and the incorporated cities of Anderson and Shasta Lake. The GoShasta ATP and the City of Redding ATP (2018) were developed jointly to maximize regional connectivity and to coordinate on active transportation policies and programs. The GoShasta ATP provides a regional vision and recommendations developed with local jurisdictions. The COR ATP, borne out of the same planning effort, hones in on a vision unique to the city's needs. It relies on city-specific goals and actions to realize the city's vision. Both plans reference and support each other.

The funding for this ATP was provided by the California Transportation Commission's Active Transportation Program.

Chapter 1: Policy and Action Framework

This chapter provides a summary of the current status of active transportation in the Shasta Region, a vision for the future, and a blueprint to achieve this vision. The vision of a connected and attractive regional active transportation network will be fulfilled through collaborative effort between the Shasta Regional Transportation Agency (SRTA), local jurisdictions, Caltrans, and other partners who are focused on expanding transportation and recreational options for a healthy and economically vibrant Shasta Region. The regional active transportation network is made up entirely of routes owned, operated, and maintained by partner agencies. Key routes interconnecting the region will be designated as Trunk Lines—a network of high quality facilities for all ages and abilities that connect to activity centers throughout the region (see page 5).

Where We Are Today

Bicycle and Pedestrian Data

The following section provides a snapshot of the data around walking and biking within the Shasta Region, both for recreational and utilitarian trips. This data provides an understanding of current conditions and is a basis for evaluation.

According to the 2015 5-Year American Community Survey, two percent of residents in the Shasta Region walk to work, and one percent bicycle to work. The American Community Survey also found that seven percent of residents do not own vehicles.

The following table provides an overview of the existing bikeways by mileage and facility type in the incorporated cities of Anderson, Shasta Lake, and Redding as well as Shasta County.

While Table 1.1 demonstrates that there have been significant investments in bicycle infrastructure in the Shasta Region, these facilities are generally not well-connected, which diminishes their utility as a transportation network. There has also been substantial investment in the pedestrian network, including sidewalks, curb ramps, shared-use paths, paved shoulders and other features that facilitate walking. However, like with the bikeway network, the pedestrian network is incomplete with gaps in sidewalks and walkways. A need also exists for safer street crossings and features, such as sidewalk buffers and street trees, to make walking more comfortable.

Table 1.1. Existing Mileage of Bikeway Facilities by Community

Bikeway Facility	Anderson	Shasta Lake	Redding	Shasta County	Total
Shared-Use Path	1.59	0.93	32.09	17.89	52.50
Buffered Bike Lane	–	–	5.83	–	5.83
Bike Lane	4.23	10.85	29.41	7.70	52.20
Bike Route	1.06	4.21	46.48	15.21	66.96
Grand Total	**6.88**	**15.98**	**113.82**	**40.80**	**177.49**

The California Highway Patrol collects and organizes data about traffic crashes into a database called the Statewide Integrated Traffic Records System (SWITRS). This data can be used by communities to better understand the locations and types of collisions that are occurring. According to the 2012 SWITRS Annual Report, the Shasta Region had the highest bicycle and pedestrian fatality rates per 100,000 people in the 20 northern-most counties in California.

The state of California supports investment in biking and walking by funding programs such as the Active Transportation Program and the Affordable Housing and the Sustainable Communities Program. Because many California communities are interested in implementing active transportation projects, there is strong competition for these funds.

SRTA plans to continue to support its partners' efforts to build a connected and safe active transportation network while also being more purposeful and strategic in how it allocates its limited resources. Such an approach will allow the region to be more competitive in seeking state funding as well as to achieve the greatest impact to the safety, accessibility, and appeal of active transportation.

Where We Want to Be

Active Transportation Vision

Healthy, appealing, and a competitive alternative to driving: This is the vision for active transportation and recreation in the Shasta Region. High quality bicycle and pedestrian facilities, combined with a range of support programs, will provide low-cost mobility options and equitable access to economic opportunities and physical activity.

Active transportation policy, actions, and investments will be strategic tools in establishing more vibrant, sustainable, people-centered communities. Active transportation will contribute to local economies, and the Shasta Region will be viewed as a destination for active transportation enthusiasts and entrepreneurs. Community advocacy groups will work side-by-side with local, regional, and state agencies to advance bicycling and walking in the Shasta Region.

Active Transportation Values

SRTA and its partners will strive for solutions that embody the following values in every program, policy, and action:

- Equitable access, for people of all ages and abilities, to comfortable, low-stress, connected bikeways and walkways
- Equitable access to low-cost physical and economic mobility via bicycles, support programs, education, and employment
- Integration of active transportation into everyday life
- Reduction of transportation-induced impacts, including air pollution, roadway runoff, and climate change
- Investment in active transportation and people-centered development as a reflection of where the region wants to be
- Vibrant, engaging communities
- Protection of and respect between users of all modes of transportation
- Active transportation as a source and tangible symbol of community pride

How We Will Get There

Getting the Shasta Region from where it is today to where we want it to be requires vision, planning, coordination, partnership, investment, and resolve. Until recently, the region has had an incremental and reactive approach to active transportation project implementation. For example, most new safety projects were initiated after collisions occurred that resulted in serious injuries or fatalities.

Recently, local jurisdictions have taken more proactive steps to expanding the active transportation network. Examples include:

- Implementing active transportation improvements through routine resurfacing projects
- Slowing down vehicle speeds by redesigning streets
- Partnering with SRTA and private developers to include the construction of high quality separated bikeways with the approval of mixed-use developments

Parallel to state and local agency efforts to maintain and expand the active transportation network, SRTA will continue to offer these partners technical support and strategically invest its resources on high-impact projects. Through partner agency implementation of regional Trunk Lines, locally-focused connectivity projects and targeted action lists, SRTA and its local partners will create a safe, intuitive, and appealing active transportation network that prevents active transportation-related traffic fatalities and serious injuries.

Regional Trunk Line System

SRTA is working with partner agencies on a project-by-project basis to identify a system of Trunk Lines which are intended to be high quality active transportation facilities that provide a high comfort experience for walking and bicycling between communities and activity centers (see Figure 1.1). Trunk Lines will serve people of all ages and physical abilities, and in doing so are expected to attract higher numbers of people who choose to walk or bike for all trip purposes.

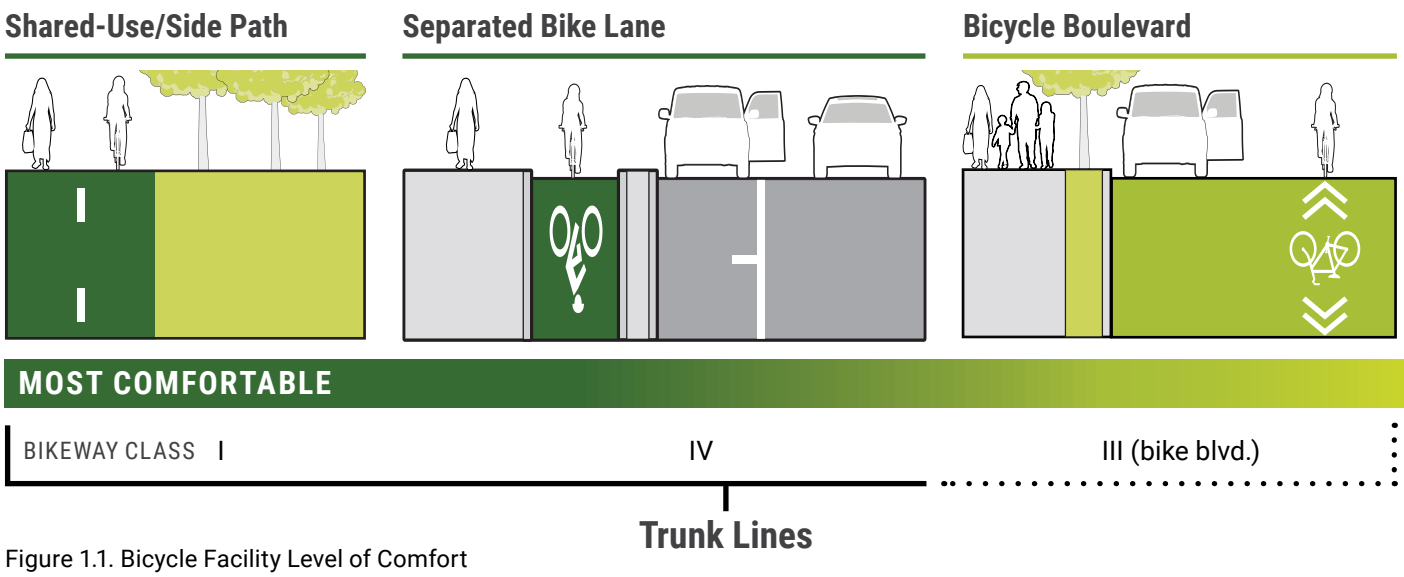


Figure 1.1. Bicycle Facility Level of Comfort

Figure 1.2 illustrates the conceptual Trunk Lines that will extend throughout Shasta County. These lines depict the general connections between Strategic Growth Areas[1] and activity centers. Destinations outside of the region are also shown; SRTA envisions that, in the future, these Trunk Lines will connect other regions as well.

Rough conceptual trunk line alignments have been approved by local agencies, and active transportation advisory groups involved in the development of this ATP. Local agencies, in consultation with neighboring jurisdictions and SRTA, will determine the most suitable precise alignment of each trunk line as implementation of projects progresses. Projects identified in the project lists (see Chapter 4) may comprise a Trunk Line; however, different projects may be substituted if local jurisdictions determine that new conditions warrant a change. Trunk Line facilities are expected to be more expensive than traditional biking and walking facilities. SRTA will prioritize its funding for local agencies to implement this trunk line system and direct connections to this system. Regional dollars can also be leveraged and used as a match for state and federal funding. See Chapter 4 for more about funding.

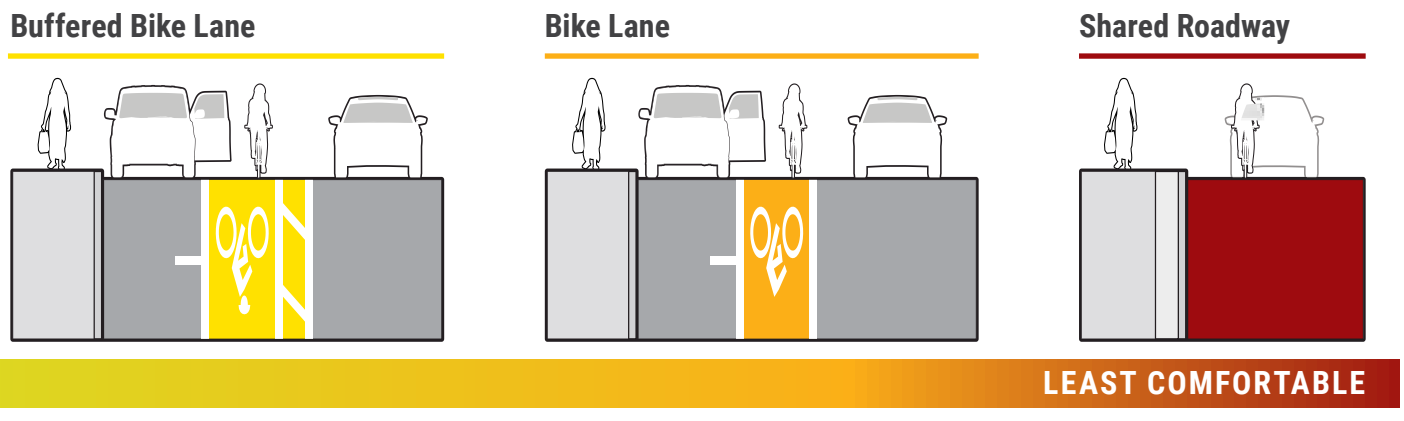
What does a trunk line look and feel like?

The exact designs and treatments for Trunk Lines will be context-dependent; however, all Trunk Lines will be high quality, comfortable facilities. A Trunk Line will typically have horizontal and vertical separation between vehicles and active transportation modes (such as grade separations, curbs, planters, and other treatments), such as with a Class I Shared-Use Path or a Class IV Separated Bikeway. If necessary, due to insufficient right-of-way, geometric configuration limitations, or other area characteristics, a Trunk Line could also be an environment for active transportation users to share the road with low-speed motor vehicles, such as Bicycle Boulevard, which is a Class III (bike route) with additional features that heighten a sense of safety and comfort for pedestrians and bicyclists.

Examples of Trunk Lines can be seen in Figures 1.3-1.5.

At locations where potential conflicts with motor vehicles cannot be avoided, such as at uncontrolled intersections, Trunk Lines will be highly visible to reinforce that drivers must yield to people walking and biking. Where a Trunk Line intersects a road with high vehicle volumes and speeds, dedicated bicycle and pedestrian signals or active warning devices will be installed. At intersections, pedestrians and bicyclists should have minimal wait time and maximum shade protection. If two Trunk Lines intersect, the intersection should include directional signs and seek to incorporate artistic, historical, and cultural features.

1 Strategic Growth Areas (SGAs) are identified in the Sustainable Communities Strategy portion of the 2015 Regional Transportation Plan. SGAs are areas planned for higher population and employment densities that support a range of practical mobility alternatives, thus reducing vehicle miles traveled and associated greenhouse gas emissions.



* The scale of comfort shown assumes a less confident person riding a bicycle on a bike facility on a street with higher motor vehicle speeds and traffic volume.

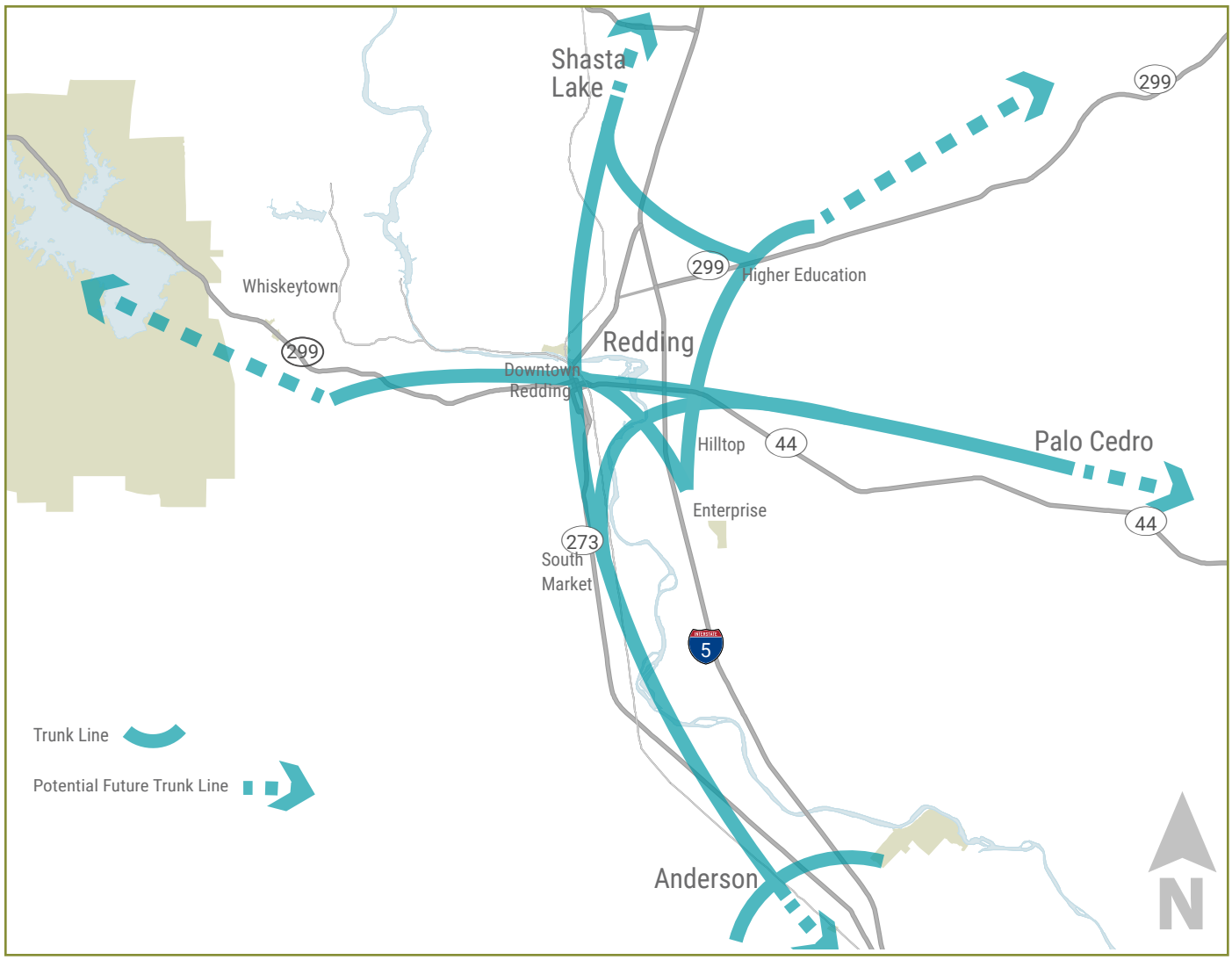


Figure 1.2. Potential Trunk Line Alignments.



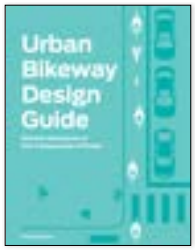
Figure 1.3. Example of a shared-use path in Minneapolis, MN.

Designs for active transportation infrastructure are quickly evolving. Design guidance for these types of facilities can be found in the following documents:



Federal Highway Administration (FHWA)'s Separated Bike Lane Planning and Design Guide

Read Guide



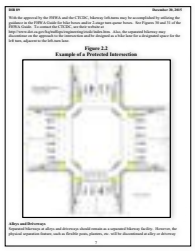
National Association of City Transportation Officials (NACTO)'s Urban Street Design Guide, Transit Street Design Guide, Urban Bikeway Design Guide, and Urban Street Stormwater Guide

Read Guides



Massachusetts Department of Transportation (MassDOT) Separated Bike Lane Planning and Design Guide

Read Guide



Caltrans' Design Information Bulletin 89 Class IV (Separated Bike Lane) Bikeway Guidance

Diagram of a protected intersection

Read Guide

Trunk Line Characteristics

Due to their nature as high quality, premium bicycle and pedestrian facilities, Trunk Lines should exceed the minimum standards referenced in the aforementioned design manuals; doing so will make these projects more competitive for regional non-motorized funding.

Potential characteristics of Trunk Lines include the following design elements.

- Vertical separation between motor vehicles and active transportation users
  - » Grade separation between modes (vehicles, bicyclists, pedestrians, equestrians [if applicable])
  - » Intermittent planter barriers, curbs, or K-rails
  - » Plastic bollards



Figure 1.4. Example of a high quality bicycle facility in Indianapolis, IN.

- Buffer between open car doors and moving vehicles in an adjacent lane
- Intersection shading for cyclists and pedestrians (tree canopy, structure, canvas sail, solar grid, etc.)
- Path lighting
- Traffic control devices including signals with active transportation phases or prioritized movements
- Reduced wait times for pedestrians and bicyclists at signals
- Enhanced active transportation detection at signals (video, embedded detection, curbside crossing buttons) to trigger traffic control devices, warning lights, and visibility lighting
- Automated traffic enforcement at high risk intersections
- Single lane roundabouts
- Conflict zones marked with green paint
- Enhanced mid-block crossings (rectangular rapid flashing beacons or pedestrian hybrid beacons)
- Cycling traffic separated from transit traffic and pedestrian queuing using transit passenger islands
- Wayfinding signs
- Adequate secure bicycle parking
- Drinking fountains, waste bins, public restrooms, benches at key junctions
- Integration of artistic, cultural, and/or historical elements unique to the region

Trunk Lines should, wherever appropriate, include "green street" features. These features may be found along sidewalks, as horizontal and vertical separation between transportation modes, and in medians, chicanes, curb extensions, planting strips, and other treatments as a way to slow stormwater and filter contaminants before entering waterways. Examples include:

- Street trees (systematic planting for the development of tree canopies)
- Bioswales
- Infiltration basins
- Permeable pavement
- Plantings



Figure 1.5. Example of a shared-use path in Davis, CA.

Where a Trunk Line section includes a Class III Bicycle Boulevard, traffic calming and other design elements should be introduced to enhance comfort and safety. Examples include:

- Chicanes
- Raised crosswalks or speed tables
- Diagonal, median, or full diverters
- Curb extensions
- Neighborhood traffic circles
- Mid-block chokers
- Pavement markings
- Median crossing islands

Local Connectivity Routes

Because Trunk Lines will not serve all destinations within the region, connections to and from the Trunk Line system will be provided through local connectivity routes. Local connectivity routes may consist of a range of facility types. For bicycles, these routes may be bike lanes, buffered bike lanes, separated bike lanes, shared-use paths, or shared roadways with low vehicle volumes and speeds. For pedestrians, these routes may consist of sidewalks, shared-use paths, or paved shoulders in less developed parts of the region. Local connectivity routes that directly link to a trunk line and maximize the level of comfort to the extent feasible will be better candidates for receiving regional funding.

Themes

This ATP framework has been guided by and organized by the following themes, shown at right.

Each theme includes an action list for SRTA and an associated action list for, and developed in coordination with, the city of Anderson, city of Shasta Lake, and Shasta County.



Theme 1:
Increase active transportation mode share



Theme 2:
Increase safety and comfort of active transportation users



Theme 3
Invest in healthy, vibrant, sustainable, and people-centered communities

Regional Action List

At the regional level, SRTA will focus on funding local agency projects that have regional significance and can increase the number of people safely walking, bicycling, and connecting to transit. The action items also reference SRTA's technical assistance opportunities and partnership opportunities with agencies that promote active transportation education and encouragement.

Local Action Lists

These action lists for city of Anderson, the city of Shasta Lake, and Shasta County have been developed by the municipalities and County in coordination with SRTA. The city of Redding developed an action list as part of the joint GoShasta Regional ATP and city of Redding ATP planning process (see the City of Redding ATP for more details).

Local agency action lists are tailored to each community and are focused on improving the walking, biking, and transit experience in that community. Improvements within communities will link with the regional active transportation network.

As progress is made, SRTA and local agencies will continue to consult, inform, and collaborate with the public. Occasionally, specific local and regional actions may require partnership and collaboration with state or federal agencies, Native American Tribes, the Union Pacific Railroad, non-profit organizations, or other private entities.

Performance Measures

Along with completing the actions presented on the following pages, the following performance measures will be used to evaluate the progress of the ATP.

Table 1.2. ATP Performance Metrics

Performance Measures	
Measure 1	Active transportation modal split for the region and for Strategic Growth Areas
Measure 2	Miles of active transportation facilities accessing transit stops and schools (up to ¼ walking approach-miles and ½ cycling approach-miles possible per transit stop and school on any one facility in each direction) in Strategic Growth Areas
Measure 3	Miles of low-stress bike facilities (shared-use paths and separated bike lane) in Strategic Growth Areas
Measure 4	Number of collisions resulting in serious injuries and fatalities in Strategic Growth Areas
Measure 5	Average daily vehicle miles traveled per household in Strategic Growth Areas

Theme 1 - Increase Active Transportation Mode Share

SRTA's Action List

- ❑ Amend the SRTA Non-Motorized Program guidelines to prioritize funding for local agency active transportation facilities on Trunk Lines.
- ❑ Advertise a call for projects of various sizes for local agency implementation of the GoShasta regional trunk line network (see Regional Trunk Line section).
- ❑ Support the Redding Area Bus Authority (RABA) in integrating active transportation connections to transit as part of the next short-range transit plan.
- ❑ Identify a range of potential new active transportation funding mechanisms for consideration by the SRTA Board of Directors.
- ❑ Place non-infrastructure obstacles or deterrents to active transportation on agendas for routine meetings with partner agencies and community organizations.
- ❑ Coordinate with partner agencies and organizations to provide an accessory brochure to SRTA's "Need-A-Ride" transit brochure; include information on bicycling, walking, carpooling/car-sharing, popular commuter routes, contact information for bike trains, walking school buses, rideshare, cycling clothing, etc.
- ❑ Improve and expand active transportation data collection at project locations by adding it to the regional traffic data collection program and release crowd sourcing app, as part of a pilot program, to augment traffic counts.
- ❑ Maintain an inventory of current and planned bicycle and pedestrian facilities, amenities, and safety data and strive to ensure quality of data.
- ❑ Partner with a for-profit or non-profit organization to secure grant funding for the development and contracted operation of a bike share system.
- ❑ Introduce programmatic support associated with affordable housing and Strategic Growth Area projects (e.g., free/discounted memberships with bike share and transit).
- ❑ Improve coordination of information between jurisdictions regarding transit, bicycle, and pedestrian improvements:
  - ❑ Update Social Services Transportation Advisory Council bylaws to include two new, permanent members to serve as active transportation representatives on the council.
  - ❑ Update SRTA's Non-motorized Program to include active transportation connections to/ from transit.
  - ❑ Introduce public review and prioritization of key transit stops into SRTA's unmet transit needs process to inform the transit access component of SRTA's non-motorized program.
- ❑ Implement the Five D's (see page 13 for more information on Five D's in SGAs).

City of Shasta Lake's Action List

- ❑ Collaborate with SRTA and Shasta County Public Health to develop and implement a Multimodal Awareness Program (to increase awareness and respect among users of the road).
- ❑ Inventory complete street needs (infrastructure and right-of-way):
  - SR 151 – for circulation, emergency routes, and routes to infrastructure (water, dam, electric grid, and waste water treatment plant)
  - Circulatory Streets
  - Streets accessing public uses – schools, parks, public building, public services (clinic, etc.)
  - Neighborhood through streets
  - Determine right-of-way needs for complete streets
  - Assess associated drainage infrastructure limiting complete street construction
  - Identify gaps in right-of-way, infrastructure, and funding
- ❑ Inventory off- street bike and walking paths.
- ❑ Coordinate data collection, including use with other partners.

- ❑ Create a GIS map inventory of improvements and lack of improvements noted above.
- ❑ Prioritize needs for access by residents, visitors, and commercial/industrial users.
- ❑ Determine partners for improvements and matching needs/funds.
- ❑ Review possible resources (financial and soft cost) to provide complete streets including project adjacency, regional, and emergency needs.
- ❑ Assess bus route use compared to user needs.
- ❑ Hold public workshops to provide complete street and bus information and identify public' needs compared to gaps in inventory.
- ❑ Provide technical assistance and support of Caltrans local funding for SR 151 and roads intersecting and/or accessing SR 151.

City of Anderson's Action List

- ❑ Collaborate with SRTA and Shasta County Public Health to develop and implement a Multimodal Awareness Program (to increase awareness and respect among users of the road).
- ❑ Identify opportunities to incorporate GoShasta implementation into local agency development review process and impact fee programs, for consideration by respective council/board.
- ❑ Avoid physical barriers (waterways, railways, highways, and extreme topography) or, if need be, address them when they intersect with the active transportation network.
- ❑ Fill gaps in the regional trunk line system and the wider active transportation network.
- ❑ Coordinate with SRTA on the collection of bicycle and pedestrian data.

Shasta County's Action List

- ❑ Partner with local organizations/agencies to implement campaigns, challenges, and strategies that encourage more people to utilize walking and bicycling for transportation. (Public Health)
- ❑ Develop and implement a Multimodal Awareness Program (to increase awareness and respect among users of the road) in collaboration with SRTA and partner agencies. (Public Health)
- ❑ Identify opportunities to incorporate GoShasta implementation into local agency development review process and impact fee programs, for consideration by Board of Supervisors. (Dept. of Public Works (DPW) and Planning)
- ❑ Mitigate physical barriers (waterways, railways, highways) where intersecting with active transportation network. (DPW)
- ❑ Fill gaps in the regional trunk line system and the wider active transportation network. (DPW)
- ❑ Coordinate with SRTA on the collection of bicycle and pedestrian data. (DPW)
- ❑ Partner with SRTA to build more bicycle and pedestrian facilities. (DPW)

Theme 2 - Increase Safety and Comfort of Active Transportation Users

SRTA's Action List

- ❑ Provide planning funds and/or technical assistance to local agencies to address collision-prone locations on Trunk Lines (see Regional Trunk Line section) and throughout the active transportation network in a manner that minimizes potential conflicts.
- ❑ Coordinate with local agencies on developing a regional, online tool for tracking safety concerns reported directly from the public or routed from similar tools used by local agencies.
- ❑ Provide technical and administrative support to partner agencies and organizations on the maintenance of the Safe Routes to School program and other programs that provide community education, training, and distribution of safety equipment.
- ❑ Partner with local agencies to establish a program of consistent wayfinding signs/markings across jurisdictional boundaries.
- ❑ Develop a regional procurement program for active transportation amenities such as benches, bicycle parking, etc. (see Regional Trunk Line section).
- ❑ Partner with applicable organizations to brand Trunk Lines via artistic/cultural/historical enhancements into local agency active transportation projects (e.g., historical signs/markers along the regional trunk line proposed for alignment with the old beltline to Shasta Dam, Old 99 Trail, etc.) to add to the cultural appeal and comfort of these high quality facilities and boost project competitiveness for discretionary grant funding.

City of Shasta Lake's Action List

- ❑ Establish routine meetings with the county sheriff's office to receive and discuss their active transportation collision reports, as well as CHP SWITRS reports, to address traffic hazards and potential projects to improve safety.
- ❑ Assess bus routes for ancillary needs like shelters, adjacent parking areas, signage, lighting and landscaping.
- ❑ Assess crossings—formal and informal—for all ATP users. Identify issues for correction.
- ❑ Inventory and analyze impediments to people walking and riding bicycles.
- ❑ Identify volunteer organizations that can assist in public knowledge and where possible construction of amenities.
- ❑ Map transit routes and stops in comparison to street circulation and user needs identified above.
- ❑ Inventory parking available to ATP users.
- ❑ Engage ATP users including visitors. Use multiple means of engagement including surveys, walk/bike days, utility inserts and notices, door-hangers, and other forms of contact (group meetings including those for special populations like seniors, non-English speaking, and disabled).
- ❑ Consult with neighboring jurisdictions and SRTA when projects, programs, or actions/policies have the potential to either impact the neighboring jurisdiction or adversely impact the user experience when transitioning from one jurisdiction to another.
- ❑ Adopt guidance for full range of acceptable designs applicable to local conditions (see Regional Trunk Line section).
- ❑ Work with SRTA to potentially leverage funding for freight movement that also accommodates active transportation improvements.
- ❑ Integrate Safe Routes to School (SRTS) and other project-specific education and encouragement events/programs into grant application budgets for

active transportation infrastructure. (Coordinate with SRTA and Shasta County Public Health)

City of Anderson's Action List

- ❑ Invest in active transportation facilities that last as long as possible and require minimal maintenance.
- ❑ Install automated enforcement at hot spots with non-compliance issues (for any mode) and a history of collisions with special allowances for active transportation modes (e.g., bicycle rolling stops).
- ❑ Secure funding from the Highway Safety Improvement Program and other programs for safety improvements.
- ❑ Adopt guidance for a full range of acceptable designs applicable to local conditions (See Trunk Line Description).
- ❑ Improve safety and security at crosswalks, transit stops, and along main access routes to transit with priority consideration of low income, minority, and high crime areas.
- ❑ Integrate Safe Routes to School (SRTS) and other project specific education and encouragement events/programs into grant application budgets for active transportation infrastructure. (Coordinate with SRTA and Shasta County Public Health)
- ❑ Consult with neighboring jurisdictions and SRTA when projects, programs, or actions/policies have the potential to either impact the neighboring jurisdiction or adversely impact the user experience when transitioning from one jurisdiction to another.

Shasta County's Action List

- ❑ Strategically invest in active transportation facilities that last as long as possible and require minimal maintenance. (DPW)
- ❑ Secure funding from the HSIP and other programs for safety and security improvements. (DPW)
- ❑ Adopt guidance for a full range of acceptable designs applicable to local conditions (See Trunk Line Description). (DPW)
- ❑ Improve safety and security at crosswalks, transit stops, and along main access routes to transit with priority consideration of low income, minority, and high crime areas. (DPW)
- ❑ Integrate SRTS Education and Encouragement event/programs into grant applications budgets for active transportation infrastructure. (Coordination between DPW, Public Health and SRTA).
- ❑ Incorporate, where practical, bicycle lanes with additional width and/or buffer separation to increase user safety and comfort. (DPW)
- ❑ Consult with neighboring jurisdictions and SRTA when projects, programs, or actions/policies have the potential to either impact the neighboring jurisdiction or adversely impact the user experience when transitioning from one jurisdiction to another. (DPW)

Theme 3 - Invest in Healthy, Vibrant, Sustainable, and People-Centered Communities

SRTA's Action List

- ❑ Administer a call for local agencies and private sector partners to identify and develop demonstration blocks along Trunk Lines within SGAs. These joint "complete package" projects aimed at the "5D" factors (see below) have proven to increase active transportation and transit mode share.
  - **Density**: Increased the number of housing, jobs, shoppers, and other visitors
  - **Diversity**: Balance of residential, retail, office, and other land uses
  - **Design**: Street/trail network and non-motorized travel facilities and amenities
  - **Destination Accessibility**: Number of jobs and other attractions accessible via any travel mode
  - **Distance to Transit**: Proximity of high quality public service to home and work
- ❑ Utilize the SRTA Infill & Redevelopment Incentive Program and Affordable Housing and Sustainable Community (AHSC) grants to fund local agency projects combining high-density housing, commercial development, active transportation infrastructure, amenities, and programs (e.g. bike share and maintenance center at bike depots, etc.) within SGAs.
- ❑ Explore and define the concept of trail-oriented development for consideration as part of future calls for technical assistance under SRTA's Infill & Redevelopment Program.
- ❑ Link active transportation facilities to nature, parks and open space in coordination with local agencies.
- ❑ Support Shasta County Public Health/Health and Human Services Agency and other applicable organizations to provide programs and services that connect disadvantaged communities to education, community services, and employment.
- ❑ Develop and administer an awareness campaign on benefits associated with green street improvements to private businesses and residences on active transportation routes to generate support for projects that can offer protection from extreme heat and weather events, storm-water treatment, etc.
- ❑ Empower citizens to develop projects in the community with mini-grants of technical assistance.

City of Shasta Lake's Action List

- ❑ Provide housing and income inventory data to insure small, effective projects are assisted.
- ❑ Partner with SRTA and private developers regarding infill projects to provide complete street access and funding.
- ❑ Work across city divisions and with SRTA on assembling projects that compete well for regional non-motorized funding.
- ❑ Adopt Circulation Element policies to encourage and require, where needed, complete street improvements and amenities.
- ❑ Identify areas that can use reduced street right-of-way and incorporate compete street standards for users.
- ❑ Work with SRTA to provide funding for right-of-way where needed.
- ❑ Provide transportation amenities where needed and where SRTA or other agency funding can be identified and used.
- ❑ Set priority policies relative to user needs.
- ❑ Provide active public engagement using online and in-person forums.
- ❑ Seek funding for transit/ATP uses and amenities.
- ❑ Identify other resources for funding amenities as well as ATP uses.

City of Anderson's Action List

- ❑ Expand active transportation access, connectivity, and amenities within a half mile of transit stops, schools, and activity centers.
- ❑ Identify target blocks for public-private partnerships for residential and commercial projects adjacent to trunk routes and introduce city code that promotes such trail-oriented development (development occurring along facilities that provide a "trail-like" experience).
- ❑ Adopt a policy that promotes the development of bike corrals (on-street bicycle parking that can accommodate up to 16 bicycles).
- ❑ Adopt land-use codes with minimum non-residential development standards, not tied to other minimums, for bicycle and pedestrian friendly features and end-of-trip amenities such as bike racks and showers.
- ❑ Partner with SRTA and private sector on projects proposed for funding under the SRTA Infill & Redevelopment Incentive Program, AHSC grants, and other funding sources to increase the number of residential and mixed-use developments in SGAs.
- ❑ Work with SRTA to research infrastructure elements used in other areas that mitigate active transportation users' exposure to weather events (e.g., extreme heat, rain, etc.) while waiting at traffic signals.

Shasta County's Action List

- ❑ Expand active transportation access, connectivity, and amenities within a half mile of transit stops, schools, and community/activity centers. (DPW & Planning)
- ❑ Identify target blocks for public-private partnerships for residential and commercial projects adjacent to trunk routes and introduce code that promotes such trail-oriented development (development occurring along facilities that provide a "trail like" experience, such as a Class IV bikeway that uses a curb, planter or some obstacle to separate cyclists from vehicular traffic). (DPW & Planning)
- ❑ Adopt policy that promotes the development of bike corrals (on-street bicycle parking that can accommodate up to 16 bicycles). (DPW & Planning)
- ❑ Amend land-use policy documents to prioritize, encourage, and support active transportation. (Planning Division)
- ❑ If sewer services are to be expanded, provide high quality active transportation facilities to accommodate future housing needs with greater density (Planning & DPW).
- ❑ Adopt land-use codes with non-residential development standards for a minimum of bicycle and pedestrian friendly features and end-of-trip amenities such as bike racks and showers. (Planning)
- ❑ Work with SRTA to research infrastructure elements used in other areas that mitigate active transportation users' exposure to weather events (e.g., extreme heat, rain, etc.) while waiting at traffic signals. (DPW)

Chapter 2: Program Recommendations

While building a connected and safe network is critical to improving walking and biking in the Shasta Region, programs to promote active transportation also play an important role in achieving this Active Transportation Plan's (ATP's) vision.

This chapter describes a variety of programs that will be explored and implemented by the Shasta Regional Transportation Agency (SRTA), local jurisdictions, and partner organizations to support an effective active transportation network. The categories of programs and initiatives illustrated below are described in this chapter.

Education

Bicycle Theft Prevention Initiatives

Encouragement

Land Use Policies

Enforcement

Evaluation

» Additional background information on these programs and initiatives can be found in Appendix C. «



Figure 2.1. Family Bicycling Day in Redding. ***Source: Really Redding***

Education

A key element of an effective active transportation network is ensuring that users of all ages and abilities are able to safely walk, roll, bike, and ride transit. Educational programs are an effective way to improve traffic safety for all roadway users.

Bicycle Ambassador Program

A bicycling ambassador program can be an effective way to encourage people to make trips by bicycle, provide education around safe travel behaviors and proper etiquette on shared and new adfacilities, and foster an engaged community of bicyclists. Bicycle ambassadors are typically volunteers (see Figure 2.2).

SRTA will explore working with municipalities and agencies, advocacy organizations, bicycle clubs, and the bicycle community to develop the program, craft the guidelines, recruit volunteers, decide upon roles and responsibilities, and develop the outreach plan. The program could partner with other organizations such as Shasta Living Streets and Shasta County Public Health to host outreach events throughout the region.

Safe Routes to School

Safe Routes to School (SRTS) programs are intended to create safe, fun, and social opportunities that encourage children to walk and bike to school or bus stops and provide bicycle and pedestrian safety education (see Figure 2.3).

Shasta County Health and Human Services - Public Health currently operates a SRTS program. SRTA will continue to support Shasta County Public Health in its operation of SRTS programs within the region and assist in securing consistent funding to support the long-term operation of the program. SRTA currently provides funding, using Active Transportation Program funds, to SRTS programs; one recommendation this ATP makes is to continue this funding. SRTA can also provide support in the form of SRTS-oriented policies, technical assistance, oversight, grant writing assistance, and partnering with underserved areas to seek SRTS grants.



Figure 2.2. A San Francisco Bicycle Coalition Ambassador cheers on bicyclists. ***Source: San Francisco Bicycle Coalition***



Figure 2.3. Safe Routes to School Programs are a fun and social way to encourage children to walk and bike. ***Source: Toole Design Group***

Bike Theft Prevention Initiatives

Concerns about bike theft can be a deterrent to riding, particularly for people riding for transportation purposes. Providing an adequate supply of well-designed, secure bike parking at popular destinations may encourage more people to make trips by bike. However, bike parking alone cannot prevent bike theft, and additional strategies must be employed, such as those described below.

Education on Proper Locking Methods

SRTA in partnership with local jurisdictions and advocacy groups, such as Shasta Living Streets or Shasta Wheelmen, could develop an educational program that shares information on:

- The most and least secure types of locks (see Figure 2.4)
- How to properly lock one's bike
- How to identify unsecured bike racks

A sticker with a locally designed logo and information about proper locking techniques could be adhered to public bike racks. The logo could also be embedded into print and online publications, such as the Bike Redding map, Visit Redding trail map, and websites supporting trail use and active transportation. Additionally, SRTA could develop or fund the development of educational materials, such as brochures, that are distributed at local events or made available at community and civic centers.

Bicycle Registration Program

The aim of bicycle registration programs is to create a database of information such as the owners' name and the brand, model, serial number, and color of their bicycle. SRTA could partner with local agencies and organizations to develop bicycle registration programs and possibly an associated app. Through advertising bicycle registration programs, hosting registration events, or supporting online registration, SRTA could improve the reach of bike registration programs. Increasing the number of municipalities participating in bicycle registration programs may lead to a reduction in bike thefts and an increase in stolen-bicycle recovery.



Figure 2.4. A U-lock, as shown here, is the most secure type of bike lock. ***Source: Toole Design Group***

Anti-Bike Theft Signage

Information sharing through clear and prominent signage can be an inexpensive way to alert the community to the potential of bike thefts. Signs can include messages of caution, such as shown in Figure 2.5, or wording that describes proper locking techniques and use of secure locks.

SRTA could help municipalities identify "hot spot" locations that may be appropriate for anti-theft signage, possibly near schools and universities, transit centers, commercial and retail corridors, and parks. SRTA could provide support to municipalities through funds, grant writing assistance, or banners, letter boards, or other materials to place at locations with high rates of bike theft. If materials are provided, a marketing plan should be developed to ensure a clear and cohesive message is shared throughout the region.



Figure 2.5. Letter boards used by the Singapore Police Force to alert bicyclists of the number of area thefts. ***Source: Huff Post, May 14, 2013.***

Bait Bike Program

"Bait Bike" Programs have been implemented in several cities where bike theft is perceived to be an issue, such as Sacramento, CA and Spokane, WA. As a part of a Bait Bike Program, Police Departments equipped department-owned bicycles with GPS tracking devices, and the unlocked bicycles were placed throughout the community. When the bike is moved, and possibly stolen, police are alerted and are able to track the bicycle. This allows them to arrest the offender and possibly gain more information about the fate of stolen bicycles. This program is most effective if a small number of offenders are responsible for most bike thefts. Local laws must be consulted to determine if a Bait Bike Program is legal in each community.

Bait Bike Programs may receive criticism due to equity concerns, questions regarding effectiveness, and concerns about the program targeting certain community members and at-risk youth. Consideration should be given to the value of the bait bikes; in California, stolen property valued over $950 may result in a felony charge.

SRTA could support local agencies' and organizations' work with local law enforcement, communities, and businesses to determine whether Bait Bike Programs are desirable, feasible, and an appropriate policing strategy to reduce bicycle theft. SRTA should share information about the potential shortcomings and adverse impacts to community members, that could result from Bait Bike Programs.

Encouragement

By providing recognition, incentives, or basic services to make it easier to bike and walk to a destination, the Shasta Region can help make walking and bicycling a more convenient and enjoyable transportation choice. Encouragement can take the form of infrastructure, programs, or policies.

Encouragement Through Infrastructure

End-of-Trip Facilities

"End-of-trip" facilities are an important aspect of a complete bicycle network, and examples include dedicated bicycle storage (see Figure 2.6), extra wide hallways or bike elevators, bicycle workrooms, bike-washing stations, bike valet, shower and/or locker facilities, and bicycle mechanics or repair stations available on-site. An end-of-trip planning guide could be developed by SRTA to provide guidance and strategies to employers and jurisdictions on how to increase the number of end-of-trip facilities throughout the region.



Figure 2.6. Lockers are examples of end-of-trip facilities. ***Source: Toole Design Group***

Wayfinding

Wayfinding is an important part of an intuitive and user friendly pedestrian and bicycle network. Wayfinding can help people plan their routes, navigate the transportation network with confidence, and find their way past barriers such as complex intersections, dead-end streets, high-stress roadways, or steep hills (see Figure 2.7).

Wayfinding, which can include stand-alone signs, markings painted on the street, or other signage, should be placed along walking and biking routes to provide clear information about:

- Destinations
- Direction to these destinations
- Distance in minutes to walk or bike to destinations

SRTA could partner with municipalities to develop a regional wayfinding system that is easy for bicyclists and other roadway users to understand. The system



Figure 2.7. Wayfinding signage in Seattle, WA. ***Source: Toole Design Group***

should have a similar brand throughout Shasta County and be compatible with other regional and local wayfinding. Jurisdictions may adjust any branding included on signs to reflect local character while still maintaining signage elements for consistency including placement, frequency of signs, and content.

Encouragement Through Programs

Employer/Employee Incentives

To encourage employees to walk, bike, or ride transit to work, employers may offer incentives, such as:

- Reduced transit passes
- Bicycle Commuter Benefits in which an employer may reimburse up to $20 in bicycle commuting costs, per the Bicycle Commuter Act
- Walk and bike to work events and contests
- Shared bikes for employees to use
- End-of-trip facilities
- Educational materials, classes on basic bike repairs, and "how to" handouts on commuting by bike
- Appointing an active transportation coordinator to manage events, programs, facilities, and communications with employees
- Subsidizing bike share memberships

Support from SRTA could come in the form of encouraging employers throughout the region to adopt active transportation friendly policies and provide technical and funding support for employee incentives programs.

Transportation Demand Management

Transportation Demand Management (TDM) programs seek to support and encourage walking, biking, riding transit, teleworking, and carpooling/ridesharing as an alternative to driving. TDM programs are an effective way to incentivize a shift in travel behavior, promote the use of active modes, and reduce vehicle miles traveled and greenhouse gas emissions. These programs can also support Assembly Bill 32: Global Warming Solutions and Senate Bill 375: Sustainable Communities, which aim to reduce greenhouse gas emissions from motor vehicle trips. SRTA can support local jurisdictions in establishing TDM programs by providing technical assistance, funding, or in-kind services and support. SRTA might also support light and reflector giveaways to improve visibility of people walking and biking at night.

Bike Parking Program

Having secure bicycle parking at the end of each trip is imperative for bicyclists. Developing a bike parking program at the regional or municipal level which provides technical assistance and/or funding can assist municipalities, businesses, non-profits, or other organizations with the installation of bicycle parking.

Healthy Shasta, in partnership with Viva Downtown and the cities of Redding, Anderson and Shasta Lake, have purchased and installed over 82 locally-manufactured bicycle racks. Healthy Shasta maintains a list of suggested and requested locations and works with the team to finalize locations for each round of installation. Local jurisdictions donate time to install the racks in the public right-of-way, and some racks also are installed by private property owners. Healthy Shasta provides businesses/property owners with information on best practices for bicycle parking (such as rack selection and placement) and sometimes coordinates bulk purchases involving multiple entities. The team is currently experimenting with a pilot program to install high-capacity racks and are interested in expanding the designs available.

SRTA could support the efforts of Healthy Shasta and local jurisdictions by providing funding for and/or coordinating the bulk purchasing of high quality bicycle parking and amenities, and ensuring that bike parking is equitably distributed around the region at key destinations.

Bike Parking on Private Property

Regulatory policies, such as ordinances in development and zoning codes, can require the provision of adequate, secure bicycle parking. Policies may specify the type of bicycle rack, rack location, and the number of both short- and/or long-term racks that should be installed based on the building's square footage or number of units. Providing building inspectors with an easy-to-follow punch list that reflects the bicycle

parking requirements can help ensure that the racks meet requirements.

To support municipalities in developing bicycle parking policies, SRTA could develop a model bike parking ordinance. The model ordinance could specify:

- Preferred rack types
- Rubric for the number of racks based on land use
- Where the racks should be placed
- How the racks should be installed

Bike Parking on Public Property

In tandem with requiring bicycle parking on private property, bicycle parking should also be provided on public property such as in public right-of way and at public facilities.

Bike parking within the public right-of-way is typically intended for the short-term, e.g., for visits of less than a few hours. Racks used for short-term parking may include inverted-U, post and ring, or bike corrals (see Figure 2.10).

By providing technical assistance and possibly funding, SRTA could partner with jurisdictions and organizations to provide quality bike parking within the public right-of-way and at public facilities.

As a first step, SRTA could support Health Shasta's pilot effort to develop a regional bike parking inventory to identify where current bike parking is provided and where it is needed. The inventory could include additional analysis such as capacity, condition, obstructions (such as racks installed too close to a fence or building), protection from the weather, and overall security. This data could be used to identify areas that would benefit from additional, or more secure, bicycle parking. For more information on Healthy Shasta's existing bicycle parking "crowd source" pilot, see Appendix C.

Bicycle Friendly Business Program

Bicycle friendly businesses are ones that commit to supporting bicycling and provide incentives to customers who arrive by bicycle. Such support may include discounts on purchases, providing high quality bicycle parking, such as on-street bike corrals or custom-designed bike racks, a bicycle repair station, or hosting bicycle events at their businesses. Businesses may display a sign provided by the program that indicates they are a bicycle friendly business.

Healthy Shasta works with Shasta Living Streets and the Redding Chamber of Commerce to sponsor a Bicycle Friendly Business Program that focuses on encouraging and supporting employees bicycling to work. The program also offers annual awards to local bicycle friendly businesses. Any business, organization, public entity or worksite within Shasta County is eligible to be nominated, and the winners are determined by a committee with representatives from several organizations who reference the League of American Bicyclist's Bicycle Friendly Business criteria. Winners receive recognition through free marketing, are honored at the Bicycle Friendly Business celebration, are awarded a complimentary bicycle rack of their choice and a bicycle friendly banner, and receive a Shasta Living Streets Membership. The program also encourages businesses to seek the League of American Bicyclists recognition (see Figure 2.8)

SRTA could help promote the Bicycle Friendly Business program through its active transportation program website and other published materials, and facilitating the exchange of information about the program.



Figure 2.8. Bicycle Friendly Business sign from the League of American Bicyclists. ***Source: League of American Bicyclists***

Community Events

Events and community celebrations are fun and popular ways to encourage people to get on their bikes and ride with their friends, family, and fellow community members. SRTA could support and partner with municipalities and local organizations, such as Shasta Living Streets, Open Street events, community rides, and other events that promote and celebrate walking and biking (see Figure 2.9). For more information about Open Street events, community rides, and other events, see Appendix C.

Bike Valet Programs

Bike valet programs turn community events into bicycle destinations by proving bicycle check (similar to a coat check) services. This VIP-type service is open to anyone who arrives at such events by bike and is a fun, and convenient way for attendees to park their bicycles. Bike valet programs also provide a visible and positive statement about the event's or organization's support of bicycle riding. Shasta Living Streets provides bike valet services at large community events and at farmers' markets.

SRTA could encourage and support municipalities, businesses, and organizations to provide bike valet at community events. SRTA could partner with Shasta Living Streets to offer their bicycle valet services at additional events.

Encouragement Through Policies

Sustainable Growth Policies

Sustainable growth policies encourage walkable neighborhoods, mixed-use development, infill development, and the provision of transportation options. Regarding transportation, sustainable growth policies aim to:

- Reduce vehicle miles traveled
- Enhance or expand accessible and affordable transit
- Develop a comprehensive transportation network that is walkable and bikeable
- Manage the amount of parking
- Ensure land uses and development support active transportation

The 2008 Sustainable Communities Act (California Senate Bill 375) sets regional targets for reducing greenhouse gas emissions from passenger vehicle use. SRTA could encourage jurisdictions to continue to implement the Sustainable Communities Strategies to address these regional targets by providing support during the development of local plans. SRTA could also continue to fund projects that encourage active transportation, mixed-use development, expanded transportation options, and the reduction of sprawl.



Figure 2.9. A popular Open Street Event in San Luis Obispo, CA attracts hundreds of community members. ***Source: Trip Advisor***



Figure 2.10. A bike corral is an example of an end-of-trip facility. ***Source: Toole Design Group***

Land Use

There are a variety of development types that are especially supportive of walking and biking, including mixed-used activity centers, transit-oriented development and trail-oriented development (see Figure 2.11). Trail-oriented development is development that is built around or adjacent to trails or facilities providing a "trail-like" experience. These development types should be encouraged and integrated with Trunk Line development.



Figure 2.11. Example of trail-oriented development. ***Source: Toole Design Group***

SRTA could continue to promote these development types within jurisdictions through its Infill and Redevelopment Incentive Program, which provides funding for transportation-efficient land use projects. Given that trail-oriented development is a fairly new concept, SRTA could draft a model trail-oriented development ordinance for jurisdictions to use/modify that includes access requirements, desired amenities and features, and potentially developer incentives such as increased floor-area-ratio or reduced parking minimums, for developments near trails.

Development Plans

Private development is a common and important mechanism for getting biking and walking facilities built. Proposed development plans should be reviewed to ensure that they include appropriate active transportation elements.

For subdivision developments, ensuring that roadways are accommodating all transportation modes and providing connections to existing and proposed bike and pedestrian facilities can provide residents with more transportation choices. Developers could also be required to build planned active transportation facilities.

SRTA could develop a best practice checklist local jurisdictions could use to assess their development codes/review process and identify where changes may be necessary to better support local and regional active transportation networks.

Access to Transit

Ensuring that bicycle and pedestrian connections are provided to transit stations and stops is a critical component of an active transportation system, especially in more rural or less developed portions of the Shasta Region. Strong bicycle and pedestrian connections help provide the "first and last mile" connection between home or work to transit which can increase the attractiveness of riding transit and make active transportation a more viable choice, particularly in less urban areas. For example, if a transit stop has safe and convenient bicycle routes connecting to it, this can increase the catchment area of the stop by up to three miles for bicyclists.

SRTA supports the Redding Area Bus Authority's current efforts to identify ADA improvements throughout its service area and work with local communities to determine where first and last mile connections would make the biggest impact to improving transit access. Current funding sources, such as the Transportation Development Act's Local Transportation Fund and the State Transit Fund, could be used for pedestrian and bicycle transit access improvements.



Figure 2.12. Separated bike lanes are located adjacent to a bus stop on this Seattle roadway. ***Source: Humantransit.org***

Enforcement

Enforcement programs are an important way to increase awareness, improve behavior, and improve traffic safety. Focusing enforcement efforts on behaviors that contribute to fatal and injury-causing crashes, rather than less serious infractions, is a recommended use of resources.

Enforcement Campaigns

Recognizing that police resources in the Shasta Region are strained, a data-driven, targeted approach to enforcement is critical. SRTA could encourage partnerships between local jurisdictions and law enforcement agencies to implement enforcement campaigns. To identify where to focus the campaigns, SRTA could provide local jurisdictions with technical assistance in analyzing crash data and identifying high-priority locations for enforcement activities. Locations with high rates of injuries, failure to yield behavior, or speed-related crashes should receive priority. Other locations that should be prioritized are those with high volumes of pedestrians and bicyclists such as intersections.

Locations near schools and parks should also be prioritized for enforcement campaigns due to the likeliness of children crossing the road. Young children lack the cognitive ability to judge the speed and distance of moving vehicle to determine when it is safe to cross the street, making it imperative that motorists are aware of school zones and other locations where children may be present.

Rewarding Good Behavior

Targeted enforcement can also focus on rewarding those who obey traffic control devices during enforcement campaigns. Positive messaging can also be delivered through safety awareness campaigns and safety-focused events. Shasta County Public Health's SRTS program currently works with law enforcement, such as the Anderson Police Department, to reward good pedestrian and bicyclist behavior among youth.



Figure 2.13. Law enforcement plays an important role in promoting safe behaviors of all roadway users. ***Source: Toole Design Group***

SRTA could assist and support coordination between local jurisdictions and law enforcement officers to develop rewards campaigns (see Figure 2.13). SRTA could provide support in the form of funding, coordination, or marketing. Locations with high bicycle and pedestrian volumes such as trails and routes near schools would be good candidates for a reward campaign.

Safety Patrols on Trails

Safety patrols conducted either by police officers or volunteers, such as bicycle ambassadors, can be also be effective on regional trails to protect users from hazardous conditions and criminal activities; report maintenance issues; and educate trail users about trail proper etiquette.

Safety patrols can act as a community outreach effort to contribute to a safe and enjoyable environment for all. Providing a safety patrol can also indicate that the region values its trails. Ideally, the safety patrol will be on bicycles so that they can patrol trails quickly and easily, and directly understand uncomfortable trail conditions.

SRTA could support coordination between local jurisdictions, law enforcement agencies, local parks departments, and other organizations to determine if there is interest in developing a safety patrol program. If a program is desired, volunteers could be used to staff the patrols and serve as ambassadors to provide education, outreach, and safety information along specific trails and parks where there are safety concerns.

Evaluation

Achieving the vision of this ATP requires local agencies to build active transportation projects, offer relevant programs, and change some policies to encourage walking and biking. To ensure that these projects, programs, and policies are meeting their intent, they must be evaluated.

Evaluation should use a plan or project-based goals and objectives as its basis. Results should:

- Inform decision makers and the public on whether the projects, programs, and policies are successful
- Illustrate areas that can be improved
- Demonstrate how funds are being used and apply for more funding
- Promote projects to encourage public support

Data Collection

Collecting measurable data allows projects, programs, and policies to be evaluated quantitatively. This will help determine successes or identify areas that need improvement. Data collection should be built into work plans to ensure the ongoing collection and evaluation of data.

Examples of data include:

- Bicycle and pedestrian counts
- Motor vehicle speed and volume counts
- Pavement and striping conditions
- Bike parking and amenity assessments

Bicycle and Pedestrian Counts

Collecting data on the number of people walking and biking can help communities gain a better understanding of their active transportation network and activity levels. Short- and long-duration counts can be used to identify activity patterns and facility usage, contribute to safety analysis, and evaluate trends.

SRTA will implement and coordinate a regional bike count program that builds on and incorporates short-duration manual counts that have been organized by Shasta County Public Health and conducted by volunteers since 2008. SRTA will purchase and install permanent counters in close coordination with local agencies with a goal of installing counters at eight to sixteen locations over the next four years. Combining short- and long-duration count data will provide reliable data for establishing trend lines and day of use patterns, which are useful for planning and evaluation purposes.

Beyond purchasing permanent counters, SRTA's role may include:

- Being a data clearinghouse
- Analyzing data and producing reports for local agencies
- Developing the bicycle count program's requirements and methodology
- Identifying a variety of representative locations for permanent and manual counts
- Quality checking data

THIS PAGE INTENTIONALLY LEFT BLANK

Chapter 3: Project Recommendations

The Shasta Region has a great opportunity to increase walking and biking for both transportation and recreation. Doing so will enable the region to meet air quality and greenhouse gas reduction targets while improving public health and more transportation options. Residents and visitors to the region will be able to take advantage of the tremendous recreational opportunities on facilities such as the Sacramento River Trail, offering a boost to the local economy.

This shift to increase bicycle and pedestrian activity—from the existing 1 to 2 percent mode share—will require connecting existing routes with new routes to provide access to major destinations, and making the walking and biking network safer and more comfortable so a wider spectrum of people see these modes as attractive and viable options for getting around.

This chapter presents project recommendations for creating a connected, appealing, and safe bicycle and pedestrian network in the cities of Anderson and Shasta Lake and the unincorporated areas of Shasta County. The rural, urban, and suburban characters of the Shasta Region create a need for projects that are context-sensitive and provide appropriate facilities for recreational and transportation trips. To see how the projects recommended as part of the city of Redding Active Transportation Plan connect with the rest of the region, view the regional bicycle map and regional pedestrian map. More information on the city of Redding's project recommendations, policies, and programs can be found in the city of Redding Active Transportation Plan.

Process to Develop Recommendations

The project recommendations were developed based on careful consideration of data and community input about walking and biking within the Shasta Region. The following information was used to develop project recommendations:

- Community comments from public workshops and events, walk audits, and online engagement tools, such as a survey and mapping tool
- Input from the GoShasta Steering Committee and Citizens Advisory Committee
- Best practices for pedestrian and bicycle planning and design, including how to develop a network for all ages and abilities
- Collision analysis
- Data on walking and biking trips
- Assessment of existing bicycle and pedestrian facilities
- Assessment of transit service and access areas
- Land use and Strategic Growth Areas

The recommendations presented in this chapter include physical changes to the bicycle and pedestrian network. Specific locations recommended for improvements are identified in the following maps. Program recommendations which complement these project recommendations, can be found in Chapter 2.

Pedestrian Network Recommendations

The recommendations to enhance walking throughout the Shasta Region focus on spot improvements and corridor recommendations. How regional Trunk Lines (see Chapter 1) comprise corridor improvements implemented by local agencies will be determined in consultation with neighboring jurisdictions and SRTA. Figures 3.1 to 3.7 illustrate these recommendations, and a description of the proposed elements follows. There are several recommendations not shown on local maps due to the size of the region and the scale of the projects, however all recommendations are shown on the Regional Map of Pedestrian Recommendations, and are included in the project lists in Appendix E.

» **See Appendix A for more information about the Stakeholder and Public Input.**

» **See Appendix D for more information about the data and technical analysis to develop the recommendations.**

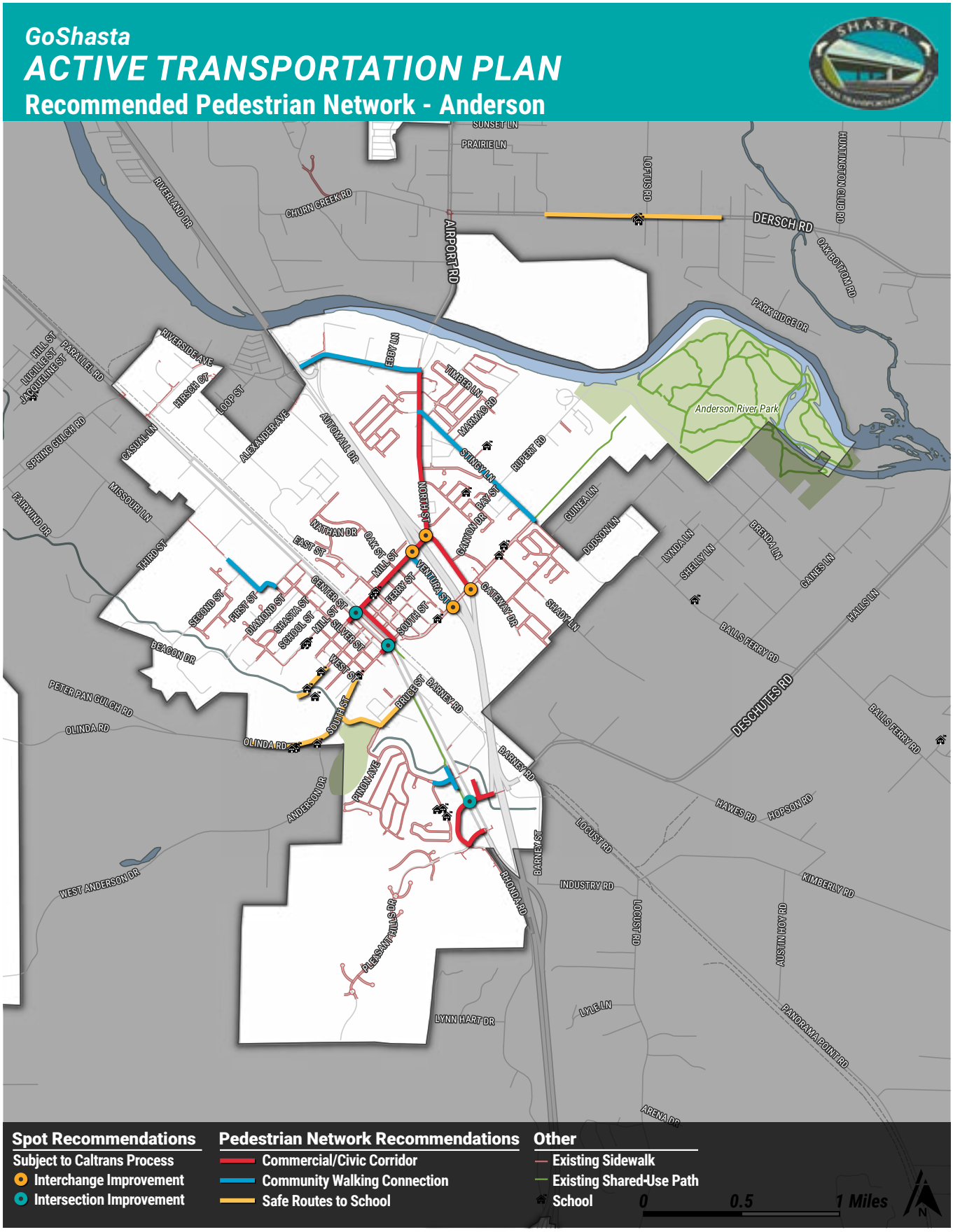

GoShasta
ACTIVE TRANSPORTATION PLAN
Recommended Pedestrian Network - Anderson
SUNSET LN
PRAIRIE LN
CHURN CREEK RD
RIVERLAND DR
AIRPORT RD
LOFTUS RD
DERSCH RD
HUNTINGTON CLUB RD
OAK BOTTOM RD
PARK RIDGE DR
Anderson River Park
HILL ST
LUCILLE ST
JACQUELINE ST
PARALLEL RD
RIVERSIDE AVE
HIRSCH CT
LOOP ST
ALEXANDER AVE
SPRING GULCH RD
CASUAL LN
MISSOURI LN
FAIRWIND DR
THIRD ST
AUTOMALL DR
NTLAGCB
TIMBER LN
MARIAG RD
STINGY LN
RIPPERT RD
NORTH ST
BAY ST
CANNON DR
GUINEA LN
DODSON LN
LYNDA LN
SHELLY LN
BRENDA LN
GAINES LN
HALLS LN
NATHAN DR
OAK ST
EAST ST
MILL ST
VENTURA ST
GATEWAY DR
SHADY LN
CENTER ST
FERRY ST
SECOND ST
FIRST ST
DIAMOND ST
SHASTA ST
SCHOOL ST
MILL ST
SILVER ST
SOUTH ST
BALLS FERRY RD
BEACON DR
WEST ST
PETER PAN GULCH RD
OLINDA RD
SOUTH ST
BRUCE ST
BARNEY RD
DESCHUTES RD
BALLS FERRY RD
OLINDA RD
BARNEY RD
PINON AVE
ANDERSON DR
HAWES RD
HOPSON RD
LOCUST RD
BARNEY ST
INDUSTRY RD
KIMBERLY RD
WEST ANDERSON DR
RHONDA RD
PLEASANT HILL DR
LOCUST RD
AUSTIN HOY RD
LYLE LN
LYNN HART DR
PANORAMA POINT RD
ARENA DR
Spot Recommendations
Subject to Caltrans Process
Interchange Improvement
Intersection Improvement
Pedestrian Network Recommendations
Commercial/Civic Corridor
Community Walking Connection
Safe Routes to School
Other
Existing Sidewalk
Existing Shared-Use Path
School
0
0.5
1 Miles
N

Figure 3.1

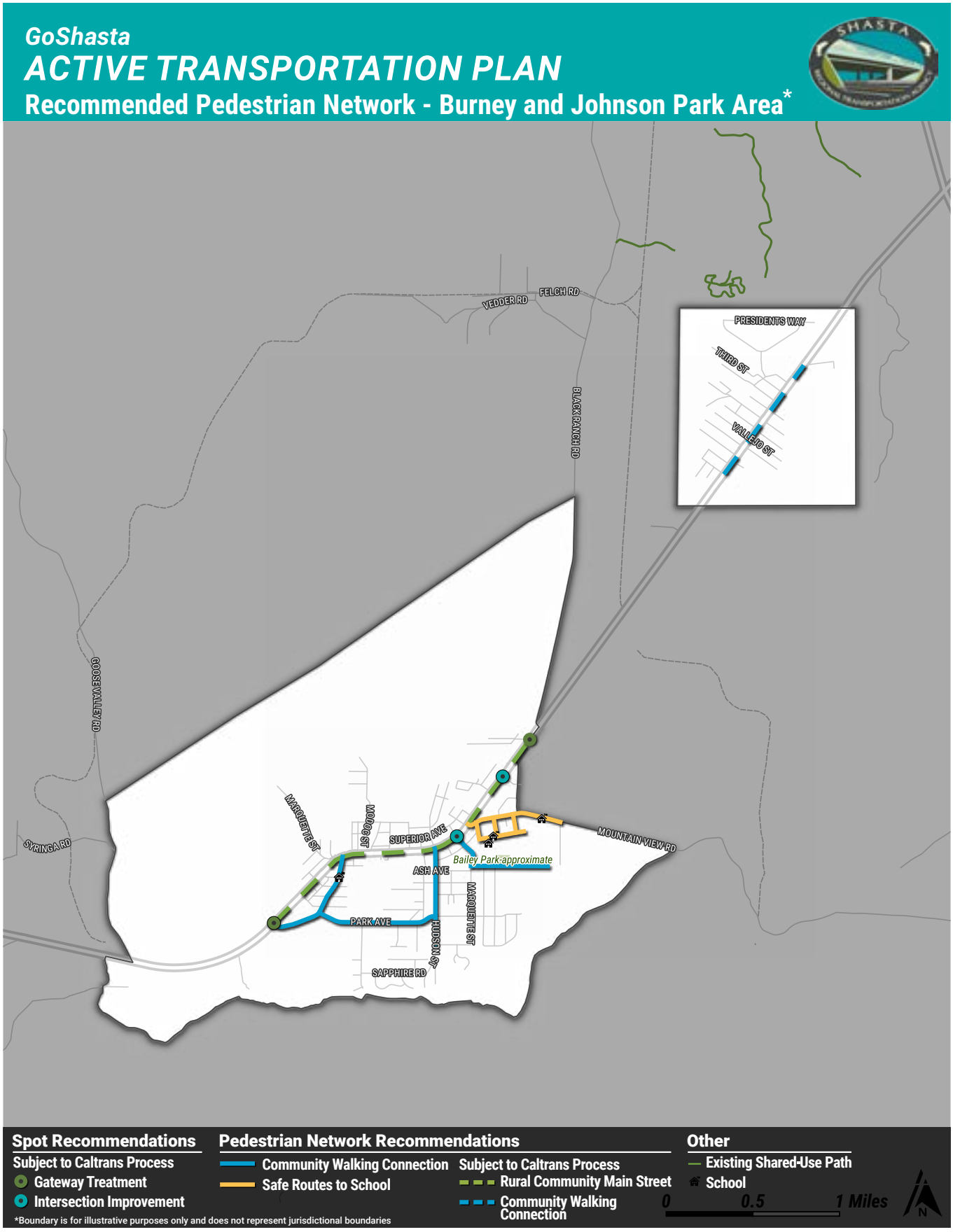

GoShasta
ACTIVE TRANSPORTATION PLAN
Recommended Pedestrian Network - Burney and Johnson Park Area*
VEDDER RD
FELCH RD
BLACK RANCH RD
PRESIDENTS WAY
THIRD ST
VALLEJO ST
GOOSEVALLEY RD
SYRINGA RD
MARQUETTE ST
MOORE ST
SUPERIOR AVE
ASH AVE
Bailey Park-approximate
MOUNTAIN VIEW RD
PARK AVE
HUDSON St
SAPPHIRE RD
Spot Recommendations
Subject to Caltrans Process
Gateway Treatment
Intersection Improvement
Pedestrian Network Recommendations
Community Walking Connection
Safe Routes to School
Subject to Caltrans Process
Rural Community Main Street
Community Walking Connection
Other
Existing Shared-Use Path
School
0
0.5
1 Miles
N
*Boundary is for illustrative purposes only and does not represent jurisdictional boundaries

Figure 3.2

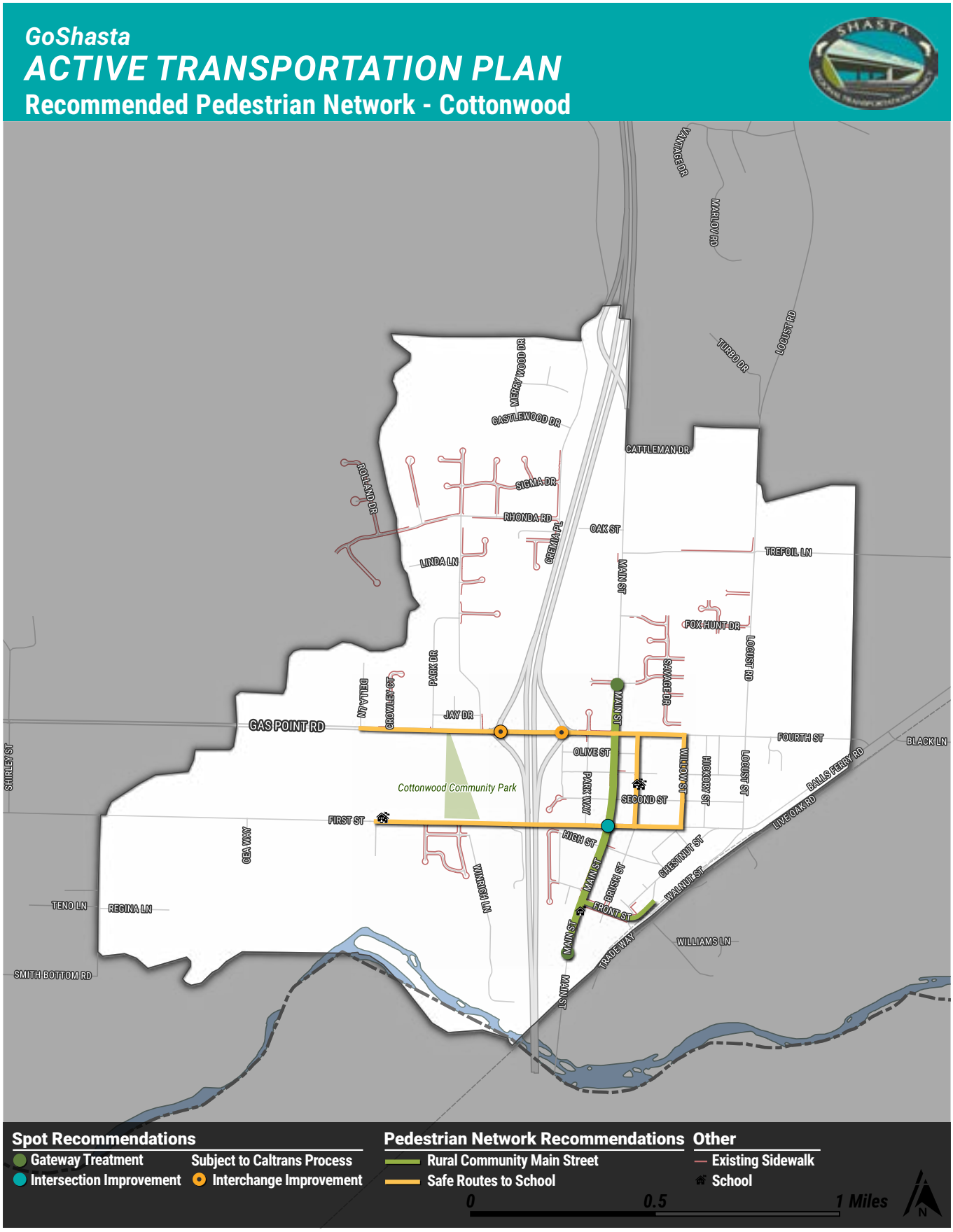

GoShasta
ACTIVE TRANSPORTATION PLAN
Recommended Pedestrian Network - Cottonwood
VILLAGE DR
MARLOW RD
LOCUST RD
TURBO DR
MERRY WOOD DR
CASTLEWOOD DR
CATTLEMAN DR
ROLLAND DR
SIGMA DR
RHONDA RD
GEMINI PL
OAK ST
LINDA LN
MAIN ST
TREFOIL LN
FOX HUNT DR
SAVAGE DR
PARK DR
BELLA LN
CROWLEY LN
JAY DR
GAS POINT RD
OLIVE ST
FOURTH ST
BLACK LN
SHIRLEY ST
Cottonwood Community Park
PARK WAY
SECOND ST
WILLOW ST
HICKORY ST
LOCUST ST
DALLS FERRY RD
LIVE OAK RD
FIRST ST
HIGH ST
CEA WAY
WINNICH LN
CHESTNUT ST
WALNUT ST
BRUSH ST
FRONT ST
TENO LN
REGINA LN
WILLIAMS LN
TRADEWAY
SMITH BOTTOM RD
Spot Recommendations
Gateway Treatment
Intersection Improvement
Subject to Caltrans Process
Interchange Improvement
Pedestrian Network Recommendations
Rural Community Main Street
Safe Routes to School
Other
Existing Sidewalk
School
0
0.5
1 Miles
N

Figure 3.3

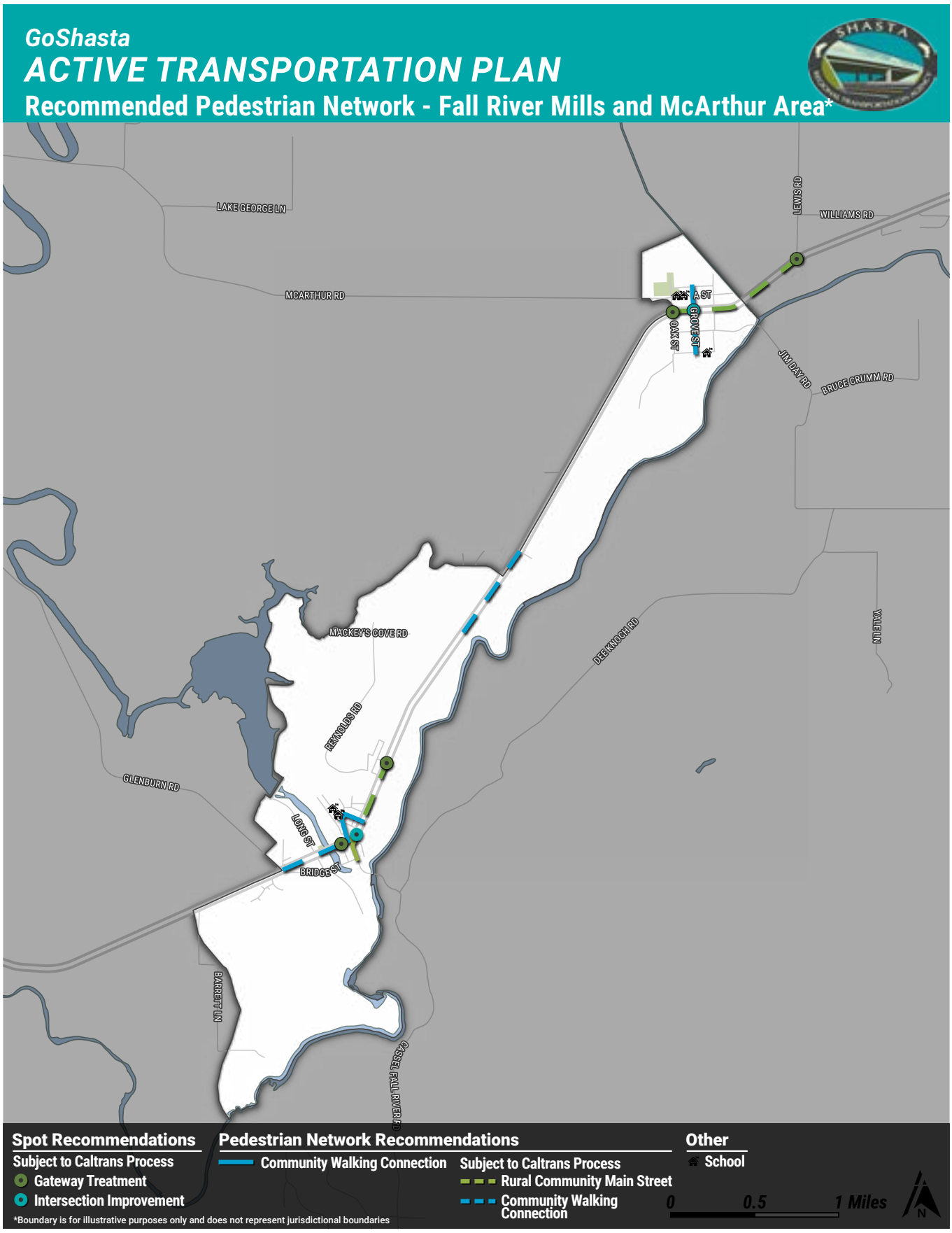

GoShasta
ACTIVE TRANSPORTATION PLAN
Recommended Pedestrian Network - Fall River Mills and McArthur Area*
LAKE GEORGE LN
MCARTHUR RD
LEWIS RD
WILLIAMS RD
A ST
GROVE ST
OAK ST
JM IDAY RD
BRUCE CRUMM RD
MACKEY'S COVE RD
REYNOLDS RD
DEE KNOCH RD
YALE LN
GLENBURN RD
LONG ST
BRIDGE ST
BARRETT LN
FALL RIVER RD
Spot Recommendations
Subject to Caltrans Process
Gateway Treatment
Intersection Improvement
*Boundary is for illustrative purposes only and does not represent jurisdictional boundaries
Pedestrian Network Recommendations
Community Walking Connection
Subject to Caltrans Process
Rural Community Main Street
Community Walking Connection
Other
School
0
0.5
1 Miles
N

Figure 3.4

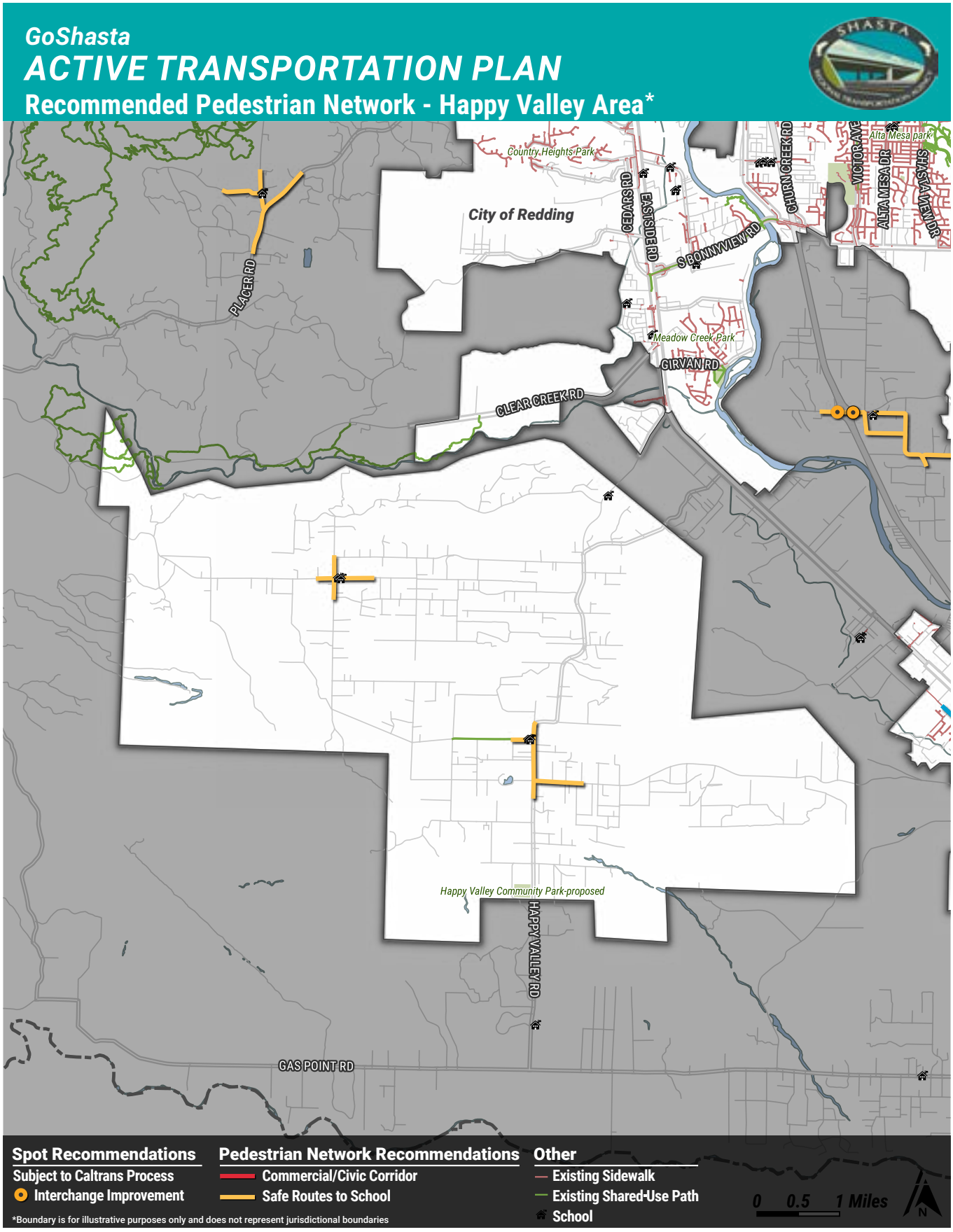

GoShasta
ACTIVE TRANSPORTATION PLAN
Recommended Pedestrian Network - Happy Valley Area*
City of Redding
Country Heights Park
Alta Mesa park
Meadow Creek Park
Happy Valley Community Park-proposed
PLACER RD
CEDARS RD
EASTSIDE RD
S BONNYVIEW RD
CHURN CREEK RD
VICTOR AVE
ALTA MESA DR
SHASTA VIEW DR
GIRVAN RD
CLEAR CREEK RD
HAPPY VALLEY RD
GAS POINT RD
Spot Recommendations
Subject to Caltrans Process
Interchange Improvement
Pedestrian Network Recommendations
Commercial/Civic Corridor
Safe Routes to School
Other
Existing Sidewalk
Existing Shared-Use Path
School
0 0.5 1 Miles
N
*Boundary is for illustrative purposes only and does not represent jurisdictional boundaries

Figure 3.5


GoShasta
ACTIVE TRANSPORTATION PLAN
Recommended Pedestrian Network - Palo Cedro
SANDPOINT RD
SUNNY OAKS LN
HILLVIEW DR
ROBIN WAY
FRISBIE LN
DALEWOOD DR
HIDDEN LN
ORIOLE LN
COW CREEK DR
STONEY CREEK LN
WINEGAR RD
LOGAN RD
BERYL DR
LASSEN VIEW DR
SWEDE CREEK RD
STONE MEADOW RD
VINE CT
OLD HWY 44 DR
KILDEE RD
KENT LN
CEDRO LN
Palo Cedro Community Park
CALISTOGA WAY
DORK LN
GILBERT DR
PLAZA DR
GOLFTIME DR
SERENITY LN
ROVERN RANCH RD
SILVERLODE LN
BUENA VENTURA DR
HILLSIDE DR
SPANISH OAKS DR
RUSTY LN
ELMAR RD
VISTA OAKS DR
KIRKWOOD MANOR DR
MEL MAR DR
MIDVIEW DR
WILLOA LN
BARROW RD
BUCKSKIN LN
WHISPERING OAKS RD
BELMONT DR
BERKELEY DR
SILVER BRIDGE RD
RAMBLEWOOD LN
BRUNDAGE RD
MAYNARD RD
SILVERSPUR RD
DESCHUTES RD
SKYLARK LN
CHAROLAIS WAY
BASS POND RD
MELISA DR
ANTLERS RD
Spot Recommendations
Gateway Treatment
Subject to Caltrans Process
Interchange Improvement
Pedestrian Network Recommendations
Rural Community Main Street
Safe Routes to School
Other
Existing Sidewalk
School
0
0.5
1 Miles
N

Figure 3.6

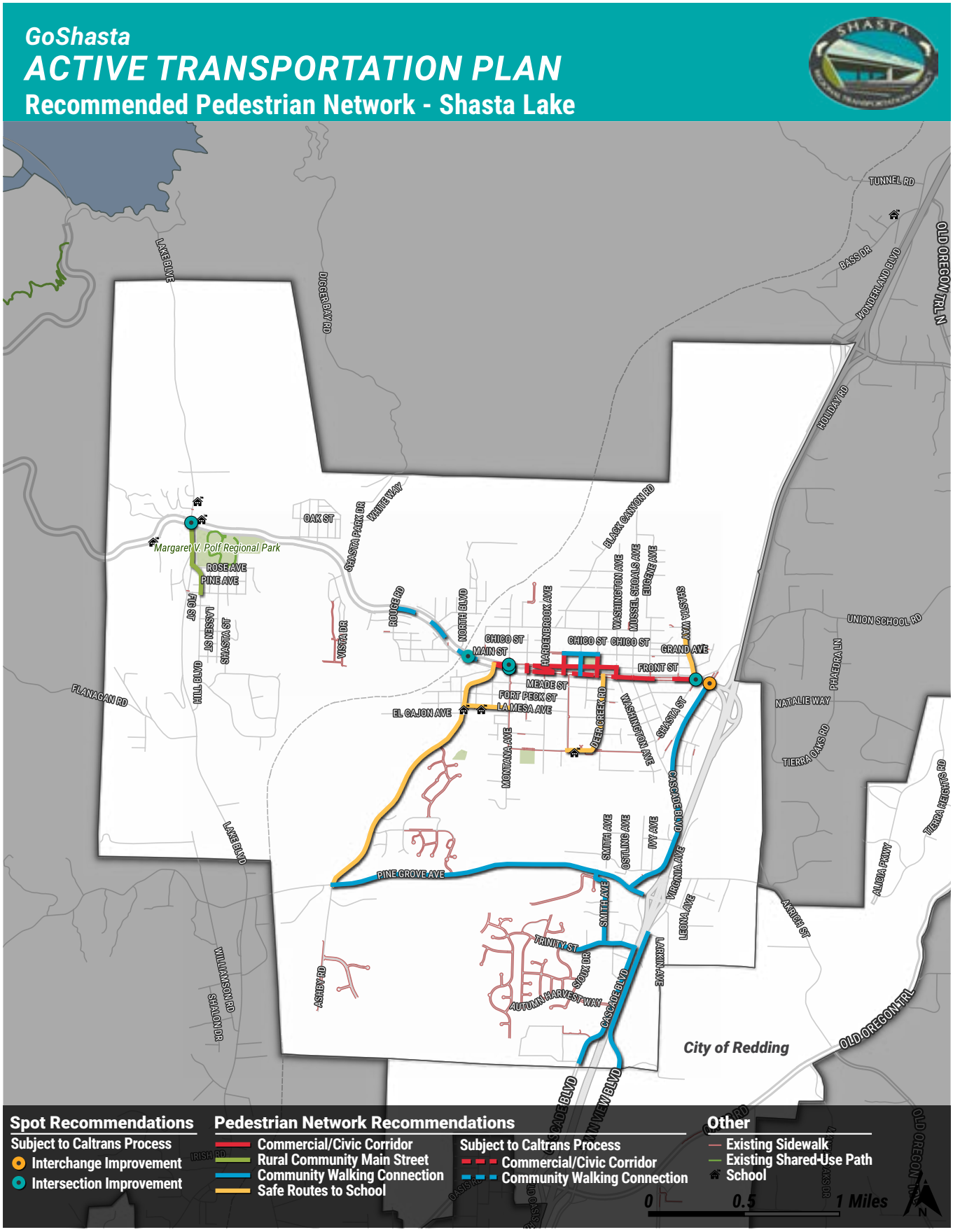

GoShasta
ACTIVE TRANSPORTATION PLAN
Recommended Pedestrian Network - Shasta Lake
TUNNEL RD
OLD OREGON TRL N
BASS DR
WONDERLAND BLVD
HOLIDAY RD
LAKE BLVD
DIGGER BAY RD
OAK ST
SHASTA PARK DR
WHITE WAY
Margaret V. Polf Regional Park
ROSE AVE
PINE AVE
FO ST
LASSEN ST
SHASTA ST
HILL BLVD
FLANAGAN RD
ROUGE RD
VISTA DR
NORTH BLVD
CHICO ST
MAIN ST
HARDENBROOK AVE
BLACK CANYON RD
WASHINGTON AVE
MUSSEL SHOALS AVE
EUREKA AVE
SHASTA WAY
CHICO ST
CHICO ST
GRAND AVE
FRONT ST
MEADE ST
FORT PECK ST
LA MESA AVE
EL CAJON AVE
DEER CREEK RD
WASHINGTON AVE
SHASTA ST
MONTANA AVE
UNION SCHOOL RD
PHAEDRA LN
NATALIE WAY
TIERRA OAKS RD
TIERRA HEIGHTS RD
ALICIA PKWY
AIRIGHI ST
CASCADE BLVD
VIRGINIA AVE
LEONA AVE
LARKIN AVE
SMITH AVE
OSTLING AVE
IVY AVE
PINE GROVE AVE
TRINITY ST
SIOUX DR
AUTUMN HARVEST WAY
ASHBY RD
WILLIAMSON RD
SHALON DR
City of Redding
OLD OREGON TRL
Spot Recommendations
Subject to Caltrans Process
Interchange Improvement
Intersection Improvement
Pedestrian Network Recommendations
Commercial/Civic Corridor
Rural Community Main Street
Community Walking Connection
Safe Routes to School
Subject to Caltrans Process
Commercial/Civic Corridor
Community Walking Connection
Other
Existing Sidewalk
Existing Shared-Use Path
School
0
0.5
1 Miles
N

Figure 3.7

RECOMMENDATION

Spot Improvements

Recommended spot improvements include gateway treatments, intersection improvements, and interchange improvements.

Intersection Improvements

Intersections are primary conflict areas between bicyclists, pedestrians, and drivers. Intersection design should provide visibility for all users and create a predictable environment where users intuitively understand each other's expected movements. Intersections should be as compact as possible to minimize crossing distances, increase visibility, and slow traffic near conflict points. Unused space within an intersection should be minimized and, where possible and context-appropriate, can be converted into pedestrian spaces.

Crossing improvements can include:

- Constructing curb extensions and/or raised crossings to slow vehicle turning speeds and reduce pedestrian exposure
- Shortening cycle lengths and coordinating timing along corridors to reduce pedestrian delay
- Striping high-visibility crosswalks at unsignalized locations (see Figure 3.8)
- Enhancing infrastructure—through pedestrian median islands, flashing beacons, or pedestrian hybrid beacons—at higher-volume crossings or where high vehicle speeds and/or volumes are present mid-block

Interchange Improvements

Interchanges are often critical links across limited access roadways for pedestrians and bicyclists; however, these facilities are not always designed to provide safe and comfortable access for these users. Improvements to interchange ramp designs can encourage drivers to slow to a safe speed, increase visibility for all users, and help increase awareness of potential conflicts. Interchanges in the Shasta Region occur on state routes and along the I-5 corridor and are designed and operated by Caltrans, and thus subject to Caltran's project development process. Interchange locations identified as needing improvement to better accommodate people walking and biking are indicated on the pedestrian network recommendation maps as "Subject to Caltrans Process."



Figure 3.8. High visibility crossings for bicyclists and pedestrians in Davis, CA. ***Source: Kittelson & Associates, Inc.***

Creating safe and comfortable facilities for non-motorized users through interchanges includes:

- Encouraging slower vehicle speeds at ramp entrances and exits through geometric design.
- Orienting ramps at 90-degree angles to the intersecting roadway to improve sight triangles.
- Controlling ramp entrances and exits through stop or signalized intersection controls.
- Striping pedestrian crossings with high-visibility markings and installing advanced stop bars, or yield lines, and pedestrian warning signs.
- Shortening the length of the crossing.
- Installing sidewalks on both sides of the interchange.
- Constructing grade-separated interchange crossings at complex interchanges or on high-use walking and biking routes. These should directly connect to pedestrian and bicycle routes, as grade-separated facilities that require bicyclists or pedestrians to make long detours compared to crossing the interchange at grade may not be used.
- Designing well-lit and open undercrossings, if grade-separated interchanges are constructed.

For bicyclists, the same principles apply and, where possible, bicycle facilities should be separated to provide bicyclists a comfortable environment physically separated from high-speed vehicles. Separated facilities also provide drivers with a clear understanding of potential conflicts by creating a predictable environment for all users. Bicycle crossings with green paint should be striped across intersection crossings at ramp intersections to clearly identify the potential conflict between vehicles and bicycles. Figure 3.9 illustrates walking and biking enhancements at an interchange.

Gateway Treatments

In areas where roadways transition from high-speed intercity and interregional routes to local, main streets with higher walking and biking activity, indicating the transition through gateway treatments can help calm vehicle speeds, cue drivers to the changed land use and roadway context, improve safety, and provide community identity.

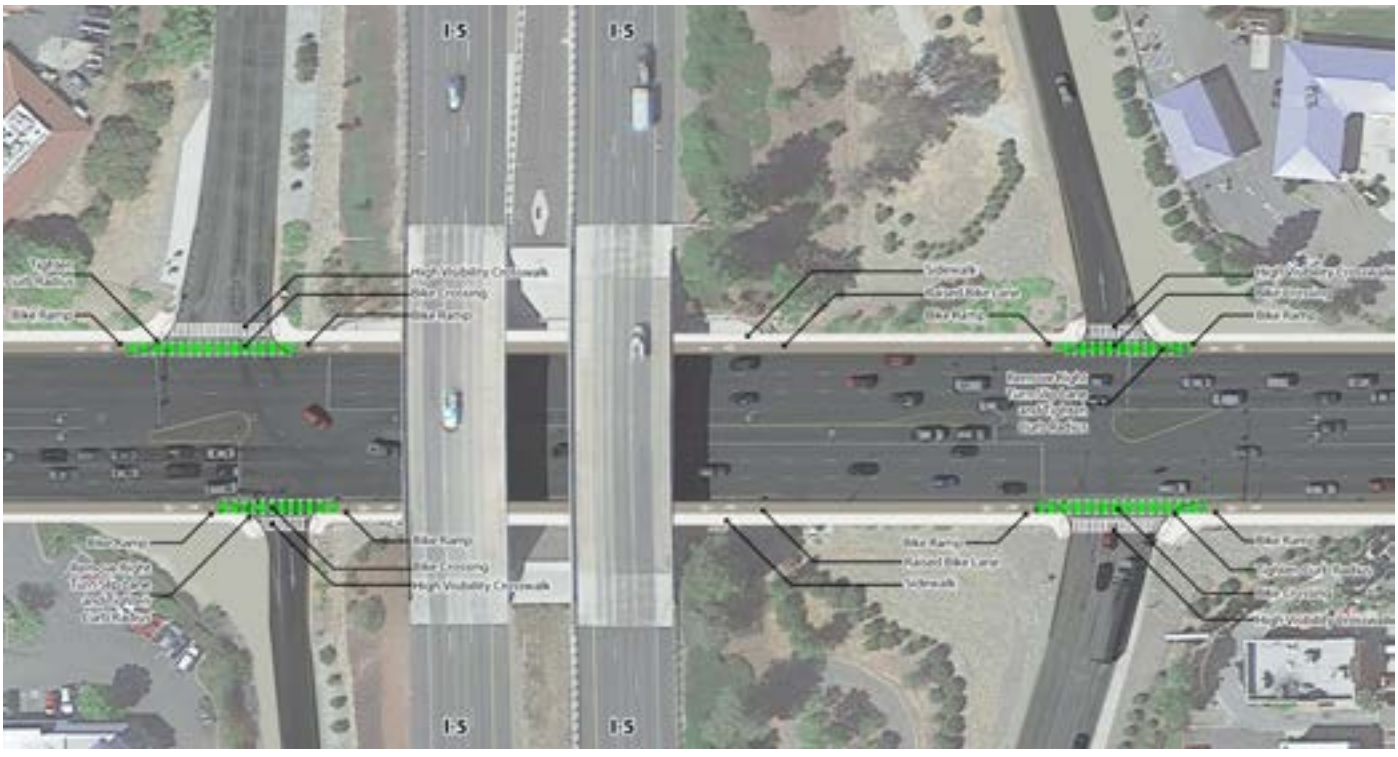


Figure 3.9. Conceptual Interchange Crossing Design. ***Source: Kittelson & Associates, Inc.***

Gateway improvements can include:

- Physically narrowing the roadway or travel lanes
- Visually narrowing the roadway (e.g., introducing on-street parking, street trees)
- Signage
- Streetscape elements (e.g., pedestrian-scale lighting, banners)
- Roundabouts
- Medians
- Monuments, structures, or signs that communicate the name and/or cultural elements of the community (see Figure 3.10)



Figure 3.10. Gateway treatments may include parking, lane narrowing, street trees, medians, lighting and monuments. ***Source: Toole Design Group***

RECOMMENDATION

Corridor Improvements

Recommended corridor improvements include treatments to create safe and comfortable commercial/civic corridors, safe routes to school, rural community main streets, and community walking connections.

Commercial/Civic Corridors

Commercial and civic corridors provide an opportunity for enhancing the pedestrian realm since these are areas where people are more likely to walk for shopping, business, and recreational trips. Improvements along these corridors should be prioritized to allow for a cohesive and comfortable walking environment.

Pedestrian improvements along commercial and civic corridors could include:

- Filling sidewalk gaps
- Providing a buffer, such as a planting strip and curbside parking, between the sidewalk and roadway, especially along higher-speed roadways
- Providing sidewalks that are wider than minimum clear widths to allow for comfortable side-by-side walking (see Figure 3.11)
- Enhancing crosswalks through the installation of high-visibility crossings or other improvements at key intersections

Providing active building frontages that integrate with the streetscape elements is also important for creating an inviting walking environment.

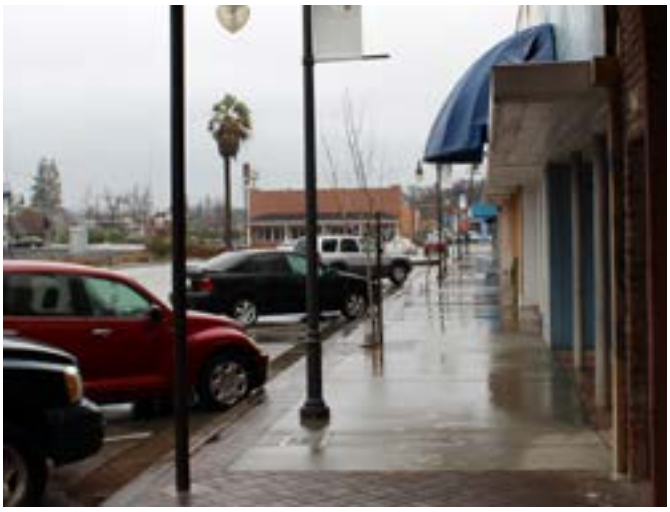


Figure 3.11. Commercial corridor in Anderson, CA. ***Source: Toole Design Group***

Safe Routes to Schools

An important focus of a complete active transportation network is developing safe, comfortable ways for children to walk and bike to school. Creating safe routes to schools should be coordinated with local school districts to ensure guidance on optimal routes is provided to families and that specific infrastructure issues within the walking shed of a school are identified and addressed.

Improvements can include:

- Providing a safe walking environment between homes and schools by installing sidewalks or otherwise providing a delineated space for walking
- Ensuring intersections are enhanced with high-visibility crossings and other treatments, such as pedestrian hybrid beacons or rectangular rapid flashing beacons

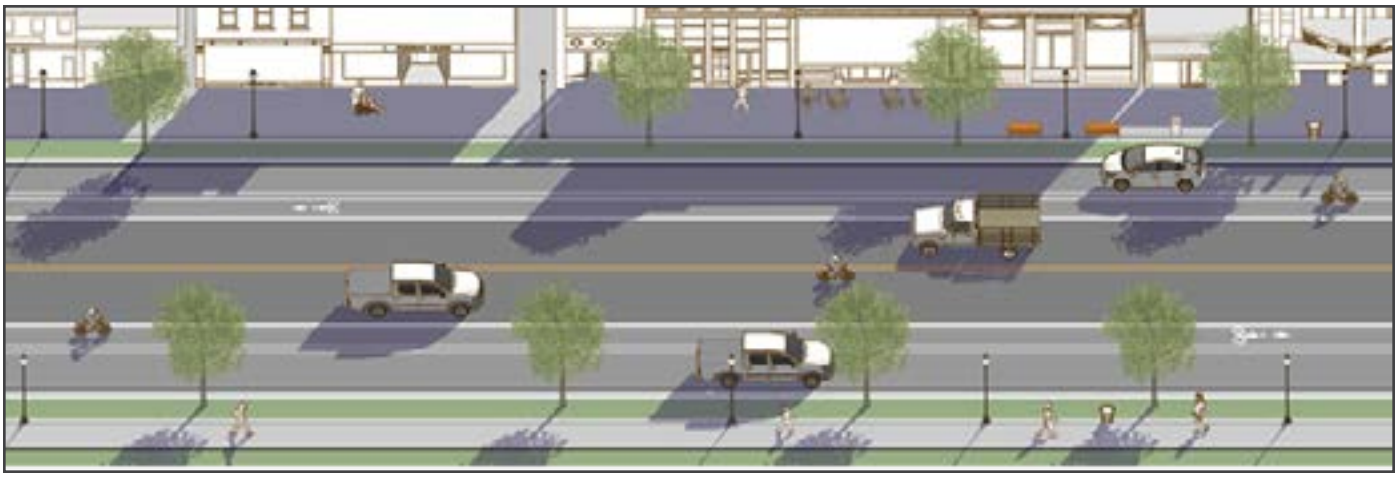
Rural Community Main Street

Many of the Shasta Region's rural communities, such as Burney, French Gulch, and Fall River Mills, developed around a state route or other roadway that has evolved into high-speed roadways that serve regional trips rather than local destinations. These streets could be redesigned to emphasize placemaking and community identity and to serve all users, whether arriving on foot, by bike, in a wheelchair, or in a car. For example, installing sidewalks or filling sidewalk gaps, providing buffers by introducing on-street parking or constructing planted sidewalk buffers, narrowing travel lanes, and installing convenient and visible crossings are among the treatments that can be used to establish more pedestrian friendly main streets. Such changes go hand-in-hand with Gateway Treatments discussed above. Changes to these roadways will likely need to balance a number of competing needs, and the community and key stakeholders should be involved with envisioning the future of these streets.

Figures 3.12 and 3.13 provide example concepts for accommodating multiple users along a rural main street. These concepts are from the Federal Highway Administration's 2017 *Small Town and Rural Multimodal Networks Guide*.



Figures 3.12. Example Concept Designs for Rural Main Streets. ***Source: FHWA Small Town and Rural Multimodal Networks Guide***



Figures 3.13. Example Concept Designs for Rural Main Streets. ***Source: FHWA Small Town and Rural Multimodal Networks Guide***

Community Walking Connection

In addition to rural community main streets, creating safe walking connections between rural communities and to key destinations is equally important. Facilities should be context-sensitive and should fit with the character and identity of the community. For more developed communities such as Burney, this may include installing sidewalks along routes between activity centers, residential neighborhoods, and schools. For other communities, community walking connections may consist of widened paved shoulders or, in some cases where feasible, creating a sidepath (see Figures 3.14 and 3.15). Sidepaths are typically found along higher-speed roads.



Figure 3.14. Existing condition. ***Source: Kittleson & Associates, Inc.***



Figure 3.15. Concept visualization for rural side path along higher speed road. ***Source: Kittleson & Associates, Inc.***

Bikeway Network Recommendations

Recommendations to improve bicycling throughout the Shasta Region focus on local connectivity routes and the development of a regional network of Trunk Lines (see Chapter 1). Figures 3.16-3.22 illustrate the proposed bikeway network. There are several recommendations not shown on local maps due to the size of the region and the scale of the projects, however all projects are shown on the Regional Map of Bicycle Recommendations. All recommended projects have been included in the project lists in Appendix E.

This chapter also provides an overview of the different facility types recommended for the Shasta Region's bikeway network. The following table summarizes the recommended bikeway facilities for each community. This mileage includes bikeway facility upgrades e.g., buffered bike lane where there is an existing conventional bike lane. For details on city of Redding bikeway recommendations, see the City of Redding Active Transportation Plan (city of Redding, 2018)

Implementing these bikeway recommendations will result in safer, more connected regional bicycle network.

Table 3.1. Recommended Bikeway Network Mileage

Bikeway Facility	Redding	Anderson	Shasta Lake	Shasta County	Total
Shared-Use Path	55.31	1.21	9.55	12.22	78.29
Buffered Bike Lane	56.59	0.00	1.88	9.26	67.73
Separated Bike Lane	1.50	7.38	5.03	1.78	15.69
Bike Lane	36.68	7.93	6.92	109.13	160.66
Bike Boulevard	17.27	2.21	5.63	0.00	25.11
Bike Route	2.66	0.73	4.41	31.47	39.27
Grand Total	**170.01**	**19.45**	**33.41**	**163.86**	**386.75**

Note: Mileage totals include projects that are subject to Caltrans process, including 20.77 miles of bike lanes, 0.4 miles of bike routes, 1.53 miles of buffered bike lanes, and 7.85 miles of shared-use paths.

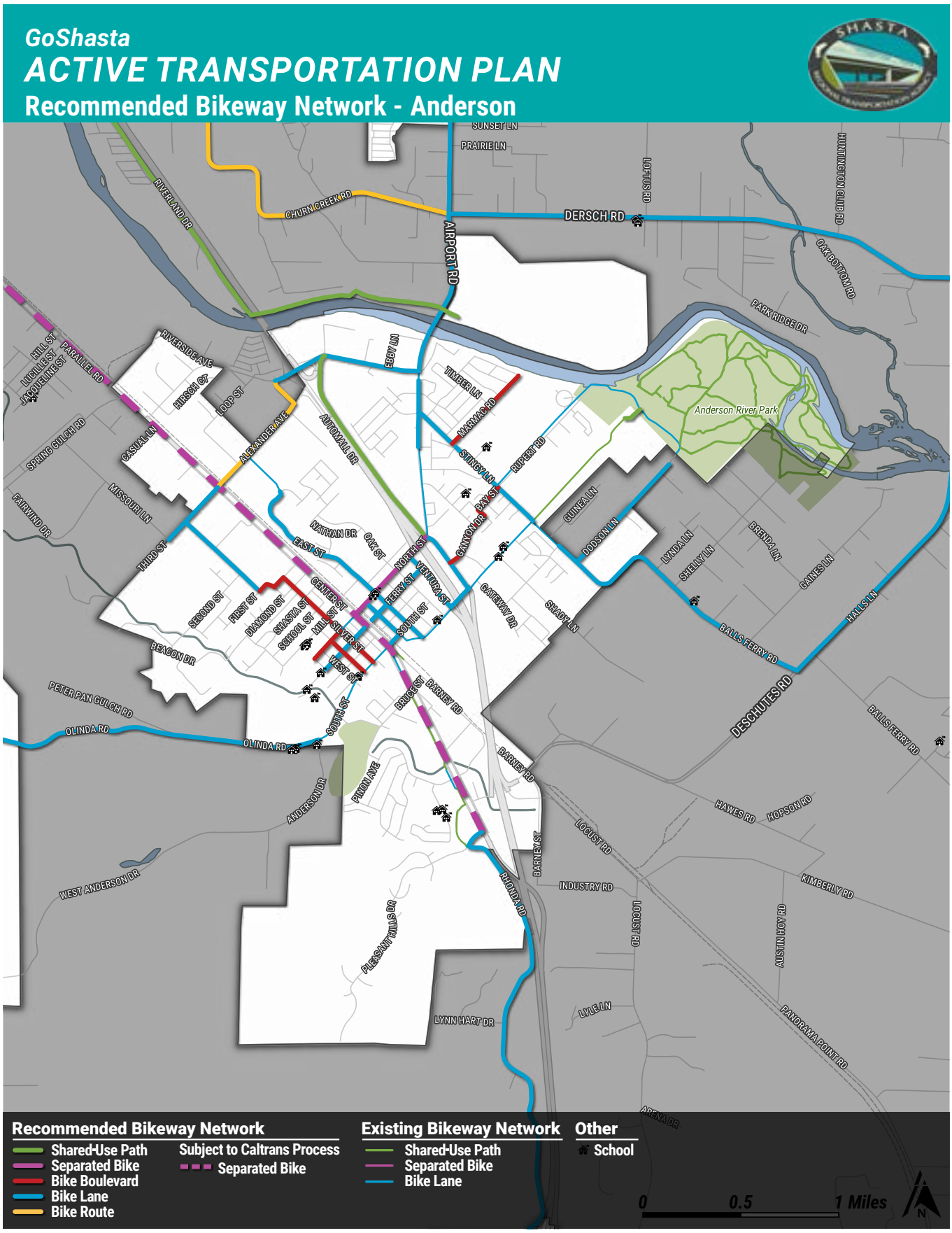

GoShasta
ACTIVE TRANSPORTATION PLAN
Recommended Bikeway Network - Anderson
SUNSET LN
PRAIRIE LN
LOFTUS RD
HUNTINGTON CLUB RD
RIVERLAND DR
CHURN CREEK RD
DERSCH RD
AIRPORT RD
OAK BOTTOM RD
PARK RIDGE DR
HILL ST
LUCILLE ST
JACQUELINE ST
PARALLEL RD
RIVERSIDE AVE
HIRSCH CT
LOOP ST
ALEXANDER AVE
CASUAL LN
SPRING GULCH RD
MISSOURI LN
FAIRWIND DR
THIRD ST
NATLEEN
AUTOMALL DR
TIMBER LN
MARMAC RD
Anderson River Park
STINGY LN
RUPERT RD
BAY ST
CANYON DR
GUINEA LN
DODSON LN
LYNDA LN
SHELLY LN
BRENDA LN
GAINES LN
HALLS LN
BALLS FERRY RD
NATHAN DR
OAK ST
EAST ST
NORTH ST
VENTURA ST
FERRY ST
SOUTH ST
GATEWAY DR
SHADY LN
SECOND ST
FIRST ST
DIAMOND ST
SHASTA ST
SCHOOL ST
CENTER ST
MILL ST
SILVER ST
BEACON DR
PETER PAN GULCH RD
OLINDA RD
BRUCE ST
BARNEY RD
DESCHUTES RD
BALLS FERRY RD
ANDERSON DR
PINON AVE
HAWES RD
HOPSON RD
LOCUST RD
WEST ANDERSON DR
INDUSTRY RD
KIMBERLY RD
RHONDA RD
PLEASANT HILLS DR
AUSTIN HOY RD
LYLE LN
LYNN HART DR
PANORAMA POINT RD
ARENA DR
Recommended Bikeway Network
Shared-Use Path
Separated Bike
Bike Boulevard
Bike Lane
Bike Route
Subject to Caltrans Process
Separated Bike
Existing Bikeway Network
Shared-Use Path
Separated Bike
Bike Lane
Other
School
0
0.5
1 Miles
N

Figure 3.16

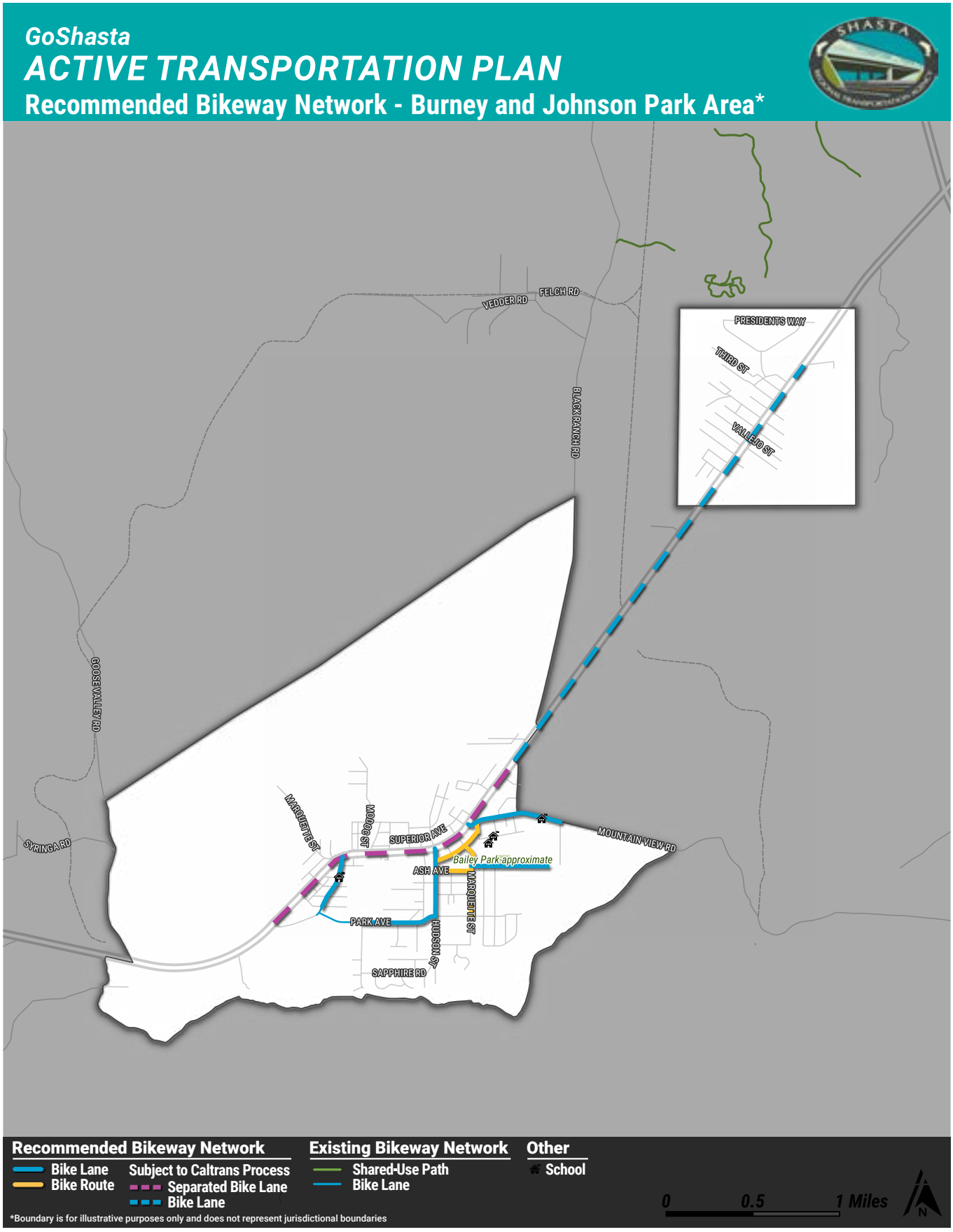

GoShasta
ACTIVE TRANSPORTATION PLAN
Recommended Bikeway Network - Burney and Johnson Park Area*
VEDDER RD
FELCH RD
BLACK RANCH RD
PRESIDENTS WAY
THIRD ST
VALLEJO ST
GOOSEVALLEY RD
SYRINGA RD
MARQUETTE ST
MOORE ST
SUPERIOR AVE
ASH AVE
Bailey Park-approximate
MARQUETTE ST
MOUNTAIN VIEW RD
PARK AVE
HUDSON ST
SAPPHIRE RD
Recommended Bikeway Network
Bike Lane
Bike Route
Subject to Caltrans Process
Separated Bike Lane
Bike Lane
Existing Bikeway Network
Shared-Use Path
Bike Lane
Other
School
*Boundary is for illustrative purposes only and does not represent jurisdictional boundaries
0
0.5
1 Miles
N

Figure 3.17


GoShasta
ACTIVE TRANSPORTATION PLAN
Recommended Bikeway Network - Cottonwood
VILLAGE DR
MARLOW RD
LOCUST RD
TURBO DR
MERRY WOOD DR
CASTLEWOOD DR
CATTLEMAN DR
ROLLAND DR
SIGMA DR
RHONDA RD
CHEMA PL
OAK ST
LINDA LN
MAIN ST
TREFOIL LN
FOX HUNT DR
LOCUST RD
SAVAGE DR
PARK DR
BELLA LN
CROWLEY CT
JAY DR
GAS POINT RD
FOURTH ST
BLACK LN
SHIRLEY ST
OLIVE ST
THIRD ST
WILLOW ST
HICKORY ST
LOCUST ST
DALLS FERRY RD
Cottonwood Community Park
PARK WAY
SECOND ST
FIRST ST
LIVE OAK RD
HIGH ST
CEA WAY
MAIN ST
BRUSH ST
CHESTNUT ST
WALNUT ST
WINNICH LN
TENO LN
REGINA LN
FRONT ST
MAIN ST
TRADEWAY
WILLIAMS LN
SMITH BOTTOM RD
MAIN ST
Recommended Bikeway Network
Bike Lane
Bike Route
Other
School
0
0.5
1 Miles
N

Figure 3.18


GoShasta
ACTIVE TRANSPORTATION PLAN
Recommended Bikeway Network - Fall River Mills and McArthur Area*
LAKE GEORGE LN
MCARTHUR RD
LEWIS RD
WILLIAMS RD
A ST
OAK ST
GROVE ST
JM IDAY RD
BRUCE CRUMM RD
MACKEY'S COVE RD
REYNOLDS RD
DEE KNOCH RD
YALE LN
GLENBURN RD
LONG ST
Fall River Mills Comm Park Playground-approximate
BRIDGE ST
BARRETT LN
OLD FALL RIVER RD
Recommended Bikeway Network
Bike Route
Subject to Caltrans Process
Bike Lane
Other
School
*Boundary is for illustrative purposes only and does not represent jurisdictional boundaries
0
0.5
1 Miles
N

Figure 3.19

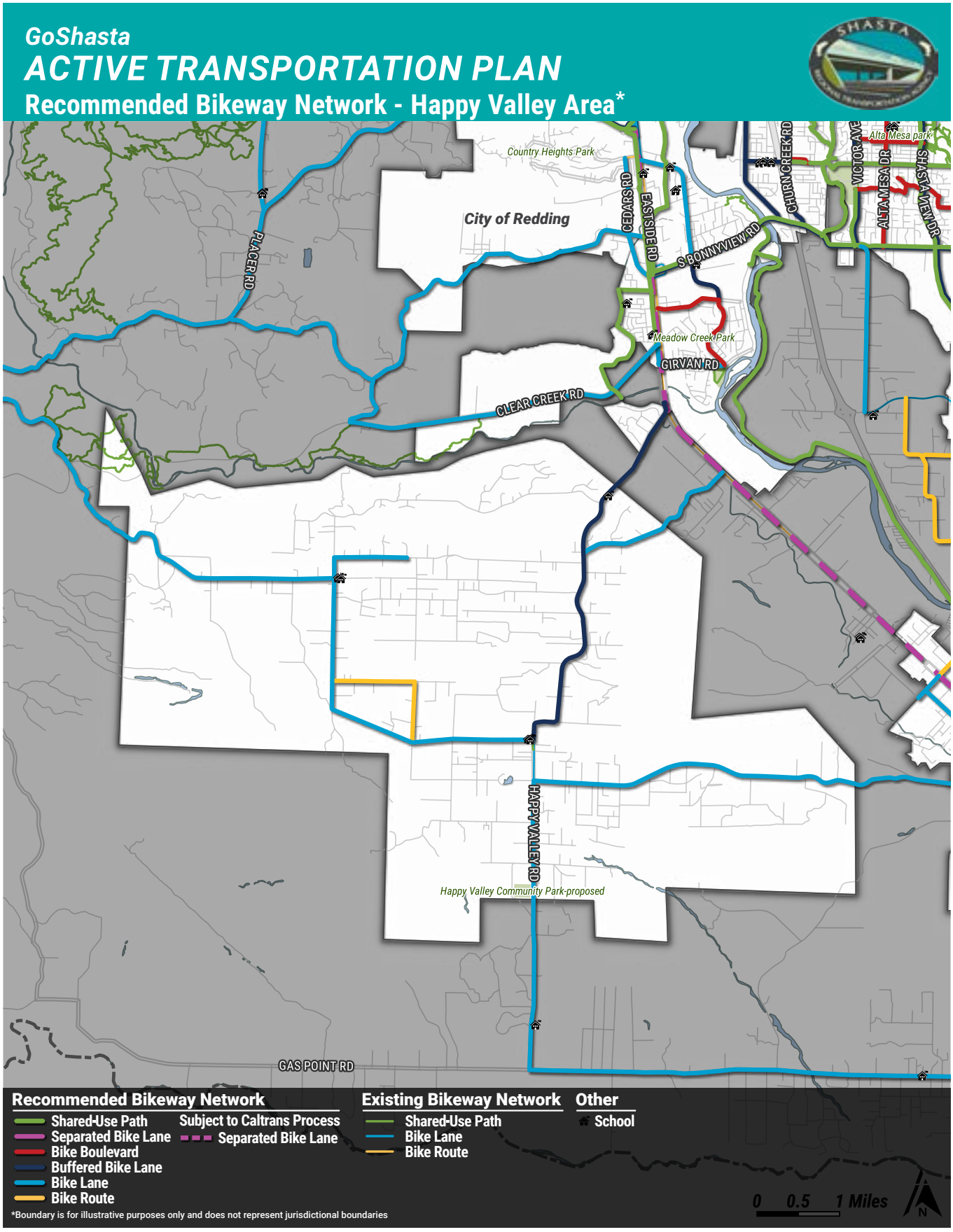

GoShasta
ACTIVE TRANSPORTATION PLAN
Recommended Bikeway Network - Happy Valley Area*
Country Heights Park
City of Redding
PLACER RD
CEDARS RD
EASTSIDE RD
S BONNYVIEW RD
CHURN CREEK RD
VICTOR AVE
ALTA MESA DR
SHASTA VIEW DR
Alta Mesa park
Meadow Creek Park
GIRVAN RD
CLEAR CREEK RD
HAPPY VALLEY RD
Happy Valley Community Park-proposed
GAS POINT RD
Recommended Bikeway Network
Shared-Use Path
Separated Bike Lane
Bike Boulevard
Buffered Bike Lane
Bike Lane
Bike Route
Subject to Caltrans Process
Separated Bike Lane
Existing Bikeway Network
Shared-Use Path
Bike Lane
Bike Route
Other
School
*Boundary is for illustrative purposes only and does not represent jurisdictional boundaries
0 0.5 1 Miles
N

Figure 3.20

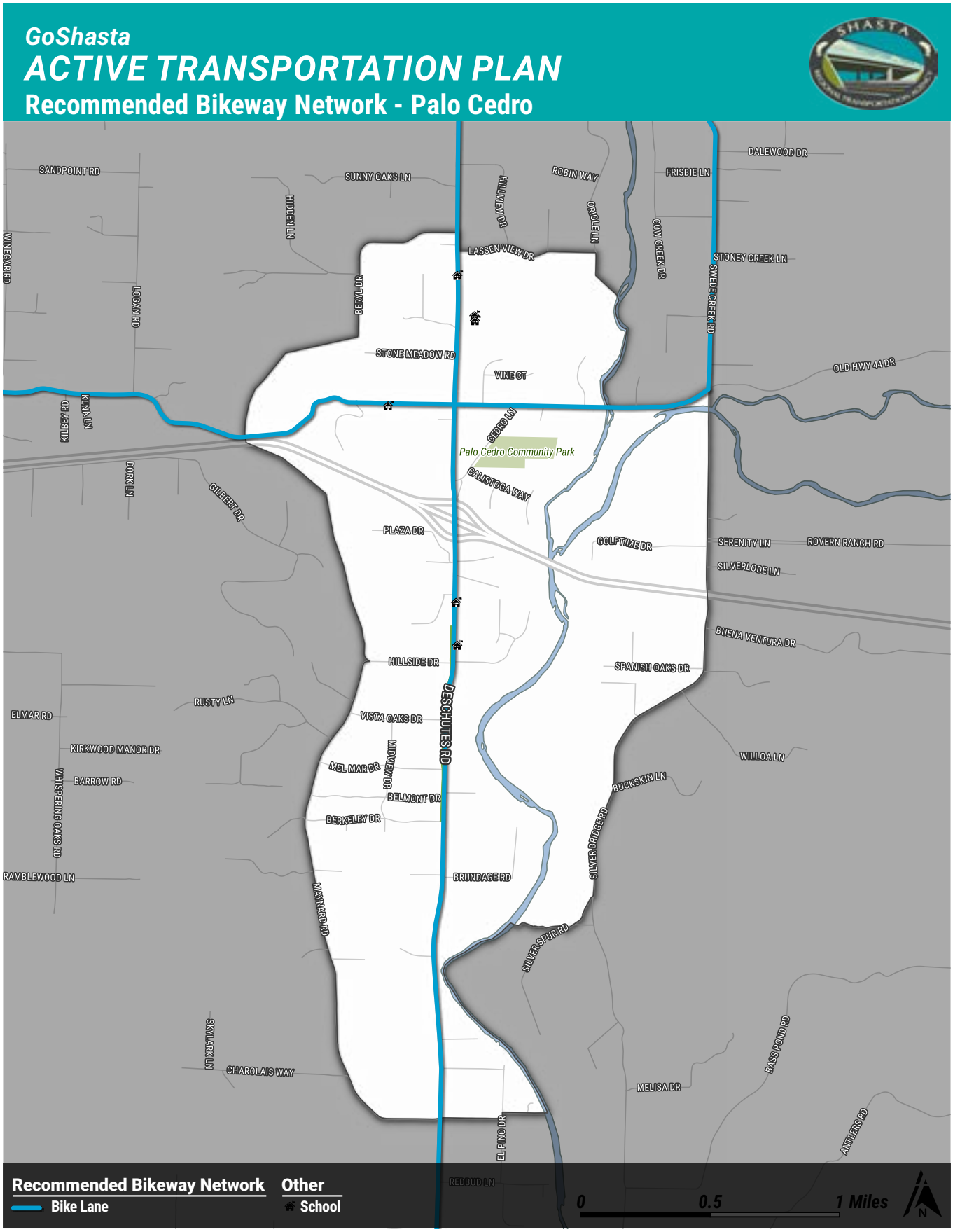

GoShasta
ACTIVE TRANSPORTATION PLAN
Recommended Bikeway Network - Palo Cedro
SANDPOINT RD
SUNNY OAKS LN
HILLVIEW DR
ROBIN WAY
FRISBIE LN
DALEWOOD DR
HIDDEN LN
ORIOLE LN
COW CREEK DR
WINEGAR RD
LOGAN RD
BERYL DR
LASSEN VIEW DR
STONEY CREEK LN
SWEDE CREEK RD
STONE MEADOW RD
VINE CT
OLD HWY 44 DR
KILDEE RD
KENA LN
CEDRO LN
Palo Cedro Community Park
CALISTOGA WAY
DORK LN
GILBERT DR
PLAZA DR
GOLFTIME DR
SERENITY LN
ROVERN RANCH RD
SILVERLODE LN
BUENA VENTURA DR
HILLSIDE DR
SPANISH OAKS DR
DESCHUTES RD
RUSTY LN
ELMAR RD
VISTA OAKS DR
KIRKWOOD MANOR DR
MEL MAR DR
MIDVIEW DR
WILLOA LN
BARROW RD
BUCKSKIN LN
WHISPERING OAKS RD
BELMONT DR
BERKELEY DR
SILVER RIDGE RD
RAMBLEWOOD LN
BRUNDAGE RD
MAYNARD RD
SILVERSPUR RD
SKYLARK LN
CHAROLAIS WAY
BASS POND RD
MELISA DR
EL PINO DR
ANTLERS RD
REDBUD LN
Recommended Bikeway Network
Bike Lane
Other
School
0
0.5
1 Miles
N

Figure 3.21

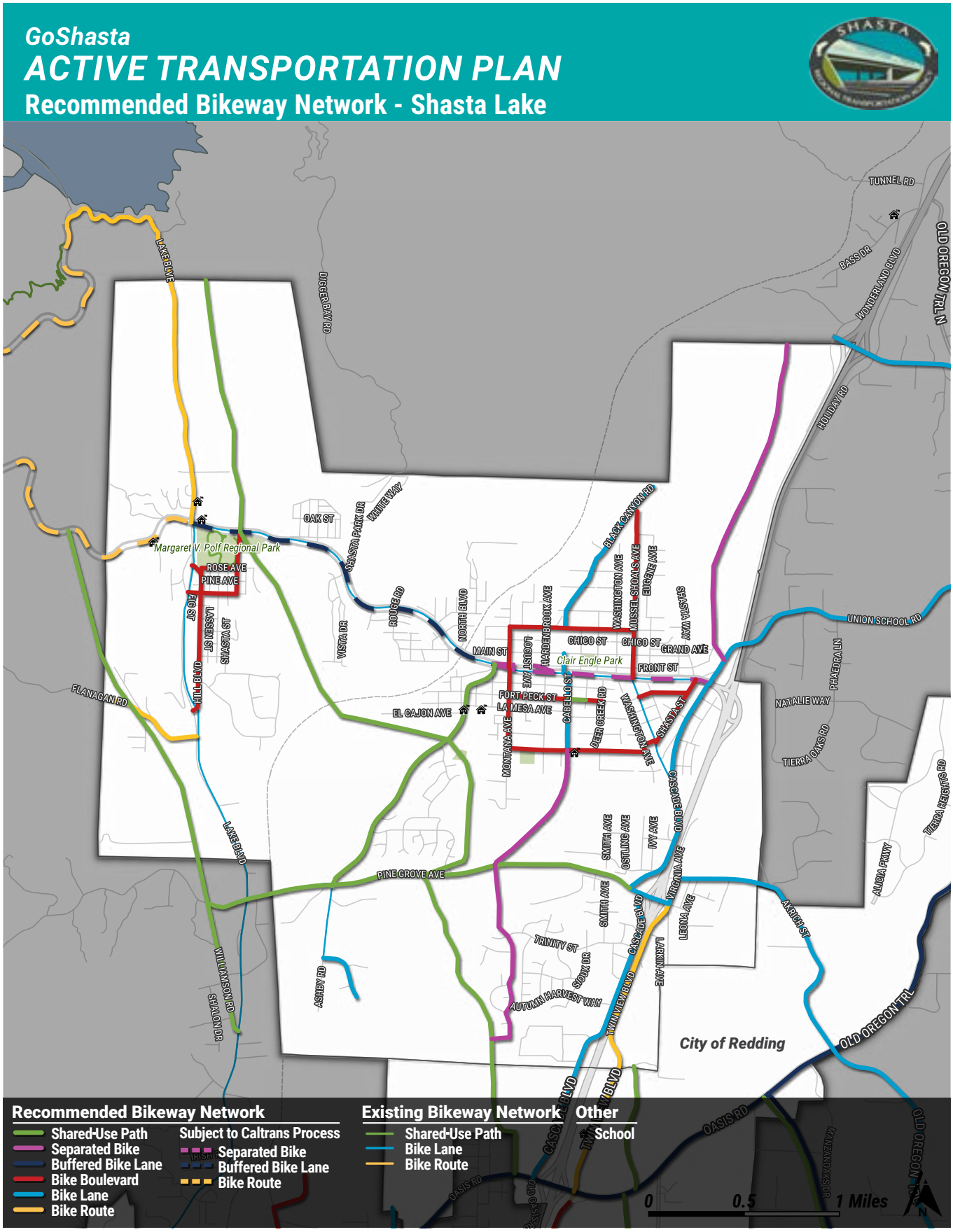

GoShasta
ACTIVE TRANSPORTATION PLAN
Recommended Bikeway Network - Shasta Lake
TUNNEL RD
LAKE BLVD
DIGGER BAY RD
BASS DR
WONDERLAND BLVD
OLD OREGON TRL N
HOLIDAY RD
OAK ST
WHITE WAY
SHASTA PARK DR
Margaret V. Polf Regional Park
ROSE AVE
PINE AVE
2ND ST
LASSEN ST
SHASTA ST
HILL BLVD
FLANAGAN RD
VISTA DR
ROUGE RD
NORTH BLVD
MAIN ST
BLACK CANYON RD
WASHINGTON AVE
MISSEL SHOALS AVE
EUREKA AVE
SHASTA WAY
CHICO ST
GRAND AVE
Clair Engle Park
FRONT ST
HARDENBROOK AVE
LOCUST AVE
FORT PECK ST
LA MESA AVE
CABELLO ST
DEER CREEK RD
WASHINGTON AVE
SHASTA ST
EL CAJON AVE
MONTANA AVE
UNION SCHOOL RD
PHAEDRA LN
NATALIE WAY
TIERRA OAKS RD
TIERRA HEIGHTS RD
ALICIA PKWY
AIRPORT RD
LAKE BLVD
PINE GROVE AVE
SMITH AVE
OSTLING AVE
IVY AVE
VIRGINIA AVE
CASCADE BLVD
LEONA AVE
LARKIN AVE
TRINITY ST
SIOUX DR
AUTUMN HARVEST WAY
WILLIAMSON RD
SHALON DR
ASHBY RD
City of Redding
OLD OREGON TRL
OASIS RD
MANZANOTA DR
Recommended Bikeway Network
Shared-Use Path
Separated Bike
Buffered Bike Lane
Bike Boulevard
Bike Lane
Bike Route
Subject to Caltrans Process
Separated Bike
Buffered Bike Lane
Bike Route
Existing Bikeway Network
Shared-Use Path
Bike Lane
Bike Route
Other
School
0
0.5
1 Miles
N

Figure 3.22

Regional Bicycle Network

The regional bicycle network will consist of a spectrum of bicycle facility types depending on context and local needs. As described in Chapter 1, SRTA will prioritize implementation of regional Trunk Lines to connect Strategic Growth Areas and activity centers, as well as high quality connections to Trunk Lines. Trunk Lines are high comfort facilities that are appealing to people of all ages and abilities. As such, Trunk Lines are facilities that offer separation from motor vehicles, such as shared-paths or separated bike lanes. In some cases, Trunk Lines may be low speed/low volume neighborhood streets designed to maximize safety for people biking and walking (i.e., bicycle boulevards). Below is a description of the bikeway facilities that make up the regional bicycle network, including Trunk Lines and local connectivity routes.

Shared-Use Paths (Class I Bikeways)

A backbone of the Shasta Region's bicycle network is the Sacramento River Trail, and a focus of this ATP is the development of other Class I shared-use paths both for recreation and transportation purposes. These paths provide a safe and comfortable place for bicyclists and pedestrians of all ages and abilities to bicycle and walk separate from vehicular traffic.

Figure 3.23 illustrates a Class I shared-use path that is located in an independent right-of-way. Figure 3.24 illustrates a Class I shared-use path that is located near a roadway (i.e. sidepath).

Separated Bike Lanes (Class IV Bikeways)

A guiding principle of the GoShasta ATP is to provide facilities that accommodate bicyclists of all ages and abilities. Developing low-stress, comfortable routes on key corridors that are physically separated from roadways is a proven strategy for achieving this goal. These bikeways are particularly appropriate on roadways with higher volumes of vehicular traffic or vehicle speeds.

Class IV separated bike lanes may be separated from traffic using on-street parking, curb medians, flex posts, planters, or other physical elements (see Figures 3.25 and 3.26).

Bike Lanes (Class II Bikeways)

Class II bike lanes provide an exclusive space for bicyclists in the roadway and are established using painted lines and symbols on the roadway surface. To be low-stress and high-comfort routes, these facilities

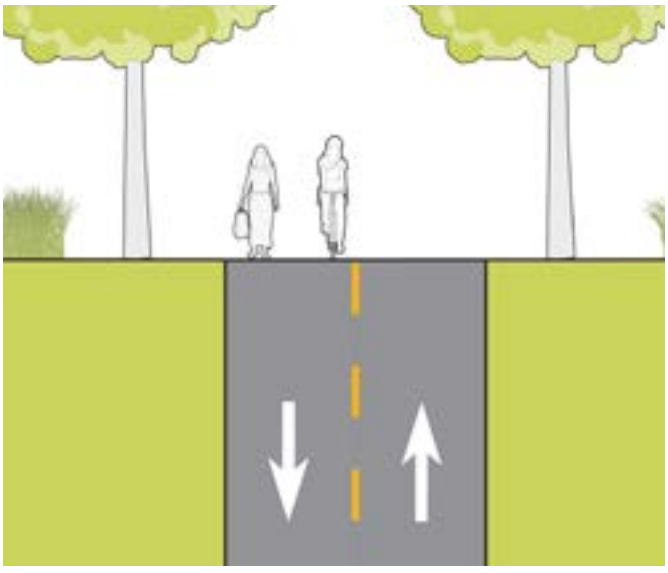


Figure 3.23. Example of a Class I Shared-Use Path

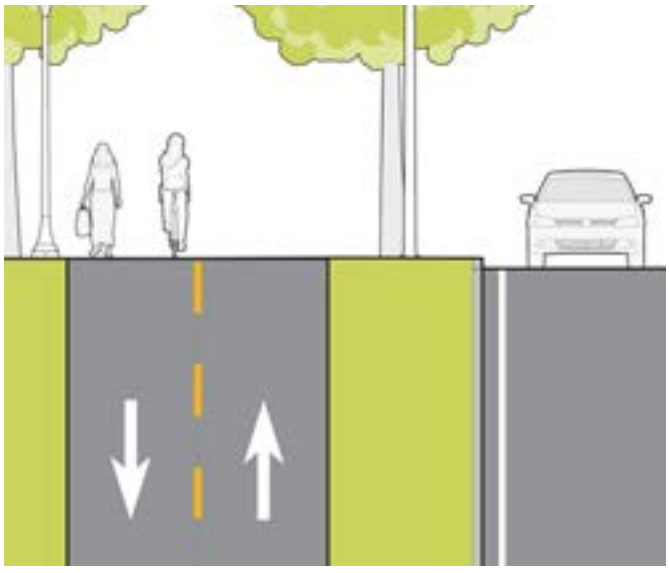


Figure 3.24. Example of a Class I Shared-Use Path (Sidepath) near a roadway

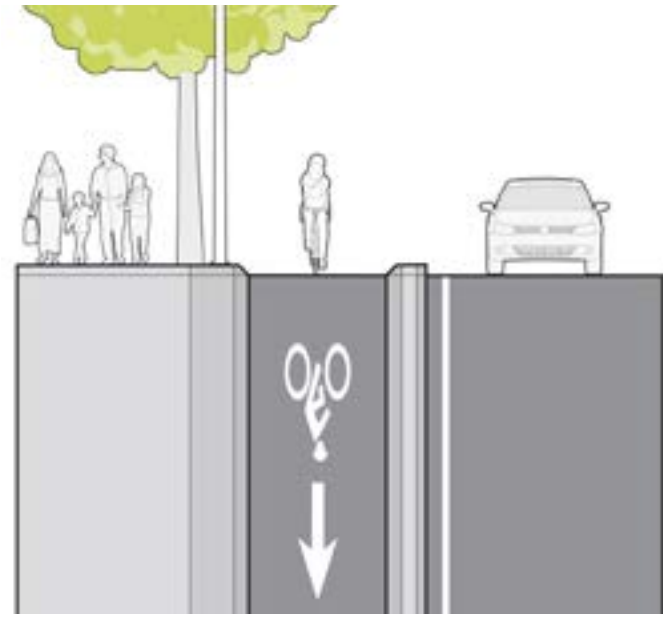


Figure 3.25. Example of a Class IV Separated Bike Lane

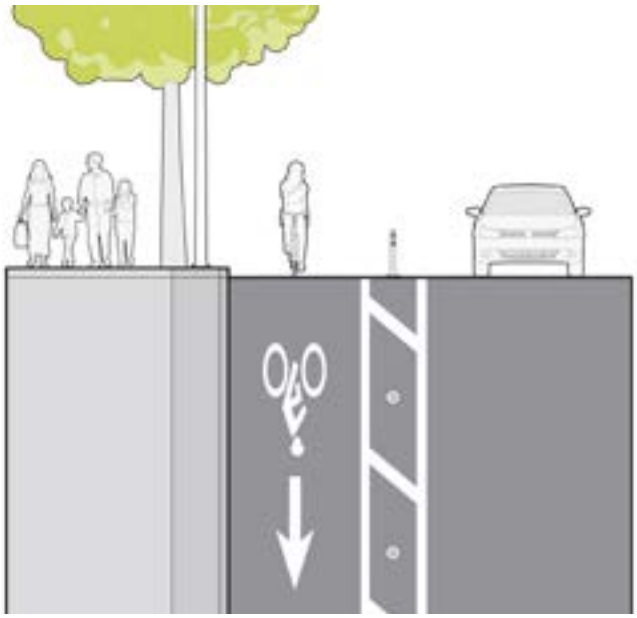


Figure 3.26. Example of a Class IV Separated Bike Lane with flexposts

are appropriate for roads with lower traffic volumes and vehicle speeds. Where possible wider (than 5 feet) bike lanes or additional buffers between bicyclists and motor vehicles should be provided to enhance user comfort.

Buffered Bike Lanes

Buffered bike lanes (also Class II facilities) provide additional lateral space between bicyclists and motor vehicles. While painted buffers are typically used between bike lanes and motor vehicle travel lanes to increase bicyclists' comfort (as shown in Figure 3.27 and 3.28), they can also be provided between bike lanes and parking lanes in locations with high parking turnover to discourage bicyclists from riding too close to parked vehicles.

Bike Routes (Class III Bikeways)

Class III bicycle facilities can include bicycle routes and bicycle boulevards.

Bicycle Routes

Class III bicycle routes are indicated by signage and are most appropriate for experienced cyclists or along roads with low vehicle volumes and speeds. Bicycle routes may be used where topographical or right-of-way constraints exist. When implemented, the roadway should include appropriate signage, adequate sight lines, and paved shoulders where feasible and context-appropriate. These features can help minimize conflicts and create a more predictable shared roadway environment.

Bicycle Boulevards

Class III bicycle boulevards are a low-stress, all ages and abilities shared roadway bikeway that emphasizes bicyclists' priority and comfort on a given route. Bicycle boulevards provide connections between destinations by using low-speed, low-stress routes through neighborhoods. Bicycle boulevards often incorporate traffic calming to maintain a low-speed environment, safe crossings at key arterial intersections, and sometimes traffic diversion to minimize vehicular traffic while permitting bicycle traffic, as shown in Figure 3.29. See the Regional Trunk Line discussion in Chapter 1 for additional information on Bicycle Boulevards.

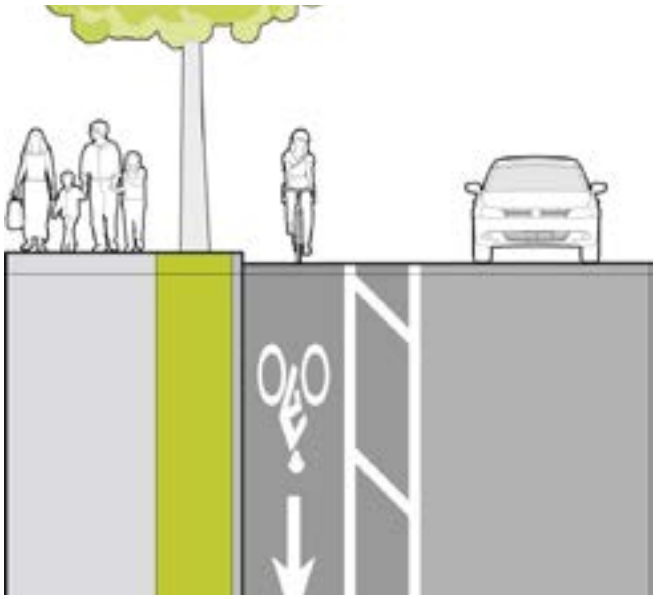


Figure 3.27. Example of a Class II Buffered Bike Lane

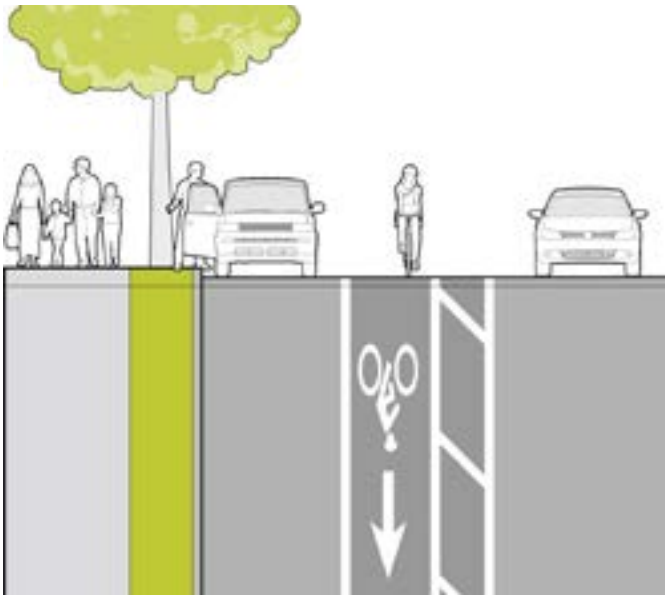


Figure 3.28. Example of a Class II Buffered Bike Lane adjacent to parking

Intersections and Crossings

In addition to building bikeways along corridors, thoughtful design at intersections and crossings is paramount to attracting bicyclists of all ages and abilities. Treatments that can help reduce conflicts and improve safety for bicyclists at intersections include:

- Designing intersection approaches to correctly position bicyclists and increase driver awareness to minimize conflicts with turning vehicles.
- Striping bicycle crossing markings through intersections to show drivers and bicyclists the expected path of travel for bicyclists and raise awareness of potential conflict points.
- Providing bicycle signalization for complex intersections or where separated bicycle facilities conflict with vehicle turn movements.
- Intersection geometry that provides protected areas for bicyclists (and pedestrians) waiting to move through the intersection and better sight lines for turning motorists (i.e., protected intersections) (Figure 3.30).

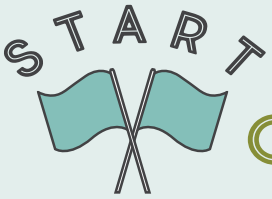


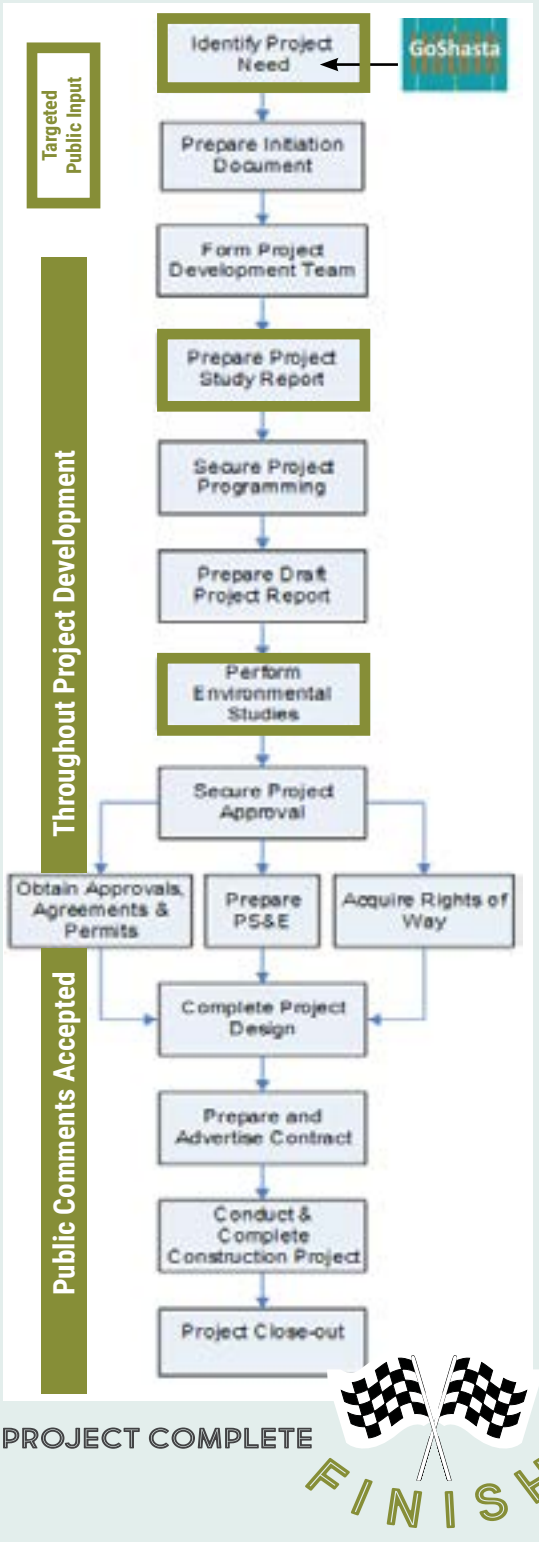
Figure 3.29. Example of a Class III Bicycle Boulevard with Traffic Diversion



Figure 3.30. Example of protected intersection. ***Source: Toole Design Group***

Caltrans Process







Some of the projects identified through the GoShasta planning process are on streets and roads owned, operated, and maintained by Caltrans, which has a planning process and project selection methodology unique to the state of California. Caltrans conducts extensive public outreach through long range planning to establish the state highway system's current and future needs for all users. It identifies project needs through ongoing evaluations of a variety of elements in the state transportation system such as, but not limited to safety, pavement, bridges, traffic calming, congestion, and speed studies. Active transportation challenges are always considered, and countermeasures are incorporated into all projects when appropriate.

Caltrans relies on local and regional agencies to bring forth active transportation issues or concerns on state routes identified in planning processes like GoShasta. Once projects are identified, Caltrans actively seeks public input and partnership to find a resolution.

Current Caltrans active transportation assessments include:

1. a statewide effort for each Caltrans district to develop a district active transportation plan. This plan will identify current system assets in regards to complete streets on the state highway system; and
2. a local specific corridor study for state route 273. This study will be specific to the state route 273 corridor looking at the needs of multimodal users. This plan follows the state route 273 public participation study that was completed in September 2017.

For questions about specific active transportation issues on state routes in the Shasta Region, email D2bike@dot.ca.gov or call 530-225-2735.

THIS PAGE INTENTIONALLY LEFT BLANK

Chapter 4: Implementation

Achieving the active transportation vision for the Shasta Region will require smart investments in infrastructure and programs. As the agency responsible for regional transportation planning and funding, Shasta Regional Transportation Agency (SRTA) is focused on efforts that offer a high return on investment while also ensuring that people throughout the Shasta Region are provided low-cost mobility options and equitable access to economic opportunities and physical activity.

Project Prioritization

While all the recommended projects in this ATP play an important role in a region-wide, safe and connected active transportation network, certain projects are going to provide greater benefits in terms of meeting demand, improving safety and connecting the region's activity centers. To identify the projects that will help to best achieve an increase in active transportation mode share, and the safety and comfort of active transportation users, recommended projects were prioritized using Geographic Information Systems (GIS) analysis. A number of criteria related to safety, connectivity, demand, and equity were used to identify priority projects (see Table 4.1). Additional detail on the specific measures and weights used in the prioritization process are included in Appendix D.

Table 4.1. Criteria for prioritizing projects

Safety	Number of pedestrian/bicycle crashes
	Level of Traffic Stress (bicycle projects only)
Connectivity	Connects with existing facilities
	Closes network gap
	Connects with proposed facilities
Demand	Provides access to parks
	Provides access to schools
	Provides access to transit
	Connects to (or within) Strategic Growth Area
Equity	Connects to (or within) Disadvantaged Community (See Appendix D for definition)

This quantitative GIS analysis generated a list of projects with associated prioritization scores – the higher the score, the greater benefits a given project is likely to provide. This list was then reviewed by SRTA and its local agency partners and modifications were made based on factors not captured in the quantitative analysis, such as knowledge of upcoming roadway or private development projects that can be leveraged to implement the recommended project.

Table 4.2 list priority pedestrian and bikeway projects, respectively, that will be integrated into the Regional Transportation Plan (RTP) fiscally-constrained project lists. The order in which projects are ultimately implemented will depend on a number of factors including the complexity of the project and level of design needed, other upcoming projects that present "piggybacking" opportunities, sequencing that emphasizes connectivity to existing facilities, and how well a given project might satisfy criteria of different grant programs. Additional projects that are recommended in this ATP and will be integrated into the RTP are included in Appendix E.

Several projects in Table 4.2 and projects listed in Appendix E are "subject to Caltrans process." Please refer to page 51 for more information about Caltran's project development process.

Active transportation projects from each jurisdiction in the Shasta Region are represented in the following table, including projects listed in the city of Redding's Active Transportation Plan (ATP). More information on city of Redding projects, policies, and programs can be found Redding's ATP. The ATPs for the city and the region were developed somewhat independently out of the same planning effort and will move forward together. As the City of Redding updates the project list in its ATP, these changes will automatically be incorporated in the GoShasta plan and the regional transportation plan.

Table 4.2 - GoShasta Project List

Anderson

Pedestrian

Street Name	From Street	To Street	Project Description	Length (Miles)	Time Band	Cost
NORTH ST	DOWNING LN/ RIVERSIDE AVE	I 5 NB ON/R/ McMURRAY DR	Commercial/Civic Corridor	0.85	2018-2025	$1,402,000
STINGY LN	BAY ST/RUPERT RD	NORTH ST	Community Walking Connection	0.80	2018-2025	$725,500
NORTH ST	I 5 NB ON/R/ McMURRAY DR	DOUGLAS ST	Commercial/Civic Corridor	0.58	2018-2025	$966,500
					Anderson Subtotal	$3,094,000

Shasta Lake

Pedestrian

Street Name	From Street	To Street	Project Description	Length (Miles)	Time Band	Cost
ASHBY RD	LOS GATOS AVE	FRONT ST/SHASTA DAM BLVD	Safe Routes to School	0.29	2018-2025	$495,500
MCCONNELL AVE	SHASTA DAM BLVD	MAIN ST	Commercial/Civic Corridor	0.10	2018-2025	$170,500
ASHBY RD	PINE GROVE AVE	LA MESA AVE	Safe Routes to School	1.20	2018-2025	$2,049,500
DEER CREEK RD/ VALLECITO ST	CABELLO ST	SHASTA DAM BLVD	Safe Routes to School	0.53	2018-2025	$906,500
PINE GROVE AVE	JORZACK WAY	ASHBY RD	Community Walking Connection	1.40	2018-2025	$1,267,500
CASCADE BLVD	PINE GROVE AVE	GRAND COULEE BLVD	Community Walking Connection	0.67	2018-2025	$609,000
CASCADE BLVD	GRAND COULEE BLVD	I 5 NBOFF/R/I 5 SBON/R/SHASTA DAM BLVD	Community Walking Connection	0.57	2018-2025	$513,000
					Shasta Lake Pedestrian Subtotal	$6,011,000

Bicycle

CHURN CREEK TRAIL - CONNECTION	OASIS RD	PINE GROVE AVE	Shared Use Path	1.73	2018-2025	$1,407,500
SHASTA DAM RD	ASHBY RD	LAKE BLVD	Buffered Bike Lane - Subject to Caltrans Process	1.88	2018-2025	$203,000
					Shasta Lake Bicycle Subtotal	$1,610,500
					Shasta Lake Subtotal	$7,621,500

Redding

Pedestrian

Street Name	From Street	To Street	Project Description	Length (Miles)	Time Band	Cost
					Redding Pedestrian Subtotal	$--

Bicycle

Street Name	From Street	To Street	Project Description	Length (Miles)	Time Band	Cost
BUTTE ST	CONTINENTAL ST	SUNDIAL BRIDGE DR	Buffered Bike Lane	0.39	2018-2025	
CONTINENTAL ST	BUTTE ST	TRINITY ST	Separated Bike Lane	0.31	2018-2025	
OFF-STREET (TURTLE BAY TO DOWNTOWN TRAIL)	TURTLE BAY	CONTINENTAL ST	Shared-Use Path	0.86	2018-2025	
PARK MARINA DR	SUNDIAL BRIDGE DR	E CYPRESS AVE	Shared-Use Path	1.35	2018-2025	
PARK MARINA DR	SUNDIAL BRIDGE DR	PARKVIEW AVE	Buffered Bike Lane	1.40	2018-2025	
SHASTA ST; WILLIS ST; PLEASANT ST; SOUTH ST	SOUTH ST/SAN FRANCISCO ST	SHASTA ST/COURT ST	Bike Boulevard	1.46	2018-2025	
SHASTA VIEW DR	CASTLEWOOD DR	HWY 44 WB OFF/R/ HWY 44 WB ON/R	Buffered Bike Lane	0.74	2018-2025	
CAPRICORN WAY	CASTLEWOOD DR	HARTNELL AVE	Shared-Use Path	1.09	2018-2025	
SOUTH ST	EAST ST	PARK MARINA DR	Bike Boulevard	0.94	2018-2025	
TRINITY ST	CENTER ST	CONTINENTAL ST	Separated Bike Lane	0.43	2018-2025	
VICTOR AVE	BRAMBLE PL	E CYPRESS AVE	Shared-Use Path	0.62	2018-2025	
VICTOR AVE	BRAMBLE PL	OLD ALTURAS RD	Buffered Bike Lane	1.76	2018-2025	
					Redding Bicycle Subtotal	$--
					Redding Subtotal	$--

Shasta County

Bicycle

Street Name	From Street	To Street	Project Description	Length (Miles)	Time Band	Cost
DESCHUTES RD	BOYLE RD/OLD DESCHUTES RD	LASSEN VIEW DR	Bike Lane	1.42	2018-2025	$234,000
PARK AVE/CYPRESS AVE	HUDSON ST	BARTEL ST	Bike Lane	0.43	2018-2025	$71,000

IN DEVELOPMENT BY CITY OF REDDING

HUDSON ST	MOUNTAIN VIEW RD/ STATE HWY 299 E	CYPRESS AVE	Bike Lane	0.39	2018-2025	$65,000
MOUNTAIN VIEW RD	CARBERRY ST	MUSKEGON ST/STATE HWY 299 E	Bike Lane	0.55	2018-2025	$91,000
RHONDA RD	CREMIA PL	MATTHEW CT/ ROBINSON GLEN DR	Bike Route	0.27	2018-2025	$34,500
OAK ST/HAWTHORNE AVE	DIXIELAND LN	CLOVERDALE RD	Bike Lane	1.13	2018-2025	$187,500
					Shasta County Subtotal	$683,000
					GoShasta Projects Subtotal	**$11,398,000**

Funding

Sufficient funding is critical to the implementation of the GoShasta Regional Active Transportation Plan (ATP). The degree to which SRTA and its partners invest in the future outlined in this plan and the RTP will determine how likely that future can be realized and how closely it resembles what has been envisioned through extensive outreach and planning.

Local agencies frequently face financial challenges (i.e. purchasing right of way, funding plans to get projects shovel ready, etc.) which can impede progress with project implementation. Hence their strategic approach to funding projects. Small active transportation projects are often built as part of street and road maintenance projects funded with local transportation funds or traffic impact fees. Medium to large active transportation projects generally require grant assistance from state and federal programs, such as the Active Transportation Program or the Highway Safety Improvement Program. SRTA respects the demands faced by local agencies and, in addition to its regional non-motorized program, offers technical assistance to agencies pursuing grant funding opportunities such as the Active Transportation Program.

Regional Funding

As the federally-designated metropolitan planning organization (MPO) and state-designated regional transportation planning agency (RTPA) for the Shasta Region, SRTA's funding comes from a variety of federal, state and local sources. SRTA is apportioned a certain level of funding through federal and state transportation programs based on population. SRTA's Non-Motorized Program is an investment vehicle devoted exclusively to funding non-motorized projects. The program has two components:

- **The 2% Non-Motorized Program** - Originates from a 2% "off the top" allocation of the Local Transportation Fund (LTF) under the Transportation Development Act (TDA) and is open to all areas in Shasta County.
- **The Rural BLAST** (Bike Lanes and Sidewalks to Transit) Program - Funds non-motorized facilities that link to public transit in rural areas and also utilizes TDA funds.

The Non-Motorized Program has approximately $130,000 available annually. However, typical project costs far exceed this amount. A key goal of the program is local agencies' use of Non-Motorized Program funding from SRTA as match for state and federal funds that may be required for more costly bicycle and pedestrian projects.

SRTA may also utilize other funding sources, such as the State Transportation Improvement Program (STIP), to fund non-motorized projects, provided they are included in the RTP and are of regional significance. For instance, SRTA has programmed $400,000 of its STIP funding toward the city of Redding's active transportation project connecting the Sacramento River Trail to the city's downtown. This investment will help build a high quality biking and walking connection, offering safer transportation alternatives and effectively representing the first step toward the development of the region's future Trunk Line system.

Regional Trunk Line System

As described in Chapter 1, SRTA will work closely with local agency partners to develop a regional system of high quality active transportation facilities (Trunk Lines) that connect Strategic Growth Areas and activity centers throughout the Shasta region. Because SRTA does not own or operate any roadways or control other rights-of-way, local agencies will be the ones to lead Trunk Line implementation. Local agencies, in consultation with neighboring jurisdictions and SRTA, will determine the most suitable alignment of the Trunk Lines.

Direct connections to existing Trunk Lines and portions of the local network that qualify as Trunk Lines may be eligible for regional funding from SRTA. Some projects listed in Table 4.2 may be considered for Trunk Line designation.

Federal and State Funding Sources

There are a number of additional federal and state funding sources that can be used for bicycle and pedestrian projects that are available to SRTA and its local partners on a competitive basis. These funding sources are described below.

Federal Funding Opportunities

The Federal Highway Administration (FHWA) maintains a data table to assist communities in understanding which federal funding programs could be used for bicycle and pedestrian projects. Specific program requirements must be met and eligibility must be determined on a case-by-case basis. For example, transit funds must be used to provide access to transit, and Congestion Mitigation and Air Quality Improvement (CMAQ) funds must benefit air quality in eligible areas. More detailed information can be found at the link below.

Resources

- FHWA's Bicycle and Pedestrian Program webpage. https://www.fhwa.dot.gov/environment/bicycle_pedestrian/funding/

FHWA Grant Programs

Transportation Investment Generating Economic Recovery (TIGER) grants fund a broad array of road, rail, transit, and bicycle and pedestrian projects. The program focuses on capital projects that generate economic development and improve access to reliable, safe, and affordable transportation, especially for disadvantaged communities. The grant funds projects that have gone through preliminary design stages, and prioritizes projects with broad stakeholder support. Applicants are required to demonstrate that project benefits outweigh the costs. Projects in urban areas must request at least $10 million (with a 20% match).

Resources

- Tiger Discretionary Grants. www.transportation.gov/tiger

Federal Transit Administration (FTA) Grant Programs

Fixing America's Surface Transportation (FAST) Act Funding

The Fixing America's Surface Transportation (FAST) Act supports transit funding through fiscal year 2020, reauthorizes FTA programs, and includes changes to improve mobility, streamline capital project construction and acquisition, and increase the safety of public transportation systems across the country. The FAST Act's five years of predictable formula funding also includes funding for new grant programs for buses and bus facilities, innovative transportation coordination, workforce training, and public transportation research activities.

Resources

- FTA's Grant Programs. https://www.transit.dot.gov/grants/13093_3549.html
- FTA's Bicycles & Transit. https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/livable-sustainable-communities/bicycles-transit

Transit Oriented Development (TOD) Planning Pilot Grants (5309)

This program provides funding for:

- Advanced planning efforts that support transit-oriented development (TOD) associated with new fixed-guideway and core capacity improvement projects
- Projects that facilitate multimodal connectivity and accessibility
- Projects that increase access to transit hubs for pedestrian and bicycle traffic

Resources

- FTA's Pilot Program for Transit-Oriented Development Planning. https://www.transit.dot.gov/TODPilot

Bus and Bus Facilities Program (Ladders of Opportunity Initiative) (5309)

Funds from this program may be used to modernize and expand transit access specifically for the purpose of connecting disadvantaged and low-income individuals, veterans, seniors, youths, and others with local workforce training, employment centers, health care, and other vital services.

Resources

- Bus and Bus Facilities Program (Ladders of Opportunity Initiative). https://www.transit.dot.gov/funding/grants/applying/5309-bus-and-bus-facilities-program-ladders-opportunity-initiative

Enhanced Mobility of Seniors and Individuals with Disabilities Program

This program is intended to enhance mobility for seniors and persons with disabilities by providing funds for programs to serve transit-dependent populations beyond traditional public transportation services and Americans with Disabilities Act (ADA) complementary paratransit services. This program consolidates New Freedom eligible projects. Bicycle and pedestrian improvements that provide access to an eligible public transportation facility and meet the needs of the elderly and individuals with disabilities are eligible for funding.

Resources

- Enhanced Mobility of Seniors & Individuals with Disabilities. https://www.transit.dot.gov/funding/grants/enhanced-mobility-seniors-individuals-disabilities-section-5310

State Funding Opportunities

Active Transportation Program

In 2013, Governor Edmund G. Brown Jr. signed legislation creating the Active Transportation Program (ATP). This program consolidated the Federal Transportation Alternatives Program (TAP), California's Bicycle Transportation Account (BTA), and Federal and California Safe Routes to School (SRTS) programs. The ATP is administered by Caltrans Division of Local Assistance, Office of Active Transportation and Special Programs.

In 2017, SB 1 augmented the ATP by $100 million per year. The Cycle 4 call for projects is expected for March 2018. It is anticipated that roughly $440 million will be awarded to active transportation projects. Per the legislation that guides the ATP (SB 1 and AB 101), future call for projects will be announced on the even years with the adoption of the program taking place no later than April of the following odd year.

The California Transportation Commission hosts workshops in advance of each ATP cycle to provide technical assistance and to discuss possible changes to the guidelines and application process. The project list in Appendix E offers valuable information for local agencies as they begin preparing ATP applications, as does the table below.

ATP Application Assembly – Helpful Hints

Application Question Themes	Where to Get This Data
Use SRTA's regional disadvantaged community definition.	Consult the map of Disadvantaged Community Analysis in Appendix B, or discuss with SRTA staff.
Estimating current and future bicycle and pedestrian use for a project	NCHRP 770
Estimating current and future bicycle and pedestrian use for a project by students	Resources and expert help available at the Safe Routes to School National Partnership.
Bike and Ped Fatalities and Injuries near a project (Data & Maps)	Consult SWITRS (Internet Statewide Integrated Traffic Records System) and TIMS (Transportation Injury Mapping System).

Additional technical assistance, resources, and trainings are made available through the Active Transportation Resource Center.

Resources

- Active Transportation Program. http://www.dot.ca.gov/hq/LocalPrograms/atp/
- Active Transportation Resource Center. http://caatpresources.org/

System Safety Analysis Report Program (SSARP)

The SSARP program was established by Caltrans in 2016, and is designed to assist local agencies in performing collision analysis and the identification of safety issues on roadway networks for all modes. The program focuses on systemic safety analysis for motor vehicles

with an emphasis on pedestrian and bicycle collisions. This analysis should result in a list of systemic, low-cost countermeasures that can be used to prepare designs to be used in applications for future Highway Safety Improvement Program (HSIP) funding cycles.

Resources

- Systematic Safety Analysis Report Program (SSARP). http://dot.ca.gov/hq/LocalPrograms/HSIP/SSARP.htm

Highway Safety Improvement Program (HSIP)

HSIP funds are available for safety projects aimed at reducing traffic fatalities and serious injuries. Bike lanes, roadway shoulders, crosswalks, intersection improvements, underpasses and signs are examples of eligible projects. Projects in high-crash locations are most likely to receive funding. This program is funded through FHWA and is administered by Caltrans; all projects must result in the complete construction of safety improvements.

Resources

- Highway Safety Improvement Program (HSIP). http://dot.ca.gov/hq/LocalPrograms/hsip.html

California Office of Traffic Safety (OTS)

The California OTS has grants available to reduce motor vehicle fatalities and injuries in specific areas of pedestrian and bicycle safety, roadway safety, community based organizations, police traffic services, alcohol and drugs, occupant protection, emergency medical services, and traffic records.

Resources

- California Office of Traffic Safety – Grants. http://www.ots.ca.gov/Grants/

Affordable Housing and Sustainable Communities (AHSC) Program

The Strategic Growth Council's Affordable Housing and Sustainable Communities (AHSC) Program provides grants and affordable housing loans for compact transit-oriented development and related infrastructure and programs that reduce greenhouse gas ("GHG") emissions. These projects increase the accessibility of housing, employment centers, and key destinations via low-carbon transportation options (walking, biking, transit) resulting in fewer vehicle miles traveled (VMT) and mode shift.

Resources

- Affordable Housing and Sustainable Communities (AHSC) Program. http://www.hcd.ca.gov/grants-funding/active-funding/ahsc.shtml

Local Funding Mechanisms

Local communities have a variety of mechanisms they can use to fund active transportation projects, including:

- Transportation impact fees
- Local bond measures or levies
- Business Improvement Districts
- Local Improvement Districts
- Conditions for development and subdivision approval

THIS PAGE INTENTIONALLY LEFT BLANK

GoShasta

ACTIVE TRANSPORTATION PLAN

Regional Active Transportation Network - Recommended Bikeway Network

Recommended Bikeways
- Shared Use Path
- Separated Bike Lane
- Buffered Bike Lane
- Bike Boulevard
- Bike Lane
- Bike Route

Existing Bikeways
- Shared Use Path
- Buffered Bike Lane
- Bike Lane
- Bike Route
- School

Subject to Caltrans Process
- Shared Use Path
- Separated Bike Lane
- Buffered Bike Lane
- Bike Lane
- Bike Route

0 0.5 1 Miles

N

Turtle Bay Exploration Park

Anderson River Park

Burney and Johnson Park Area

0 1 2 Miles

Fall River Mills and McArthur Area

0 0.5 1 Miles

Downtown Redding

0 0.5 Miles

GoShasta

ACTIVE TRANSPORTATION PLAN

Regional Active Transportation Network - Recommended Pedestrian Network

Pedestrian Network Recommendations
- Commercial/Civic Corridor
- Rural Community Main Street
- Community Walking Connection
- Safe Routes to School

Subject to Caltrans Process
- Commercial/Civic Corridor
- Community Walking Connection
- Rural Community Main Street

Spot Recommendations
- Gateway Treatment
- Key Crossings

Subject to Caltrans Process
- Gateway Treatment
- Intersection Improvement
- Interchange Improvement
- Subject to Caltrans Process

- Existing Sidewalk
- Existing Shared Use-Path
- School

0 0.5 1 Miles

N

Turtle Bay Exploration Park

Anderson River Park

Burney and Johnson Park Area

0 1 2 Miles

Fall River Mills and McArthur Area

0 0.5 1 Miles

Downtown Redding

0 0.5 Miles

Appendix A. Public Outreach

This document includes:

- **Appendix A. Public Outreach,** including a summary of Phase I and Phase II community outreach
- **Appendix A.1. Results from the Online Survey**
- **Appendix A.2. WikiMap Comment Locations**

Phase I Community Outreach Summary

As part of the GoShasta Active Transportation Plan development process, a variety of outreach and engagement strategies were used to gather input from Shasta County residents on existing conditions, opportunities, and challenges related to walking and biking. This section summarizes these strategies, and the input received.

Pre-Charrette Outreach

Leading up to the opening outreach campaign, the consultant team worked with SRTA to engage stakeholders through consultation with two Citizen Advisory Committees, conduct online and off-line outreach, and ultimately engage hundreds of people in the active transportation planning process.

Citizen Advisory Committees

Prior to the February workshops, the consultant team and SRTA met twice with SRTA's GoShasta Citizen Advisory Group and once with the City of Redding's Active Transportation Advisory Group. Committee members completed an initial online survey to help identify specific locations to evaluate for bicycle and pedestrian safety, as well as to make recommendations for community outreach. Of 42 respondents, 30 represented the Redding area, and two represented the Cities of Anderson and Shasta Lake, with the remaining representing the outlying unincorporated areas. Most respondents (78 percent) indicated that they were recreational cyclists, with many also indicating they were commuting cyclists or mountain bikers as well. Approximately 50 percent of survey respondents indicated that all types of active transportation should be the focus of the active transportation plans, including: walking, biking, access for disabled individuals, and transit connections.

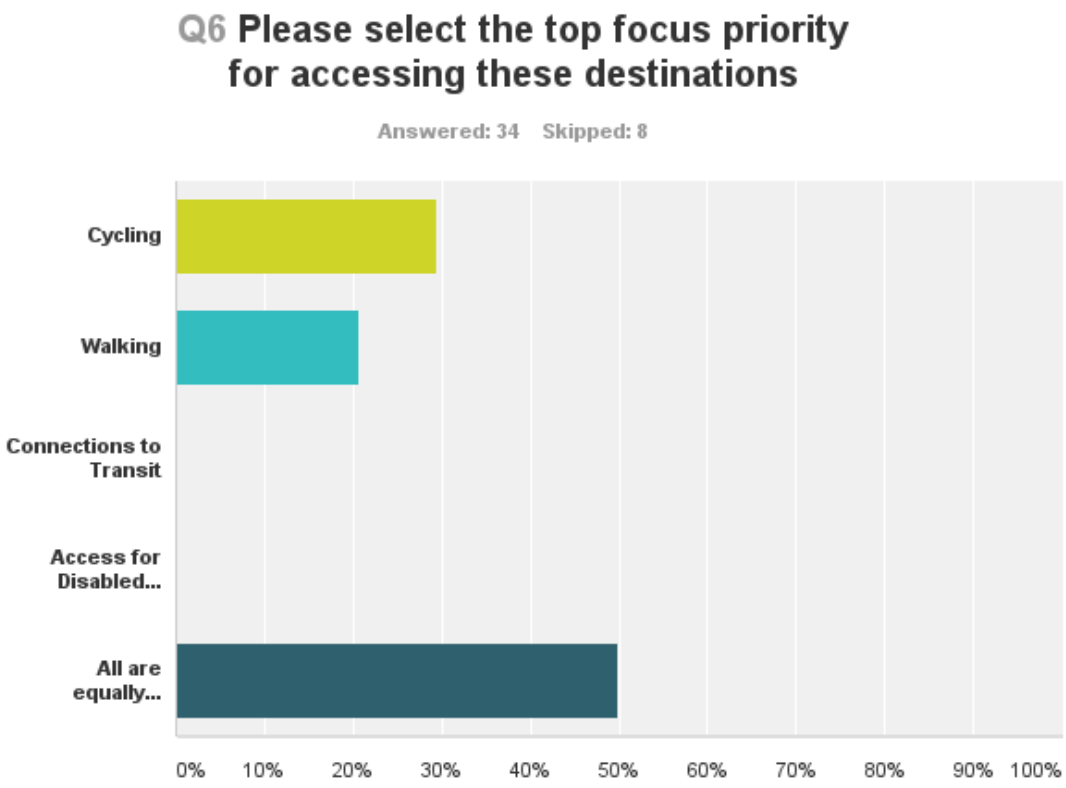


Figure A.1. Response to the top focus priority for accessing destinations.

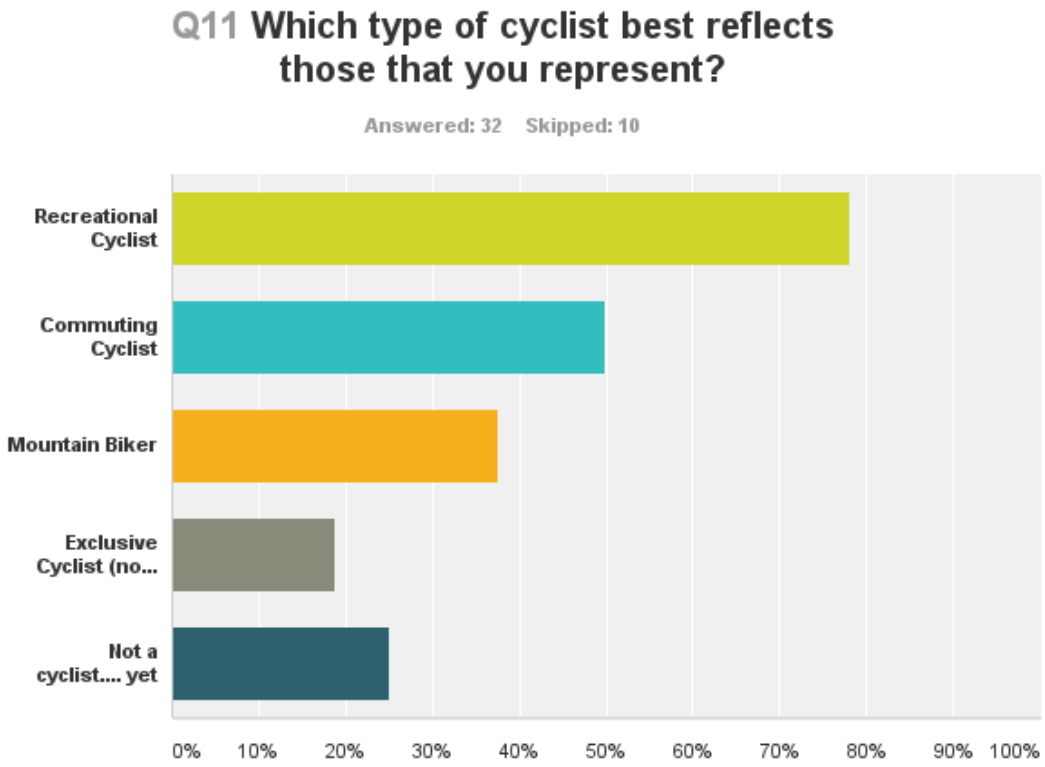


Figure A.2. Response to what type of cyclist are you most like.

A survey taken by the Advisory Committees provided insights on the most important issues related to walking and biking within the Shasta region.

Project Website and Online Tools

The goshasta.org website was launched in January 2017 to provide a virtual project interface. An online survey and WikiMap (i.e., online map that allows viewers to add comments) provided an online venue for public participation, effectively expanding ways for the public to get involved in the project without the need to travel to a workshop. The website was promoted through social media, event flyers, print media, and targeted outreach to stakeholders. The results of online engagement are discussed in detail in the "Online Engagement Tools" sections that follows.

Media

A mixed media approach was utilized to publicize the launch of the GoShasta Regional Active Transportation Plan and the City of Redding Active Transportation Plan. Media outreach focused on educating the public about the planning process and promoting public involvement. A media release was distributed to the region's print media and newspapers, supported by a social media campaign and bi-lingual charrette event flyers. Local agencies and organizations assisted SRTA and the City of Redding in distributing the media release to press contacts, as well as with boosting the social media campaign on Facebook and Twitter.

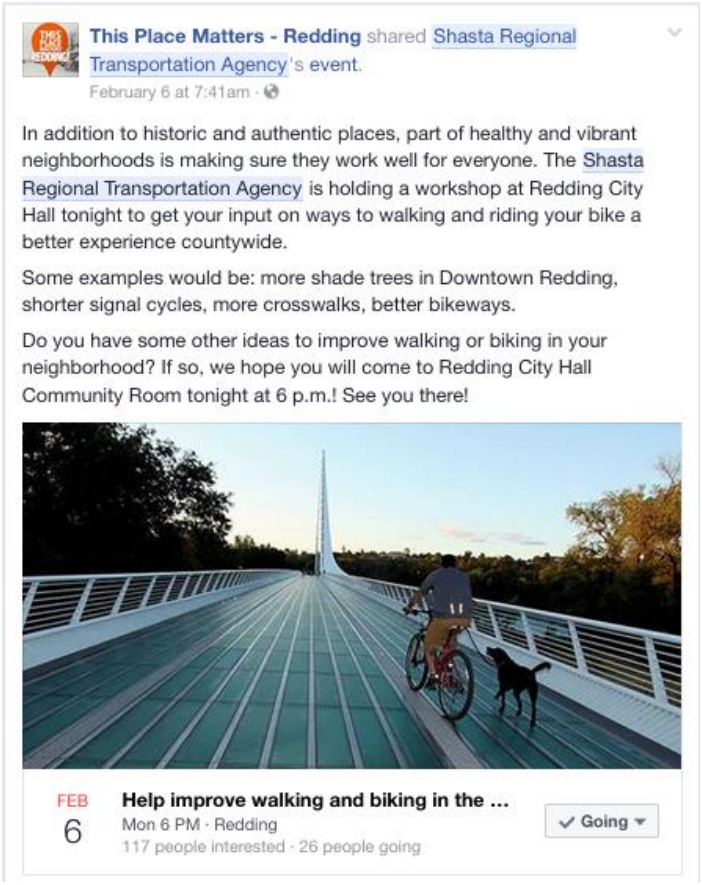


Figure A.3. Social media outreach for the Plans

A charrette flyer (see Figure A.4) was distributed electronically, in print, and via social media to promote in-person and online participation. A Spanish language flyer was also provided.



Figure A.4. Flyer in English and Spanish advertising the charrette.



Figure A.5. In Burney, a light-up message board was used to promote the workshop.

Targeted Outreach and Personal Invitations

In addition to promoting participation through mass media and social media, the Local Government Commission worked with SRTA to engage local agency staff, decision makers, area Tribes and local organizations. Through personalized emails and phone calls, agency staff, active transportation advocates, and Tribal leaders were invited to participate in a series of stakeholder meetings, walk audits, and the workshops. The Burney and Shasta Lake Chambers of Commerce promoted the workshop events to their membership as well as the public at large.

Citizen's Advisory Committee Meeting

On Monday, February 6, 2017, the project team met with the Citizen's Advisory Committee (CAC). The project team presented on the status of the project and the Level of Traffic Stress (LTS) Methodology. The CAC discussion centered around projects and policies that would improve walking and biking conditions in the Shasta Region.

A key discussion point was the presence of barriers. Neighborhood streets, while sometimes lacking sidewalks, are generally thought of as pleasant and safe places to walk or bike. However, to access services and use walking and biking as a mode of transportation, the connections out of the neighborhoods and to different parts of town are very lacking. Many people agreed that the Shasta Region has excellent recreational biking opportunities, but biking for transportation is difficult. Walking sometimes feels like an afterthought; crosswalks are lacking and sidewalks are not always present or adequate.

The perception of crime in the region is also a factor in people's choice to walk or bike. Participants suggested lighting and emergency call buttons may help ease people's fears about walking in the region.

Specific projects that were discussed include the desire for a trail along the Anderson Cottonwood Irrigation District (ACID) Canal, a Class I path through the mall parking lot, and non-motorized trails between population centers, similar to Colorado's network of trails connection several mountain towns.

Redding ATP Advisory Group Meeting

On Monday, February 6th, the project team met with the Redding ATP Advisory Group. The project team presented on the status of the project and the Level of Traffic Stress (LTS) Methodology. The discussion centered around projects and policies that would improve walking and biking conditions in Redding and included a visioning exercise.

Advisory Group members highlighted motor vehicle speeds as a major issue. People do not feel safe walking and biking where speeds are high. For example, posted speeds downtown are 30mph, but one-way streets, wide lanes, and freeway-style signage encourage people to drive much faster.

Making connections was another topic of discussion. There is evidence, as indicated by the large numbers of people walking and biking on the Sacramento River Trail, that many people have a desire to walk and bike but only do so on safe, comfortable facilities. If the trails were connected to downtown and economic centers via low stress facilities, many more people might choose to walk and bike for transportation purposes. Hilltop, Turtle Bay, and Downtown were suggested as neighborhoods that should be prioritized for connections because they are already relatively high density, walkable areas.

Visioning Exercise

ATP members were asked to form small groups to discuss their vision for the plan. Groups reported three key words that describe what they would like to see from the plan. In addition to safety, which was the most common term, the following words (similar concepts are grouped together) were mentioned:

- Connections, Seamless, Saturated
- Enjoy, Lifestyle, Beauty
- Historical
- World-Class, Infrastructure
- Data Driven

Stakeholder Meetings

City of Redding

The Redding stakeholders' meeting held on February 6, 2017, was well attended, including representatives from the Parks, Planning, Communications Public Works, Fire and Police Departments, the Shasta Union School District and Turtle Bay. Stakeholders identified a number of challenges and opportunities related to walking and biking in Redding.

Challenges

The Chief of Police pointed out that they do not have the resources to patrol the existing trails, much less any new miles of trail. Police can be assigned to the trail but they use overtime pay; it is not a sustainable solution. The Chief stated that Redding and the trails are actually very safe, but incidents receive heavy coverage by the media, which influences people's perception of safety.

Additional funds for policing, lighting, and emergency call boxes on the trail may help influence people's perception of safety and willingness to use the trails.

Education for bicyclists, motorists, and pedestrians was discussed. Infrastructure is often disconnected, so bicyclists and pedestrians may take risks to cut across traffic or cross the street without the benefit of a crosswalk, while motorists may speed and not be aware of other road users. Additional infrastructure and speed management may help address these issues and could be accompanied by education and outreach.

Opportunities

The Redding area has some great recreational trails. If these trails could be connected to downtown (potentially through Turtle Bay) and other commercial centers, there is a potential for economic benefits from tourists, and increased recreational and transportation options for residents.

Specific projects discussed include a trail on Churn Creek, which the parks department has identified as a north-south trail arterial. The planning and development of this trail are in the preliminary stages, and property must be acquired first.

Stakeholders were very positive about the opportunities for additional infrastructure on City streets. Road diets have been well received in the past, which is an opportunity to add bicycle lanes to a street. The fire department understands the potential for narrower travel lanes to slow traffic and accommodate bike lanes, with assurances that response vehicles will still be able to make necessary turning movements.

The Redding school district does not bus any children that are less than three miles away from school. With the support of the Shasta Safe Routes to School program, providing routes for children to walk and

bike to school could be a huge opportunity. This would reduce school drop-off and pick-up activity and increase children's activity levels.

Shasta County

The Shasta County stakeholders included representatives from the Shasta County Office of Education and the Health and Human Services Agency. The Health and Human Service Agency started Healthy Shasta, which leverages resources to improve public health throughout the county. Major challenges to walking and biking in the Shasta Region included speed limits; many miles of rural two-lane roads with narrow or no shoulders; decentralized schools; "stranger danger" perception; and schools with policies discouraging or prohibiting children from walking or biking to school. A master plan for bike and pedestrian improvements could help communities envision improvements. Unincorporated areas have a lack of accountability and potentially a mentality that small communities don't need bicycle and pedestrian improvements. Opportunities include some small communities that have made progress, including Burney and Fall River. Healthy Shasta has excellent relationships and a good community reputation and can leverage non-infrastructure grants to support walking and biking.

City of Shasta Lake

Stakeholders that attended the City of Shasta Lake Stakeholder meeting included representatives from the City, Healthy Shasta, Shasta County Health and Human Services, and the Shasta County Sherriff's office. One of the main challenges in Shasta Lake is that there are many roads without any bicycle or pedestrian facilities, including roads with more rural character and higher speed traffic, such as Cascade Boulevard. Even with the lack of facilities, there are still many people who walk and bike in the area.

Similar to other communities, the issue of safety on the River Trail and issues of education and predictable behavior for bicyclists, pedestrians, and motorists was discussed. The stakeholders also discussed need for connections to bus stops and newer subdivisions, as well as regional connections to Redding and other communities. Connecting the BMX park to town and providing safe connections to schools were other priorities discussed.

City of Anderson

The Anderson stakeholder meeting included representatives from Healthy Shasta, Caltrans, and the City of Anderson. The biggest safety issue cited in Anderson is Highway 273, which cuts through the middle of town and has a speed limit of 45mph. Intersections along Highway 273 were of particular concern.

Anderson does have several trails that connect the River Park and a trail along 273 that connects downtown with the Walmart and nearby businesses. There are still gaps that need to be connected; for example, along Balls Ferry Road and Stingy Lane. Extending this trail to connect to employment and residential areas to the northwest was mentioned as an important connection. The Anderson Police Department supports several programs that promote safe walking and biking including volunteer patrols, deployment of speed feedback signs, crossing guard training, and Safe Routes to School. One of the main challenges facing Anderson is finding funding for bicycle and pedestrian projects; as a small town with limited city staff, there is rarely time to find and apply for necessary grants.

Walk Audits

Walk audits and bicycle assessments were conducted in four communities during the February 6-9 charrette week. Audits were held in downtown Redding, Burney, Shasta Lake, and Anderson. Discussion focused on the safety and quality of the pedestrian and bicycle environments, and how facilities could be improved to support walking and cycling.



Figure A.6. Despite record rainfall, advocates and agency staff joined SRTA staff, City of Redding staff, and the consultant team for walk and bike audits.

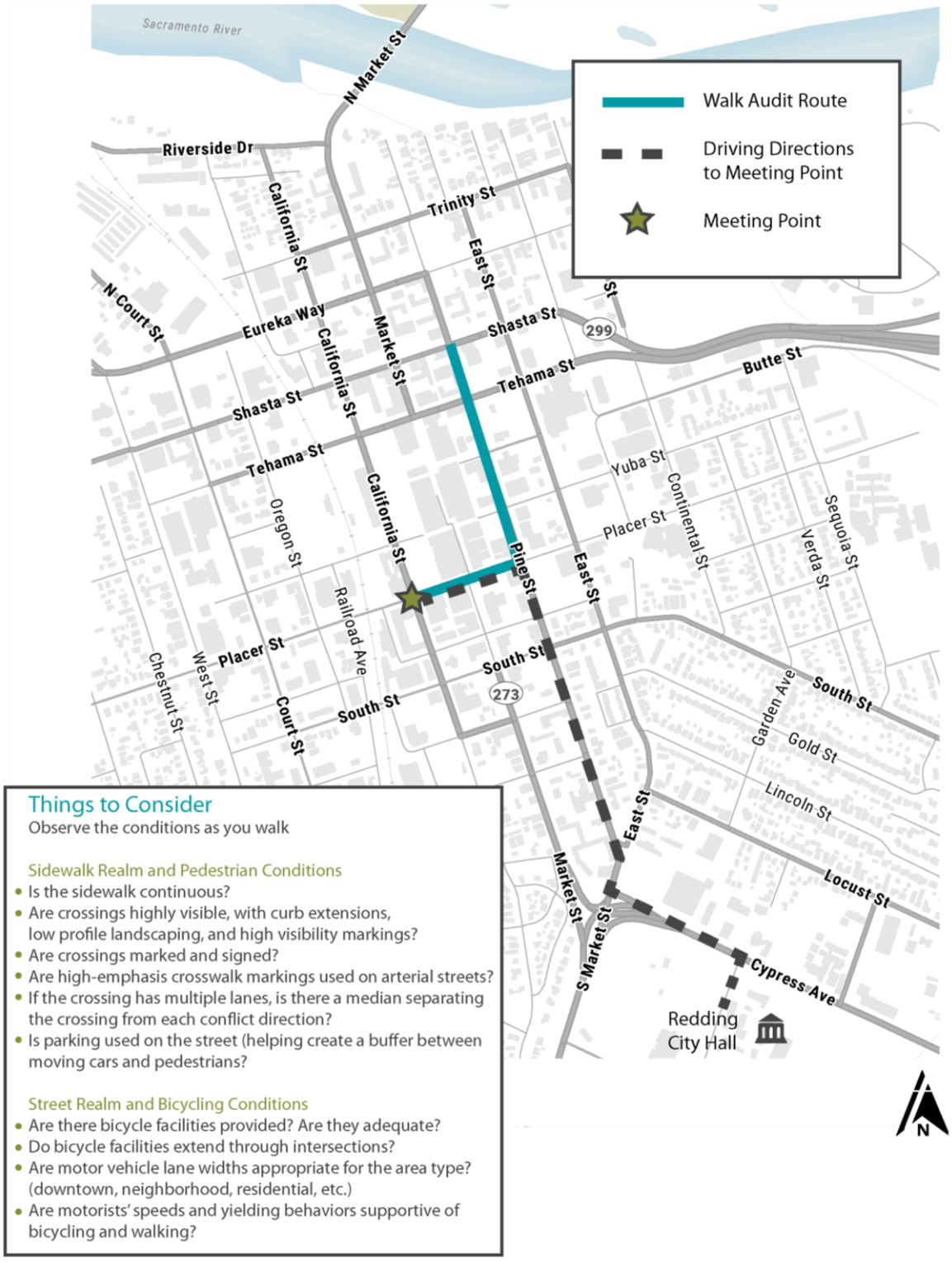


Figure A.7. The Redding walk audit focused on the downtown area surrounding the pedestrian mall. Concerns about a lack of designated bike lanes, gaps in pedestrian infrastructure, ADA accessibility and vehicle speeds were raised. Recent improvements to pedestrian facilities along Placer Street were noted as examples of a safe and enjoyable pedestrian environment.

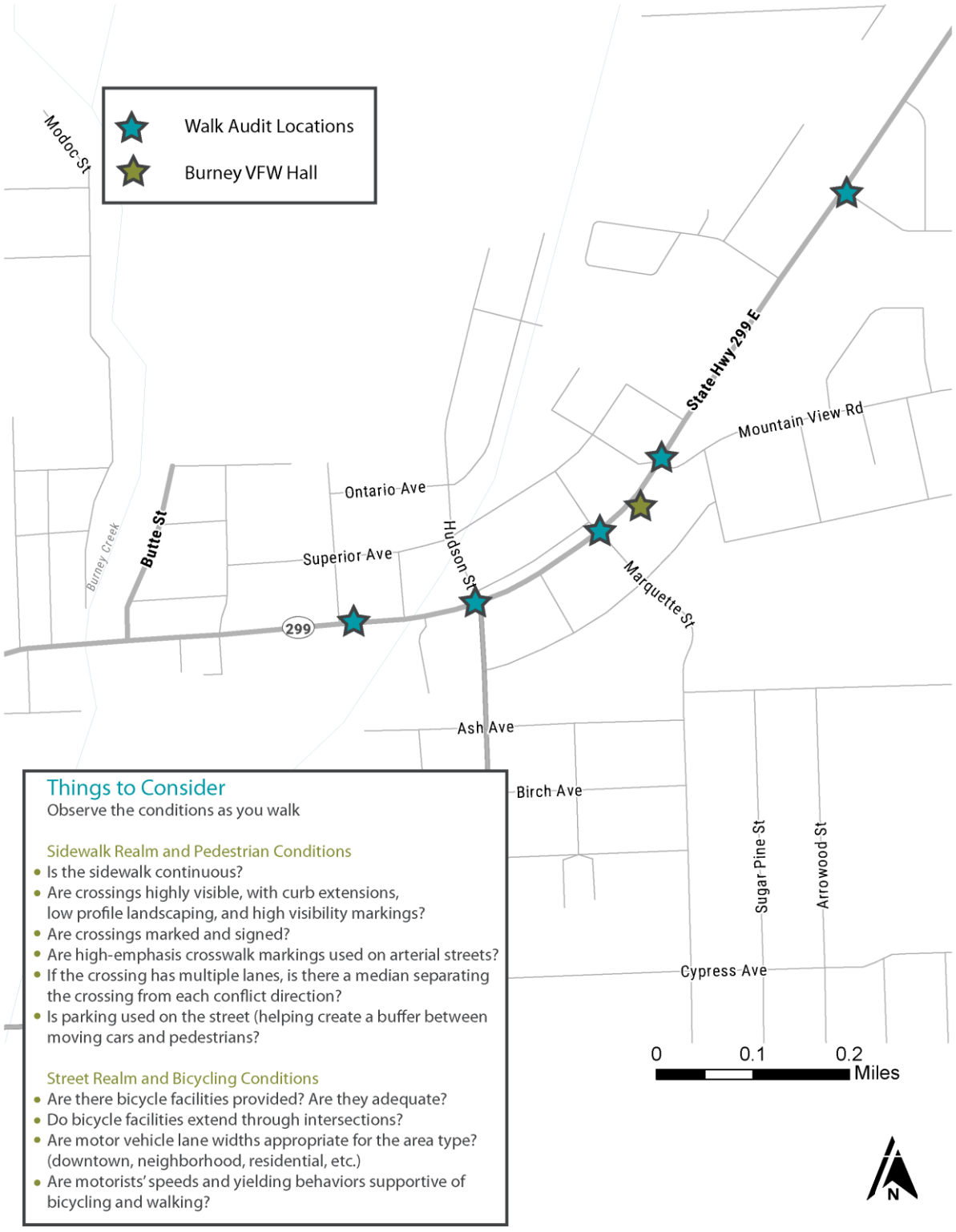


Figure A.8. The Burney audit zeroed in on State Route 299 through downtown Burney, which also serves as Burney's main street.



Figure A.9. A lack of safe pedestrian crossings along State Route 299 and reducing speeds were the top concerns identified during the walk audit. Pedestrian crossings were unmarked, poorly marked, or not highly visible.

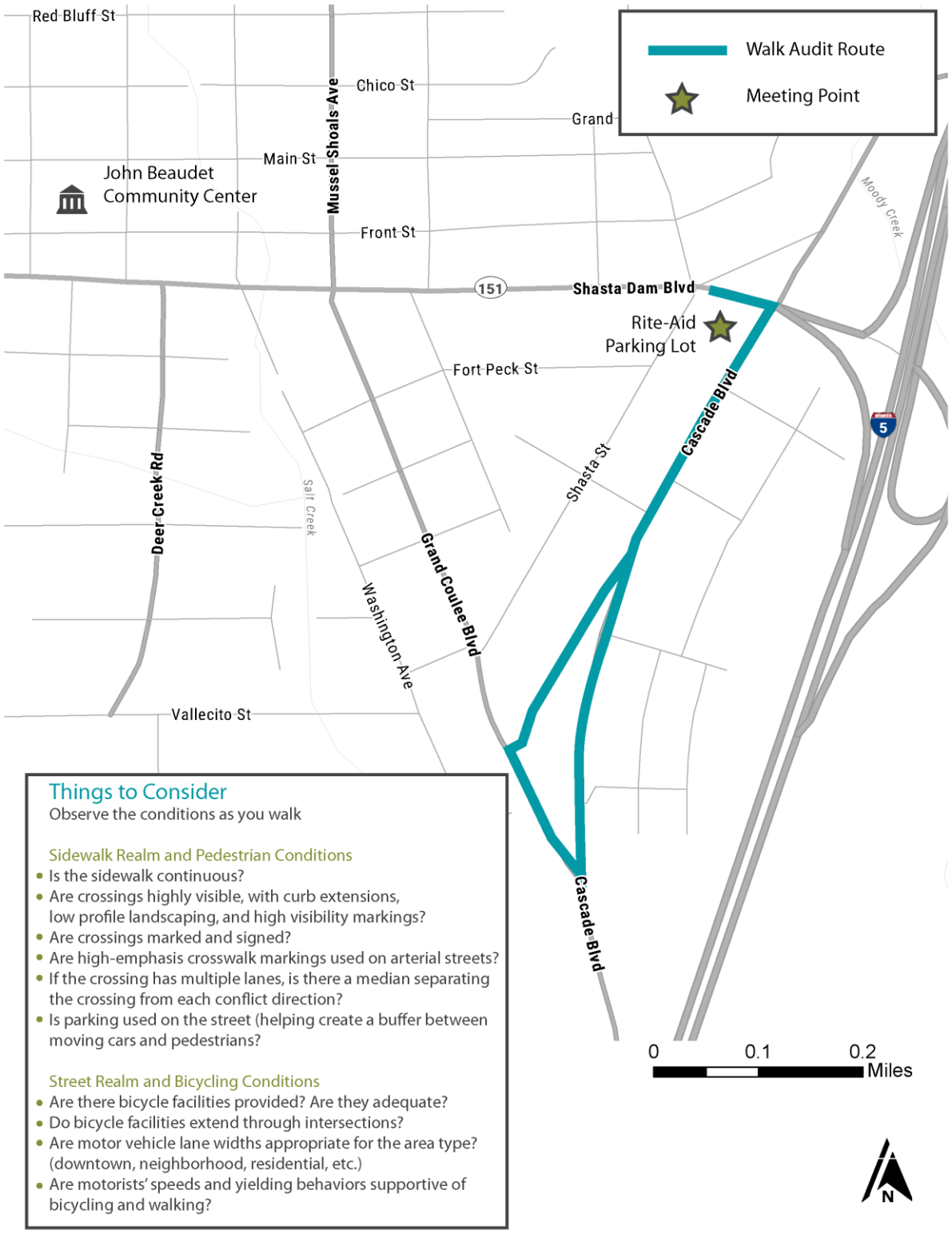


Figure A.10. The walk audit in Shasta Lake focused on the triangle formed by Shasta Lake Boulevard, Grand Coulee Boulevard and Cascade Boulevard.

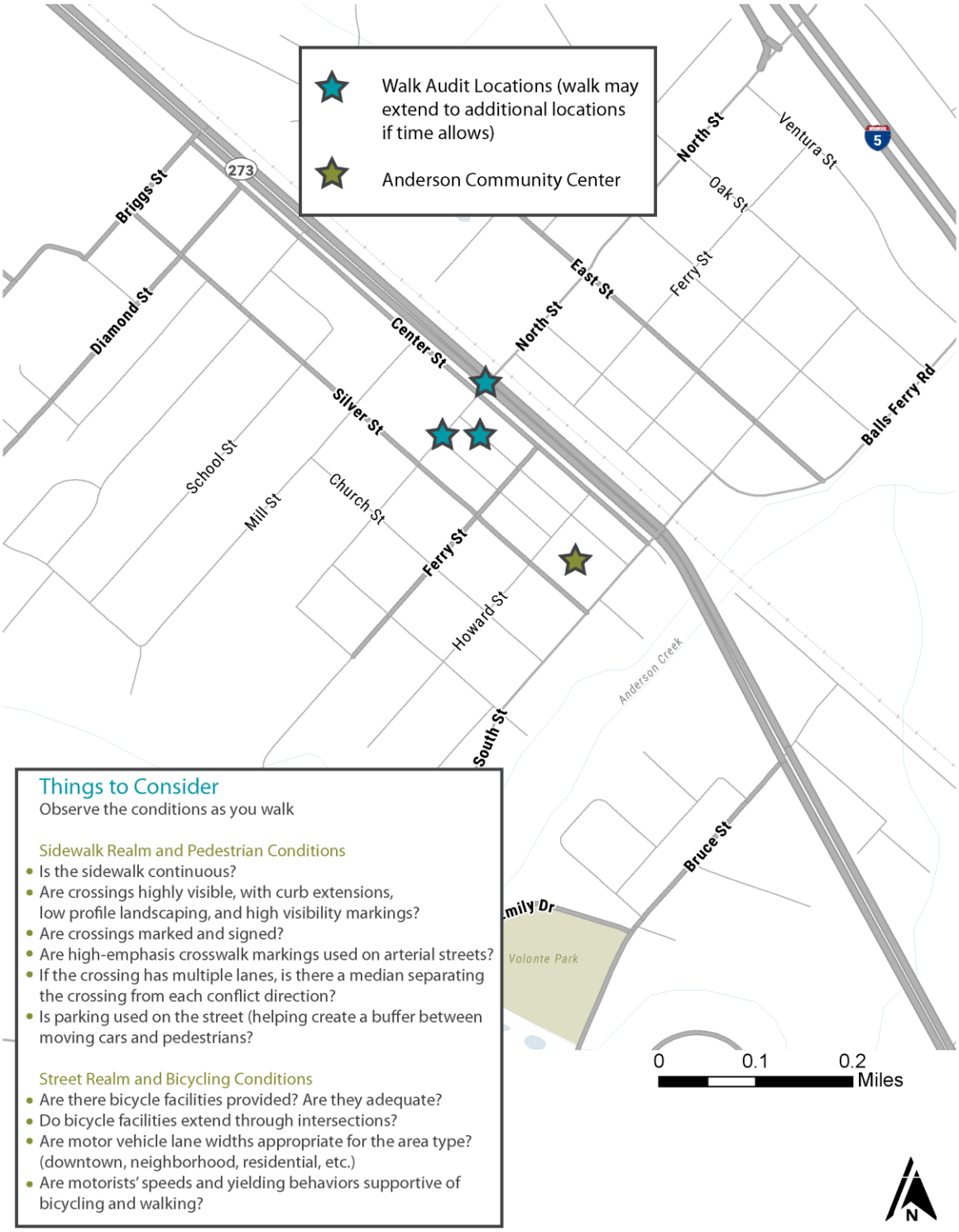


Figure A.11. Additional walk about route



Figure A.12. The Anderson walk audit was conducted on both sides of State Route 273. The pedestrian/bicycle crossings over SR 273 and the railroad tracks were identified as a concern.

Public Workshops

From February 6-9, 2017, public workshops were held in Redding, Burney, Shasta Lake and Anderson. Attendance was greatest at the Redding workshop, with many participants traveling from outlying areas to attend the event. Following introductions, each of the workshops opened with a 20-minute presentation on Active Transportation by Paul Zykofsky of the Local Government Commission. Visual examples were provided of complete streets, traffic calming techniques, good sidewalk design, high visibility and protected pedestrian crossings, and different types of bicycle facilities. Following the presentation, participants were invited to visit a series of stations to provide input on active transportation needs and priorities, summarized in the “Workshop Comments” section below A visioning exercise was conducted during the Redding workshop and is discussed in the “Active Transportation Vision” section. Free refreshments were provided at each of the workshops, made possible by funding the Local Government Commission received from The California Endowment.

Workshop Comments

City of Redding

The Redding workshop had the most participants, and many people at this workshop also commented on barriers and issues in Shasta Lake, Anderson, and the surrounding communities. Comments on these communities are summarized in the appropriate workshop summaries that follow.

The project team received many comments specific to Redding. Two maps were provided for people to input their comments. Some of the most common comments included opportunities for new trails, such as along the ACID canal, Churn Creek, Oregon Gulch, and Jenny Creek. Many comments expressed a desire for safe crossings of roadways, such as Eureka Way and Cypress Ave.



Figure A.13. The Redding workshop was attended by residents of the City and the greater Shasta region.

Burney and Unincorporated Shasta County

The workshop in Burney had four participants that provided excellent input. Because of low turnout, the project team structured the workshop as a focus group, with discussions on issues facing Burney and unincorporated Shasta County. Participants stressed a need for crossings of Highway 299. Comments gathered at other workshops concerning unincorporated communities echo the need for safe crossings and traffic calming of state highways that run through the town center.



Figure A.14. Area residents visited stations to identify barriers, opportunity sites, and to assist with prioritization.



Figure A.15. The project team lead participants at the Burney workshop in a discussion about bicycle and pedestrian issues in the community.

City of Shasta Lake

Participants in Shasta Lake mentioned barriers along Shasta Dam Blvd and near on and off ramps leading to I-5. Many areas in Shasta Lake don't have sidewalks or shoulders, yet many people walk. Participants mentioned the role of Shasta Dam Blvd as a recreational corridor, especially in the summer, which brings an economic benefit to the town.



Figure A.16. A computer station was set up at each community workshop to help participants take the online

City of Anderson

Participants at the Anderson workshop saw many opportunities to connect destinations within the city to each other. Anderson already has several trails, one from downtown to Wal-mart, and one that leads to Anderson River Park. There are many opportunities to connect these trails further in to town, via Balls Ferry Rd and other routes. The main barrier, similar to other areas in the Shasta Region, is the highway running through town.

Active Transportation Vision

During the February 6 workshop in Redding, participants were asked to imagine their active transportation future. Responses were written on index cards and represent participants' vision for active transportation in Redding and the Shasta region.



Figure A.17. Clear themes emerged through the visioning exercise.

The following visions were collected from workshop participants.

- Planning, building and maintaining facilities for all modes with safe options with a complete network – collaboration.
- I would like to see multiple ways for people to get around the County safely and timely without having to rely on vehicles.
- Redding is like Paris.
- Make Shasta County Great Again. Clean up the bike lanes. Repaint the Class II lanes. Fill the potholes. Have safer road for bikes. Extend the fog lines and mark them. Have signs on the road that read, "Bikes on the roadways".
- Alternative transportation to shopping and recreation. More respect for the cyclist/pedestrian. Covered bike parking. More greenways with bike/pedestrian paths.
- Diagonal parking spaces throughout the downtown are for ease of access to businesses, including through downtown mall area. Sidewalks, sidewalks, sidewalks! Especially in business areas, with flashing, well-marked crosswalks in major traffic areas.

- A system of trails, bikeways and complete streets that line neighborhoods, communities, and destinations. This system will be suitable for all ages and abilities, providing safe, secure, enjoyable and convenient options for travel.
- Protected bike/walk corridors. Connecting the cities and towns in the region. Allowing safe non-motorized travel between the various population areas.
- A robust active transportation network that lets people of all ages and abilities safely walk or bike for pleasure, commute or errands. An equitable network that will unlock our economic potential, result in better health outcomes, and help build a more sustainable community.
- Connect Millville to Shingletown. Connect Shasta Lake City to Lakehead. Connect Anderson to Red Bluff. Connect Redding to Lewiston. Try to use paved trails for these connections. South 273 between the Mission and Westwood Village there is no safe pedestrian bike crossing. Lights are timed for cars.
- Bike trails without cars. Downtown no cars, walkable, well-lit for safe walking in evenings. Bike routes away from busy, fast streets. Bike lockers at train, bus, and malls.
- A world-class network of trails, separated bikeways, and neighborhood streets to connect to all schools, destinations, shopping and residential. Where everyone will have access to a bikeway from their neighborhood and 90% of school kids will walk, bike or ride transit to school.
- Bicycle rentals throughout town. Bicycle repair co-op. Wider bike lane on Eureka Way.
- Expanded urban, city streets that are safe and well connected to services, residential, work and recreation. i.e. Diestelhorst to downtown.
- Safe, connected dedicated bike paths that connect to hot beds of activity, i.e. 299 Redding to Wiskeytown, Placer to Igo/Ono, Redding to Anderson via ACID.
- Bike lockers or bike check-in at stores and restaurants. North and southbound bike-lanes over Shasta lake “new bridge”.
- To be able to ride a bike on every street. Would include marked bike lanes that are kept clean. All businesses have bike racks.
- Convenient, safe, inviting, easy to use of all ages and fitness levels. Contiguous facilities (no gaps). Connected to nature. Shade. Fun.
- The City of Redding is a community that makes walking easy between neighborhoods and core areas; a city where bicycle commuting is fun, easy and safe. Around the town are recreational walking and biking trails that are the envy of many other cities. Our trails are safe, scenic and valuable for exercise, family fun, walking for pleasure, biking to work and more.
- In 10 years… Every road will have a bike lane. Most people in urban areas would be able to opt out of using a car. In 20 years… Cars would no longer be the dominant form of transportation, rather: bikes, transit, walking.
- Vibrant arts community with well-developed infrastructure. Safe streets via both the ability to readily walk or bike throughout the greater Redding area and regarding crime rates.
- In 10 years… Protected bike lanes throughout the City. Safe access to all paved and/or unpaved trails surrounding Redding Electric, solar-powered mass transit. In 20 years… Less reliance on internal combustion, increased solar/electric powered vehicles, more ped/biking opportunities.
- A paved trail bordering the ACID Canal from Turtle Bay to beyond Anderson. A trail bordering the west side of the Sacramento River from Turtle Bay to Cypress. A trail following Caboose Creek from the hill to the river.
- Create a network of complete streets and trails for walking and biking that are so well connected and attractive for all ages and abilities that driving a car is an option not a necessity.
- Completely protected multi-use network covering the region including the ability to connect to nearby counties and safe and convenient bike parking at all destinations. This will help solve poverty here.

- Full inclusion of people with disabilities in the planning process. Robust backbone of Class I separated paths away from autos.
- Major roads with proper bike lanes, including rural and mountainous routes like Keswick Dam road and Dry Creek Road. Safe Routes to Trails. Safe crossings with LEDs. Bike lockers or safe places to lock them.
- Safe street crossings. Connectivity of bike paths.
- Improved running/biking path along the length of the Sacramento. More hiking and biking at both lakes. Pedestrian-only thoroughfares in downtown.
- Totally walkable and bike-friendly trails and streets. Make it easy for people to walk/bike from outlying areas to downtown shops, restaurants hotels/motels, etc. without conflict with motor vehicle traffic.
- I can safely get anywhere I need to go on a dedicated walking/biking path without getting in my car. Biking is safe for children. Vibrant center of town.
- A lot of river access points. More extensive river trails system.
- An interlinked network of trails and bike lanes connecting Shasta Lake, Redding, Anderson, Cottonwood, Palo Cedro, old Shasta and Centerville that allows safe recreational and commuter cycling to/from the urban centers and connections to rural areas.
- More green space in and around transit routes. Diminished use of cars as a whole. Link to major recreational areas for bikes. Safe bike paths connecting all major business and residential areas. Pedestrian links to river from downtown. Easy and convenient transit.
- Develop Park Marina area into mixed public use, a cycling hub with food, activities, parks, retail, with full access to river.
- Bike only trails from outer communities into the downtown area for safer commuting. Trails for road bikes throughout the County for enjoyment.
- Pedestrian connection between Turtle Bay and the waterfront along Park Marina over/under Hwy 44. Well-established river walk along Park Marina, with restaurants, businesses, outdoor activity areas.

Online Engagement Tools

Online Survey

An online survey was made available from January 10th to February 28th. Survey respondents were asked questions regarding what type of bicycle rider type they identify themselves as, barriers to riding a bicycle and walking, strengths and weaknesses of the bikeway and sidewalk network, open comments, and typical demographic information. Aggregate responses for each question can be viewed in Appendix A.1.

Bicycling Results

Personal security was reported as a concern for many people who are interested in bicycling but are concerned with the perception of crime in the area, particularly as it relates to being alone and outside at night. In addition to personal security, the lack of safe places to secure a bicycle at destinations was a common theme, which was a moderate reason why some people choose not to ride their bicycle. Some respondents suggested that popular destinations should provide secured bicycle lockers to eliminate or reduce the possibility of bike theft or theft of bicycle accessories, which would encourage people to choose to ride their bicycle more often.

Large distances between desired destinations and survey respondents' homes make bicycling a relatively unattractive mode of transportation. In addition to the lack of close-by destinations, people stated that it

is difficult to carry goods/packages and/or children on their bicycles, which is made more difficult when having to bicycle on uncomfortable roadways with far apart destinations.

Debris in bike lanes causing flat tires and unsafe riding conditions is a concern that was voiced by many survey respondents. Complaints of rocks, thorns, trash, and sharp objects within bike facilities or on shoulders make it unappealing to ride a bicycle and potentially unsafe. Some people mentioned they ride exclusively on off-street trails due to damaging debris that is in the roadway. While this barrier to bicycling was not a major reason identified when directly asked whether maintenance was a barrier, this was a reoccurring theme in the write-in comment section.

Weather also impacts peoples' decision to ride a bicycle. In the summer, temperatures rise to an uncomfortable level and cause a higher amount of perspiration. Many respondents stated they do not want to arrive to their destinations sweaty and avoid riding a bicycle for commuting or utility purposes during the summer months.

Traffic-related reasons that discourage bicycling had strong effect on whether people choose to ride a bicycle in Shasta County. Motor vehicle speeds, motorists being inconsiderate or inattentive, existing bicycle facilities do not feel safe, and existing bicycle facilities do not go to desired destinations. Motor vehicle speeds and motorist actions were a strong theme that emerged through the write-in comment sections.

If bicycling in Shasta County improved and felt more comfortable and safer, 68% of respondents reported they would regularly ride a bicycle or at least five or more days a week, a large increase from the current share of respondents (31%) who ride regularly or more than 5 days a week. To assess what type of bicycle facilities are desired, survey respondents were shown images of different types of bike facilities and asked how comfortable that feel or would feel riding on each bicycle facility. Bicycle facilities that provide the least amount of physical separation between bicyclists and motorists have the lowest levels of comfort and conversely is true with bicycle facilities with higher levels of physical separation. Rural roadways and marked shared lanes were found to be the least comfortable bike facility types and multi-use trails and protected bike lanes with curbs and/or vertical separation have the highest report level of comfort (see Table A.1).

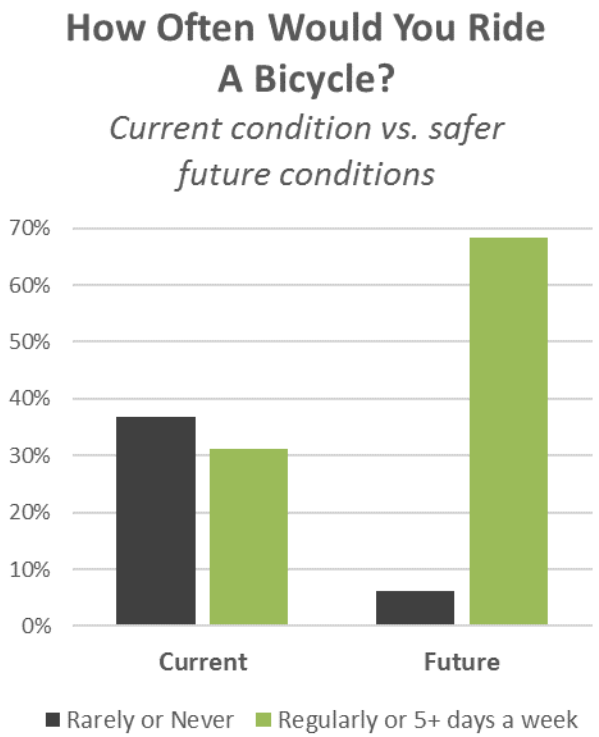


Figure A.18. Current and Future Preference to Bicycling

Bike Facility Type	Very uncomfortable	Somewhat uncomfortable	Somewhat comfortable	Very comfortable	% Feel At Least Somewhat Comfortable
Rural Road w/ Littler to No Shoulder	44%	35%	15%	6%	21%
Marked Shared Lane	33%	33%	26%	7%	33%
Bike Lane with Painted Buffered	6%	19%	45%	30%	75%
Bike Lane	3%	21%	43%	33%	76%
Rural Road w/ Wide Shoulder	7%	16%	42%	35%	77%
Neighborhood Street w/ Low Traffic Volumes	2%	7%	34%	56%	90%
Bike Lane with Painted Buffer and Vertical Objects	4%	4%	21%	72%	92%
Bike Lane w/ Curb Barrier	3%	4%	22%	71%	93%
Multi-Use Trail w/ Separated Walking Area	2%	3%	6%	89%	95%
Multi-Use Trail	2%	1%	14%	82%	96%

Table A.1. Level of Comfort by Bike Facility Type

Walking Results

Numerous people commented that many areas within Shasta County and the City of Redding felt unsafe and creates a barrier to walking for recreation and for running errands, similar to the reason why some choose not to ride a bicycle. Disconnected sidewalks and long distances between destinations discourage many people from choosing to walk in Shasta County. Many people noted there are not enough pedestrian accommodations to make people feel safe and comfortable walking, particularly too

many large parking lots, high speed roadways, lack of sidewalks, lack of shade, unsafe roadway crossings, and not enough space separating motorists from pedestrians. Destination are too far apart, not connected to existing or non-existent transit service, and there is not enough shade to make it comfortable to walk in the summer.

Many of the write-in other comments stated that crime is a serious issue in Shasta County, particularly in the City of Redding which makes walking around, especially at night, uncomfortable and potentially unsafe.

WikiMap Results

An online map was made available between January 10th and February 28th to allow people to identify specific locations where there are walking and/or bicycling issues, missing connections, locations where bike parking improvements are needed, and where there are strong bicycle and/or pedestrian facilities in place. For each point placed on the map, the user could manually write a comment to describe in detail the issue or opportunity impacting active transportation. Approximately 90 individuals contributed to the online map, placing a total of 464 comments.

Location	Bicycling Comments	Walking Comments	Comment "Likes"	Total Comments	% of Total
Anderson	4	1	5	5	**1%**
City of Shasta Lake	10	0	8	10	**2%**
Redding	189	101	667	290	**65%**
Unicorporated County	104	14	155	118	**27%**
Big Bend/Burney/Fall River Mill Unicorporated Area	13	7	21	20	**5%**
Total	**320**	**123**	**856**	**443**	**100%**

Table A.2. Number of WikiMap Comments by Comment Type and Location

Reoccurring themes from WikiMap input:

- Debris in roadway/bike facility and poor pavement conditions
- Safe routes and connections to schools, park, and institutions are needed
- Demand for connections to local and regional destinations and to other nearby cities
- More space for people riding a bicycle and walking
- High vehicle speeds contributing to uncomfortable and potentially unsafe pedestrian and bicyclist environments
- Improved crossings for pedestrians and bicyclists at major roadways
- Lack of sidewalk network and pedestrian amenities
- Need for off-street paths connecting to other communities
- Current bike and pedestrian infrastructure and accommodations are not meeting current needs

A large majority of map comments were within the City of Redding. Nearly all walking concerns were located within the City of Redding. However, concerns outside of Redding echoed the same issues; high speed vehicle traffic, disconnected sidewalks, need for improved connections to parks, schools, and institutions, and improved crossings. Other comments noted lack of crosswalks, number of vehicle travel lanes, and need for of traffic controlling devices in some locations. Commenters also recommended more bicycle infrastructure such as bike boxes, green pavement markings at intersections, narrower and

fewer vehicle travel lanes, and safer bike lanes Details related to map comments received within the City of Redding can be read in the Phase I Community Outreach Summary report for the City of Redding.

In unincorporated areas of Shasta County respondents requested that there be wider shoulders or bike lanes on existing roadways, or trails connecting Whiskeytown, Shasta, Kett, and Keswick. Some of the identified roadways for bicycle infrastructure to connect those communities are State Highway 299, Rock Creek Road, Iron Mountain Road, Keswick Dam Road, and Swasey Road. These roadways were identified as a popular route for bicyclists and potentially pedestrians, and it was suggested they would become more popular if there were more bicycling and walking accommodations. Difficult crossing for motorists to see bicyclists and pedestrians crossing Keswick Dam Road at the Sacramento River Trail due to the curve of the road. Additional signage and striping may improve the crossing. Keswick Dam Road was also identified as being a very uncomfortable road to ride a bike on due to how much the roadway curves, hills, and the narrow shoulder.

Several respondents noted that it is uncomfortable to cross State Route 273 in Anderson as a bicyclist. The roadway is very wide and when waiting at a red traffic signal there is no designated place for people riding bikes. In addition to the need for improving the crossing at State Route 273, protected bike lanes or wide bike lanes were suggested to connect people from Anderson to surrounding communities.

Crossing and traveling along State Highway 299 was reported to be an issue in Burney. Reponses included suggestions to have a continuous sidewalk throughout the length of the town on State Route 299, providing a bike lane or multi-use path to promote safe bicycling and walking, and improving crossings. Installing a traffic signal at Marquette Street was one specific suggestion. Providing sidewalks on at least one side of the street near schools was recommended to provide a safe space for children to walk to and from schools.

Several comments requested new paths to connect Shasta Lake to surrounding communities. A path that follows Churn Creek was suggested as well as paths connecting to Redding, Mountain Gate, and to local parks. Poor pavement conditions were a reoccurring theme for roadways in Shasta Lake which contributes to making riding a bicycle uncomfortable.

There were many comments requesting traffic calming measures to be implemented to improve corridors and intersections that would make it more comfortable and safer to walk and bike to and from schools, institutions, medical clinics, libraries, and parks throughout the region. One location that had a concentration of requests for roadways improvements to allow students to get to Shasta College was along Old Oregon Trail.

Loose gravel and debris in the roadway making riding a bicycle dangerous or uncomfortable was an issue commented on throughout Shasta County and the City of Redding.

Summary

A tremendous amount of valuable input was received during Phase 1 of the GoShasta public outreach efforts. Below are common themes from stakeholder meetings, public workshops, the citizen advisory committee, walk audits, and online engagement tools:

- There is strong public demand for safer, more connected, and convenient bicycle and pedestrian infrastructure including on-street and off-street bike facilities, sidewalks, secured bicycle parking, and traffic calming measures.

- When stakeholders were asked what type of bike facilities they prefer and would encourage them to ride a bike, protected bike lanes and off-street trails received the most positive feedback, and would result in the highest increases in people bicycling more often.
- Motor vehicle speeds and dangerous motorist behaviors were reported as contributing factors that make walking and biking uncomfortable and potentially unsafe.
- Debris on the roadway and bike facilities was identified as a barrier to bicycling throughout the region.
- Intersections and corridors near schools, trails, parks, and other popular destinations received the highest number of comments regarding bicycle and walking concerns.
- Improving connections to schools, libraries, open spaces and recreational areas, institutions, and regional assets is a common theme among Shasta County stakeholders.
- Improving walking and biking connections to transit will assist people to reach destinations that are too far away to solely walk or ride a bicycle to as well as avoid high temperatures in the summer months.
- Perception of high crime rates discourage people from walking and riding a bicycle.
- Safe crossings on major roadways, directness, access to shared use paths, greenspace and shopping was identified as priorities during the public charrette process.
- Positive feedback surrounded the concept of a north/south off-street trail that follows Churn Creek and new trails along the ACID canal, Oregon Gulch, and Jenny Creek.
- Neighborhood streets, while sometimes lacking sidewalks, are generally thought of as pleasant and safe places to walk or bike. However, to access services and use walking and biking as a mode of transportation, connections beyond neighborhoods are critical.

Phase II Community Outreach Summary

During the second and final phase of community outreach, SRTA and the City of Redding, with support from the consultant team and partner agencies, conducted outreach on-line and in-person. On-line outreach was conducted through the goshasta.org website and four in-person events provided opportunities for the public to comment on elements of the draft plans.

Project Website and On-line Engagement

The goshasta.org website was updated to provide a summary of the GoShasta Regional and City of Redding Draft Active Transportation Plans. The website was promoted through social media, GoShasta cards, print media, outreach to stakeholders, emails to participants generated during the first phase of outreach, and promoted at each of the in-person events.

The following draft elements of each plan were provided online for public comment.

City of Redding Active Transportation Draft Plan Elements:

- Existing Bike Facilities in the City of Redding
- Draft Recommended Citywide Bike Facilities for the City of Redding
- Draft Recommended and Existing Bike Facilities for the City of Redding
- Draft Recommended Biking Recommendations for Downtown Redding
- Draft Recommended Citywide Pedestrian Facilities for the City of Redding

Go Shasta Regional Active Transportation Draft Plan Elements:

Proposed Bicycle Improvements

- Anderson Area
- Shasta Lake Area

- Palo Cedro Area
- Happy Valley Area
- Fall River Mills & McArthur Area

Proposed Pedestrian Improvements

- Anderson Area
- Burney & Johnson Park Area
- Cottonwood Area
- Fall River Mills & McArthur Area
- Happy Valley Area
- Palo Cedro Area
- Shasta Lake Area

In addition to receiving comments on draft plan elements, interactive Wikimaps for each of the plans were available for review and comment. A total of 157 comments were received on the GoShasta Regional Wikimap and 77 in-person comments.

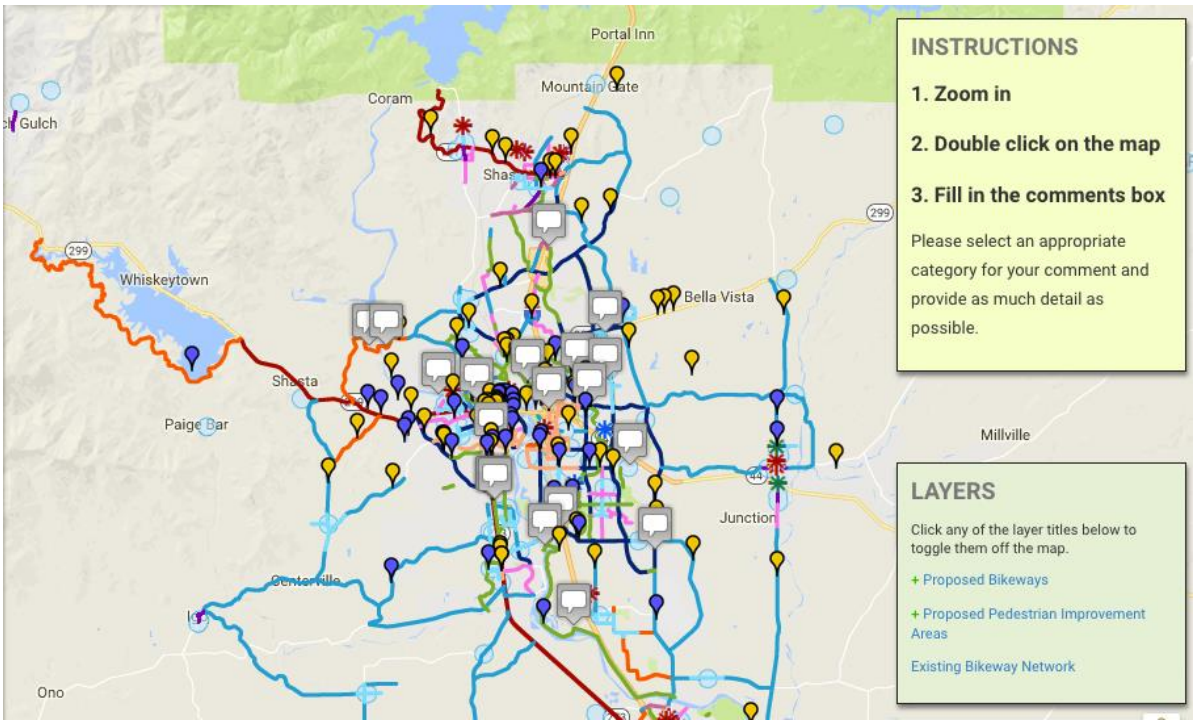


Figure A.19. Interactive Wikimaps at goshasta.org indicated proposed bicycle and pedestrian routes and provided a forum for partner agency and public comment.

In-Person Outreach Events

In October 2017, staff from SRTA, City of Redding, Caltrans, Shasta County Public Health, and the Local Government Commission hosted outreach events in the cities of Anderson, Redding, and Shasta Lake. Staff hosted informational booths at the following events:

Date	Time	Location	Tandem Event
Friday, October 20th	5:30 – 7:30PM	Anderson River Park, City of Anderson	Food Truck event
Saturday, October 21st	7:30AM – Noon	Redding City Hall, City of Redding	Farmers Market
Sunday, October 22nd	9:00AM – Noon	Sundial Bridge, City of Redding	N/A
Thursday, October 26th	3:00 – 6:00PM	Sentry Market Grocery Store, City of Shasta Lake	Weekly Barbeque

During the events, staff received written comments, interviewed residents on their favorite projects and their vision for active transportation in the Shasta Region, and assisted participants with commenting online. Staff provided leaflets, so people could also later review the recommendations and comment online. In contrast to an evening workshop format, the following outreach booths were effective at engaging a broader demographic of community members, such as people of all ages, people with disabilities, and people who are experiencing homelessness who are often full-time pedestrians.



Figure A.20. Participants and staff at the outreach events.

Anderson outreach event on October 20th: Hundreds of people attended the event which was advertised by the K-Shasta radio station; SRTA received dozens of comments on the project list.

Redding Farmers Market outreach event on October 21st: The event was promoted in conjunction with the bicycle valet, helmet give-away and "freedom from training wheels" event organized by Shasta Living Streets. Approximately 100 people visited the information booths on Saturday.

Redding Sundial Bridge outreach event on October 22nd: The informational booth captured morning walkers, joggers, and cyclists of all ages. Approximately 75 people stopped by the information booths to review draft plan elements, proposed projects, and to submit comments.

Shasta Lake outreach event on October 26th: This event was organized similarly to the other events and provided Shasta Lake residents an opportunity to provide their input on the recommendations. SRTA received dozens of comments.

Methods of Outreach

Leading up to the closing outreach campaign, the consultant team worked with SRTA and the City of Redding to engage the public in the final phase of the active transportation planning process.

Outreach was focused primarily on steering people toward the project website to submit feedback, and secondarily, encouraging attendance at one of the in-person events. A mix of media outlets was utilized to publicize the final phase of the plan. A media release was distributed via SRTA and the City of Redding to the region's print media and newspapers, supported by a social media campaign. Local, state, and federal agencies, Tribes, and other organizations were contacted through email encouraging comments on the draft plan elements. Emails were sent to participants in the February workshop series who provided their email contact. Healthy Shasta and Shasta Living Streets helped to promote the events through their networks.



Figure A.21. SRTA staff conducted interviews on October 21-22 with individuals who shared their vision for active transportation.

Network Map Summary

The draft proposed active transportation network for the Shasta Region and the City of Redding was presented to the public via an online map and public events at the Redding Farmer's Market, Sun Dial Bridge, City of Anderson (Food Trucks at Anderson River Park) and City of Shasta Lake (Sentry Market). The public was asked to comment on the proposed network, and in the case of the online map indicate whether they "like" a given recommendation or have a "concern" by placing a point on the map. A large majority of comments on the online map were supportive of the proposed network or called for a network improvement that was already being proposed, indicating that the user may not have been clear about what was being shown on the map. Still other comments were general in nature (e.g., "make river path safer", "buffer bike lanes [on all roads]." Many requests for specific facilities were related to Caltrans roadways, which are subject to their separate project development process. Comments relating to potential changes to the proposed network include:

Shasta County

Wiki Map Comments

- Designate bike routes in Mountain Gate
- Preference for buffered bike lane on Deschutes Road due to high vehicle speeds.
- Add bike lane on Old 44 Drive from Swede Creek Road to Oak Run Road
- Buffered bike lane on Old Oregon Trail/Airport Road for the entire corridor
- Adding a bikeway facility on Crooked Oak Drive and Twin View Boulevard to connect north to bikeways in Shasta Lake area
- Add a bike lane or provide widened shoulder on Lower Springs Road from Swasey Drive to Eureka Way (SR-299)

- Change from bike route to bike lanes on Iron Mountain and Keswick Dam Road
- Add sidewalk/path on Old Alturas north of Boyle Road to connect homes to school bus stop.
- Add path from northern county boundary to Shasta Lake to form US Bicycle Route 87
- Change from bike route to bike lanes on Iron Mountain and Keswick Dam Road
- Keswick Dam Road needs to have pedestrian connections to the river trail.
- Route 151 should be connected to the Shasta Dam with bike lanes

Public Outreach Comments

- Lower Springs Road between Eureka Way and Swasey Road is very narrow and difficult for bicyclists and motorists to share.

City of Anderson

Wiki Map Comments

- Connect isolated bike boulevard on the southeast end of the City.

Public Outreach Comments

- Need wide bike lanes on Olinda Road and Ferry Street connecting to Anderson High School.

City of Shasta Lake

Wiki Map Comments

- Add sidewalks from Shasta Dam Boulevard to Vallecito Street to connect to Shasta Lake School.
- Add sidewalks along Laurel Street
- Add sidewalk and/or bike lanes on Grand Coulee Road

Public Outreach Comments

- Route 151 should be connected to the Shasta Dam with bike lanes (also under Shasta County since a major portion of 151 is under County control)

CALTRANS

The following comments pertain to Caltrans-owned facilities.

Shasta County

Wiki Map Comments

- Add side path in Shingletown parallel to SR-44
- Add bike lanes on SR 299 or a parallel path instead of existing shoulder

City of Shasta Lake

Wiki Map Comments

- Add sidewalks along Shasta Dam Boulevard

Public Outreach Comments

- Route 151 should be connected to the Shasta Dam with bike lanes

Other Comments

The following comments were received in October 2017.

	Comment
1	Designate Space for bikes in all areas of city (too much pavement) especially on Athens St.
2	Crosswalk, yielding needs to be a better enforcement.
3	Bike Registry for public: Required a hidden number for I.D of any stolen bikes.
4	Throughout Anderson river park needs improvement for the safety of bikes and pedestrian.
5	This person wants a trail added in Henderson Open Space.
6	A person wants good connectivity for bicyclist.
7	Requiring all roads in Redding for a bike box.
8	Considering a safe direct routes around new Turtle Bay Hotel.
9	From trail behind Hilltop stores (B/w Browning and Dana Drive) to south end of Palisades Trail.
10	He/she wants better parking for bikes in downtown Redding.
11	Situations happening at Buenvetura and Eureka Way. Safety concern for students who are riding or walking to U Prep , Shasta High School or any schools.
12	Consideration for buffered bike lanes for more streets that do not have any.
13	From Downtown Anderson to Anderson River Park (Dog park). Redding is too far?
14	Crossing major roads between neighborhoods like Mary Lake and Ridgeview.
15	For all roads/streets must have the respect and safety for pedestrians and bicyclist.
16	This person wants these specific requirements for the downtown corridor: buffered bike lanes, protected bike lanes and sharrows.
17	Gaps in sidewalks. Fix and connect sidewalks for pedestrians.
18	A safety and connectivity with bus routes at ends of trails
19	A rail loop around City of Redding
20	Rectangular Rapid Flash Beacons
21	ADA- Compliant Sidewalks
22	Modern Islands
23	River Trail Safety for bikes and pedestrians
24	Wants protected Intersection
25	Wrong way bike sign would be great on Placer street
26	Bicycle safety in schools
27	Bike park in Redding by engaging different generations.
28	Downtown pedestrian priority area to promote safety and use. Improving lifestyle.
29	Sacramento River trail in Anderson has not been open since the storm ended.
30	Redding Downtown neighborhoods need to enliven downtown and offer connectivity
31	Priority shared lanes for busy lanes and for the safety of bicyclists.
32	Class 1 bikeway parallel 273 S to Clear Creek Greenway for Placer west to Swasey.
33	On Riverside Center to Court St. because of cars being too close.
34	Placer alongside of Court St to Airpark Drive needs access to shopping and business.
35	Eureka Way needs access to shopping and businesses.
36	On Victor St., where a roundabout is located at, a person suggested to add sidewalks for pedestrians and cyclists, so it could be used by cars, bicyclists, and pedestrians.
37	Enterprise needs excellent connectivity for bikes.
38	Separating bike and walk lanes.

	Comment
39	Trails need more separated paths.
40	Recreational Trails on outskirts of city
41	Transit past 6:30 p.m. Transit needs more hours because this person has night classes at a college, and this person wants smaller buses.
42	Requiring to connect all trails in community.
43	Connective bike trails to business district and neighborhoods.
44	(City) decided long distance commutes.
45	Churn Creek to 273 needs improvement for safety
46	Cypress needs to extend longer especially when the traffic is on Bechelli Lane intersection, and the one coming from the freeway.
47	All schools should have protected bikeways and pedestrians for kids/teenagers.
48	Better bike/walking facilities. It's better for health and mental fitness.
49	Improve driver behavior. Better Signage (more intuitive).
50	This person wants better transportation projects downtown, so it can be a safer environment to walk, ride a bike, or drive a car.
51	There is not enough intersection to cross.
52	This person wants more trees because it keeps our environment clean and fresh.
53	Anderson to Redding needs more connectivity
54	Connect river trails to more bike paths.
55	Route 273 is hard to cross, and it's hard to reach the button.
56	Old Alturas to north alongside of Boyle need something to get kids to and from school on the bus stop safer.
57	Develop Bike group for people with disabilities.
58	Better bike detection at signals.
59	Maintenance schedule for bikeways. Dedicated resources? If not, need them.
60	Encourage cyclists to use bells to indicate the need to pass pedestrians
61	Some elderly can be hard of hearing, and they need more advanced notice from passing cyclists.
62	Illegal camping in the city of Redding, so homeless population needs access to outlying areas.
63	Discuss social equity with homeless people
64	Bike repair/ Maintenance class
65	More security on trails for safety.
66	Transit stop bike lane bypass
67	Rhonda Rd needs a bike lane or pigment treated shoulder from Gas Point Rd to pleasant hills drive.
68	Separation between motor vehicles and bikes is very important
69	Protected intersection
70	Trail connections- Trunk Line to S.L.C from C.O.R.
71	Would love to see walking/biking lanes with wall buffer. This would encourage more parents to walk with their children.
72	Good Infrastructure, but not safe to walk and bike.
73	Street Light safety and cameras
74	Drivers yelling at my wife and I just for riding in the bike lane

	Comment
75	Signs say "Bike Route" going out of town (Shasta Lake). Do not believe it!
76	Walking connections to open space and public land
77	Choice to be biker and pedestrian as lifestyle.

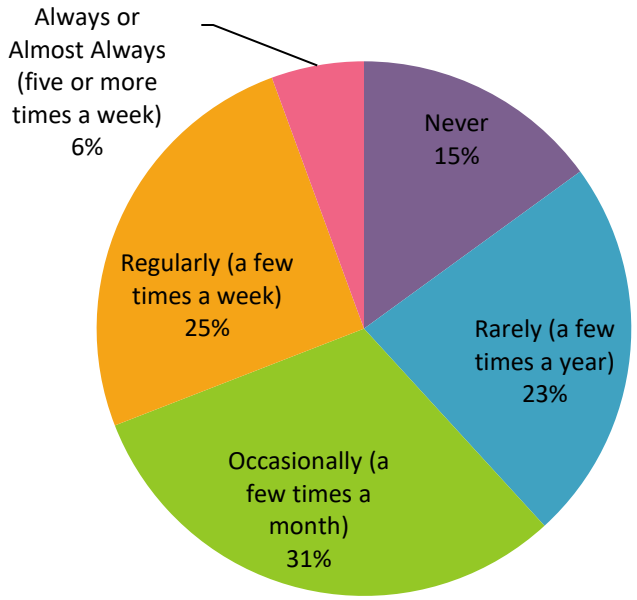
Appendix A.1. Results from the Online Survey

The online survey was open from January 10 to February 28, 2017. The following is an overview of the results.

Response Statistics

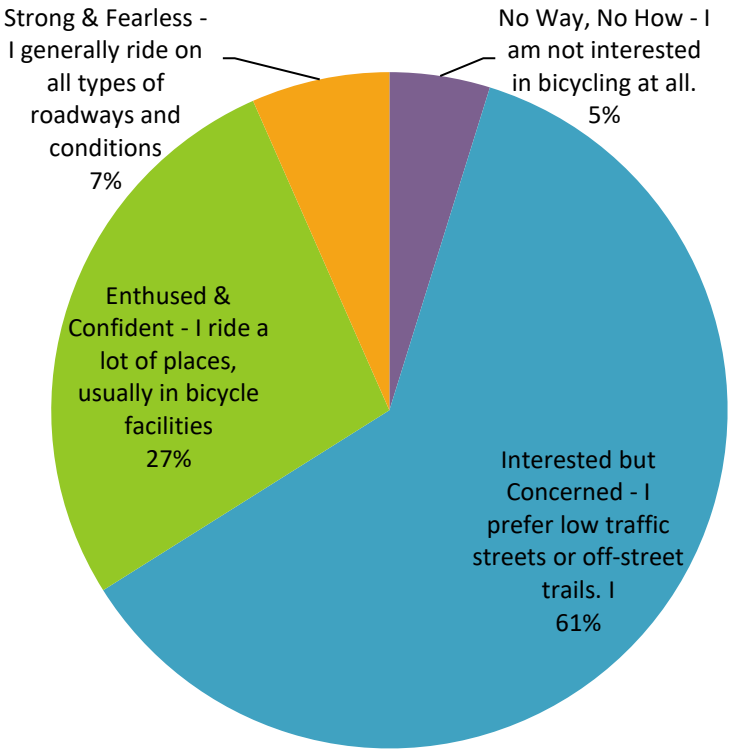
	Count	Percent
Complete	212	75.7
Partial	68	24.3
Disqualified	0	0
Total	280	

In general, how often do you bicycle to get where you need to go, or for exercise?



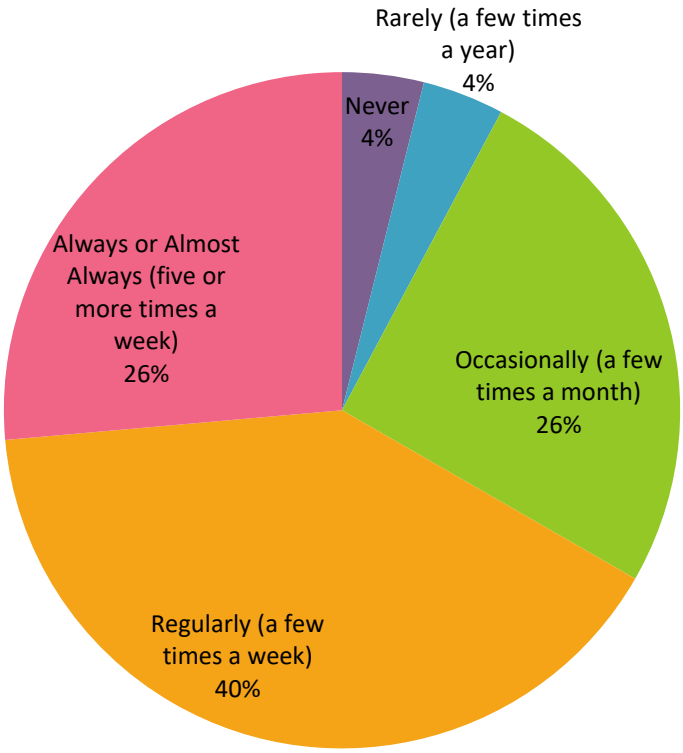
Value	Percent	Count
Never	15.0%	35
Rarely (a few times a year)	23.2%	54
Occasionally (a few times a month)	30.9%	72
Regularly (a few times a week)	25.3%	59
Always or Almost Always (five or more times a week)	5.6%	13
Total		233

Please tell us how comfortable you feel cycling on the existing cycling network in the Shasta Region. Please select ONE.



Value	Percent	Count
No Way, No How - I am not interested in bicycling at all.	4.8%	11
Interested but Concerned - I prefer low traffic streets or off-street trails. I might ride more if there were more or better bicycle facilities.	61.2%	139
Enthused & Confident - I ride a lot of places, usually in bicycle facilities, but I am comfortable on some roadways without bicycle facilities. I still generally avoid roads that feel dangerous for bicycling.	27.3%	62
Strong & Fearless - I generally ride on all types of roadways and conditions.	6.6%	15
Total		227

If bicycling felt safer and more pleasant, how often would you want to bicycle?



Value	Percent	Count
Never	3.9%	9
Rarely (a few times a year)	3.9%	9
Occasionally (a few times a month)	25.5%	59
Regularly (a few times a week)	40.3%	93
Always or Almost Always (five or more times a week)	26.4%	61
Total		231

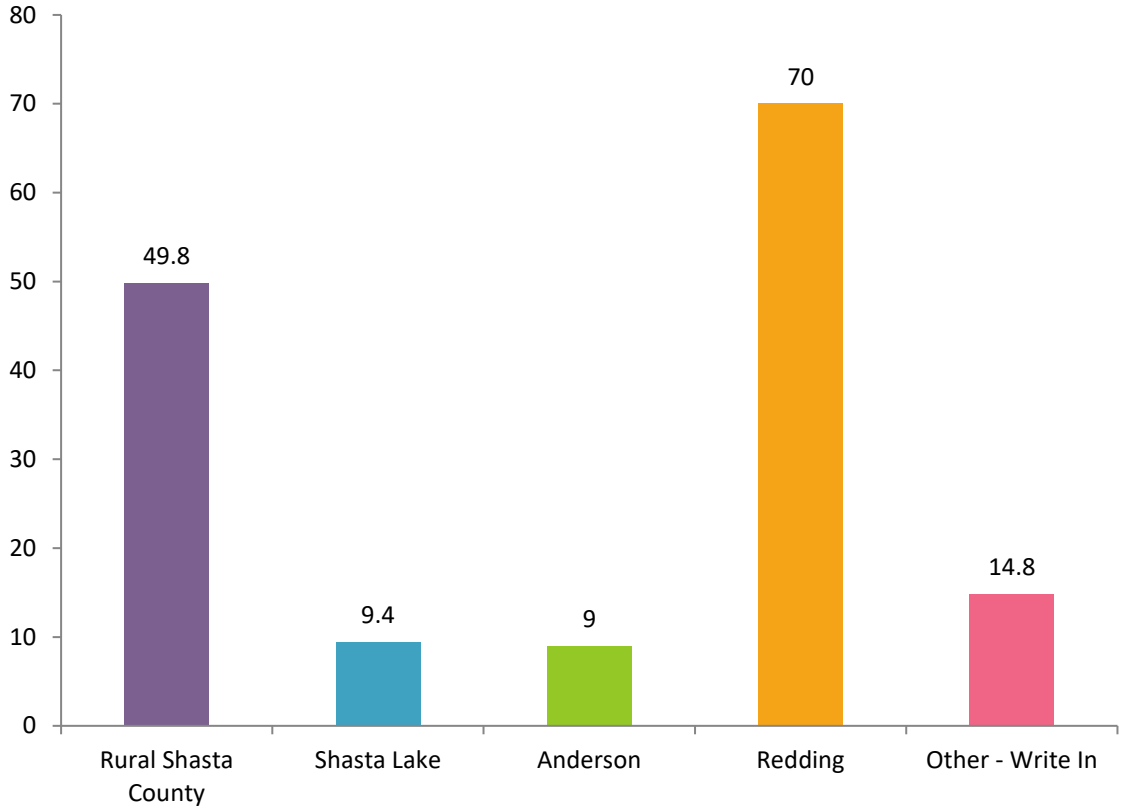
Following is a list of common reasons why people do not bicycle. How important are each of these to your decision to bicycle to get somewhere, like to a job or to run errands?

	This is not a reason why I don't bike (or this situation does not apply)	Sometimes I do not bike for this reason	This is a big reason why I don't bike	Don't know
	Count	Count	Count	Count
The area feels unsafe due to crime.	112	60	50	3
There are not many destinations (grocery stores, jobs, shops, schools, parks, bus stops) near my home.	120	52	50	1
I don't own a bicycle.	204	3	13	2
I cannot safely carry packages, children, etc.	93	95	36	1
I don't enjoy riding a bicycle or it is difficult for me.	194	14	11	2
There is no place to safely lock my bicycle.	92	79	47	3
In winter, bicycling feels unsafe due to snow and ice.	114	57	50	1
I don't know anyone else who rides a bicycle.	198	11	10	3
I'm physically unable to ride a bicycle.	204	10	7	1
I don't want to arrive at my destination sweaty or wet.	81	108	33	1
There are too many hills on streets I would take.	148	65	10	2
Destinations are too far to ride a bicycle and bus service is nonexistent or inconvenient.	92	77	50	4

Following is a list of common traffic-related reasons that discourage people from bicycling. How important are each of these to your decision to ride a bicycle in the Shasta Region?

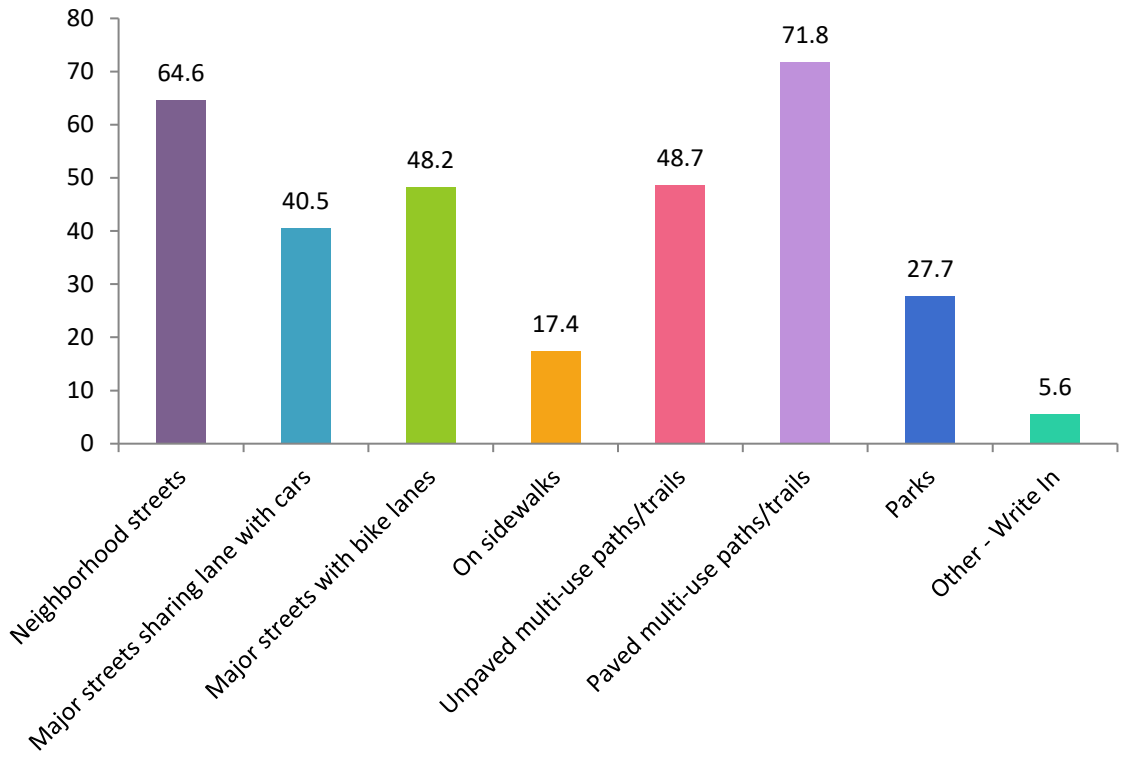
	This is not a reason why I don't bike (or this situation does not apply)	Sometimes I do not bike for this reason	This is a big reason why I don't bike	I don't know
	Count	Count	Count	Count
Motor vehicle drivers go too fast.	63	80	80	1
Motor vehicle drivers are inconsiderate or inattentive.	42	85	96	2
The existing bicycle facilities do not go where I need them to go.	71	82	63	8
The existing bicycle facilities do not feel safe.	74	80	63	8
The existing bicycle facilities are not maintained properly.	112	72	27	12

Where do you ride your bike most of the time? (If you don't ride, where do you spend most of your time?) You may check multiple options.



Value	Percent	Count
Rural Shasta County	49.8%	111
Shasta Lake	9.4%	21
Anderson	9.0%	20
Redding	70.0%	156
Other - Write In	14.8%	33

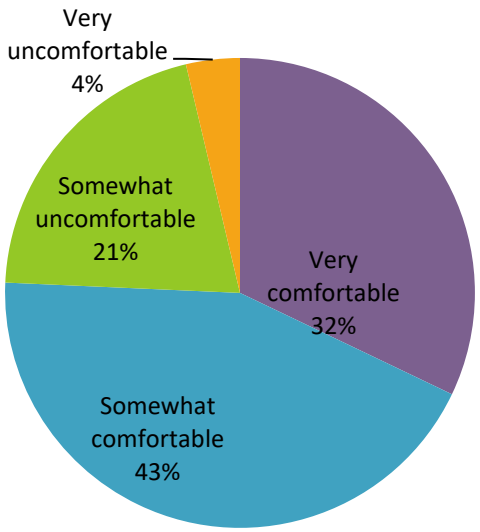
What type of facility do you usually ride on? (Choose any that apply).



Value	Percent	Count
Neighborhood streets	64.6%	126
Major streets sharing lane with cars	40.5%	79
Major streets with bike lanes	48.2%	94
On sidewalks	17.4%	34
Unpaved multi-use paths/trails	48.7%	95
Paved multi-use paths/trails	71.8%	140
Parks	27.7%	54
Other - Write In	5.6%	11

Bike Lane: How comfortable would you feel biking here?

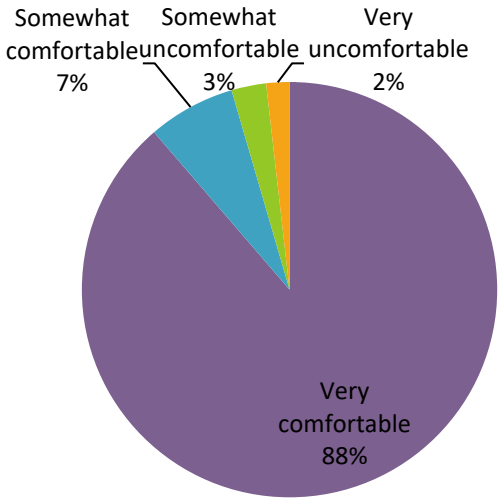




Value	Percent	Count
Very comfortable	32.1%	70
Somewhat comfortable	43.6%	95
Somewhat uncomfortable	20.6%	45
Very uncomfortable	3.7%	8
Total		218

Multi-Use Trail with Separated Walking Area:
How comfortable would you feel biking here?

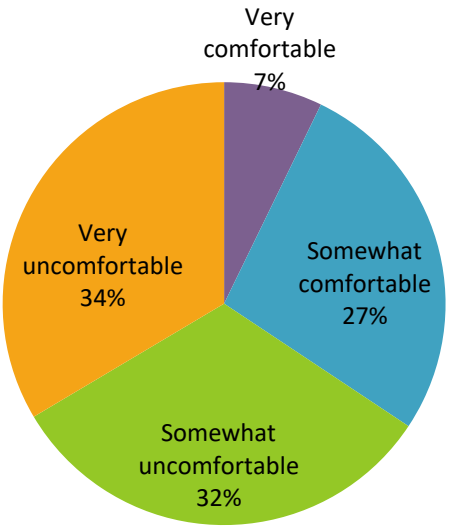




Value	Percent	Count
Very comfortable	88.6%	195
Somewhat comfortable	6.8%	15
Somewhat uncomfortable	2.7%	6
Very uncomfortable	1.8%	4
Total		220

Sharing a Lane with Motor Vehicles: How comfortable would you feel biking here?

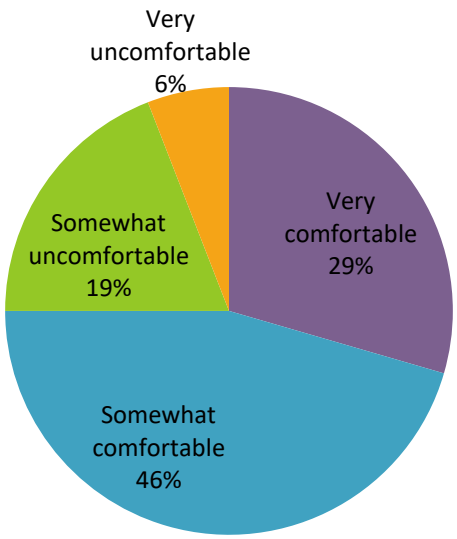




Value	Percent	Count
Very comfortable	7.2%	16
Somewhat comfortable	27.1%	60
Somewhat uncomfortable	32.1%	71
Very uncomfortable	33.5%	74
Total		221

Bike Lane with Painted Buffer Next to Vehicle Lane:
How comfortable would you feel biking here?

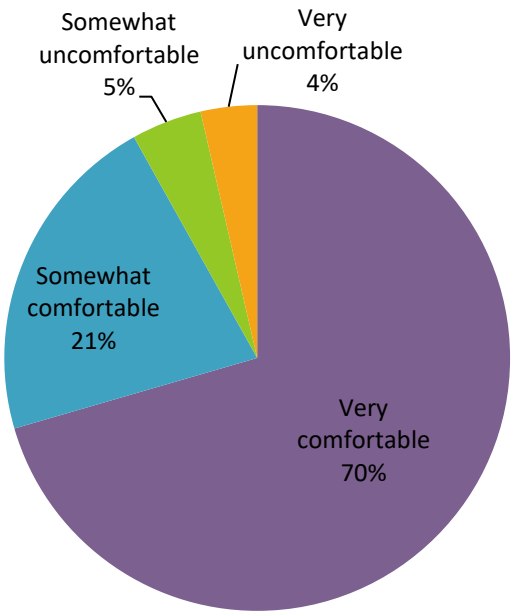




Value	Percent	Count
Very comfortable	29.5%	65
Somewhat comfortable	45.5%	100
Somewhat uncomfortable	19.1%	42
Very uncomfortable	5.9%	13
Total		220

Bike Lane with Painted Buffer and Vertical Objects:
How comfortable would you feel biking here?

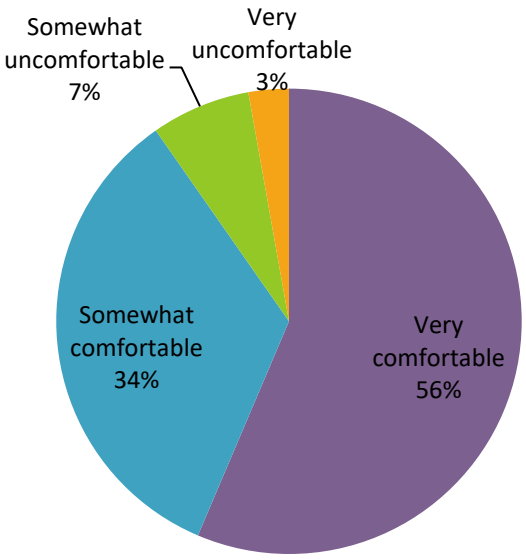




Value	Percent	Count
Very comfortable	70.5%	155
Somewhat comfortable	21.4%	47
Somewhat uncomfortable	4.5%	10
Very uncomfortable	3.6%	8
Total		220

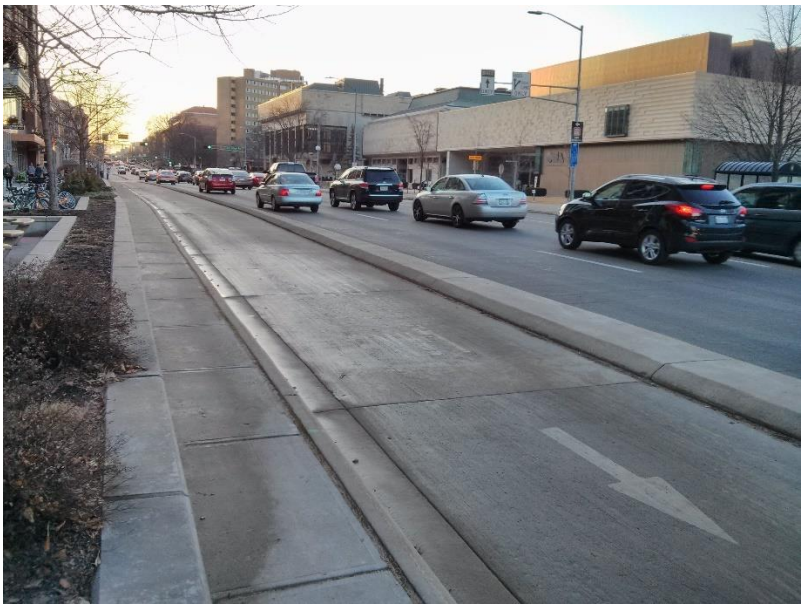
Neighborhood Street with Low Traffic Volume and Slower Speeds: How comfortable would you feel biking here?

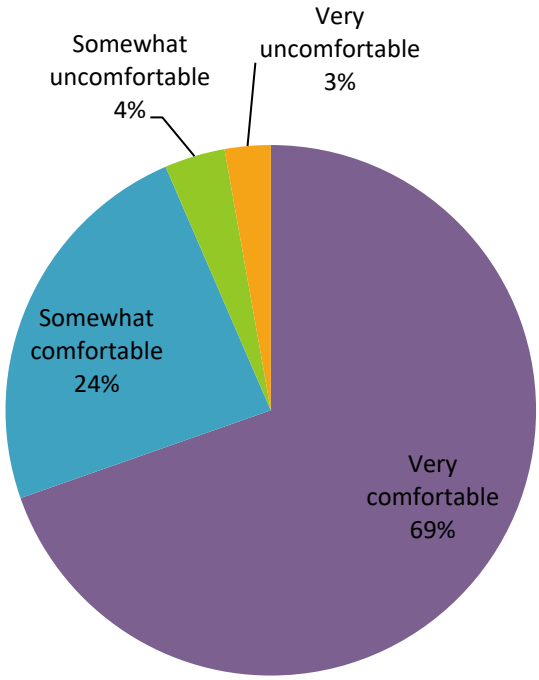




Value	Percent	Count
Very comfortable	56.4%	123
Somewhat comfortable	33.9%	74
Somewhat uncomfortable	6.9%	15
Very uncomfortable	2.8%	6
Total		218

Bike Lane with Curb Barrier Next to Vehicle Lane:
How comfortable would you feel biking here?

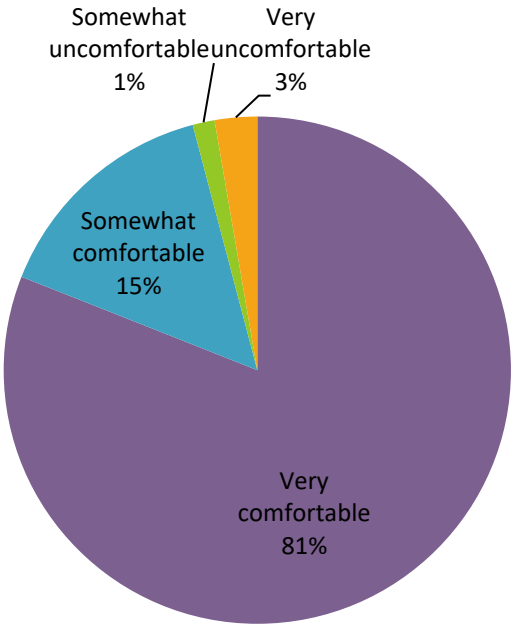




Value	Percent	Count
Very comfortable	69.7%	152
Somewhat comfortable	23.9%	52
Somewhat uncomfortable	3.7%	8
Very uncomfortable	2.8%	6
Total		218

Multi-Use Trail: How comfortable would you feel biking here?

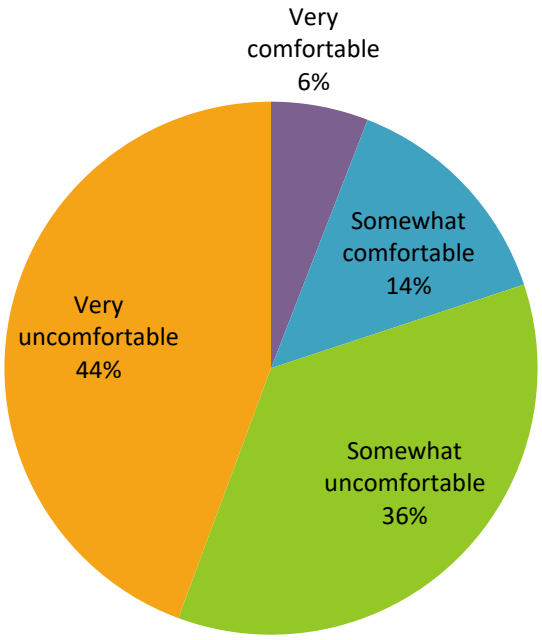




Value	Percent	Count
Very comfortable	81.0%	179
Somewhat comfortable	14.9%	33
Somewhat uncomfortable	1.4%	3
Very uncomfortable	2.7%	6
Total		221

Rural Road, Little or No Shoulder: How comfortable would you feel biking here?

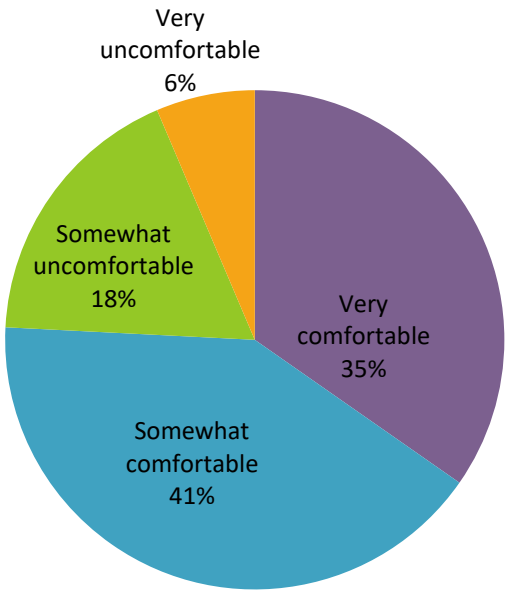




Value	Percent	Count
Very comfortable	5.9%	13
Somewhat comfortable	14.0%	31
Somewhat uncomfortable	35.7%	79
Very uncomfortable	44.3%	98
Total		221

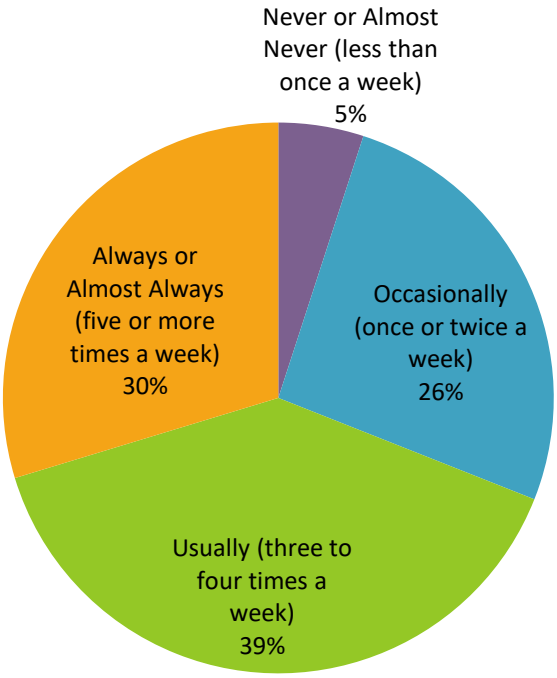
Rural Road with Wide Shoulder: How comfortable would you feel biking here?





Value	Percent	Count
Very comfortable	34.7%	76
Somewhat comfortable	41.1%	90
Somewhat uncomfortable	17.8%	39
Very uncomfortable	6.4%	14
Total		219

If walking felt safer and more pleasant, how often would you want to walk?



Value	Percent	Count
Never or Almost Never (less than once a week)	5.0%	11
Occasionally (once or twice a week)	26.0%	57
Usually (three to four times a week)	39.3%	86
Always or Almost Always (five or more times a week)	29.7%	65
Total		219

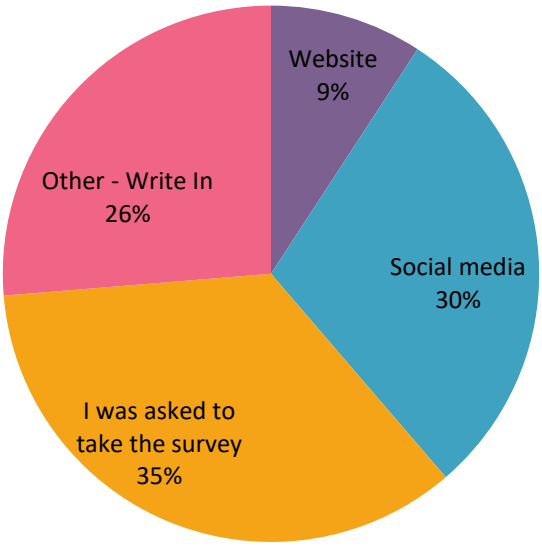
Following is a list of common reasons that discourage people from walking. How important are each of these to your decision to walk?

	This is not a reason why I don't walk (or this situation does not apply)	Sometimes I do not walk for this reason	This is a big reason why I don't walk	I don't know
	Count	Count	Count	Count
The area feels unsafe due to crime.	83	74	57	0
There are not many destinations (grocery stores, jobs, shops, schools, parks, bus stops) near my home.	82	74	58	0
I don't have anyone to walk with me.	153	46	14	0
I don't enjoy walking or it is difficult for me.	194	15	3	0
In winter, the sidewalks feel unsafe due to snow and ice.	159	34	20	0
I'm physically unable to walk.	198	10	3	1
In summer, walking is too hot because there is not enough shade.	54	93	68	0
I don't want to arrive at my destination sweaty or wet.	114	78	19	0
Destinations are too far to walk and bus service is nonexistent or inconvenient.	64	71	75	1

Following is a list of common traffic-related reasons that discourage people from walking. How important are each of these to your decision to walk?

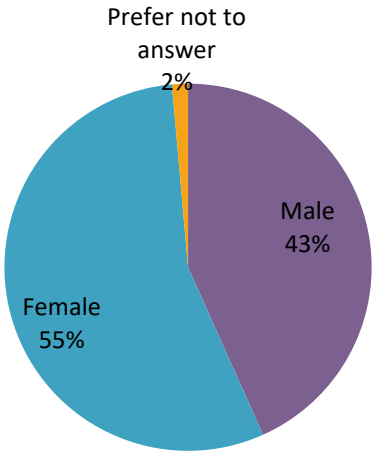
	This is not a reason why I don't walk (or this situation does not apply)	Sometimes I do not walk for this reason	This is a big reason why I don't walk	I don't know
	Count	Count	Count	Count
The sidewalks are too close to the road.	155	44	13	1
Cars are going too fast.	106	70	36	1
Not enough places to cross the street safely.	108	72	32	0
I have to wait too long to cross the street.	154	39	19	1
Crossing the street feels too dangerous.	119	72	21	0
The existing sidewalks are not maintained properly.	134	52	25	2
There are no sidewalks where I want to walk.	92	62	60	0

How did you find out about this survey?



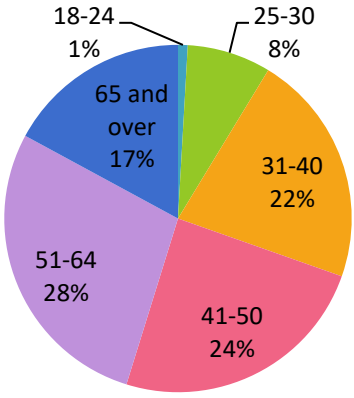
Value	Percent	Count
Website	9.2%	20
Social media	29.5%	64
I was asked to take the survey	35.0%	76
Other - Write In	26.3%	57
Total		217

Your gender?

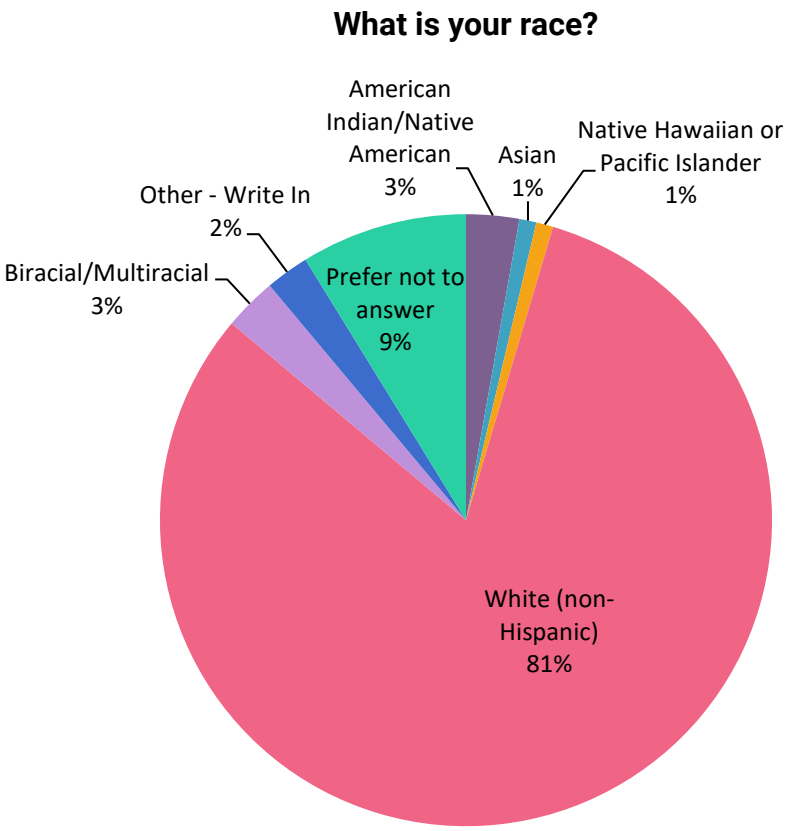


Value	Percent	Count
Male	43.3%	94
Female	55.3%	120
Prefer not to answer	1.4%	3
Total		217

Your age?

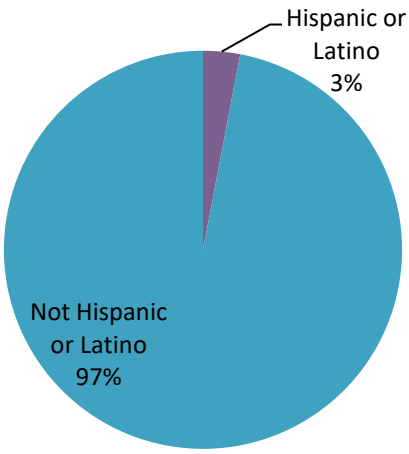


Value	Percent	Count
18-24	0.9%	2
25-30	7.8%	17
31-40	21.7%	47
41-50	24.4%	53
51-64	28.1%	61
65 and over	17.1%	37
Total		217

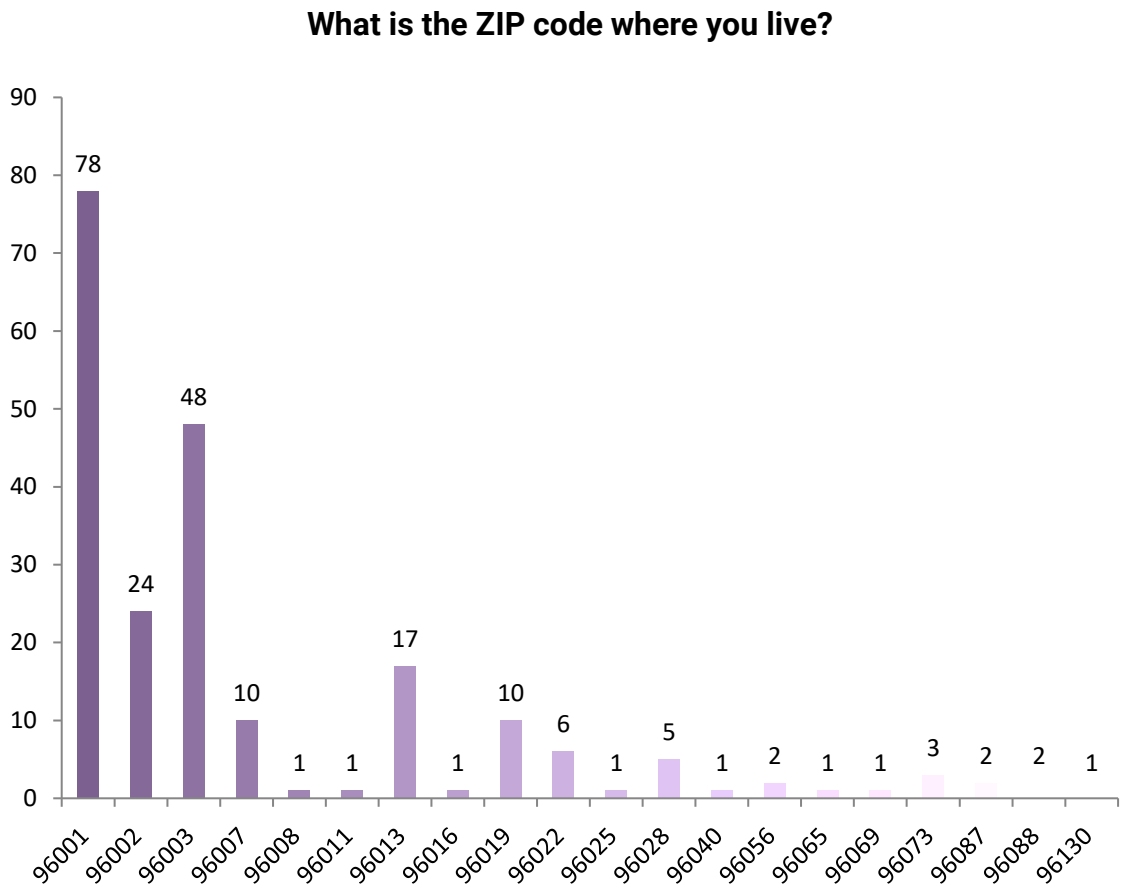


Value	Percent	Count
American Indian/Native American	2.8%	6
Asian	0.9%	2
Native Hawaiian or Pacific Islander	0.9%	2
White (non-Hispanic)	81.6%	177
Biracial/Multiracial	2.8%	6
Other - Write In	2.3%	5
Prefer not to answer	8.8%	19
Total		217

What is your ethnicity?

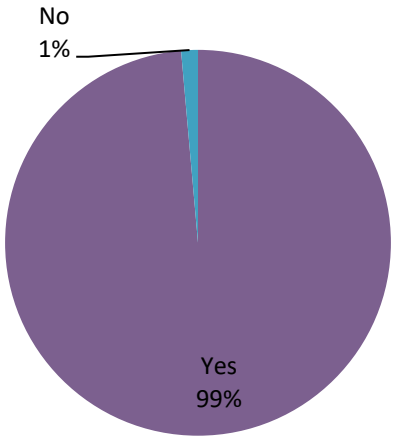


Value	Percent	Count
Hispanic or Latino	3.0%	6
Not Hispanic or Latino	97.0%	194
Total		200



Count	Response
78	96001
24	96002
48	96003
10	96007
1	96008
1	96011
17	96013
1	96016
10	96019
6	96022
1	96025
5	96028
1	96040
2	96056
1	96065
1	96069
3	96073
2	96087
2	96088
1	96130

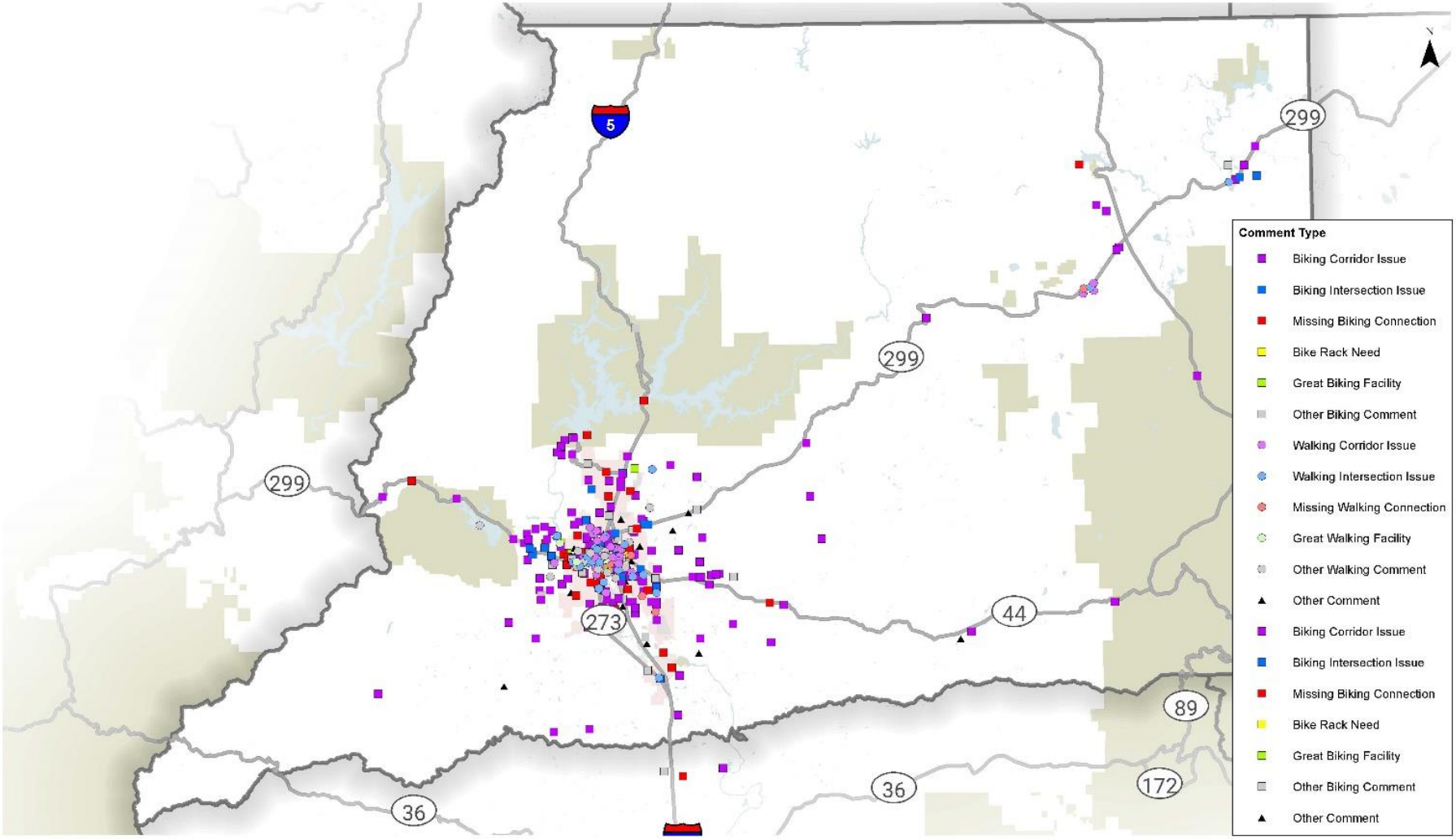
Do you own a car?



Value	Percent	Count
Yes	98.6%	214
No	1.4%	3
Total		217

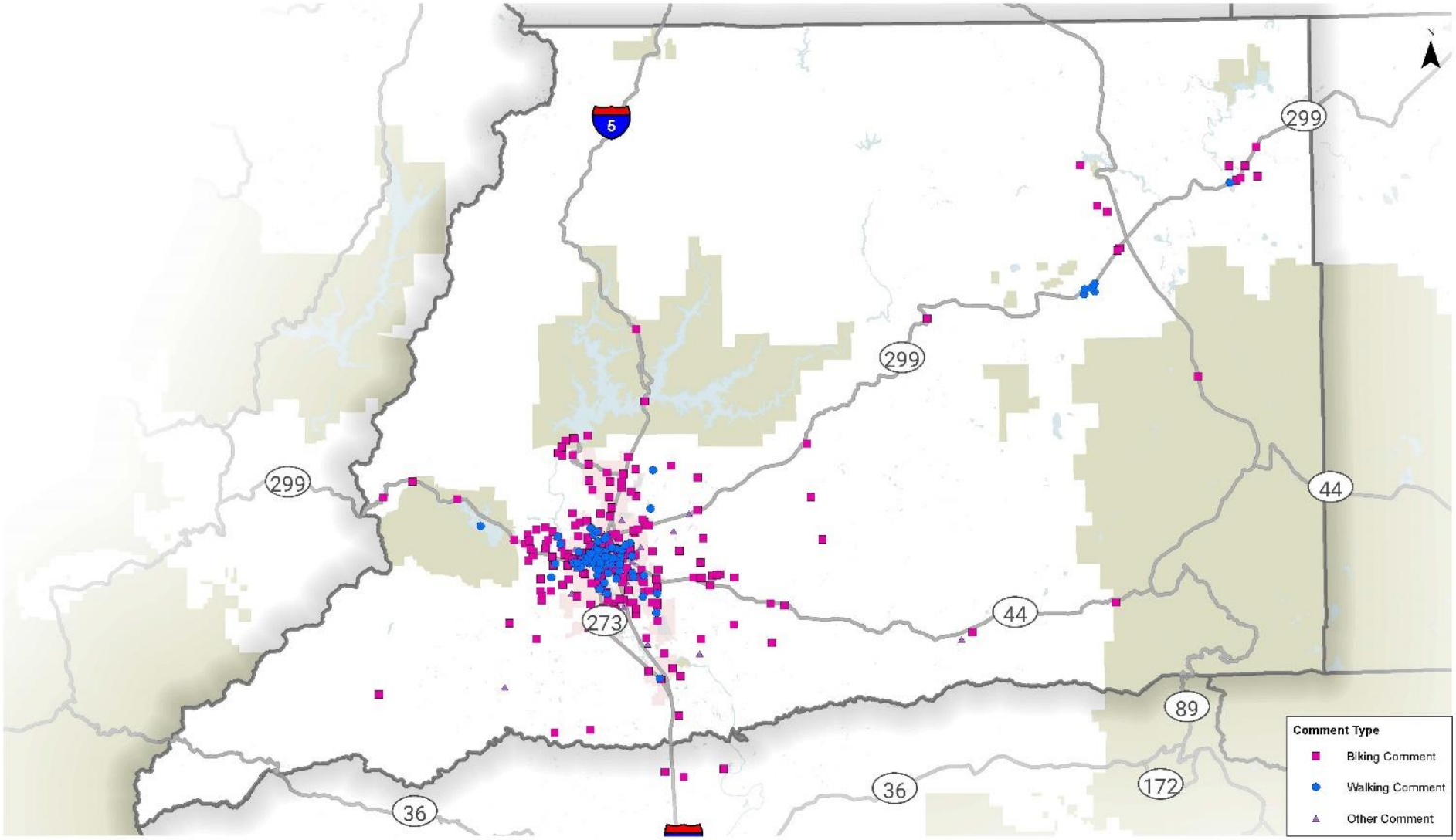
Appendix A.2. WikiMap Comment Locations

The following maps are the outputs from the Shasta County Wiki Mapping exercise used to collect public input on bicycle and pedestrian issues and opportunities. Downtown Redding maps can be viewed in the City of Redding Phase I Community Outreach Summary.



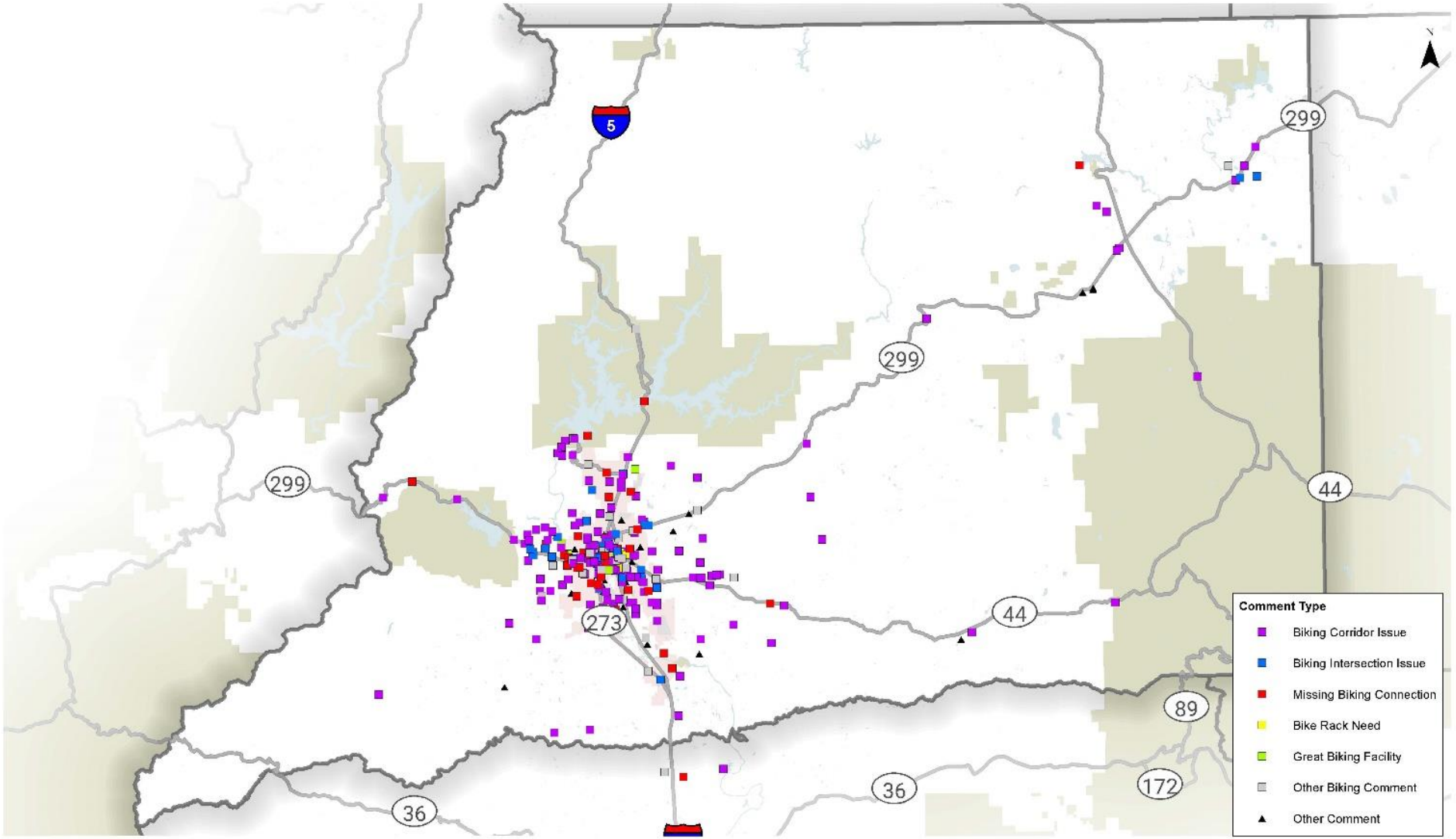
All Regional Outreach Comments

Shasta Region



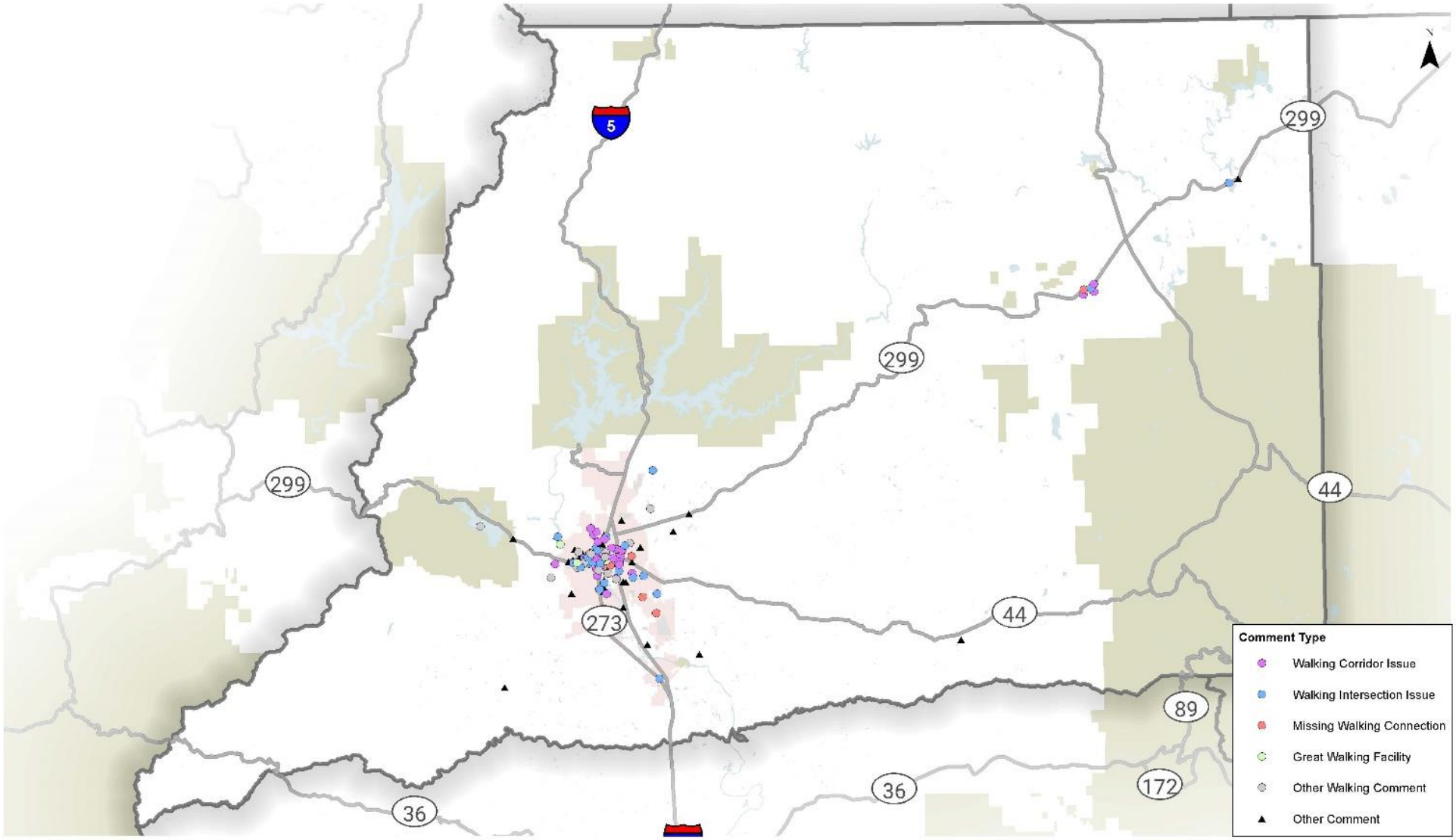
Regional Outreach Comments by Mode

Shasta Region



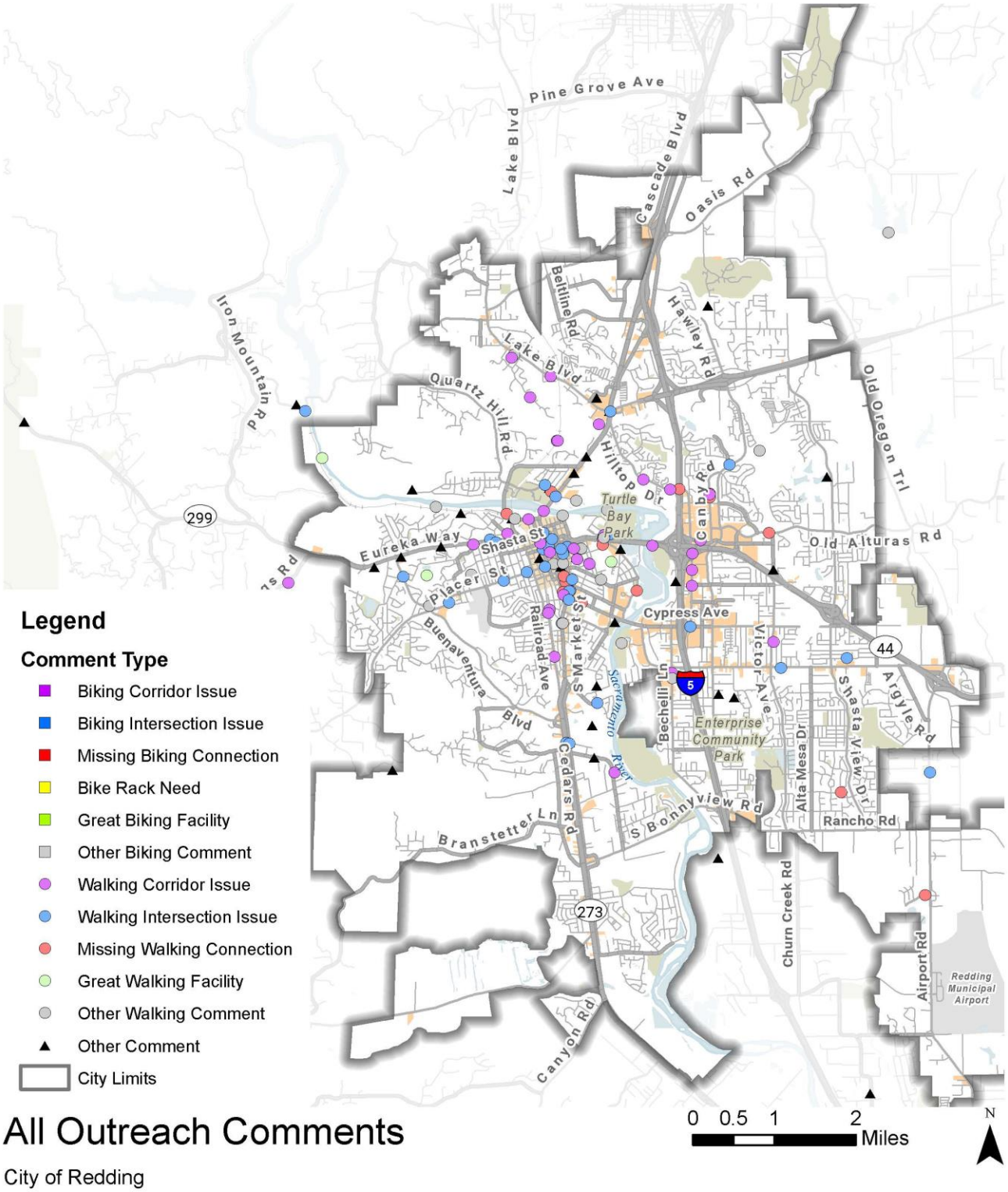
Biking-Related Regional Outreach Comments

Shasta Region



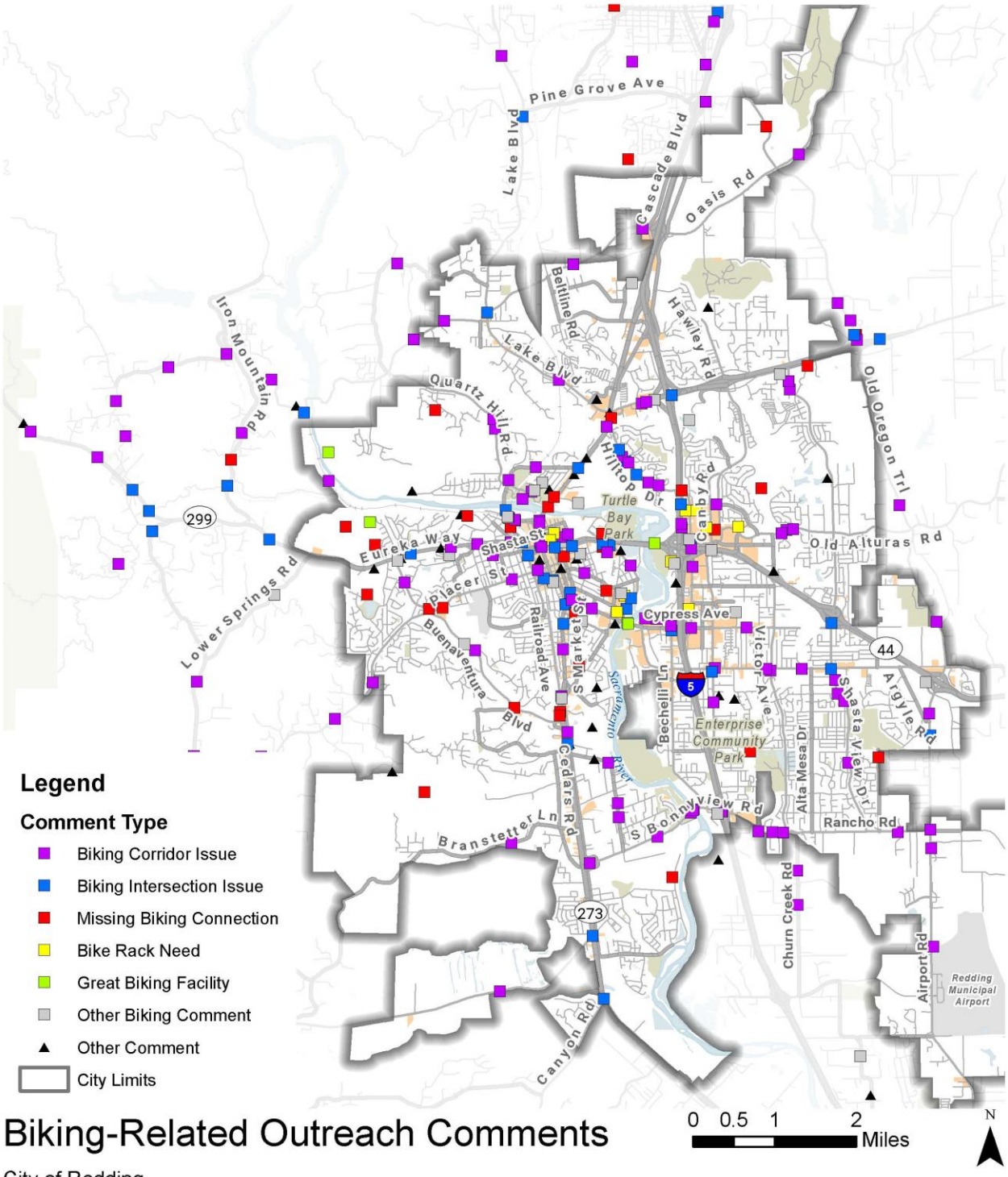
Walking-Related Regional Outreach Comments

Shasta Region



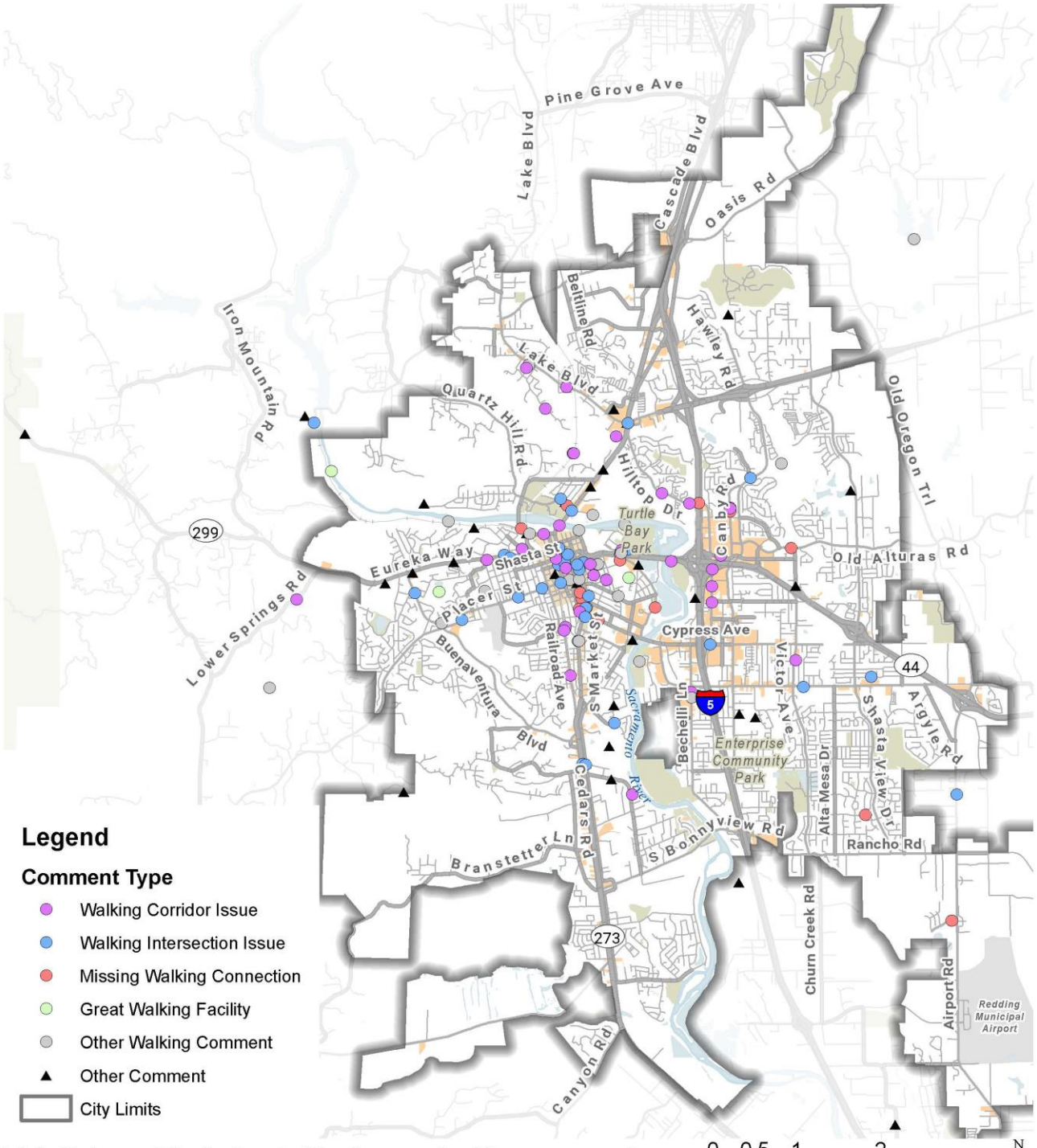
All Outreach Comments

City of Redding



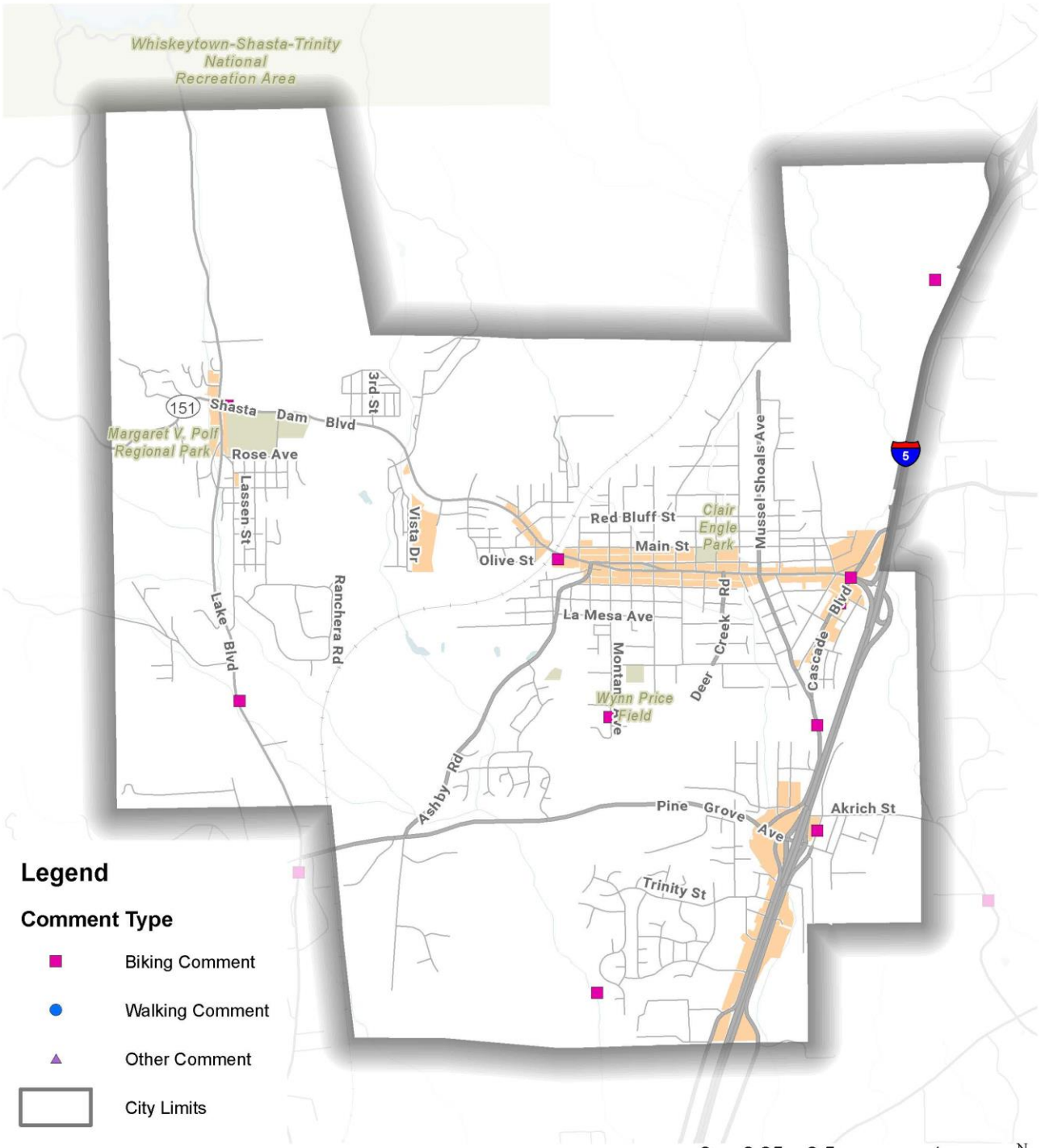
Biking-Related Outreach Comments

City of Redding



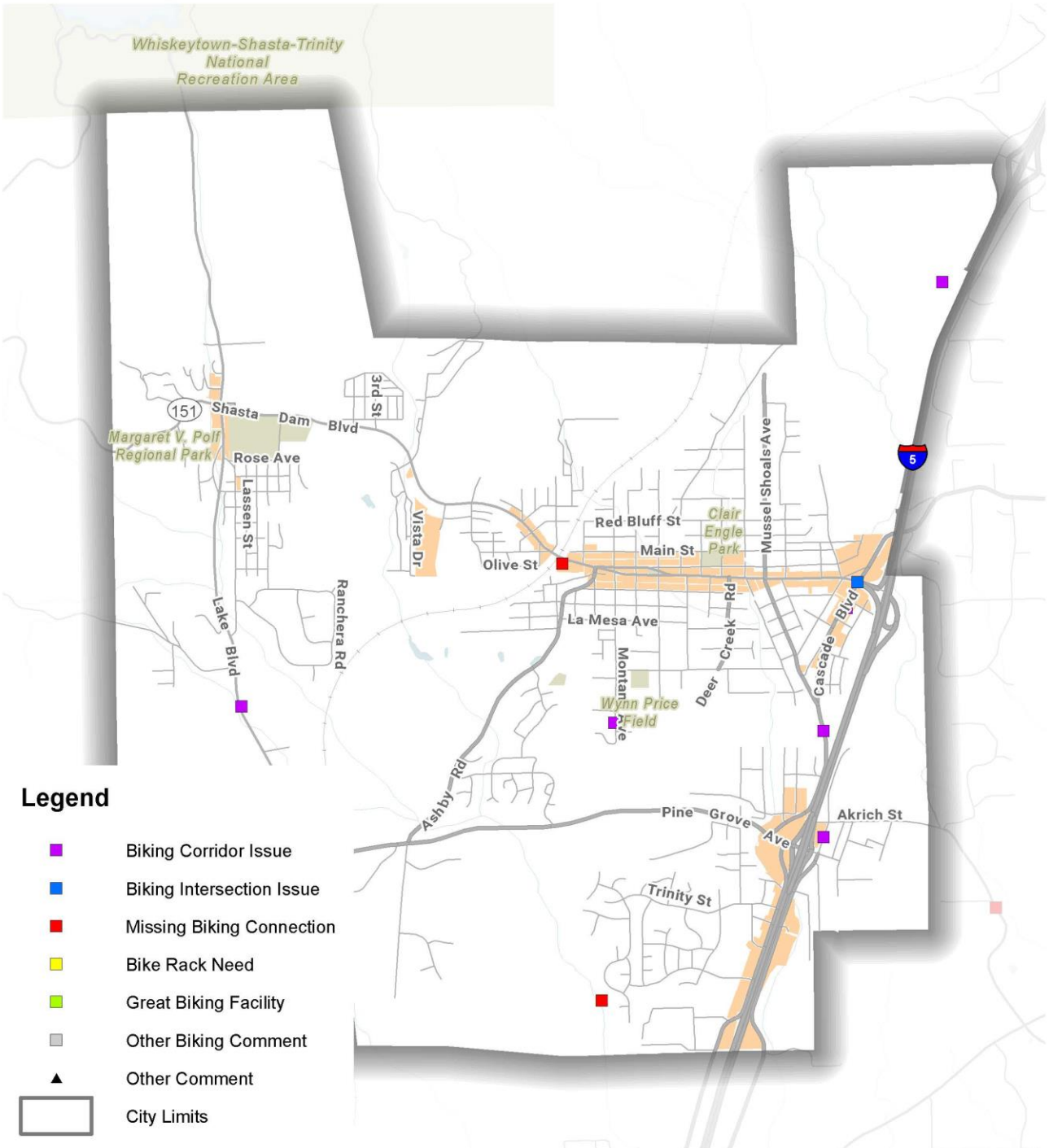
Walking-Related Outreach Comments

City of Redding



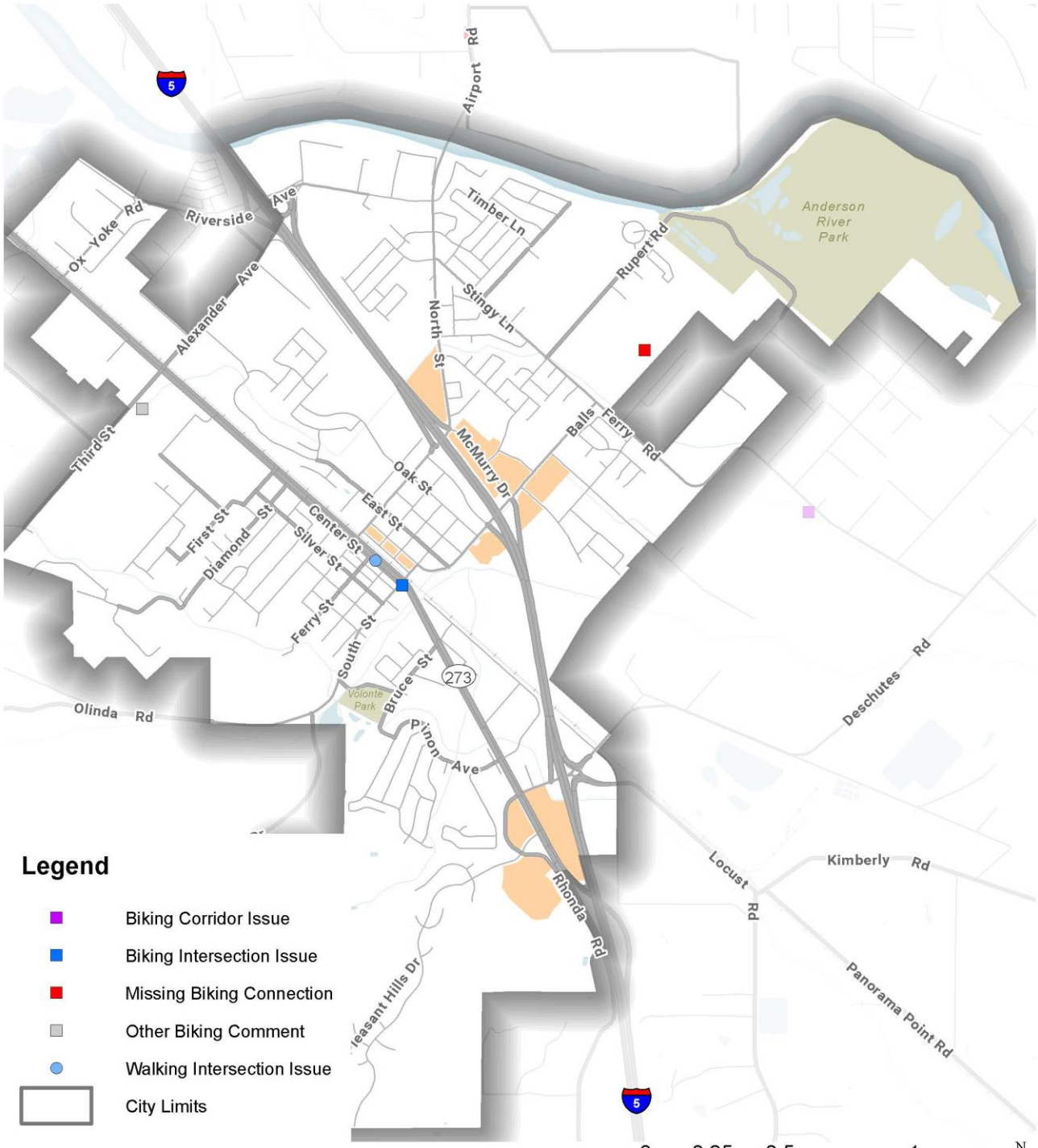
Outreach Comments by Mode

City of Shasta Lake



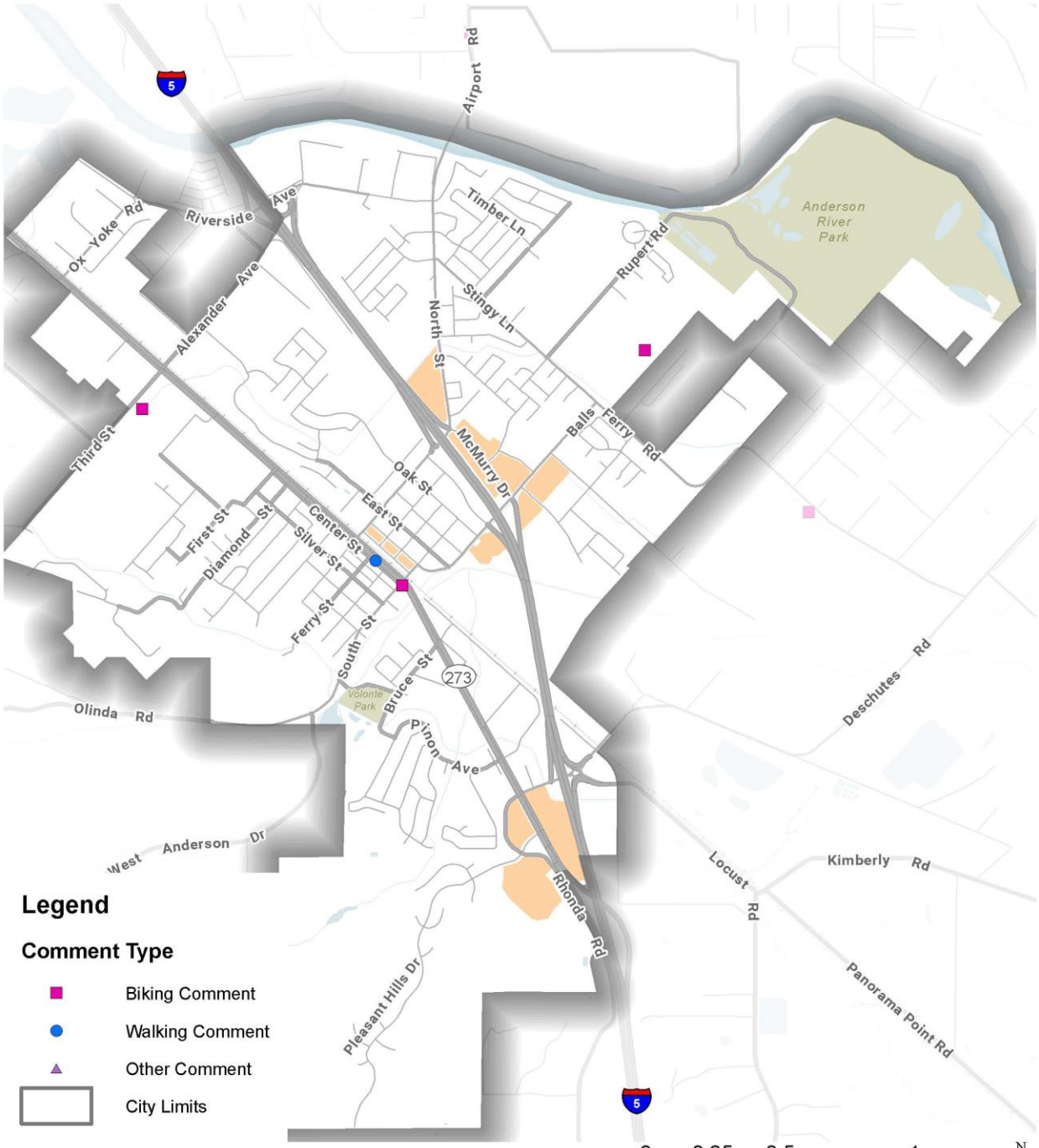
Biking-Related Outreach Comments

City of Shasta Lake



All Outreach Comments

City of Anderson



Outreach Comments by Mode

City of Anderson

Appendix B. Existing Conditions

This Appendix includes the technical background documentation, including:

- Existing Conditions
- Plans and Policies Review
- Level of Traffic Stress Methodology
- Level of Traffic Stress Analysis

Existing Conditions

The following overview documents the regional context and baseline conditions for the GoShasta planning process. At the end of each section are key assumptions at the onset of the plan – including known challenges and opportunities that the GoShasta planning process might address.

Characteristics of the Region and the City of Redding

Natural Setting (as it Relates to Active Transportation)

Climate

The Shasta Region has a wide variety of climatic conditions that vary by season and elevation. The region's climate can be roughly divided into the Sacramento Valley, foothills, and surrounding mountainous areas.

Weather in the Sacramento Valley is well suited to walking and bicycling for much of the year. The greatest obstacles are periods of extreme heat in the summer months and periods of heavy rain from December to March. At higher elevations, cold temperatures and periods of snow and icy conditions can be prohibitive to walking and bicycling in the winter months.

Short winter days also impact the safety and the general appeal of walking and bicycling. On the shortest days, the sun rises as late as 7:43am and sets as early as 4:42pm. Reduced light combined with inclement weather affect work-related trips and other early morning/late afternoon travel.

Topography and Natural Features

The topography of the region is also diverse, ranging from just over 400 feet above sea level on the valley floor to Lassen Peak at 10,462 feet. The relatively flat Sacramento River floodplain quickly transitions to rolling foothills and then to mountain to the west, north, and east. The region's population and transportation infrastructure are largely located in the flatlands and surrounding foothills – what is commonly referred to as the South-Central Urbanized Region for planning purposes.

The region features many waterways, most of which feed into to the Sacramento River shed. Together, the region's topography and waterways serve to define and connect neighborhoods. For example, the Lake Redding and Kutras/Garden Tract neighborhoods are hemmed in by the Sacramento River and steep terrain, but are also linked to upstream and downstream neighborhoods by way of the Sacramento River Trail (see Figure B.1.).

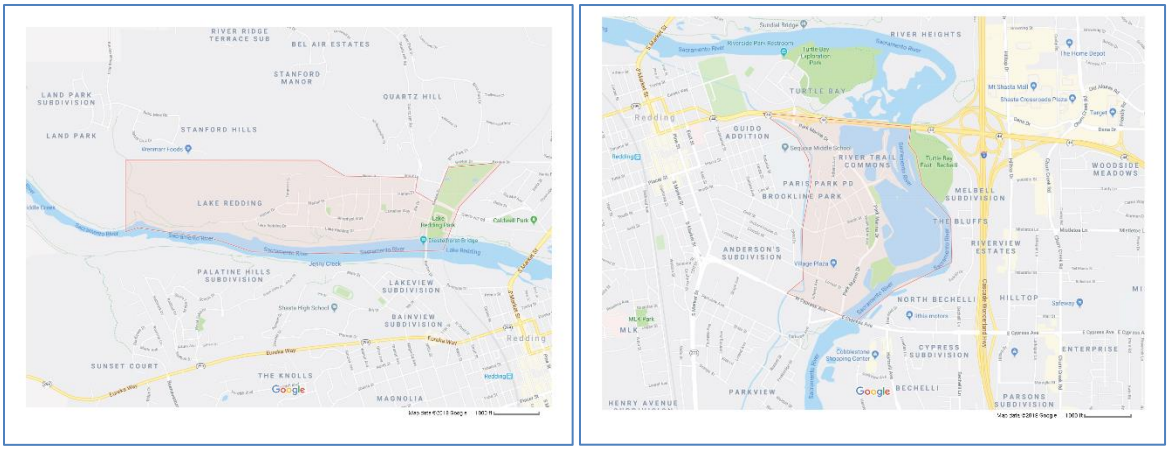


Figure B.1. Lake Redding and Kutras/Garden Tract Neighborhoods

River crossings are limited to a number of bridges designed to safely accommodate pedestrians and cyclists. The Diestelhorst, Sundial, SR 299, and Cypress Avenue bridges located in the City of Redding and the Airport Road Bridge located at the City of Anderson's northern border are examples of newer bridges that were purpose-built to enable safe and pleasant passage for pedestrians and cyclists. Many older bridges, particularly those on rural roads, have inadequate sidewalks and bike lanes.

Assumptions, Challenges, and Opportunities

Although the region's natural setting and environmental conditions are largely fixed, the GoShasta ATP should seek to take advantage of those factors that are well-suited to active transportation and mitigate for factors that represent barriers to active transportation. For example:

Climate related challenges

GoShasta should consider infrastructure, programs, and policies that enhance the safety and comfort of pedestrians and bicyclists exposed to extreme weather. Strategies may include urban tree shade cover, bicycle parking sheltered from the elements, snow removal from bike lanes, off-season programs (such as Boulder Colorado's Winter Walk and Bike Week), and strategies to increase the visibility of pedestrians and cyclists in inclement weather and low-light conditions.

Waterways

Natural corridors created by waterways can be capitalized upon to create active transportation corridors, as they allow for travel that is uninterrupted by vehicular, follows the topography of least resistance, and generally pointed toward population centers. The region should continue building upon existing corridors, such as the Sacramento River Trail, develop new corridors such as the Churn Creek corridor, and connect river trails to the roadway network.

The public's support and appetite for such projects is well-documented in the ShastaFORWARD>> Regional Blueprint and such projects have proven to be very popular in practice.



Figure B.2. Victor Avenue Bridge over Churn Creek

Where waterways need to be crossed, bridges should be designed to safely accommodate all modes of travel. Many bridges in the region were not originally designed to accommodate active transportation, such as the Victor Avenue Bridge over Churn Creek in Redding (see Figure B.2.). Fatal pedestrian versus vehicle collisions have occurred in close proximity to this bridge in 2011, 2012, and 2015. Safety improvements are in the works at this location; however, similar such locations should be identified and strategies developed to avoid walking- and bicycling-related injuries and deaths before they occur.

Bridges for the exclusive use of active transportation modes should also be considered, particularly where they give walking and bicycling a competitive advantage over vehicle trips. For example, the Churn Creek natural corridor physically separates neighborhoods from the local high school as well as neighborhood restaurants, shopping, and services (see Figure B.3.). If an active transportation corridor and active transportation bridge were provided in this example, it would provide an appealing and competitive advantage over the automobile.

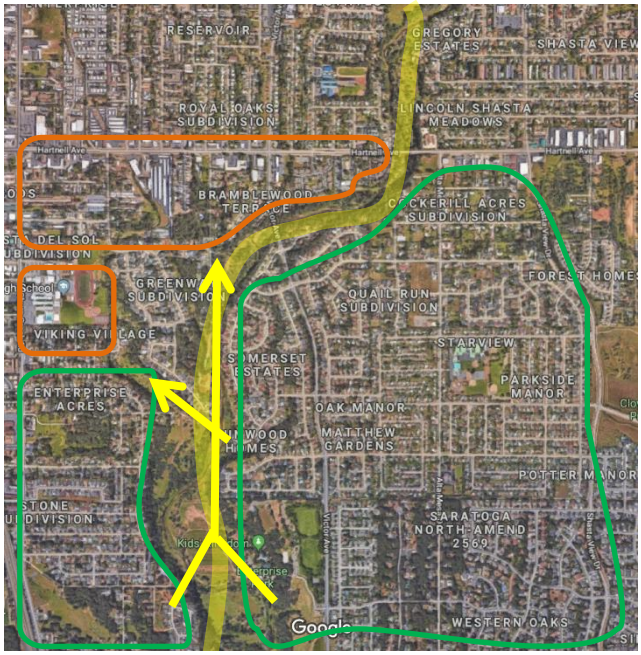


Figure B.3. Sample of missing bicycle and pedestrian connections between neighborhoods and trip destinations (Churn Creek Corridor in Redding)

Topography

Even within low-lying valley areas, there are small but significant elevation changes that discourage active transportation trips – particularly for those that are mobility limited. Walking- and bicycling-friendly communities should be evaluated to identify potential mitigation strategies, including engineering/design solutions, mapping/wayfinding guidance, and the use of 'bus-bridges' where major obstacles and trip length are prohibitive to all or some active transportation users.

A few examples of known locations with topography-related challenges include:

Approximately ¾ mile climb on Market Street, just north of Benton Drive (see Figure B.4.):



Figure B.4. Market Street at Benton Drive

Final phase of the Redding Downtown Trail loop from Downtown to Turtle Bay Exploration Park. More specifically: 1) the transition from the Redding Rodeo Grounds/Sundial Bridge Drive to Continental Street (see Figure B.5.); and 2) the transition from Continental Street to East Street (see Figure B.6.):

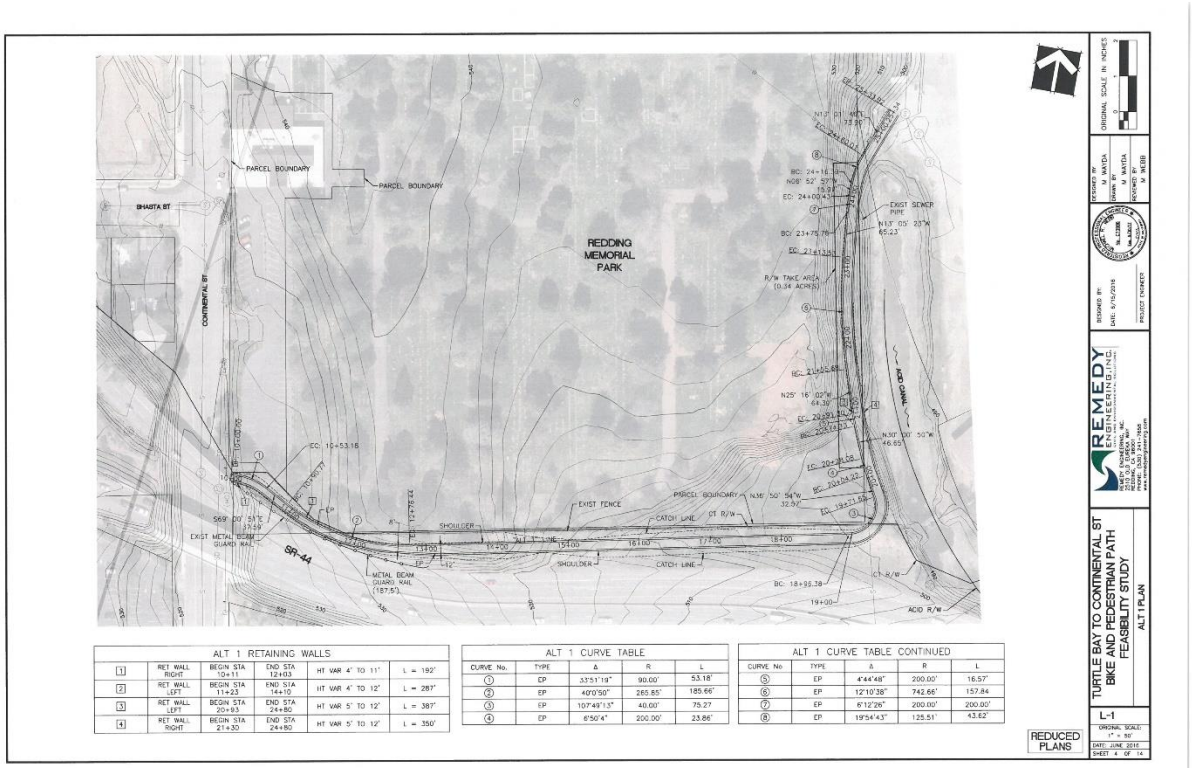


Figure B.5. Turtle Bay to Continental St Bike and Pedestrian Feasibility Study



Figure B.6. Yuba St at Continental St

Roadways with a sharp change in elevation often have reduced lane widths and may not include bicycle lanes or sidewalks. An example is the Quartz Hill Rd, north of Benton Drive (see Figure B.7.):



Figure B.7. Quartz Hill Rd North of Benton Drive

Population Characteristics

Demographic data can be used to better understand and respond to the varying ability levels that the transportation system must serve and the level of dependency on alternative travel modes. Such data viewed over time can then be used to measure the effectiveness of regional policies, programs, and projects.

At the project level, it is helpful to have a spatial understanding of these demographics, preferably at the Census Block Group or neighborhood level. A 'Disadvantaged Community Analysis' was recently performed by SRTA, with findings incorporated findings into the 2015 Regional Transportation Plan (see Figure B.8. for map). SRTA utilized Census data to identify areas that have a markedly higher share of individuals challenged by the cumulative impact of:

- Poverty and unemployment;
- Lack of mobility options, including access to automobile, active transportation, and public transportation;
- Housing and transportation cost burden;
- Single parent households;
- Young and elderly;
- Educational attainment;
- Linguistic isolation; and
- Minority status

Portions of each incorporated city and several rural communities are highlighted as disadvantaged in the map below. Due to the size larger size of census tracts in rural areas, it is difficult to pinpoint the exact location of such populations. Project specific outreach and household travel surveys are needed in rural communities and disadvantaged communities to assess community needs at a more granular level.

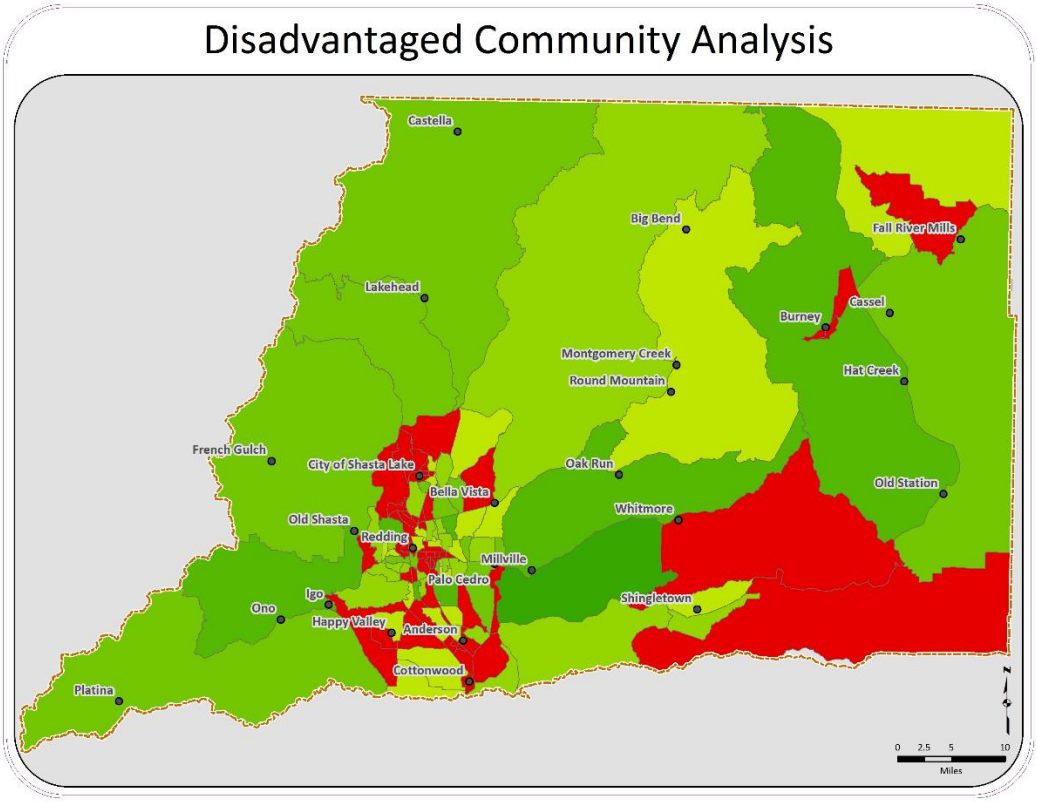


Figure B.8. Disadvantaged Community Analysis Map

Built Environment/Setting Affecting Active Transportation

The region's past is characterized by rural industry and rural development patterns. Population growth has historically been slow (<2%) with the exception of several 'boom' periods associated with construction of the Shasta Dam (1938-1945), the timber industry (1950s through the early 1970s) and retail and housing construction (late 1980s and early 1990s). The latter resulted in a greatly expanded urbanized area.

Population distribution among the four jurisdictions in the region are as follows:

Jurisdiction	Estimated Population (2016 Census)	Number of households (2011-15)
County of Shasta (unincorporated areas)	67,429	69,375
City of Redding	91,808	35,436
City of Shasta Lake	10,162	3,879
City of Anderson	10,232	4,007

Figure B.9. Total Population and Households by Jurisdiction

As of 2015, the Shasta Region is home to nearly 180,000 residents. Public lands constitute nearl 50% of the region's land area, including 34% federally-owned lands. An additional 14% is farm lands. Much of the remaining land area continues to be rural. The average of 47 persons per square mile in the Shasta Region compared to 239 persons per square mile statewide.

The Redding Urban Area – as defined by the U.S. Census and generally falling along the south county Interstate 5 corridor – is more densely populated. It represents only about 2% of the county's total land area, yet is home to over 66% of the county's population. Even this is area is largely rural and suburban in nature, having 1,625 persons per square mile (2.5 persons per acre). Compared to other Urban Areas in Northern California and surrounding regions, the Redding Urban Area has the most dispersed population (see Figure B.10.).

Figure B.10. Redding Urban Area Population Density Comparison to Similar-sized Urban

Urban Area	Pop (2010)	Pop/ Square Mi	Pop/ Acre
Redding, CA	**117,731**	**1,625**	**2.5**
Grants Pass, OR	50,520	1,838	2.9
Medford, OR	154,081	2,372	3.7
Reno, NV/CA	392,141	2,377	3.7
Carson City, NV	58,079	2,509	3.9
Chico, CA	98,176	2,849	4.5
Yuba City, CA	116,719	2,990	4.7
Santa Rosa, CA	308,231	3,138	4.9
Woodland, CA	55,513	4,551	7.1
Davis, CA	72,794	5,145	8

Land use in the Shasta Region is largely segregated and designed with vehicle access as the primary and priority mode of travel. SRTA performed extensive spatial analysis during the development of the Shasta*FORWARD*>> Regional Blueprint and Sustainable Communities Strategy. While these analyses were part of a greater planning process that included additional subjective factors, the underlying analysis remains relevant to planning active transportation facilities.

The Neighborhood Dynamic Scale (NeDS), for example, is GIS-based spatial analysis created to assess a neighborhood's receptivity to change by measuring and combining the following influences:

- Economic activity – as defined by number of new business licenses awarded;
- Land use homogeneity – meaning the diversity of land use types and a higher degree of self-containment – i.e. employment, shopping, commercial services, schools, and other common destinations are generally present within the boundaries each area. This can be combined with intersection density as a measure of connectivity and scale, both of which are critical to active transportation accessibility.
- Vacant and underutilized parcels – as defined by parcels that have not been developed or that have assessed improvements valued markedly lower than surrounding parcels. Areas with more vacant and underutilized land indicate the opportunity and market for infill and redevelopment.

The tool was used to screen the region's neighborhoods for consideration as strategic growth areas – locations where various policies, programs, and investments could be layered to influence travel behavior.

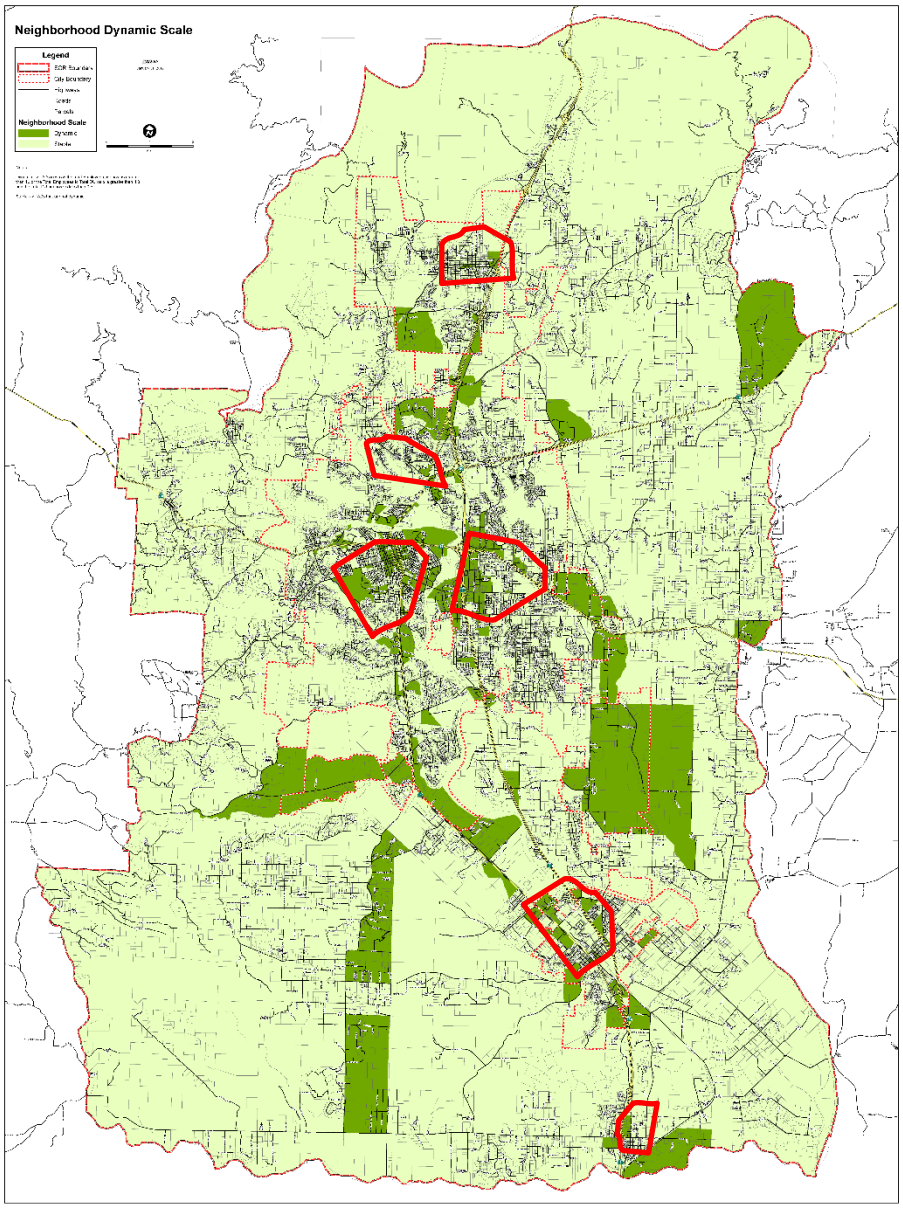


Figure B.11. Neighborhood Dynamic Scale Map

Discounting largely undeveloped Census Blocks skewed by limited data, areas indicated on Figure B.11. and described below stand out as locations that would most benefit from and be best served by active transportation improvements:

1. Central Shasta Lake, including Strategic Growth Area and surrounding neighborhoods.
2. North Redding, including Lake Boulevard area.
3. Central Redding, including Downtown Redding SGA and surrounding neighborhoods (Kutras, Garden Tract, Lake Redding, Parkview, and west of Downtown neighborhood?)
4. Redding Hilltop-Enterprise –
5. Central Cottonwood, including Strategic Growth Area and surrounding neighborhoods.
6. Central Anderson, including Strategic Growth Area and surrounding neighborhoods.

Such locations also have more of the ingredients that have been extensively researched and known correlate with lower vehicle miles travelled and higher mode share for transit and active transportation trips. These ingredients are known as the 'D' factors:

The 'D' Factors – The key variables known to effectively reduce vehicle miles traveled have been extensively researched and verified through observed data. These variables, summarized below, are commonly known as the five 'D' factors. In the Shasta Region, achieving the necessary combination and critical mass of 'D' factors are a challenge given the dispersed development patterns, segregation of land uses, limited access to practical travel alternatives, and slow growth rate. Furthermore, no single 'D' factor by itself will yield reduction in automobile dependency; rather, it is the combination of factors and the degree to which they are present in a given area.

- Density – the number of persons, jobs or dwellings in a given area;
- Diversity of land use – the number and variety of different land uses in a given area;
- Design of streets and development – the average block size, number of intersections, sidewalk coverage, building setbacks, street widths, pedestrian crossings, and other factors that result in a more human-scale environment;
- Destination accessibility – the number of common destinations (e.g. job sites, schools, shopping, etc) within a given travel time; and
- Distance to transit – the distance from home or work to the nearest transit stop by the shortest street route.

Transit Services

Whereas all transit trips begin and end as an active transportation trip, connections to public transportation is a high-priority focus of the GoShasta planning process. Transit is provided by RABA and a number of specialized services for the elderly and persons with disability.

Conventional transit services continue to evolve in response to the Unmet Transit Needs process carried out pursuant to the Transportation Development Act, which provides the bulk of the region's transit funding.

In addition to conventional transit services, SRTA seeks to develop and apply the concept of on-demand transit, which utilizes smart phone applications, GPS vehicle tracking, and advanced dispatching software to provide individualized mobility service. Upon deployment, an individual will be able to summon a point-to-point trip. Pilot projects are being considered for Sunday service and extended service in the city of Shasta Lake.

Objectives of the on-demand transit initiative include transit efficiency (only operating transit service when and where is needed) and transit effectiveness (transit service that better meets individual mobility needs). It is unknown at this time what impact this will have on transit usage and behavior (or any

potential secondary impacts on walking and bicycling activities); however, it is hoped that these improvements will specifically attract more choice riders (i.e. those that have access to an automobile, but choose alternative modes) – a market segment that has to date been largely uninterested in transit.

Policy Setting

As a policy, SRTA seeks to improve conditions for all residents and travelers; however, given limited resources and the potential for measurable improvements, it is SRTA's policy to strategically focus and layer the larger share of efforts and resources from state, regional, and local partners within small geographic areas.

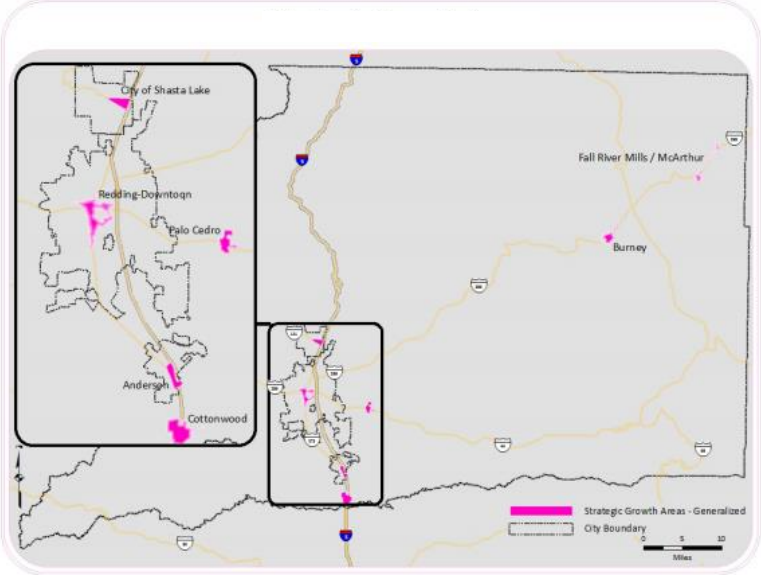


Figure B.12. Strategic Growth Areas (SGAs)

Applying the aforementioned 'D' factors a little here and a little there over a predominately rural region such as Shasta County would provide marginal return-on-investment. Layering many strategies within geographically small areas should yield measurable transportation efficiencies while at the same time reinforcing local planning and economic development objectives. In the context of Shasta County, it is recognized that some the 'D' factors will be more appropriate and effective than others depending on the community and neighborhood. Consultation and coordination with local agencies is essential in selecting the right mix and intensity of activities.

The most likely candidate locations for application of the five 'D' factors are existing urban centers and corridors – locations where some measure of the 'D' factors is already present; where the necessary infrastructure is largely in place; and where existing local plans permit an appropriate range and intensity of land uses. Such locations are also where the community is more receptive to change.

To this end, SRTA worked alongside local agencies to identify small geographic areas known as 'Strategic Growth Areas' (SGAs) (see Figure B.12.). Within SGAs, it is intended that regional and local policies, programs, and investments be jointly focused and private sector investments be leveraged to achieve measurable sort-term progress – if not cumulatively across the region, at least within designated focus areas.

In addition to SGAs, other target areas include: 1) contiguous corridors, 2) connections to/from SGAs, and 3) locations that have the ingredients for increased active transportation (i.e. the have a measure of the 'D' factors and places that have showed up in previous spatial analyses such as NeDS, land use homogeneity, and vacant and underutilized parcels).

Areas not included in these focus areas may call for different active transportation priorities and alternative strategies for meeting local needs. For example, the focus may be more on safe routes to schools and connections to local commercial areas rather than an expansive network of connected

facilities. In addition, land use strategies might be employed as a first step toward a more walkable and bikable neighborhood or community.

The 2015 RTP for the Shasta Region provides the following overview of active transportation from a policy perspective:

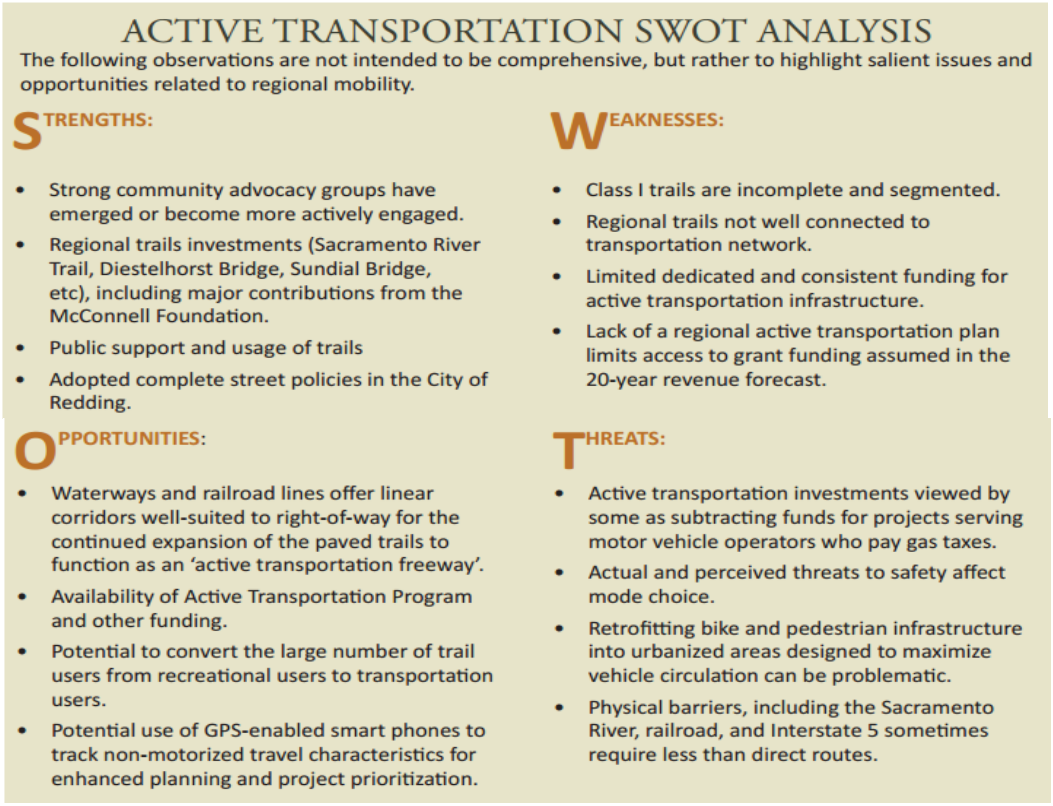


Figure B.13. Active Transportation SWOT Analysis from the 2015 RTP

One of the major pillars to the region's Sustainable Communities Strategy is the accelerated delivery of active transportation investments in Strategic Growth Areas. These improvements include incremental improvements to existing facilities and a new generation of non-motorized transportation expressways that connect communities and SGAs with commerical and employment trips destinations.

Additional information on biking and walking throughout Shasta County can be found online by a variety of resources, including:

- SRTA's Bike and Pedestrian Planning web page;
- Healthy Shasta's 'Be Active' web page;
- City of Redding's Community Services website;
- City of Anderson's Community Services website;
- City of Shasta Lake's Parks & Recreation website Accomplishments since last RTP; and
- 2010 Shasta County Bicycle Transportation Plan (adopted June 2010).

The League of American Bicyclists has recognized the city of Redding as a 'bronze' level bicycle friendly community, meaning that the community is addressing the Five E's consistently found in great bicycling

communities: Engineering, Education, Encouragement, Enforcement, and Evaluation & Planning. By strengthening or expanding efforts in these areas, the City of Redding may become increasingly friendly to bicyclists and earn the status of a silver, gold, platinum, or diamond level community. The City of Anderson, City of Shasta Lake, and rural unincorporated communities have not been similarly recognized; however, each community has the opportunity to be distinguished as walkable, bikable, and vibrant. Friendly competition between communities is encouraged and supported.

SRTA's greatest ability to influence bicycle and pedestrian mode share and safety is through planning and capital funding of infrastructure. In addition, SRTA provides administrative support and technical assistance when pursuing and managing grant funds utilized for capital improvements, education and promotional activities.

A good portion of active transportation facilities in the region have been realized in an opportunistic manner – meaning that active transportation was not the driving objective of the improvements, but rather piggy-backed onto a larger roadway maintenance, capacity increasing, or safety projects. Active transportation improvements may also be 'spot fixes', such as site access as a condition of development permitting or in response to a fatal collision involving a pedestrian. As a result, the active transportation 'system' is more a collection of bits and pieces than a connected and contiguous network tied to an overarching vision. In addition, facility design standards may vary within and between communities.

Predictability is paramount to a pleasant and safe experience – from the perspective of both active transportation and motor vehicle users. Consistent and predictable active transportation facility design standards serve to validate the presence of active transportation users. Without predictability, users are forced to make up their own rules. Often this means bicycling against the flow of traffic or other dangerous behavior. This is not to say that active transportation facility standards should be standardized to the point of being inflexible to the local context or inseparably attached to a roadway's functionality as a motor vehicle corridor.

An existing priority going into the GoShasta process is enhanced connectivity between the region's trails and the urban network. The region's dedicated, Class I active transportation facilities are largely recreational in nature, and will continue to be so until such time as the segments can be connected and linked to trip origins and destinations located on the roadway network. Once connected, various programs may be employed to convert the large community of recreational walkers and bicyclists to utilitarian/transportation trips. This objective was most recently explored in partnership with the Shasta County HHSA, resulting in the 'Redding Area Analysis of Gaps Between Trails and On-Street Bikeways' report, completed May 2016.

Types of Users

The following types of users have been identified, but are not exclusive of one another – meaning that individuals may fall into multiple user groups at any given time.

- Choice users – i.e. those that have access to an automobile but that choose walking and bicycling for a variety of reasons. These users are generally more confident and resourceful when navigating and overcoming obstacles and challenges.

- Dependent and disadvantaged users – i.e. those that rely upon walking and bicycling because it is the only available option. These users may not have a driver's license, access to an automobile, or be able to afford other options.

- Transportation user – i.e. those that walk and bike to accomplish a task such as work, shopping, school, etc. These users often benefit from destinations that support active transportation (e.g. provide secure parking, showers, etc) and are likely to have a back-up plan for unscheduled travel needs should an emergency or other need arise.

- Recreational users – i.e. those that walk or bicycle for pleasure, including for exercise and social interaction. Depending on where such individuals live and the immediate surroundings, they may choose to walk or bike from their home. Often, they must first drive to a trailhead or other similar destination. These users are viewed as one of the most likely groups in the region to target for converting vehicle trips to active transportation trips.

- Latent/potential users – i.e. those that would walk or bike if not for a specific obstacle or obstacles, such as the lack of safe facilities, long distances, lack of confidence, etc. These users may require one-on-one contact and a personal guide/instructor able to safely introduce the user to active transportation modes without fear or anxiety.

Data on Current Usage, Behavior, and Trends

Data is critical to effective to all types of planning and the development of meaningful policies, programs, and projects. The reality is that data is never complete, up to date, accurate, and accessible. The GoShasta effort, like any other planning effort, is based on the best available data. That said, even the best data on active transportation usage, behavior, and collisions for the Shasta Region is skimpy. A dedicated data collection program exists at the regional and local level to measure vehicular travel on streets and roads in order to satisfy federal requirements for data reporting and travel demand modeling capabilities; however, no such mandate or data collection program exist for active transportation data in the region.

The best available local active transportation usage data for the Shasta Region is generated by the Shasta County Health and Human Services Agency in collaboration with Healthy Shasta. Each year, public health professionals and community partners carry out bicycle and pedestrian counts at a number of set locations. Most of the data is collected on a volunteer basis. The data collected is not comprehensive, but has been collected routinely and consistently over a period of time. It allows planners to assess trends and draw reasonable conclusions when combined with other data sets, including but not limited to spatial data on trip destinations; disadvantaged communities; land use; and collision data. This data may then be augmented with anecdotal information and field observations.

The ShastaSIM regional travel demand model is often cited as the 'source' when reporting current and future active transportation mode share. The modeling script is based on technical studies and field research performed outside the region, adjusted as needed to reflect local data and conditions. A travel model is only as precise as the data input into the model, and even the most advanced model is not sensitive to all factors influencing active transportation mode choice. Manual adjustments need to be made to replicate observed data and local knowledge. ShastaSIM is an invaluable tool that could be even more useful if supported by a robust active transportation data collection program. If collected, the data would serve as both an input and a post-modeling tool for fine-tuning and validating modeling accuracy over time.

Forecast Daily VMT (region and per capita) According to the ShastaSIM regional travel model, total daily vehicle miles traveled in Shasta County will increase by approximately 32% between 2005 and 2035. Daily

per capita vehicle miles traveled in Shasta County will, however, remain relatively steady, increasing by only 6% over the same period.

Residents living in the unincorporated regions of Shasta County have the highest VMT per capita (25.4), followed by Shasta Lake (18.1), Anderson (17.2), and then Redding (15.0) (see Figure B.14.). When comparing overall household VMT, Shasta Lake accounts for the smallest percentage (5%), followed by Anderson (6%), Redding (41%) and the unincorporated region of Shasta County (48).

B.14. Total Daily VMT and VMT/Capita

Year	Total Daily VMT[1]	VMT/Capita[1]
2005	5,606,121	26.81
2020	6,171,441	26.88
2035	7,390,629	28.51

[1]Results from ShastaSIM travel model reflect the current growth trend of the region without changes resulting from the 2015 RTP. Includes all trips types (inter-regional, intra-regional & through-trips).

Daily trips per household and trip lengths Using only those trip categories that are subject to SB 375, average daily VMT per household in 2005 was 47.5. It is projected that this will decrease approximately 1% to 47.2 miles by 2035. In the year 2035, it is forecast that residents in Anderson will make the most trips per household (6.6), followed by Redding and unincorporated Shasta County household (6.4). City of Shasta Lake household will make the fewest trip on average (6.0). Although the number of trips per household is fairly consistent across the region, the average trip length is substantially different. Region wide in 2005 the average trip length is 7.4 miles. Due to the relative proximity to everyday destinations, City of Redding residents traveled the least per trip at 5.3 miles. On the other hand, residents in the rural unincorporated area of the County travel farthest, averaging 10.6 miles per trip.

Safety and Collision Analysis

The primary source of collision data is obtained via SWITRS. SWITRS is not comprehensive and has considerable lag time, but it is the best available data. One thing it does not document is near-misses. For this reason, residents of City of Boulder Colorado can fill out an online 'near-miss' form to bring dangerous areas and conditions to light before a collision and related property loss, injury, or death.

Collisions with significant injury or death are typically covered by local news media. For the last few years, SRTA has monitored and documented newspaper coverage of such incidents. These have not been logged in any way, but are reviewed and referenced when considering the location and design of active transportation improvements with a regional funding component. Pedestrian and bicycle crash maps using 2011-2015 SWIRTS data can be viewed at the end of this section (Figures B.15. through B.19).

Care should be taken not to base project priority too heavily on the collision data without data necessary to determine collision rate per unit volume of walking and bicycling trips.

Perceived safety is a significant factor (possibly even more so than actual statistical data) in influencing the active transportation behavior.

- There is a high community interest is safety due to a string of violent assaults on pedestrians and bicyclists on regional trails.

When considering future data collection, the following information would be most useful:

- In addition to active transportation data from more locations, information is needed regarding trip origins, destinations, and route selection. Factors that influence active transportation usage patterns is much different than those factors affecting individuals operating motor vehicles. For example, a vehicle trip may prioritize speed/trip time, whereas a cyclist may favor routes based on comfort, a feeling of safety, and trip distance.

- Trip purpose – regional trails are popular for recreational trips. The opportunity exists to convert recreational walkers and cyclists to transportation. To do this is to better connect trail corridors such as the Sacramento River Trail to the transportation network.

Assumptions, Challenges, and Opportunities

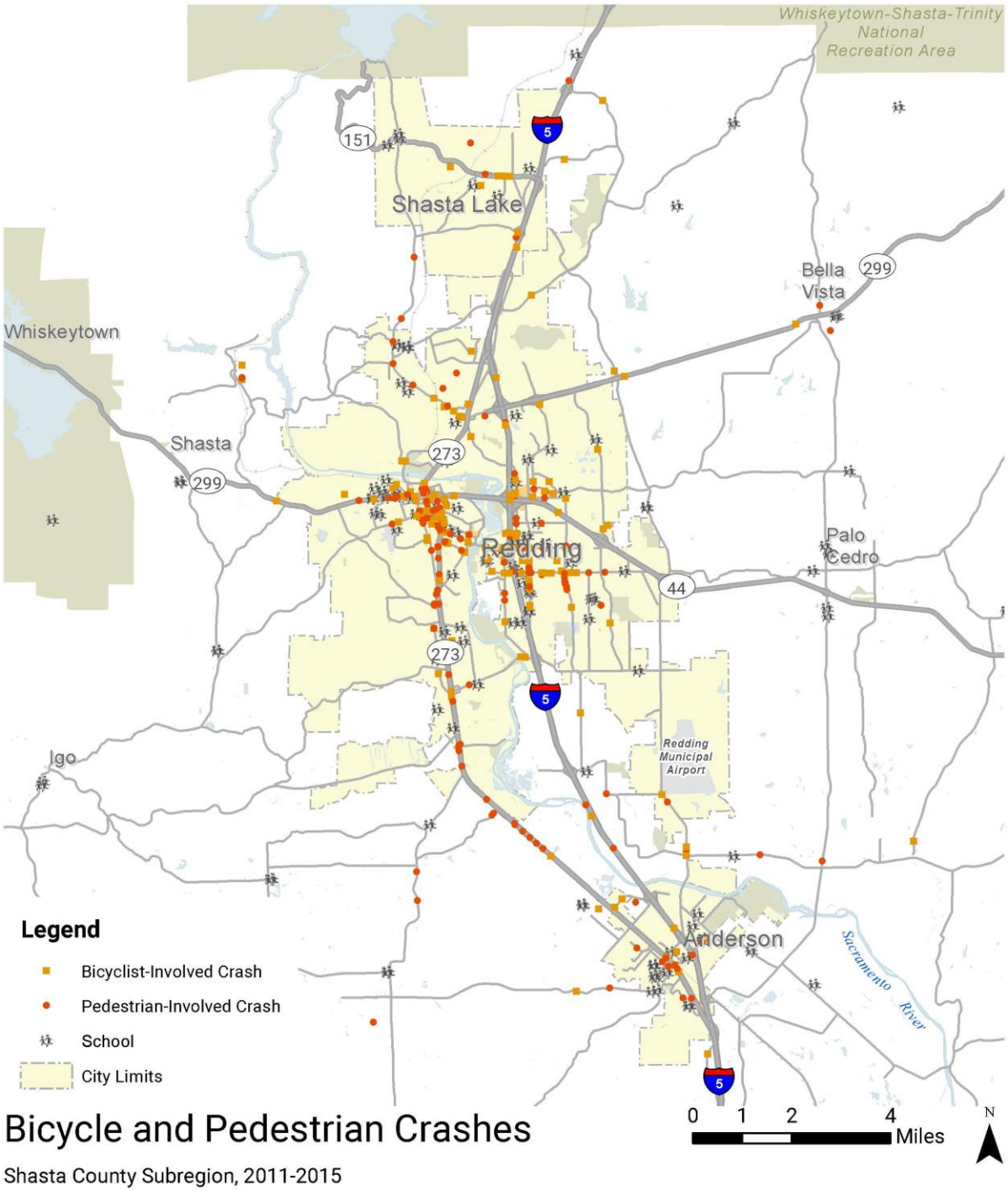
- A new model of active transportation projects and programs must be developed, prioritized, adopted, prepared for construction, and backed by a strong commitment of regional resources – Regional greenhouse gas emission reduction targets have been set for the Shasta Region by the California Air Resources Board. The SRTA Board of Directors subsequently adopted aggressive assumptions for active transportation mode share as part of the 2015 Regional Transportation Plan and Sustainable Communities Strategy. Neither status quo progress nor incremental improvements to the active transportation network are adequate to meet targets and assumptions. Only dramatically improved active transportation infrastructure combined with programmatic support will enable the region to meet externally and internally established goals. In addition to being safe and comfortable, active transportation must be compelling and competitive in comparison to the automobile for a large share of trip types and purposes.

  Inspiration for the next generation of facilities will not be found through an examination of existing local facilities and deficiencies. Part of the GoShasta scope, therefore, includes a best practices field trip to Davis, CA – the first city to achieve Platinum level bicycle friendly status by the League of American Bicyclists. Davis is similar in size to Redding with many transferrable lessons. Local cycling advocates and local agency transportation planners and engineers will be invited to learn from their peers in Davis, and then share this information with stakeholders in the Shasta Region.



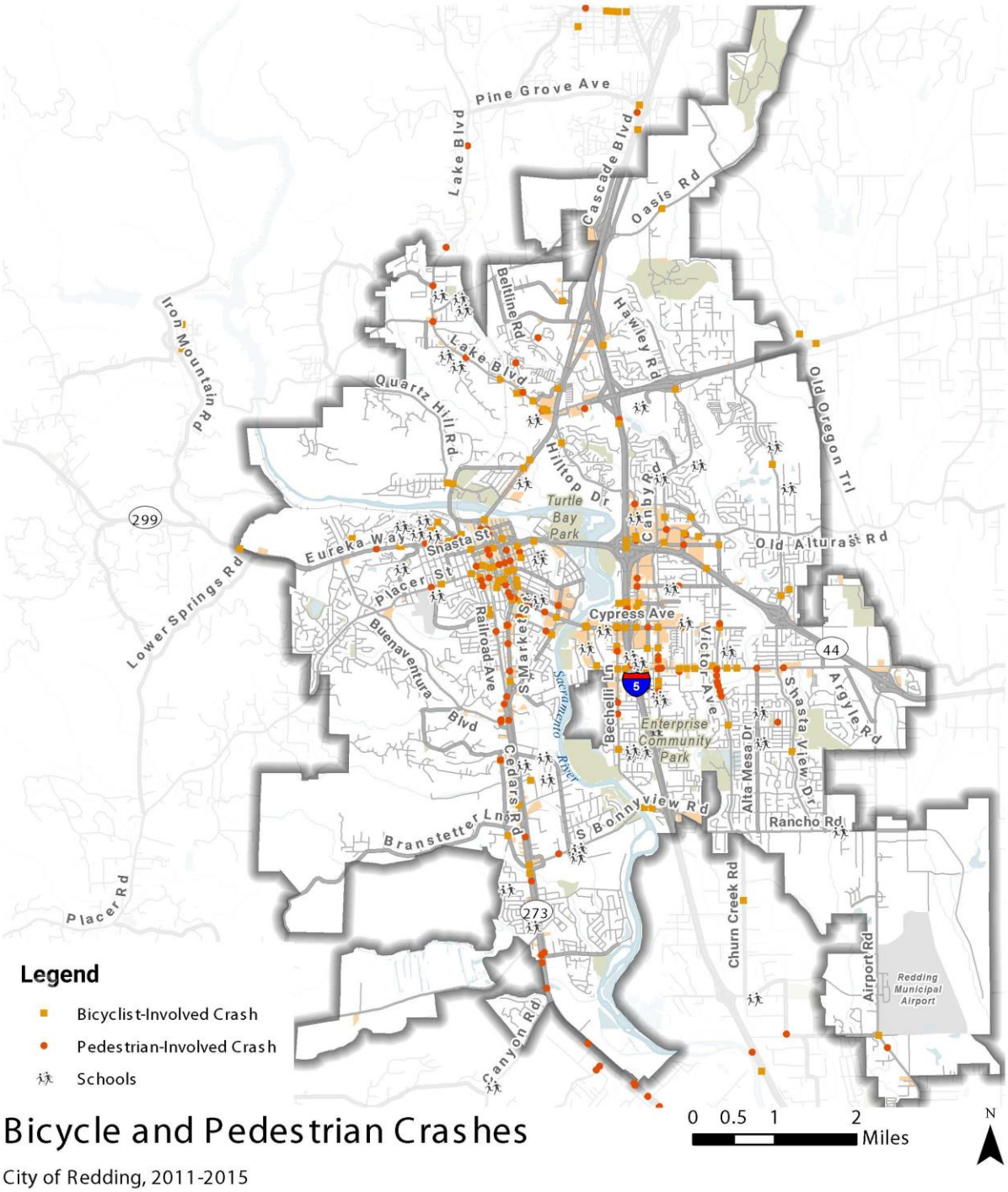
Figure B.14. Bicyclists and Pedestrians in Davis, California

- Transit coordination – Planning for active transportation and on-demand transit planning should be coordinated to reflect complete trips from origin to destination, including trip chaining.
- Social equity – Demographics vary considerably between neighborhoods in the Shasta Region. GoShasta should consider strategies and initiatives that would effectively mitigate disparities that have a nexus to transportation such as economic status and public health. GoShasta should also seek to engage individuals representing a broad demographic range and different user types.
- Public Health partnership – The region has a long history of coordination with and support from the public health community, including Healthy Shasta partners. GoShasta should tap into this community and incorporate public health related considerations into the plan wherever appropriate.



Data Source: Transportation Injury Mapping System, 2011-2015

Figure B.15. Bicycle and Pedestrian Crashes, Shasta County Subregion, 2011-2015



Bicycle and Pedestrian Crashes

City of Redding, 2011-2015

Data Source: Transportation Injury Mapping System

Figure B.16. Bicycle and Pedestrian Crashes, City of Redding, 2011-2015

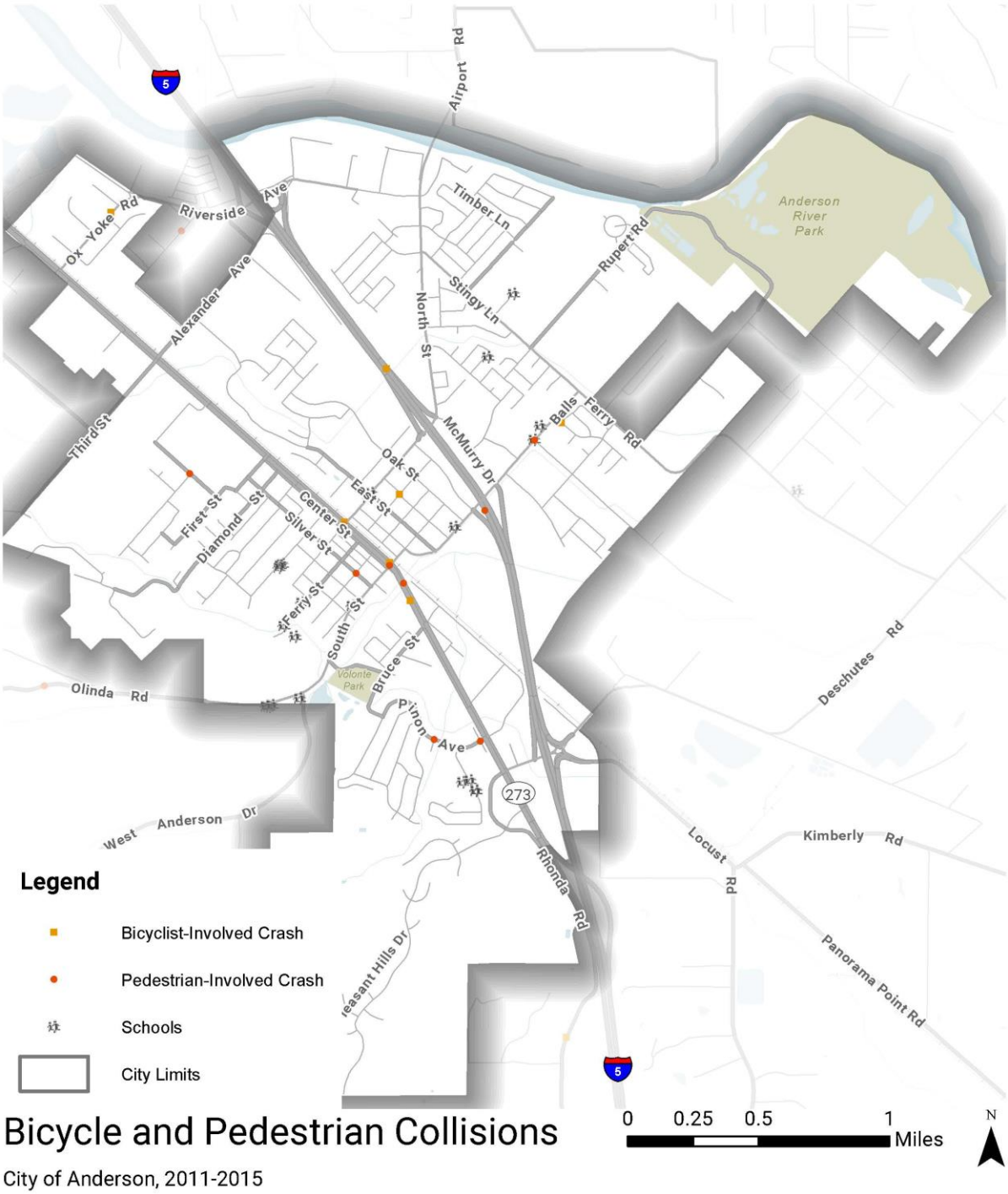


Bicycle and Pedestrian Crashes

Downtown Redding, 2011-2015

Data Source: Transportation Injury Mapping System, 2011-2015

Figure B.17. Bicycle and Pedestrian Crashes, Downtown Redding, 2011-2015

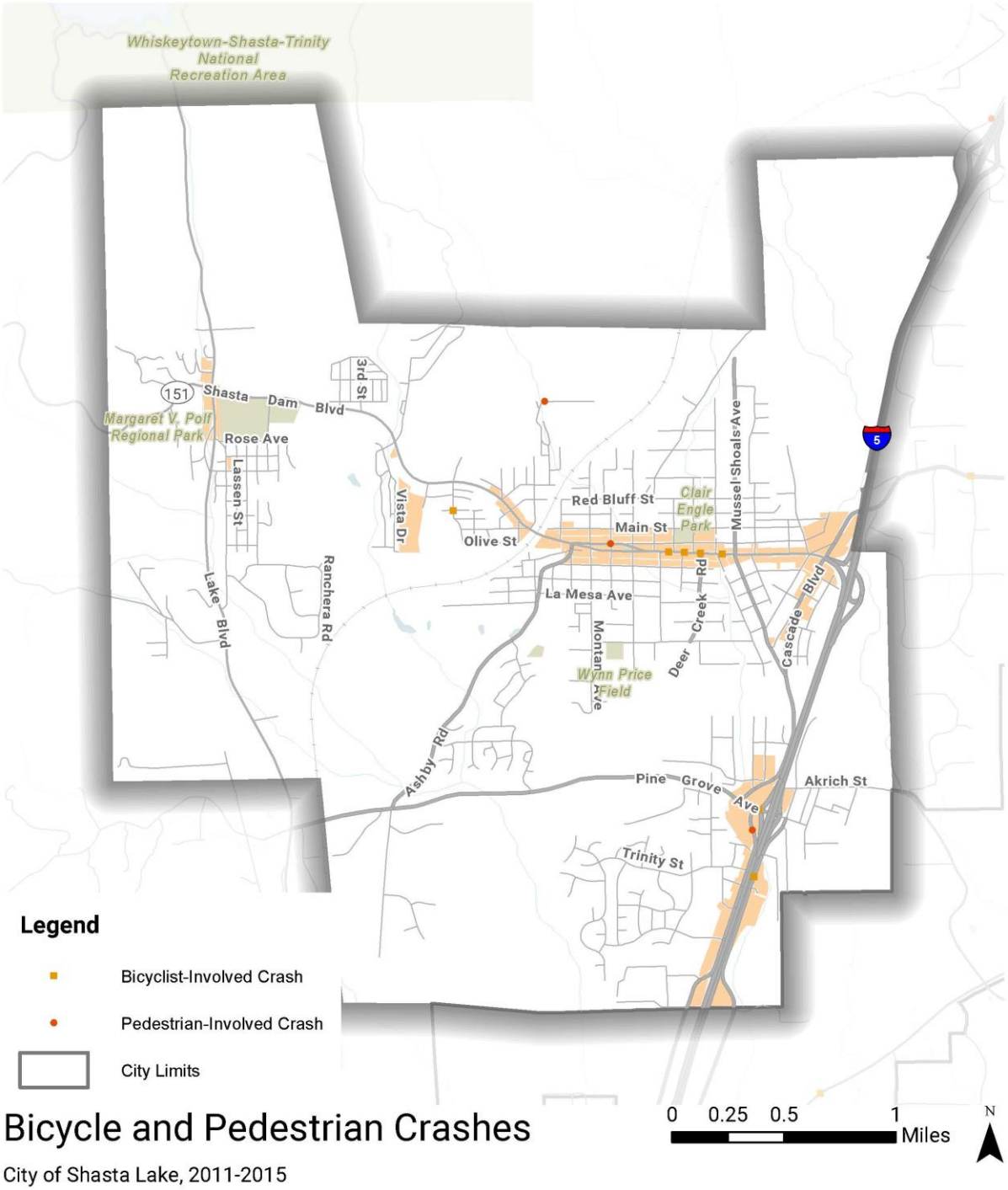


Bicycle and Pedestrian Collisions

City of Anderson, 2011-2015

Data Source: Transportation Injury Mapping System, 2011-2015

Figure B.18. Bicycle and Pedestrian Crashes, City of Anderson, 2011-2015



Bicycle and Pedestrian Crashes

City of Shasta Lake, 2011-2015

Data Source: Transportation Injury Mapping System, 2011-2015

Figure B.19. Bicycle and Pedestrian Crashes, City of Shasta Lake, 2011-2015

Regional Momentum and Recent Accomplishments

Caltrans recognition and efforts (see Mile Marker cover story on California Street road diet) and City of Redding (complete streets policy and the Downtown Transportation Plan) as prime examples.



Figure B.20. Examples of Caltrans and City of Redding Recognition

The region is growing and showing clear signs of evolving from an exclusively rural community to a mix of rural and urban – in terms of physical attributes, local agency policies, grassroots community action, media coverage, and increased general public interest and usage. What arguably can be traced back to catalyst projects made possible by the McConnell Foundation and initiatives led by Healthy Shasta have been parlayed by organizations such as Shasta Living Streets, RideRedding, Shasta Wheelmen, Redding Mountain Bike Club, and other organizations into a successful movement. This cultural shift has manifested itself in a number of ways, including 1) community organization engagement and 2) local agency activities.

Examples of recent and recently funded projects

- SRTA Board of Directors adopted a 2% Transportation Development Act (TDA) set aside for bike and pedestrian infrastructure;
- Creation of GIS-based network of active transportation facilities suitable for use by within the ShastaSIM regional travel model;
- Creation of bicycle parking data and crowdsourcing map viewer available through the FarNorCalGIS website;
- Pit River Tribe/Burney Bicycle and Walkway Plan and provides a plan for building more bicycle and walking infrastructure in and around the town of Burney;
- Shasta View improvements around the Redding School of the Arts;
- Old 99 Class I trail and signage program in the City of Anderson;
- Beginning of the Great Shasta Rail Trail - An 80-mile scenic multi-use Class I trail located in eastern Shasta County between the communities of Burney and Mt Shasta.

Early success in achieving the 2015 RTP SCS is evident in the Downtown Redding SGA, including the following developments:

- ATP Riverside trail project grant
- Downtown Redding Affordable Housing and Downtown Trail project AHSC grant
- California Street bike lane/lane reduction

Viewed collectively, this package-set of factors and accompanying assumptions and inputs represent one potential future for the region. Actual observed data and performance outcomes will vary from this scenario; however, all assumptions and inputs used in the SCS are considered realistic and achievable if supported by coordinated local and regional polices, programs, and targeted public investments.

Many such activities are already occurring. The city of Redding, for example, has no limitations on residential density, commercial density, and building height in the downtown core. Transportation impact fees in downtown core have also been reduced in recognition of the mobility benefits associated with density, proximity to employment, and access to alternative modes. At the regional level, SRTA is making pre-development technical assistance grants available to developers and local agencies toward infill and redevelopment projects located in SGAs. Funding for a bicycle and pedestrian trail linking the Downtown Redding SGA to the nearby Sacramento River Trail corridor has also been committed. Caltrans, in partnership with the city of Redding, recently re-striped several streets in Downtown Redding from three vehicle lanes to two in order to add a new buffered bicycle lane.

As a result of these type of geographically focused and coordinated efforts applied over time, the region's Strategic Growth Areas will increase in population and the previously described 'D' factors will be more fully realized. The average number and distance of daily vehicle trips will decrease within SGAs and region-wide per capita greenhouse gas emissions will be able to meet the region's given targets.

Plans and Policies Review

The Shasta Region has many plans and policies that lay the groundwork and support the implementation of a regional Active Transportation Plan. Locally, the Cities of Anderson, Redding, Shasta Lake, and Burney, as well as other areas of unincorporated Shasta County, have taken strides towards making their communities a better place to walk and bike. Additionally, California has continued to produce supportive policies, including multiple Senate and Assembly Bills, the California Statewide Bike and Pedestrian Plan, and the California Transportation Plan 2025. The GoShasta ATP will build on these efforts on the policy, programmatic and project level. This section documents relevant plans and policies as they relate to the ATP planning effort.

Relevant Plans and Policies

Plan	*Date Adopted*
Federal Policies	
US DOT Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations	2001
FHWA Bicycle and Pedestrian Facility Design Flexibility Memo	2013
USDOT Ladders of Opportunity	2014
FHWA Achieving Multimodal Networks: Applying Design Flexibility and Reducing Conflicts	2016
State Plans and Policies	
California Statewide Bike and Pedestrian Plan	2017
California Strategic Management Plan	2015
Design Information Bulletin 89 Class IV Bikeway Guidance (Separated Bikeways/Cycle Tracks)	2015
California Transportation Plan 2025	2006
Smart Mobility 2010: A call to Action for the New Decade	2010
Caltrans Complete Streets Policy & Implementation Plan 2.0	2001
Assembly Bill 32: Global Warming Solutions	2006
Assembly Bill 1358: Complete Streets	2008
Assembly Bill 2245: Environmental Quality: CEQA: Exemption: Bicycle Lanes	2015
Assembly Bill 1193: Bikeways	2014
Assembly Bill 1371: Vehicles: Bicycles: Passing Distance	2013
Caltrans Complete Streets Policy and Deputy Directive 64	2008
Senate Bill 375: Sustainable Communities	2009
Senate Bill 743: Environmental Quality: Transit Oriented Infill Projects, Judicial Review Streamlining for Environmental Leadership Development Projects, and Entertainment and Sports Center in the City of Sacramento	2013
Senate Bill 99: Active Transportation Program Act	2013
Regional Plans	
Shasta County Regional Transportation Plan	2015
2010 Shasta County Bicycle Transportation Plan	2010
Local Plans (http://srta.ca.gov/281/Active-Transportation-Plans-Documents)	
City of Anderson General Plan	2007
City of Anderson Bicycle Transportation Plan	2007
City of Anderson Pedestrian Accessibility & Safety Master Plan	2011
City of Redding Bikeway Action Plan	2010
City of Shasta Lake Bicycle Transportation Plan	2009
Pit River Tribe/Burney Bicycle Walkway Plan	2012

Federal Policies

US DOT Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations (2001)

On March 15, 2010, the United States Department of Transportation announced a policy statement, included below, with a list of recommended actions.

"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 to support the policy statement include considering walking and biking equal to other modes, ensuring that there are transportation choices for people of all ages and abilities, going beyond minimum design standards, collecting data on walking and biking trips, and several other actions that make it easier for people to walk and bike.

FHWA Bicycle and Pedestrian Facility Design Flexibility Memo (2013)

The Federal Highway Administration supports a flexible approach to bicycle and pedestrian facility design. The FHWA Design Flexibility Memo supports the use of the following resources to further develop nonmotorized transportation networks and support the USDOT's Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations.

- AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities.
- AASHTO Guide for the Development of Bicycle Facilities.
- NACTO Urban Bikeway Design Guide.
- ITE Designing Walkable Urban Thoroughfares: A Context Sensitive Approach.

USDOT Ladders of Opportunity (2014)

"The Opportunities Agenda empowers transportation leaders, grantees and communities to revitalize, connect, and create workforce opportunities that lift more Americans into the middle class through initiatives, program guidance, tools, and standards." The Ladders of Opportunity Agenda realizes that transportation infrastructure can connect people with opportunities and strengthen communities. Transportation facilities should be built by, for, and with the communities impacted by them. The Policy Solutions that provide support for the Opportunities Agenda include the following:

- Funding Projects that Promote Ladders of Opportunity.
- Closing Safety Disparities.
- Prioritizing Vital Projects that Yield Local and Regional Benefit.
- Promoting an Inclusive Transportation Workforce.
- Holding Decision-makers Accountable.
- Empowering the Public.
- Raising the Standards for Connectivity.

FHWA Achieving Multimodal Networks: Applying Design Flexibility and Reducing Conflicts (2016)

This publication builds on the design flexibility memo mentioned above and highlights ways that designers can apply design flexibility found in current national design guidance to reduce multimodal conflicts and achieve "connected networks so that walking and bicycling are safe, comfortable, and attractive options for people of all ages and abilities."

State Plans and Policies

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

In May 2017, Caltrans adopted *Toward an Active California,* a statewide bicycle and pedestrian plan which will guide the development of non-motorized transportation facilities throughout the state. This Plan provides a vision, goals, and objectives for Caltrans' efforts for active transportation; strategies to meet these goals and objectives; performance measures to evaluate the success of Caltrans' policies and investments; and the first stages in the development of a statewide bicycle map. The Plan will improve connections between pedestrian and bicycle facilities, transit systems, and regional roads.

California Strategic Management Plan (2015)

This plan provides strategic direction for Caltrans, including targets of doubling walking trips and tripling bicycling trips by 2020. Additionally, the plan calls for reducing user fatalities and injuries, promoting community health through active transportation, and improving the quality of life for all Californians by increasing accessibility to all modes of transportation.

California Transportation Plan 2025 (2006)

The California Transportation Plan's Vision Statement calls for California to have a "safe, sustainable, world-class transportation system that provides for the mobility and accessibility of people, goods, services, and information through an integrated, multimodal network that is developed through collaboration and achieves a Prosperous Economy, a Quality Environment, and Social Equity.". The first goal of the plan includes enhancing modal choice and connectivity.



Figure B.21. California Transportation Plan's Vision

Smart Mobility 2010

The California Smart Mobility Call to Action provides new approaches to implementation and lays the groundwork for an expanded State Transportation Planning Program. It enhances the scope of the existing California Transportation Plan by analyzing the benefits of multi-modal, interregional transportation projects. The Smart Mobility framework emphasizes travel choices and safety for all users, supporting the goals of social equity, climate change intervention, energy security, and a sustainable economy.

Caltrans Complete Streets Policy (2010) and Deputy Directive 64 (2008)

The California Complete Streets Policy states that the California Department of Transportation "views all transportation improvements as opportunities to improve safety, access, and mobility for all travelers and recognizes bicycle, pedestrian, and transit modes as integral elements of the transportation

To support Deputy Directive 64, Caltrans adopted the Complete Streets Implementation Action Plan in 2010. Various people across Caltrans contributed ideas and projects to include in the Complete Streets Implementation Action Plan to make Complete Streets a reality in California.

Assembly Bills (AB)

Assembly Bill 32: Global Warming Solutions (2006)
The Global Warming Solutions Act (AB 32) has a goal of California reaching 1990 greenhouse gas emission levels by 2020 by reducing emissions, including those caused by motor vehicles.

Assembly Bill 1358: Complete Streets (2008)
All California Cities and Counties must include accommodations for all street users (pedestrians, bicyclists, transit riders, motorists, children, persons with disabilities, and elderly persons) in the Circulation Element of their General Plans.

Assembly Bill 2245: Environmental quality: CEQA: Exemption: Bicycle Lanes (2012)
This bill exempts the restriping of roadways for bicycle lanes, provided the roadways are within an urbanized area and the restriping is consistent with a prepared bicycle transportation plan. The 2010 Caltrans adjusted urban areas include Shasta Lake, Redding, and Anderson, as well as the Highway 151-Lake Boulevard loop from the City of Shasta Lake to the Shasta Dam. A lead agency would be required to conduct a traffic assessment and safety impact, as well as conduct hearings, before determining if a project is exempt.

Assembly Bill 1193: Bikeways (2014)
Assembly Bill 1193 adds a fourth classification of bikeway to the Caltrans bikeway classifications. The new designation, Class IV bikeways, applies to cycle tracks or separated bike lanes.

Assembly Bill 1371: Vehicles: Bicycles: Passing Distance (2013)
AB 1371 requires that motor vehicles leave three feet of space between a bicycle and motor vehicle, when the driver of the motor vehicle is overtaking a bicyclist traveling in the same direction.

Senate Bills

Senate Bill 375: Sustainable Communities (2009)
SB 375 directs the Air Resources Board to set regional targets for the reduction of greenhouse gases. Metropolitan planning organizations must develop land use plans to meet these emission reduction goals by tying together regional housing needs and regional transportation planning to reduce greenhouse gas emissions from motor vehicle trips.

Senate Bill 743: Environmental Quality: Transit Oriented Infill Projects, Judicial Review Streamlining for Environmental Leadership Development Projects, and Entertainment and Sports Center in the City of Sacramento (2013)
SB 743 eliminates auto LOS and other measures of vehicle capacity or traffic congestion as a basis for determining significant impacts. This bill promotes infill development, active transportation, and reduction of greenhouse gas emissions.

Senate Bill 99: Active Transportation Program Act (2013)
The Active Transportation Program distributes federal funds for local and regional efforts to increase walking and bicycling. The funding is intended to increase the number of walking and bicycling trips,

increase safety for those modes, and provide support for disadvantage communities to achieve transportation equity.

Regional Plans

Regional Transportation Plan for Shasta County (2015)

The Regional Transportation Plan (RTP) includes a vision of meeting the regions mobility needs through the integration of travel options into a seamless network. Specifically, Goal #3 states that the region should "Provide an integrated, context-appropriate range of practical transportation choices". Strategies that will help achieve this goal are:

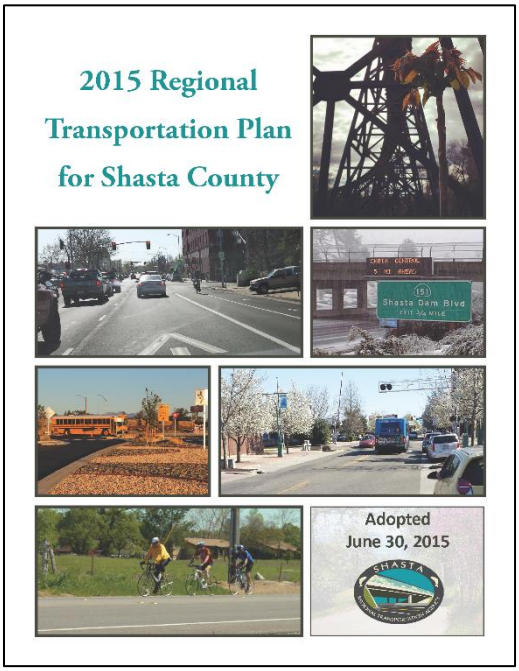


Figure B.22. 2015 Regional Plan for Shasta County

- Prepare a regional plan of active transportation projects for funding.
- Incorporate accommodations for all applicable travel modes into the design of SRTA-funded projects.
- Improve connectivity between public transportation and bicycling and walking to reflect the complete door-to-door trip from origin to destination.
- Prioritize public transportation, bicycle, and pedestrian infrastructure and amenities within designated Strategic Growth Areas (SGAs), or those that provide connections to/from SGAs.
- Fill gaps between recreational trail corridors and integrate into the greater network of transportation facilities.
- Establish multi-modal level of service criteria for evaluating and prioritizing projects and services for funding.

Goal #4 "Create vibrant, people-centered communities" includes a focus on bicycle and pedestrian mobility by listing the following supporting strategies:

- Support the development and use of active transportation choices (i.e. bicycling and walking, including connections to public (transportation).
- Develop transportation safety data and analysis for all modes, incorporate findings into regional planning processes, and seek funding to resolve identified safety issues.

Additionally, the plan addresses the sustainable Communities Strategy by recommending expansion of the bicycle and pedestrian network, "including the completion of network gaps, enhanced integration with public transportation, and connections between regional trail corridors and the roadway network."

Shasta County Bicycle Transportation Plan (2010)

The overall goal of the Shasta County Bicycle Transportation Plan (BTP) is to provide a safe, effective, efficient, balanced, and coordinated bicycling system that serves the needs of the people within the unincorporated region of Shasta County. The goals, policies and actions in the BTP also promote decreased automobile dependency, reduced traffic congestion, reduced air and noise pollution and reduced greenhouse gas emissions.

The BTP is supported by strategies to enhance safety and education, increase the number of bicycle commuters, provide a continuous countywide bicycle network, encourage recreational bicycling facilities, and encourage the use of all available funding sources for bicycle facilities. The plan proposes 86.22 miles of bikeways throughout the unincorporated area of the county. The GoShasta Active Transportation Plan will build on the goals, policies, of the BTP, and proposed projects will be reviewed in the Existing Conditions Report.

Local Plans

City of Anderson Bicycle Transportation Plan (2007)

The City of Anderson Bicycle Transportation Plan (BTS) has two main goals that will be supported by the GoShasta Active Transportation Plan: Encourage bicycling for reasons of traffic congestion, reduction, energy conservation, air quality, health, economy and enjoyment; and make conditions safer for bicycle use. The BTS has several proposed projects that will be reviewed in the Existing Conditions Report.

City of Anderson Pedestrian Accessibility and Safety Master Plan (2011)

The goals of the City of Anderson's Pedestrian Accessibility and Safety Master Plan are:

- To ensure the development of a multimodal circulation system which will be both safe and efficient.
- Provide pedestrian trails and facilities within and between residential areas.
- Provide pedestrian facilities on all arterial and collector streets.
- Pedestrian routes shall connect to schools, shopping centers, and recreational areas.
- Provide maximum opportunities for pedestrian circulation on existing and new roadway facilities.
- Create a pedestrian system that provides connections throughout Anderson and with neighboring areas, and serves both recreational and commuter users.
- Design new roadway facilities to accommodate pedestrians. Through the Design Review process, provide sidewalks to all roads, except in cases where very low pedestrian volumes and/or safety considerations preclude sidewalks.

The Plan also identifies several issues and opportunities to improve walking in Anderson, including:

- The need for more complete, connected pedestrian facilities in the downtown core (less than 50% of streets have sidewalks), near the City's 430-acre River Park, adjacent to schools, and between regional shopping centers and residential areas.
- The need for a comprehensive inventory of Americans with Disabilities Act (ADA) deficiencies to guide future grant applications and project priorities.
- Pedestrian barriers caused by the 100-foot railroad right-of-way and State Highway 273 that both run through the center of the City of Anderson.

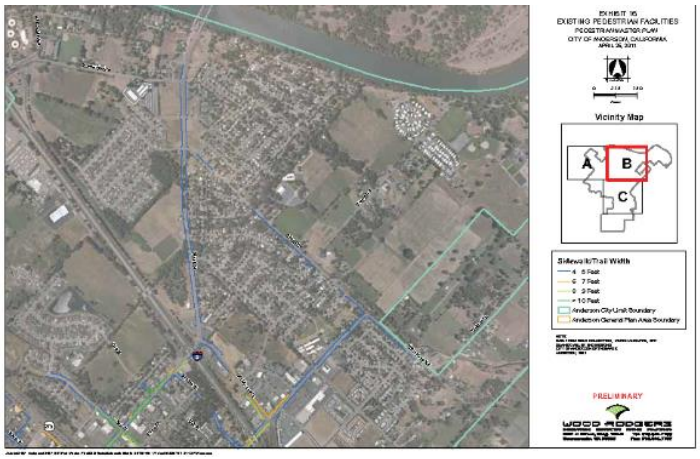


Figure B.23. Map of Existing Pedestrian Facilities in the City of Anderson

City of Redding Bikeway Action Plan (2010)

The Redding Bikeway Action Plan expands on the 1998 Redding Bicycle Plan, and expands the scope of the original plan. The Action Plan includes a detailed inventory and analysis of the existing bikeway system. The Plan was developed in partnership with multiple agencies and community input.

The goals of the Redding Bikeway Action Plan, supported by recommendations that rely on the five "E's" of bikeway planning (Evaluation and Planning, Engineering, Education, Enforcement, and Encouragement) are as follows:

1. Improve and add bikeways, connections and facilities by:

- Recommendation 1.1 – Improve and expand the bike route system and provide functional and distinctive signs and markings for the system.
- Recommendation 1.2 – Upgrade significant Class 3 Bike Routes to Class 2 Bike Lanes when possible.
- Recommendation 1.3 – Provide bicycle parking in public spaces.
- Recommendation 1.4 – Encourage bicycle parking in existing uses private spaces and require bicycle parking in new uses private spaces.
- Recommendation 1.5 – Improve bicycle access through complex intersections.

2. Develop bicycle-friendly policies by:

- Recommendation 2.1 – Adopt a Complete Streets ordinance and review and recommend necessary changes to Redding ordinances, regulations, policy documents and design standards to address bicycle accommodation.
- Recommendation 2.2 – Provide training to City of Redding staff and policymakers.
- Recommendation 2.3 – Review City of Redding projects to ensure they provide bicycle accommodation.

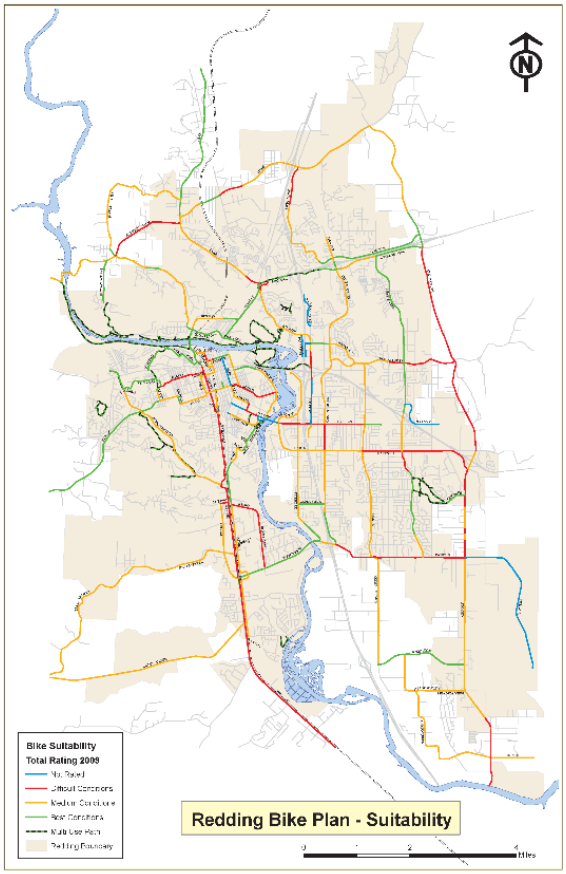


Figure B.24. City of Redding's Bikeway Action Plan

3. Develop bicycle-related education, promotion and enforcement initiatives by:

- Recommendation 3.1 – Educate motorists about safe operating behavior around bicyclists.
- Recommendation 3.2 – Educate bicyclists about safe bicycling.
- Recommendation 3.3 – Enforce traffic laws related to bicycling.
- Recommendation 3.4 – Establish a Bikeway Advisory Committee.
- Recommendation 3.5 – Seek recognition from the League of American Bicyclists as a bicycle friendly community.
- Recommendation 3.6 – Promote increased bicycle usage.
- Recommendation 3.7 – Regularly update the Redding Bikeway Map.

The Bikeway Action Plan includes a detailed project list with the following milestones to be completed by 2015:

- The Redding bikeway system will expand by 38.7 on-street miles to a total City of Redding bikeway network of 162.8 miles.
- The portion of the bikeway system graded as Class 2 Bike Lanes will almost double from the current 24.61 miles to a total of 46.18 miles at this level of service.

The GoShasta Active Transportation Plan will build upon the policies, recommendations, and proposed projects in this plan.

City of Shasta Lake Bicycle Transportation Plan (2009)

The City of Shasta Lake's Bicycle Transportation plan goal is to create a safe, efficient, coordinated transportation environment that encourages bicycling. The BTP achieves these goals by identifying proposed infrastructure, prioritizing desired bicycle facilities, and maximizing funding for implementation.

Pit River Tribe/Burney Bicycle Walkway Plan (2012)

The Pit River Tribe and the City of Burney developed the Bicycle and Walkway Plan to establish a long-term vision for bicycling and walking infrastructure and to identify next steps for implementation. The ultimate goal of this plan is to improve safe routes to schools and increase the number of people in Burney who bike and walk.

Level of Traffic Stress Proposed Methodology

This section summarizes Kittelson & Associates, Inc.'s (KAI) proposed approach to implementing a bicyclist Level of Traffic Stress (LTS) analysis for the GoShasta Regional and City of Redding Active Transportation Plans (ATP). This methodology classifies road segments and intersections by one of four levels of traffic stress with Level of traffic stress 1 (LTS 1) meant to be a level that most children can tolerate and LTS 4 a level tolerated by "strong and fearless" bicyclists. KAI's approach, described below, adapts the methodology from national documented Level of Traffic Stress methodologies to fit the existing data and context for the Shasta Region.

Proposed Methodology

KAI proposes to use a simplified version of the LTS segment and intersection crossing methodology documented in the Mineta Transportation Institute (MTI) *Low-Stress Bicycling and Network Connectivity* report for the incorporated areas of the Shasta Region. For the unincorporated areas of the region, KAI proposes to use a simplified version of the rural bicycle LTS segment methodology developed by the Oregon Department of Transportation in their *Analysis Procedures Manual*. The detailed methodologies for each of the proposed approaches are provided in the following subsections.

Urban Segment LTS Methodology

The full version of the MTI LTS methodology for urban and suburban street segments divides the analysis into the following three bicycle facility types:

- Bike lanes alongside a parking lane;
- Bike lanes not alongside a parking lane; and,
- Mixed traffic.

The methodology evaluation criteria for each of the three facility types are shown in the tables below. These criteria operate following the "weakest link" principle, where the criterion with the worst LTS determines the stress level of the segment. Thus, if the number of lanes criteria matches the metric for LTS 1 but the speed limit matches for LTS 3, the segment would be coded for LTS 3.

Table B.1. Urban Segment Criteria for Bike Lanes Alongside a Parking Lane

Criteria	Level of Traffic Stress			
	LTS 1	LTS 2	LTS 3	LTS 4
Lanes per Direction	1 lane	[No Effect]	2 or more lanes	[No Effect]
Bike Lane plus Parking Lane Width	15+ feet	14-14.5 feet	13.5 feet or less	[No Effect]
Speed Limit	25 mph or less	30 mph	35 mph	40+ mph
Bike Lane Blockage	Rare	[No Effect]	Frequent	[No Effect]

Source: Mekuria, Maaza. *Low-Stress Bicycling and Network Connectivity*, Mineta Transportation Institute, 2012.

Table B.2. Urban Segment Criteria for Bike Lanes Not Alongside a Parking Lane

Criteria	Level of Traffic Stress			
	LTS 1	LTS 2	LTS 3	LTS 4
Lanes per Direction	1 lane	2 lanes (with median)	2 (no median) or > 2 lanes	[No Effect]
Bike Lane Width	6+ feet	5.5 feet or less	[No Effect]	[No Effect]
Speed Limit	30 mph or less	[No Effect]	35 mph	40+ mph
Bike Lane Blockage	Rare	[No Effect]	Frequent	[No Effect]

Source: Mekuria, Maaza. *Low-Stress Bicycling and Network Connectivity*, Mineta Transportation Institute, 2012.

Table B.3. Urban Segment Criteria for Level of Traffic Stress in Mixed Traffic

Speed Limit	Street Width		
	2-3 Lanes	4-5 Lanes	6+ Lanes
Up to 25 mph	LTS 1 or 2	LTS 3	LTS 4
30 mph	LTS 2 or 3	LTS 4	LTS 4
35+ mph	LTS 4	LTS 4	LTS 4

Source: Mekuria, Maaza. *Low-Stress Bicycling and Network Connectivity*, Mineta Transportation Institute, 2012.

The data requirements and current data availability for fully implementing each of these facility types is shown below:

Table B.4. Data for Bike Lanes Alongside a Parking Lane

Data Requirement	Data Availability
Parking lane presence	Not currently available
Number of lanes	Available
Parking lane width	Not currently available
Bicycle lane width	Not currently available
Speed limit	Available
Frequency of bicycle lane blockage	Not currently available

Table B.5. Data for Bikes Lane Not Alongside a Parking Lane

Data Requirement	Data Availability
Parking lane presence	Not currently available
Number of lanes	Available
Bicycle lane width	Not currently available
Speed limit	Available
Frequency of bicycle lane blockage	Not currently available

Table B.6. Data for Mixed Traffic

Data Requirement	Data Availability
Number of Lanes	Available
Speed Limit	Available

Based on data needs and data availability for the three facility types, KAI proposes using the following assumptions:

- **Parking Lane Presence:** Assume a parking lane is present for all roadways with bike lanes. This assumption is recommended given that most streets in urban areas typically allow on-street parking and updating the exceptions can be handled through the method presented below.
    - KAI will provide a map of bike lanes to SRTA and the City of Redding to comment on those locations where parking is not present.
- **Parking Lane Width:** Assume a 7-foot parking lane for all locations with parking present. This assumption is recommended as the minimum parking lane width recommended by the National Association of City Transportation Officials (NACTO). Assuming a minimum parking lane width adopts a conservative approach for the parking lane width criteria. If the cities of Redding, Shasta Lake, or Anderson have different design standards, the standard applied to each city can be adjusted to reflect the individual city's standards.

    - SRTA and the City of Redding can provide revised assumptions by jurisdiction, area, or individual locations. KAI will provide maps for commenting on specific locations, as desired.
- **Bicycle Lane Width**: Assume a 5-foot bike lane for all locations. Five-foot bike lanes are assumed given this is the minimum width for a bike lane next to a parking lane and is the most common width many jurisdictions use when striping a bike lane.
    - SRTA and the City of Redding can provide revised assumptions by jurisdiction, area, or individual locations. KAI will provide maps for commenting on specific locations.
- **Bicycle Lane Blockage:** Assume that the bike lane is not blocked. Bike lane blockage refers to locations where the bike lane is frequently blocked by illegal parking, double parking, or delivery vehicles. This tends to occur in commercial areas and is not broadly applicable to all bike lanes.
    - SRTA and the City of Redding can provide a map of bike lane locations that are frequently blocked.

Using the adjustments to the assumptions provided by SRTA and the City of Redding, KAI will evaluate the LTS of the regional roadway network consistent with the evaluation criteria established in the MTI report.

Rural Segment LTS Methodology

KAI proposes using a separate LTS methodology for rural areas because of the different context for bicycle and vehicle interactions on rural roads versus urban and suburban roadways. Rural roadways are typically low volume and provide little or no paved shoulder width. Additionally, because of more frequent vertical and horizontal curves, sight distances vary frequently as road users travel along the roadway. The Oregon DOT methodology recommended below was developed with this context in mind and aims to evaluate bicyclist stress on rural roads based on the frequency of vehicle interactions (based on volume) and the presence and width of paved shoulders.

The full version of the ODOT LTS methodology for rural street segments divides the analysis into the following analysis types:

- Roadways with bike lanes or mixed traffic roadways with posted speeds below 45 miles per hour (mph); and,
- Mixed traffic with posted speeds above 45 mph.

The methodology for the first analysis type is the same as the MTI methodology for bicycle lanes not alongside a parking lane and mixed traffic calculations for urban areas. As a result, the same assumptions that apply to those roadways will be adopted for rural roadways in this analysis type.

The evaluation criteria for mixed traffic roadways with posted speeds above 45 mph are shown in Table 4. Because the cyclist is always in a high vehicle speed environment in this methodology, the frequency with which the bicyclist is forced to interact with vehicles and the available shoulder width for use during these interactions are the determining factors for rural segments with posted speeds above 45 mph.

Table B.7. Rural Segment Criteria for Mixed Traffic with Posted Speeds above 45 mph

Daily Volume	Paved Shoulder Width			
	<2 feet	2 - <4 feet	4 – <6 feet	≥ 6 feet
<400	LTS 2	LTS 2	LTS 2	LTS 2
400 - 1,500	LTS 3	LTS 2	LTS 2	LTS 2
1,500 - 7,000	LTS 4	LTS 3	LTS 2	LTS 2
> 7,000	LTS 4	LTS 4	LTS 3	LTS 3

Source: Oregon Department of Transportation, *Analysis Procedures Manual Version 2*, Oregon, 2016.

The data requirements and current data available for fully implementing the mixed traffic with posted speeds above 45 mph analysis type are shown below.

Table B.8. Data for Rural Mixed Traffic with Posted Speeds Above 45 mph

Data Requirement	Data Availability
Speed limit	Available
Paved Shoulder Width	Not currently available
Daily Volume	Limited availability for Caltrans roadways.

Based on these data needs and the data that is available, KAI proposes using the following assumptions:

- **Paved Shoulder Width:** Assume paved shoulder width of less than two feet given the mountainous character of most regional rural roads.
    - KAI will provide a map of rural roadways to SRTA to identify locations where shoulder widths are wider.
- **Daily Volume:** KAI apply the Caltrans volumes to all state highway segments. Using nearby state highway roadway volumes and functional classification, KAI will estimate which volume category roadways without roadway volume data fall into based on the thresholds shown in Table 4.
    - KAI will provide a map of the rural roadway volume estimation to SRTA to identify locations where volume estimates should be adjusted.

Crossing LTS Methodology

The full version of the MTI LTS methodology for urban and suburban streets analyzes intersections and crossing for the following situations:

- Intersection approaches for pocket bike lanes;
- Intersection approaches for mixed traffic in the presence of right-turn lanes;
- Intersection crossings for unsignalized crossings without a median refuge; and,
- Intersection crossings for unsignalized crossings with a median refuge.

These categories also apply to rural intersections where posted speeds are lower than 45 mph. The ODOT *Analysis Procedures Manual* recommends a separate methodology for unsignalized rural intersections with posted speeds above 45 mph based on the volume and number of lanes to be crossed.

For the incorporated cities within the Shasta Region, data regarding pocket bike lanes, vehicle turn lanes, and presence of medians are not available for each intersection. Posted speed data and number of vehicle lanes data are available broadly across the region. Therefore, KAI proposes to implement LTS at crossings using posted speed and number of lanes data. The analysis will assume a median refuge is not present. We believe this will represent an accurate LTS evaluation for the majority of locations within the incorporated cities. For locations where median refuges are present, it will result in a more conservative evaluation. This same methodology will also be applied to rural roadways with posted speeds less than 45 mph. Where posted speeds are greater than 45 mph in the rural areas, the ODOT *Analysis Procedures Manual* methodology will be followed using volume and number of vehicle lanes data.

The methodology evaluation criteria for the urban and rural crossing types are shown in Table B.9. and Table B.10., respectively.

Table B.9. Urban Crossing Criteria for Unsignalized Crossings without a Median Refuge

Speed Limit of Street Being Crossed	Width of Street Being Crossed		
	Up to 3 lanes	4 -5 lanes	6+ lanes
Up to 25 mph	LTS 1	LTS 2	LTS 4
30 mph	LTS 1	LTS 2	LTS 4
35 mph	LTS 2	LTS 3	LTS 4
40+ mph	LTS 3	LTS 4	LTS 4

Source: Mekuria, Maaza. *Low-Stress Bicycling and Network Connectivity*, Mineta Transportation Institute, 2012.

Table B.10. Rural Crossing Criteria for Unsignalized Crossings with Posted Speeds 45 mph or Greater

Daily Volume	Width of Street Being Crossed		
	Up to 3 lanes	4 -5 lanes	6+ lanes
< 400	LTS 2	--	--
400 – 1,500	LTS 2	--	--
1,500 – 7,000	LTS 2	LTS 3	--
> 7000	LTS 3	LTS 4	LTS 4

Source: Oregon Department of Transportation, Analysis Procedures Manual Version 2, Oregon, 2016.

Following the assumptions outlined in the urban and rural segment methodologies, KAI will have all required inputs to carry out the crossing analysis described above.

Next Steps

Based on the process outlined above, KAI proposes the following five-step process to complete the LTS Analysis:

1. KAI will provide preliminary maps of the assumptions and current data to SRTA and City of Redding for review consistent with the approach outlined above.
2. SRTA and the City of Redding will provide comments to modify the assumptions or data based on their local knowledge of the street network.
3. KAI will provide draft LTS maps of the City and Region to SRTA and City of Redding for review using the updated data and assumptions.
4. SRTA, the City, the GoShasta Citizen Advisory Committee, and the City of Redding Active Transportation Advisory Group will have an opportunity to provide comments on the draft maps noting any inconsistencies or results that do not make sense given the character of the roadway.
5. KAI will produce the final LTS analysis maps.

Level of Traffic Street Analysis

This section includes the draft Level of Traffic Stress (LTS) analysis results for each of the incorporated cities and the region as a whole. Below is a summary of how the roadway network performs with the LTS classification as well as context for the methodology and how the results will be used.

- The LTS methodology focuses on identifying routes based on the type of cyclist that would be comfortable on a facility with LTS 1 representing a road comfortable for all ages and abilities and LTS 4 representing a facility that only strong and fearless bicyclists would be comfortable using.
- The LTS mapping will be used to help identify key connections and crossings that would will connect "low-stress islands" of the street network. This will tie into the network development process to provide recommended facility types (such as a standard bike lane, protected bike lane, or bike boulevard) to allow low-stress travel across the network.
- As a part of the recommended network, a key item will be addressing arterial and major collectors across the region and helping to develop low-stress crossings for existing barriers (e.g., state highways/interstates and the Sacramento River).

Level of Traffic Stress Analysis

City of Anderson

- LTS 1: 69%
- LTS 2: 17%
- LTS 3: 4%
- LTS 4: 10%
- Arterials account for 69% of all LTS 3 facilities and 80% of all LTS 4 facilities

See Figure B.5 for a bicyclist level of traffic stress map of the City of Anderson.

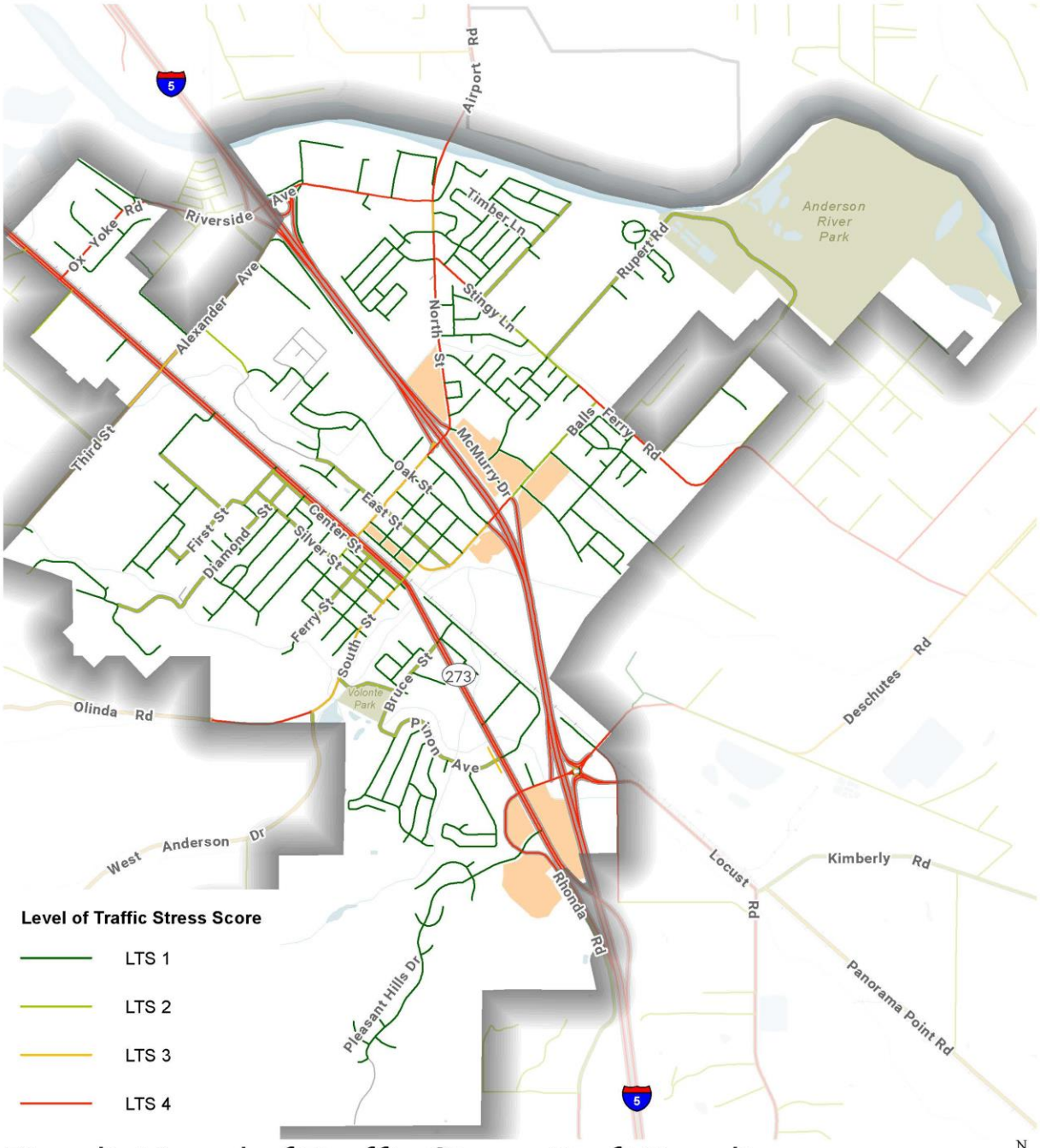


Figure B.25. Bicyclist Level of Traffic Stress Draft Results for the City of Anderson

City of Redding

- LTS 1: 69%
- LTS 2: 4%
- LTS 3: 4%
- LTS 4: 23%
- Arterials account for 52% of all LTS 3 facilities and 54% of all LTS facilities
- Major Collectors account for an additional 39% of LTS 3 facilities and 29% of LTS facilities

See Figure C.6 for a bicyclist level of traffic stress map of the City of Redding and Figure C.7 for a bicyclist level of traffic stress map of Downtown Redding.

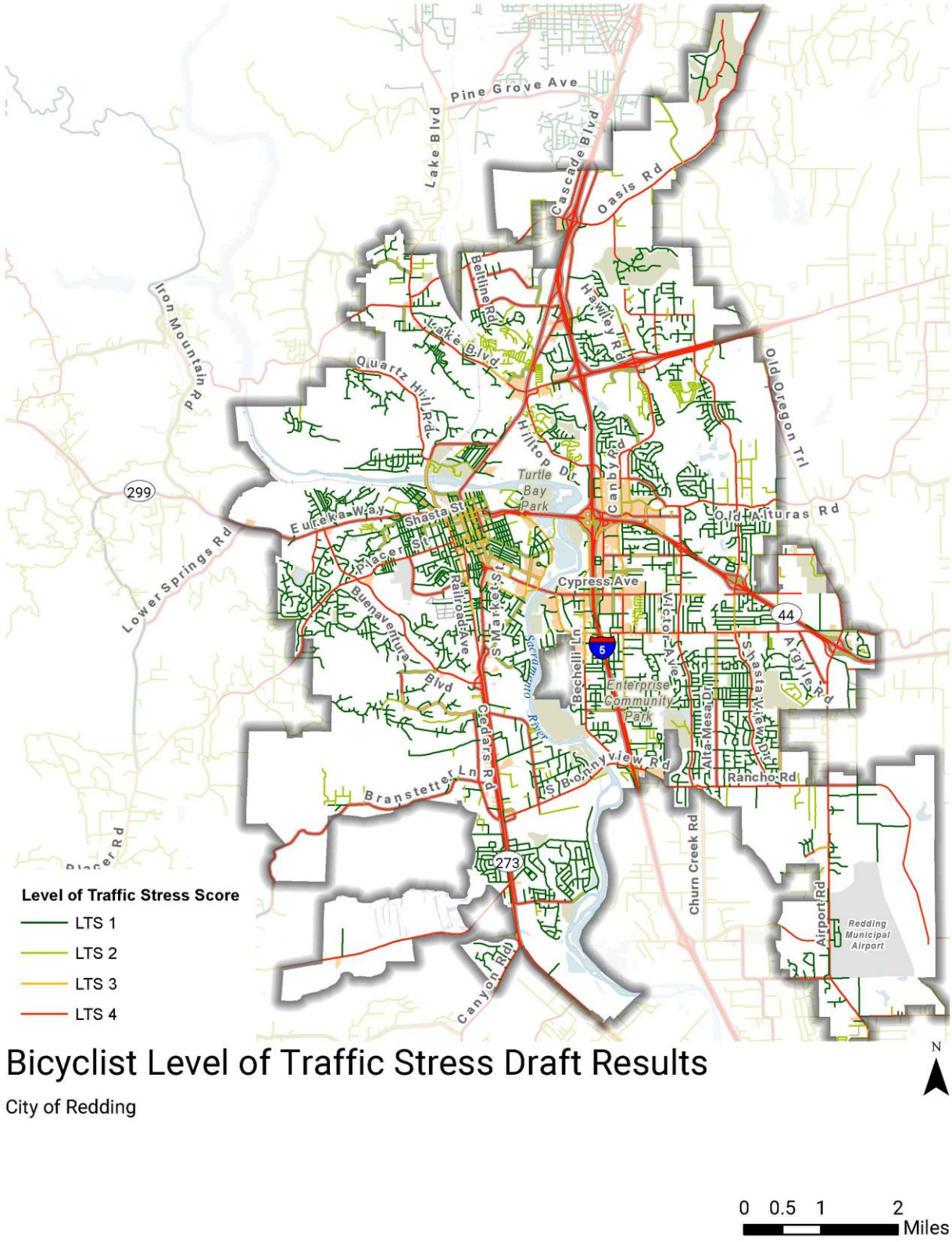


Figure B.26. Bicyclist Level of Traffic Stress Draft Results for the City of Redding



Bicyclist Level of Traffic Stress Draft Results

Downtown Redding

Figure B.27. Bicyclist Level of Traffic Stress Draft Results for Downtown Redding

City of Shasta Lake

- LTS 1: 79%
- LTS 2: 2%
- LTS 3: 2%
- LTS 4: 17%
- Arterials account for 58% of all LTS 3 facilities and 47% of all LTS facilities
- Major Collectors account for an additional 42% of LTS 3 facilities and 53% of LTS facilities

See the following for a bicyclist level of traffic stress map of the City of Shasta Lake.

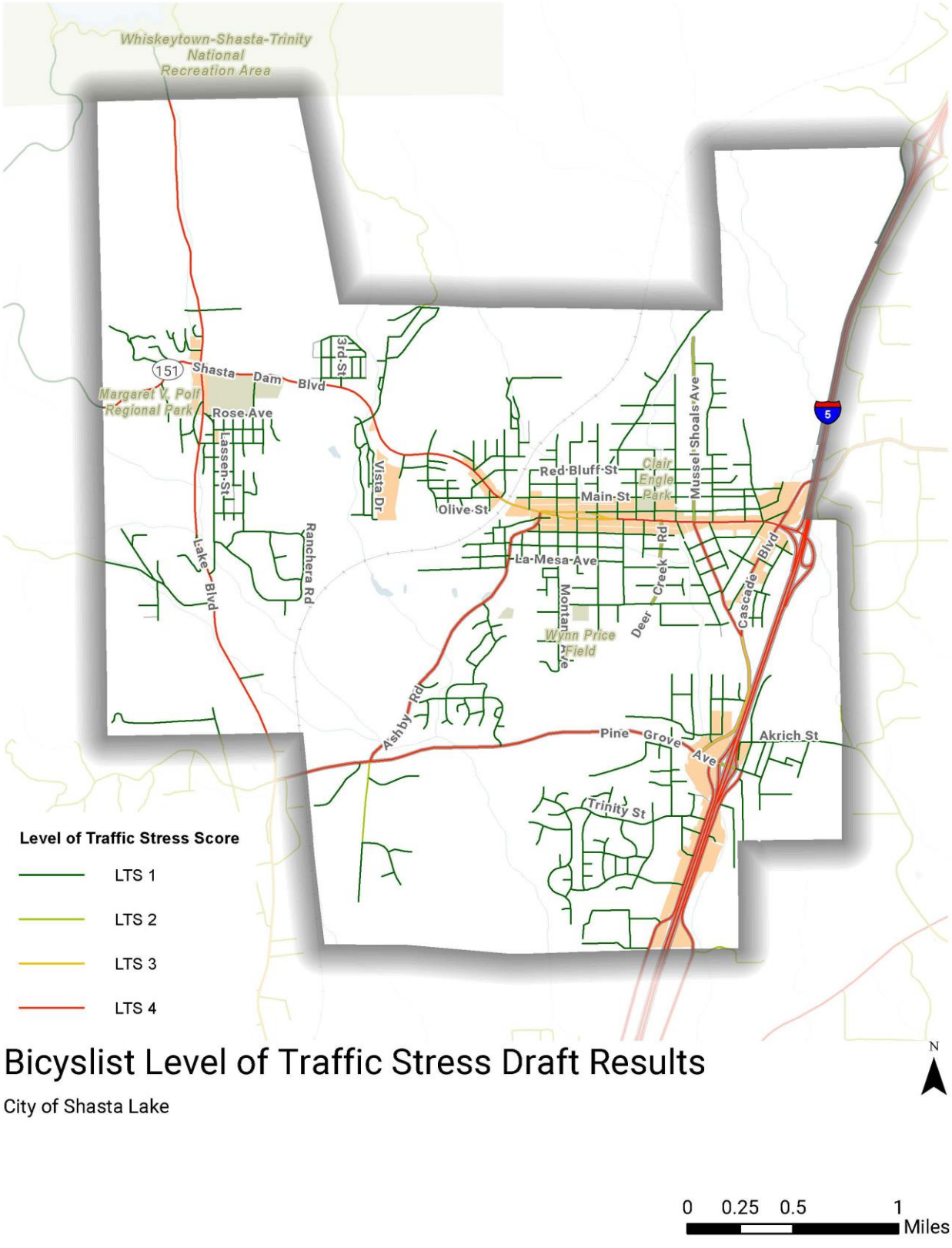


Figure B.28. Bicyclist Level of Traffic Stress Draft Results for the City of Shasta Lake

Shasta Region

- LTS 1: 20%
- LTS 2: 61%
- LTS 3: 6%
- LTS 4: 13%

See the following for a bicyclist level of traffic stress map for the Shasta Region.

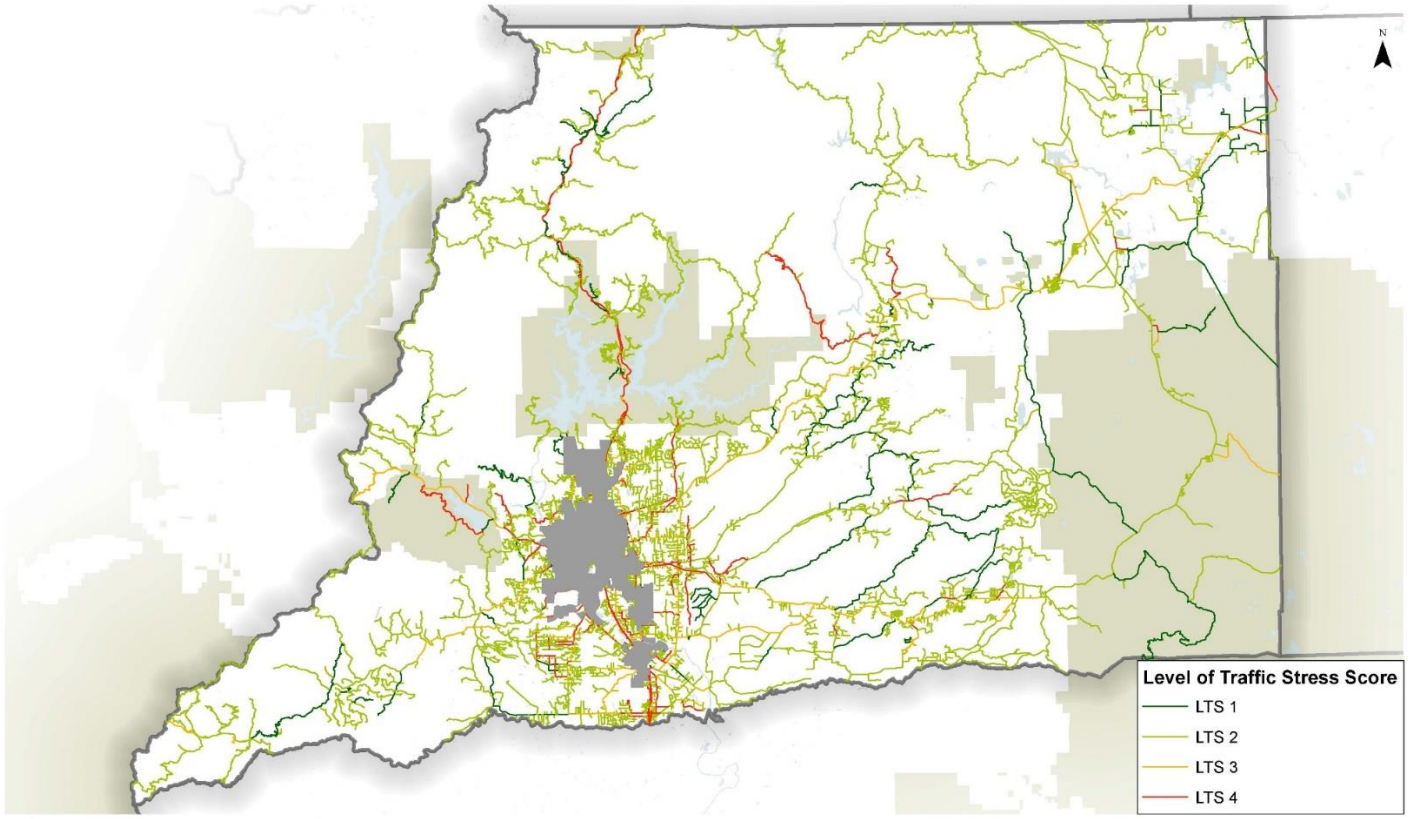


Figure B.29. Bicyclist Level of Traffic Stress Draft Results for the Shasta Region

Appendix C. Program Recommendations Background

The Appendix provides background information for the program recommendations in Chapter 2 including current initiatives in the Shasta Region and examples from other communities and programs.

Education

Current Educational Initiatives

There are several programs and organizations within Shasta County and the City of Redding that support and encourage active transportation for recreational and utilitarian trips.

Shasta County Public Health Programs

Shasta County Health and Human Services Agency – Public Health provides education and programs through local schools and in the broad community to improve community health outcomes. These efforts include:

- Shasta Safe Routes to School program
- Promoting active lifestyles (including walking and bicycling) for chronic disease prevention
- Improving safety (including bicycle helmet fitting, decreasing driving under the influence, and discouraging distracted driving/bicycling)

Healthy Shasta

"Healthy Shasta" is a collaboration of over 20 organizations focused on "making the healthy choice the easy choice" in relation to physical activity and healthy eating. Healthy Shasta aims to increase walking and bicycling among children and adults by working with partners to create environments that make biking and walking safe, easy, and convenient. Healthy Shasta activities include:

- Foster and encourage participation in walking clubs and host the annual Walktober Challenge
- Produce and distribute the Bike Redding Transportation Guide & Map as well as online trail maps
- Support local collaborative efforts around Shasta Bike Month and host the Shasta Bike Challenge
- Partner with Viva Downtown Redding to expand bicycle parking throughout Shasta County
- Encourage best practices to improve and expand opportunities for walking and bicycling
- Conduct annual bicycle and pedestrian counts

Shasta Living Streets

Shasta Living Streets is a non-profit organization in Shasta County that is dedicated to improving the region's bikeway network, developing walkable communities, and creating vibrant public spaces. Shasta Living Streets initiatives include:

- Distributing educational materials
- Collecting input from the community regarding challenges and opportunities
- Providing the public with legislative updates
- Hosting events to connect with Shasta residents

Sharing the Word About Safety

Education around safe travel behaviors can take many forms and can focus on different audiences. For example, Safe Routes to School programs are focused on safe travel behaviors for students while other

programs may be focused on new bicycle riders or transit riders. Advertising campaigns and marketing efforts can also be geared towards the most vulnerable or disenfranchised members of the community.

Other information is tailored for a general audience. Educational information for drivers may include lessons on yielding, providing space while passing bicyclists, and traffic control compliance while educational information for bicyclists may include lessons on wrong-way riding or safe turning techniques.

Education may be conducted through several means, such as advertising campaigns, roadside or trailside events, or classroom training courses. Some information may focus on high crash corridors, intersections, or schools and parks.

At events, volunteers may provide handouts, reward good behavior with prizes, and have conversations with community members about the importance of safe travel behaviors. Tailoring event materials to the audience is important to ensure that the information is accessible and easily understood.

Bicycle Ambassador Program Examples

Salt Lake County's Bicycle Ambassador Program

The Salt Lake County (SLCo) Bicycle Ambassador Program team provides services to the 17 municipalities and unincorporated areas within Salt Lake County, Utah. The ambassadors are volunteers are passionate about educating residents, promoting safe bicycle travel, and creating a healthy shared-use culture and mutual respect between all roadway users.

Services they provide include: bike mentorship, community cycling workshops, safe cycling rewards, organized rides, commuter pit stops, and bike lane stewardship. Becoming a bicycle ambassador is easy and convenient through an online application. Successful bicycle ambassador programs are also in Chicago, Washington, D.C., and Philadelphia.

More information can be found here: http://slco.org/active-transportation/bicycle-ambassador-program/

League Certified Cycling Instructors

In Shasta County, some community members are trained as League Cycling Instructors through the League of American Bicyclists. The instructors' curriculum is focused on educating the community on bicycling "street skills." Several instructors teach the "Women on Wheels" class through the City of Redding's and City of Anderson's recreation programs. This expertise of teaching safety in the community is a strong, local resource. Healthy Shasta serves as a resource for connecting the public with LCIs and bicycle training.

Safe Routes to School Examples

Safe Routes to School Program

Shasta County Public Health has been in existence for many years and received a three-year grant from the California Transportation Commission's Active Transportation Program to educate and encourage children to use active transportation modes to travel to and from school.

The Shasta County Public Heath's SRTS program includes:

- Training teachers and students
- Hosting events
- Coordinating bike and pedestrian counts

- Partnering with law enforcement to assist with crossing guard trainings
- Developing and implementing a bike and pedestrian curriculum
- Encourages school districts to create their own programs
- Supporting schools in developing walking school buses and bike trains
- Partnering with municipalities and school districts to identify priorities and implementation steps for infrastructure improvements around schools

Additional SRTS resources can be found at the following links:

- Pedestrian and Bicycle Information Center's Steps to Creating a Safe Routes to School Program: http://guide.saferoutesinfo.org/steps/
- Safe Routes to School National Partnership's Safe Route to School case studies, reports, evaluations, and resources: https://www.saferoutespartnership.org/resources/browse/safe-routes-to-school

Walking School Buses and Bike Trains
A successful Safe Routes to School program is walking school buses or bike trains, in which children, parents, school staff, or SRTS volunteers walk or bike in a group, is a popular way to encourage walking and biking to school.

Bike trains allow children to ride in a safe environment and become more comfortable riding a bike for transportation. This can instill a cultural norm that biking for non-recreational trips is convenient and fun. SRTS programs can lead to children using active modes as adults because they view walking and biking a normal everyday activity. Also, research from the Safe Routes Partnership has shown that biking or walking to schools can lead to improved academic performance.

Portland's Safe Routes to School Program
The Portland, Oregon region has been implementing STRS programs for many years. As federal funds for SRTS programs became increasingly difficult to obtain, SRTS program coordinators began seeking financial assistance from other sources. In 2016, Oregon Metro, the Metropolitan Planning Organization for the Portland region, approved a $1.5 million fund that could be used to support the region's SRTS programs. Oregon Metro also provides SRTS programs materials and technical assistance, establishes priorities, and leads coordination efforts between various schools participating in the SRTS programs.

Bike Theft Prevention Initiatives

Education Example on Proper Locking Methods

Calgary's "Save the Bikes"
The City of Calgary in Alberta, Canada and Bike Calgary, a local bike advocacy organization, teamed up to launch a bike locking educational program called "Save the Bikes." The motivation for this campaign was a literature review which found that 90 percent of stolen bikes were either locked using a cable lock or were unlocked in a garage or storage unit. During a "Save the Bikes" event, volunteers placed stickers on public bike racks; the stickers illustrated three bike locking techniques which were rated from good to best. The event was a low-cost way to share information about bike locking methods, generate awareness, and encourage people ride their bikes.

Bicycle Registration Program

Bicycle registration programs, and associated databases, are typically managed by municipal police departments. If a registered bike is reported stolen, the bike is flagged in the database, and if the bike is recovered, it can be easily returned to the owner. With minimal effort and funding by municipalities, registration programs can increase the number of bicycles returned to their owners.

Project 529

Non-municipal organizations, such as non-profit groups, are also creating bike registration databases. One example is Project 529 (with the app name of "529 Garage"), which merged with the National Bike Registry in 2017. Project 529 interfaces with other bike registries such as Bike Index, Operation Hands Off, and bikeregistry.com and has created the largest bicycle database in the United States. When bikes are reported missing or stolen, the Project 529 app will send a "missing bike" poster to app users within the same community, thus increasing the number of people looking for the missing bicycle.

During the course of a year, the City of Vancouver, BC had a 35 percent reduction in bike theft (nearly 900 bicycles) which they attribute to their educational and enforcement efforts and partnerships with Project 529, community organizations such as bike shops, and the general public.

Anti-Bike Theft Signage Examples

Singapore's Letter Board Signs

The Singapore Police Force places letter board signs in areas that are experiencing high rates of bike thefts. Some signs report the total number of thefts in that area during the previous year while others state that a bike theft has occurred at that location. The sign also provides:

- Contact information for reporting a stolen bike
- Techniques to reduce the likelihood of having one's bike stolen
- Graphic illustrating the ineffectiveness of a cable lock[1]

Newcastle University's Sign Study

Newcastle University, in England, installed signs at three study locations with high rates of bicycle theft to evaluate the effects of anti-bike theft signage.[2] Bicycle thefts at the three study locations were compared to the reported thefts at locations. For a twelve-month period, reported bike thefts at the locations with signage were reduced by 62 percent when compared to the prior period. At locations without signage, the number of reported bicycle thefts increased by 65 percent. The results suggest that the intervention was effective but displaced the offenses to locations that did not have the anti-theft signage. While the use of signage has yet to be widely adopted in the United States, this intervention may be worth considering in "hot spot" locations for bike thefts given the low costs of signage.

Bait Bike Program Example

Sacramento's Bait Bike Program

The Sacramento Police Department has a Bait Bike Program with approximately 20 bait bikes equipped with GPS tracking devices; the bikes were purchased by business groups with the aim of improving quality of life and reducing crime. The bikes are placed in locations throughout the city that have high

[1] https://www.police.gov.sg/~/media/spf/images/crimeposter/bicycle%20theft.jpg

[2] http://journals.plos.org/plosone/article/file?id=10.1371/journal.pone.0051738&type=printable

rates of bicycle thefts, vehicle break-ins, or residential burglaries.[3] In 2015, The Police Department deployed the bait bikes 168 times, resulting in 60 arrests with 59 repeat offenders.[4]

Encouragement

Encouraging people to use active modes can come in the following forms:

- Hosting events
- Rewarding and incentivizing those who choose to walk, bike, and ride transit
- Sharing information through social marketing
- Investing in interesting, well-designed active transportation infrastructure such as murals, signage, or custom bike racks

Encouragement campaigns can lead to increased visibility and comfort for pedestrians and bicyclists, improved safety, and more people choosing active transportation modes. Encouragement also creates social connectedness through shared stories and relationship building.

Branding or promoting trails, community rides/walks, and marketing popular routes can increase awareness of these community resources and help people think about the commute and recreational trips differently.

Encouragement Through Infrastructure

End-of-Trip Facilities

End-of-trip facilities make it easier and more comfortable for people to walk and bike, especially to work. Employers who provide these amenities may benefit from increased employee productivity, better employee health, reduction in absenteeism, reduced commute time, cost, and stress from parking and congestion, and a positive public image as organization that values the health of its employees and the environment.

Healthy Shasta's Bike Parking Pilot Program

Healthy Shasta's existing bicycle parking "crowd source" pilot could serve as a basis for where existing bicycle parking is located. This effort has captured roughly 75 percent of the locations, photos and some details of existing bicycle parking in Shasta County.[5] As a next step in this initiative, SRTA could partner with Healthy Shasta to create a bike parking map with a companion online tool for the community to indicate where additional bike parking is needed. SRTA could also work with jurisdictions to install bicycle parking.

"Viva" Bicycle Racks

Viva Downtown Redding designed a bicycle rack unique to downtown Redding and worked with Gerlinger Steel to manufacturer them locally. Since then, Viva and Healthy Shasta have partnered to fund and coordinate installation of over 85 bicycle racks throughout Shasta County. The cities of Redding, Anderson and Shasta Lake have installed the racks in local communities.

[3] http://www.sacbee.com/news/local/crime/article73651717.html

[4] http://sacbike.org/south-sac-residents-question-bait-bike-program/

[5] http://healthyshasta.org/news/bicycle-parking-map-project

Urban Land Institute's Report

The Urban Land Institute has produced is a report titled *The Active Transportation and Real Estate: The Next Frontier*[6] which focuses on trends in active transportation, real estate development, and catalytic bicycle and pedestrian infrastructure projects. The Urban Land Institute found that relatively small investments in bike-friendly amenities can lead to increased returns.

End-of-Trip Facilities for Bicycle Riders Guide

The League of American Bicyclists' *End-of-Trip Facilities for Bicycle Riders* summarizes the benefits of providing end-of-trip facilities; provides suggestions on where amenities should be placed; and offers tips on what kind of amenities are appropriate for various locations (see Figure A.1).

Cyclist facilities	Safe Access	Bicycle parking for staff	Bicycle parking for visitors	Toilets	Showers	Lockers	Courtesy equipment*	Repair equipment**	Drinking water	Home delivery service
Workplace	✓	✓		✓	✓	✓	✓	✓	✓	
School	✓	✓				✓			✓	
University	✓	✓	✓	✓	✓	✓	✓		✓	
Shopping Centre, business centre, customer service centre etc	✓		✓	✓						✓

* Courtesy equipment may include a basin and mirror, benches, hairdryers, iron and ironing board, washing machine and dryer, towel service, clothing hooks, fan, power point for bicycle light recharging or other convenience item.

** Repair equipment refers to items such as a foot pump, tyre levers and puncture repair kit.

Figure C.1. End-of-trip facilities recommended for various locations.
Source: League of American Bicyclists' *End-of-trip facilities for bicycle riders (June 2006)*

A copy of this guide can be found here:
www.bikeleague.org/sites/default/files/BFB_Queensland_End_of_trip_facilities_for_bicycle_riders.pdf

End-of-Trip Facilities: A Planning Guide for the Houston-Galveston Region

Another helpful resource is the Houston-Galveston Area Council's guide for employers, called the *End-of-Trip Facilities: A Planning Guide for the Houston-Galveston Region,* which was created with the aim of increasing the number of employers providing end-of-trip facilities. The guide identifies different types of amenities and offers suggested locations, cost estimates, level of security, design considerations, and case studies.

[6] http://americas.uli.org/wp-content/uploads/sites/125/ULI-Documents/Active-Transportation-and-Real-Estate-The-Next-Frontier.pdf

A copy of this guide can be found here:
www.h-gac.com/community/livablecenters/publications/End-of-Trip-Facilities11-02-2015.pdf

Wayfinding Examples
Successful wayfinding systems include decision signs, confirmation signs, and turn signs. Decision signs are typically placed at decision points along bicycle routes, such as at intersections and key locations heading to and along bicycle routes. Confirmation signs indicate that bicyclists or pedestrians are on a designated bicycle or pedestrian facility, and turn signs indicate where a path turns from one street or facility to another.

Wayfinding may point residents and visitors to commercial corridors or centers, public facilities, parks, transit stations, or amenities such as water fountains or restrooms. Kiosks can be installed that provide detailed maps which should nearby destinations five or ten-minute walking or biking distance.

Bicycle Boulevards in Berkeley
The City of Berkeley has a network of Class III bicycle boulevards which are bicycle routes on low-volume, low-speed streets. The City has created a wayfinding system for bicycle boulevards that uses the following guidance to direct bicyclists along the bike boulevards.

- Identification – Identifies and confirms that bicyclists are on a bike boulevard
- Destination and Distance – Provides direction and distance to key destinations
- Destination and Distance (at boulevard crossings) – Two-sided signs at bike boulevard crossings providing directions and distance to key destinations
- Route Guidance – Two-sided sign that provides directional information where the route changes
- Off-route Wayfinding – Signs that direct bicyclists near the bike boulevard, typically parallel streets, to the nearby bike boulevard
- Street Identification – Replaced street sign along the bike boulevard with a bike boulevard branded sign
- Advanced Street Identification – Street signage along roadways that cross a bike boulevard warning motorists they are about to cross a bike boulevard

In addition to wayfinding signage, bicycle boulevards have pavement markings that are used to remind drivers that they are on a bicycle boulevard and should travel at low speeds. As programmatic support to the bicycle boulevard program, the City also encourages the community to provide input on damaged, missing, or obstructed wayfinding signs so they can quickly make repairs.

For more information, visit
www.cityofberkeley.info/Public_Works/Transportation/Bicycle_Boulevard_Signage_System.aspx

Salt Lake County
Salt Lake County developed a regional Bicycle Wayfinding Protocol which encourages a consistent, county-wide wayfinding system throughout the County's individual jurisdictions.

More information about this program can be found here:
https://slco.org/uploadedFiles/depot/fRD/planning_transportation/SLCoWayfindingProtocol.pdf

Encouragement Through Programs

Employer/Employee Incentives

Shasta Living Street's Bicycle-Friendly Business Program

Healthy Shasta, Shasta Living Streets, and the Redding Chamber of Commerce sponsor an annual Bicycle-Friendly Business Program to increase awareness about what businesses can do to support employees and customers in bicycling more regularly as well as to feature the efforts of local businesses.

Healthy Shasta began offering a Bicycle Friendly Employer award in 2010, and focused on encouraging employers to support their employees in bicycling to work. In 2016, the name of the program changed to "Bicycle-Friendly Business Program," and the focus of the program expanded to also consider how businesses also support customers, visitors, and a bicycling culture in the community.

Each year, the program offers annual awards to local bicycle-friendly businesses. Any business, organization, public entity or worksite within Shasta County is eligible to be nominated, and the winners are determined by a committee with representatives from several organizations who reference the League of American Bicyclist's Bicycle Friendly Business criteria. Winners receive recognition through free marketing; are honored at the Bicycle Friendly Business celebration; are awarded a complimentary bicycle rack of their choice and a bicycle friendly banner; and receive a Shasta Living Street Membership.

Transportation Demand Management

The Mobility Lab, a transportation research and policy organization, has identified seven TDM strategies that are effective in shifting auto trips to other modes. These strategies are ranked below from the most to the least effective:

1. Trip caps or maximum average vehicle occupancies
2. Ordinances and development conditions
3. Disincentives for driving such as paid parking, tolls, and congestion pricing
4. Incentives for transit and alternate modes
5. Comprehensive programs with mutually reinforcing services, such as transit, carpool/vanpool, bike, walk, transit stores, and other
6. Marketing business benefits to employers
7. Information sharing

SANDAG'S iCommute Program

The San Diego Association of Governments' (SANDAG) TDM program, called "iCommute," aims to increase the number of people who carpool, ride transit, bike, walk, and telework. The program provides commuter assistance, employer services, and support to local jurisdictions.[7] The goals of iCommute include reducing traffic congestion; decreasing greenhouse gas emissions and environmental pollutants; reducing vehicle miles traveled; and helping the region meet the State-mandated goals to reduce greenhouse gas emissions.[8]

iCommute provides an interactive website with resources and connects commuters to potential ride matches for carpools and vanpools. One tool allows users to compare transportation options, calculate

[7] https://www.icommutesd.com/about-icommute

[8] iCommute TDM Program Fact Sheet: https://www.icommutesd.com/docs/default-source/default-document-library/3427-tdm-factsheet-september2015_rev.pdf?sfvrsn=4

the monetary and environmental costs of different options, and provides suggestions on alternatives and their associated benefits.

The following are a sample of iCommute's programs and services:

- *Bike encouragement program* - Supports the regional bikeway network and encourages bike commuting through Bike to Work Day events, complimentary employer bike services, a regional bike map, and bike lockers at more than 60 transit stations and Park & Ride locations throughout the region.
- *Walk, Ride, and Roll to School* – Developed to increase the number of children who walk, bike, skate, or ride a scooter to school; provides educational and safety classes and an annual mini-grant that awards up to $1,500 to 15 schools, districts, or after-school programs.
- *Promotion and Campaigns* – Organizes annual events, such as Bike to Work Day and Rideshare Month, to encourage participation in TDM programs.
- *Employer Services Program* – Provides free assistance and tools to help local businesses create and implement their own employee commuter benefits program. Employers who provide exemplary benefits, have high participation rates, and shifts in employee transportation choices are recognized by their Diamond Award program.
- *Technical Assistance* – Provides local jurisdictions assistance in developing their TDM programs. For example, SANDAG partnered with the City of Chula Vista and local developers to formalize the City's TDM program and integrate the program into the City's planning and development process, General Plan, Climate Action Plan, and $C0_2$ Reduction Plan.

Bike Parking Program

Bicycle parking programs provide multiple benefits such as:

- Increasing the number of available bike parking
- Improving coordination between jurisdictions, property owners, businesses, and other organizations
- Streamlining public requests
- Providing one point of contact for developers regarding coordination of funding, installation, and replacement of bicycle parking during construction

Metropolitan Area Planning Council's Program

The Metropolitan Area Planning Council in Massachusetts developed a regional bicycle parking program that reimburses municipalities for the purchase of bicycle parking and other amenities.[9] The program contracts with vendors that provide inverted-U racks, high-capacity racks, bike corrals, tool stands, shelters and canopies, stacked bicycle parking, and other amenities. Municipalities order the racks or amenities from the specified vendors and are reimbursed for the full cost after installation.

Bicycle-Friendly Business Program

Active Transportation Alliance's Bicycle-Friendly Business Program

In 2013, the Active Transportation Alliance (ATA), a non-profit organization that advocates for better biking, walking, and transit in Chicago, received a $25,000 grant from PeopleforBikes, an advocacy organization, to launch a new Bicycle-Friendly Business program. As a part of the program, ATA:

[9] https://www.mapc.org/our-work/services-for-cities-towns/public-works-collective-purchasing-program/

- Promotes the participating bike-friendly businesses on their website which includes an interactive map
- Provides signage to participating businesses to promote the program
- Recruits champions who advocate for better bike facilities, post petitions, and coordinate with other businesses around bike, pedestrian, and transit issues

Bicycle Benefits

Bicycle Benefits is a national organization that works with businesses to incentivize bicycle-riding rather than driving. Business that are Bicycle Benefits members receive storefront decals, information cards, and branded helmet stickers. Customers who present the helmet sticker to member businesses receive discount or free gift.

League of American Bicyclist's Bicycle Friendly Business webpage

More information on becoming a business that supports a culture of bicycling can be found on the League of American Bicyclists' *Bicycle Friendly Business* webpage at http://bikeleague.org/business

Community Events

Examples of community events include "Open Street Events" and community rides.

Open Street Events

During Open Street Events, roadways are closed to vehicular traffic, and the community is invited to walk, bike, or roll. People often set up booths or tents, and the event has a similar feel to a block party. Since 2011, Shasta Living Streets has hosted Open Street Events in the City of Redding. Shasta Living Streets markets the event as a "free-form parade" and encourages people to walk, bike, and explore their city and learn about local businesses and attractions.

Community Bike Rides

Community bike rides are another way to encourage people to ride their bicycles. Community rides can be organized by advocacy organizations, businesses such as bike shops, municipalities, or other groups. During community bike rides, participants ride along a pre-determined route, and these rides can be geared towards children, adults, or both. The purpose of the rides can be purely recreational and social, or they could also contain a feedback element where participants analyze the existing network with the aim of recommending improvements.

Incorporating Active Transportation into Existing Events

Events aimed at encouraging people of all ages to walk, run, and bike for recreation and transportation can be included in new and existing events. For example, providing information about ways to walk, bike, or ride transit to a community events can be a great encourage people to try new modes. These events also support local businesses, provide a fun way to collect input on transportation needs and concerns, and promotes physical activity.

Encouragement Through Policies

Bike Parking on Private Property

The Shasta County 2010 Bicycle Transportation Plan recognizes the importance of providing bicycle parking and encourages employers to provide bicycle amenities, such as bicycle racks, showers, and lockers, at worksites. The Plan also supports the placement of secure bicycle parking at/or near major public transit stops.

Resources

For assistance in developing bicycle parking policies, the Association of Pedestrian and Bicycle Professionals (APBP) has developed the *2015 Essentials of Bike Parking: Selecting and Installing Bike Parking that Works* and the *2010 Bicycle Parking Guidelines* that provide recommendations, best practices and example policies. These resources can be found here: http://www.apbp.org/?page=publications

Section 5.106.4 of the California Green Building Standards Code includes the minimum requirements for short- and long-term bicycle parking, and jurisdictions within the State of California must comply with these requirements unless the jurisdiction has a stricter ordinance (i.e., higher bike parking minimums).

The Humboldt County Association of Governments' *2015 Bike Parking Sourcebook* also provides sample policies, municipal codes, and programs. This resource can be found here: http://hcaog.net/sites/default/files/bike_parking_sourcebook_final.pdf

Bike Parking on Public Property

Commute Seattle's Inventory

In 2015, Commute Seattle conducted a bicycle amenity inventory of Seattle's City Center. The report assessed the existing public and private bicycle amenities to determine if the supply could meet current and future demand.[10] A bicycle parking inventory for the Shasta region could follow the Commute Seattle example.

Land Use Policies

Access to Transit

Currently, the Redding Area Bus Authority (RABA) provides a fixed-route and demand responsive transit service to the City of Redding and the broader urbanized area of Shasta County. RABA provides bike racks on the front of all fixed-route buses which can accommodate up to three bikes. RABA is the only local public transportation operator that originates in Shasta County; Modoc County's Sage Stage and Trinity County's Trinity Transit also have routes to and from the City of Redding.

In the 2007 Shasta Coordinated Transportation Plan, concerns have been noted around accessibility issues, lack of space for bicycles and luggage on transit, lack or absence of service in many areas, inaccessible bus stops for older adults or those with a disability, and a desire for comfort and safety improvements, lighting, protection from the weather, and seating, at existing transit stops.

Enforcement

Problematic Behaviors

Enforcement can aim to correct behaviors of both motorists and bicyclists. Problematic or dangerous motorist behaviors may include:

- Failing to yield the right-of-way
- Speed
- Dangerous left turns and right turns in front of bicyclists
- Driving too closely to bicyclists
- Opening vehicle doors into bike lanes

[10] https://commuteseattle.com/wp-content/uploads/2016/02/Commute-Seattle-2015-Bike-Inventory-Report-Updated.pdf

- Parking in bike facilities
- Distracted driving
- Driving while under the influence of alcohol or drugs

Bicyclist behavior that can contribute to crashes may include:

- Wrong way riding
- Riding at night without bike lights
- Failure to comply with traffic laws
- Riding at high speeds or erratically on sidewalks

Drivers Failing to Yield the Right-of-Way

Motorists failing to yield to pedestrians and bicyclists can create a dangerous environment for walking and biking and may result in serious crashes. Enforcement of the right-of-way at locations with high volumes of pedestrians and bicyclists can improve safety and may increase the rate at which motorists yield to pedestrians and bicyclists. Locations for targeted yielding enforcement may include: trail crossings, schools, transit centers, commercial corridors, mid-block crossings, and other locations with poor sightlines or high safety risks.

Enforcement efforts should be informed by data, and areas with high pedestrian and bicyclists injuries and fatalities should be evaluated for design improvements. In addition, law enforcement officers should regularly engage and partner with schools, businesses, and community organizations create a dialogue around locations where additional enforcement may be needed.

St. Paul's "Stop for Me" Campaign

St. Paul, Minnesota developed the "Stop for Me" campaign which is aimed at reducing pedestrian crashes by issuing citations to motorists who fail to yield to pedestrians at marked and unmarked crosswalks. During the campaign, volunteers attempted to cross at crosswalks throughout St. Paul; 34 crosswalks were included in the campaign. If motorists did not stop within 193 feet, the required distance for motorists to safely stop at 40 mph, the motorist was issued a ticket.

Speed

Vehicle speed is a contributing factor in nearly one-third of all fatal traffic-related crashes in the United States. Speed reduction is especially important to pedestrian safety, since the risk of severe injury or death to the pedestrian rises sharply as speeds increase, as shown in Figure 3.



Source: Tefft, B. C. Impact speed and a pedestrian's risk of severe injury or death. Accident Analysis & Prevention. 50. 2013.

Figure C.2. Impact Speeds and Risk of Severe Injury or Death

Prioritizing speed enforcement in areas with high populations of vulnerable users (such as children and seniors) or high-crash locations involving bicyclists or pedestrians can improve safety and comfort. To address this issue, some communities are recalibrating traffic speeds on roadways in dense neighborhoods or multi-modal areas.

Shasta County's Smart Trailer

The Shasta County Sheriff's Office has a speed-monitoring awareness radar tool, called a "smart trailer," which is used to control chronic speeding problems without the need of a law enforcement officer to be present. The smart trailer shows a motorist's speed on an oversized display and is placed at locations with high rates of speed limit infractions, or upon request and availability.

Seattle's Speed Limit Decrease

The City of Seattle found that approximately 25 percent of fatal crashes in Seattle result from speed. The City recognized that action was needed to increase safety for all roadway users and address the City's Vision Zero goal of ending traffic deaths and serious injuries on city streets by 2030. To meet these goals, the City of Seattle decreased their speed limits on many arterial roadways from 30 mph to 25 mph, and on neighborhood streets from 25 mph to 20 mph.

Traffic Control Compliance

In general, all road users, including pedestrians, bicyclists, and motorists, commit traffic control violations. Focusing enforcement of traffic compliance on areas with high bicyclist and pedestrian volumes, such as schools, parks, commercial corridors, can lead to a safer environment for all users.

Examples

The Chicago Department of Transportation's Bicycle Ambassadors work with the Police Department to host enforcement campaigns at high-crash locations. The purpose of these campaigns is to target

dangerous behaviors, often at intersections with stop signs or traffic signals. Warnings are issued to bicyclists and motorists who fail to obey the traffic control devices.

In 2016, the Bicycle Ambassadors conducted 66 campaigns, issued 850 warnings to bicyclists, and 700 warnings to motorists. After the campaign, the Police Department continues to issue citations to those who do not comply with traffic control regulations.

Also, the Injury Prevention Coalition of Shasta County is currently working with high schools to provide events and education around discouraging distracted driving and driving under the influence.

Rewarding Good Behavior Examples

The Naperville, Illinois Police Department hosts an annual campaign during which police officers issue "ice cream" citations to children who are demonstrating safe bicycle riding behaviors. These "ice cream" citations are coupons that can be redeemed for a free ice cream cone from McDonald's. From 2015 to 2017, Police Department has issued between 1,000 and 4,000 citations each year.

Similar "re-enforcement" campaigns were conducted by the Seattle Department of Transportation (SDOT) who partnered with volunteers from the Cascade Bicycle Club. At a new two-way protected bike lane in downtown Seattle, SDOT staff and volunteers "issued" Starbucks' gift cards to motorists and bicyclists who obeyed the new bicycle traffic signals and who parked, loaded and unloaded goods correctly.

The County's Safe Routes to School program is currently partnering with the City of Anderson Police Department to provide "positive enforcement" rewards, such as reflective lights, to kids walking and bicycling safety. The Injury Prevention Coalition has also partnered with several local law enforcement departments to hand out ice cream certificates.

Enforcement Methods

The following are examples of enforcement methods.

Targeted Enforcement

Targeted enforcement, also called "High Visibility Enforcement," can be used in areas where there are high volumes of people walking and biking or locations with known safety concerns, such as speeding or low traffic control compliance. Targeted enforcement can be both an enforcement method and a way to educate people about traffic safety and the potential outcomes of failing to obey traffic laws.

Progressive Ticketing Method

A progressive ticketing method, described below, can be used during targeted enforcement campaigns.

The first step is educating the community that there is a problem and raising awareness of this problem. The safety implications that result the problem and unsafe behaviors should be clearly stated and supported with data.

The second step is announcing that there will be increased enforcement for these behaviors prior to issuing citations. This can be done in the form of advertisements, newspaper stories, fliers, and official warnings issued by the Police Department.

The third step is issuing citations after the warning period has expired. Hosting a press conference announcing where and when targeted enforcement will occur can help to increase awareness on dangerous locations and behaviors.

Bike Patrols

A bike patrol, in which law enforcement officers conduct their patrols on a bicycle, may be another effective policing effort. Bicycle patrol officers can be both a law enforcement officer and a bicycle ambassador while on patrol. Bicycle patrol officers come into contact with nearly twice as many people as an officer in a motor vehicle. This increases the opportunities for conversations to encourage safe behaviors.

Safety Patrols on Trails Examples

Glendale's Trail Safety Patrol

The City of Glendale, California has established a Trail Safety Patrol (TSP) through the Community Services and Parks Department. The TSP provides safety services, reports trail maintenance issues, and assists trail staff.[11] The City has found that the TSP has increased comfort on the trails, improved the behavior of trail users, and reduced crime.

Three Rivers Park's Trail Patrol

In Three Rivers Park, Minnesota, a Trail Patrol was created by the Police Department after crashes (between motorists and bicyclists/pedestrians, and between bicyclists and pedestrians) occurred at many trail and roadway intersections throughout the trail system and a rise in petty crime had occurred.[12]

The Trail Patrol focuses on education and awareness campaigns and law enforcement. Two fulltime, sworn officers and three non-sworn park service officers patrol the trails. The team attends bike and pedestrian-related events to share information about their team and to and develop a relationship with the community.

East Bay Regional Park District's Volunteer Bicycle Patrol

The East Bay Regional Park District which serves Alameda and Contra Costa counties has created the Volunteer Bicycle Patrol which seeks to protect the safety of all park and trail users; preserve the park's plants and wildlife; and promote an enjoyable experience for users. SRTA could explore and expand options similar to the East Bay Regional Park District's program.

Evaluation

Non-Motorized Counts

Data on bicycle and pedestrian volumes can be collected manually or automatically. Volunteers can be used to conduct manual counts at different locations. If data is being collected throughout a region, a consistent data-collection methodology should be used between jurisdictions to maximize the utility of the data being collected. If possible, recording additional details (such as direction, time of day in 15-minute increments, gender, and other information) is also beneficial.

Additional project-specific counts and permanent counters can provide baseline data to evaluate growth in pedestrian activity and/or bike ridership, development of seasonal adjustment factors, and an understanding of how the local and regional pedestrian and bicycle network is being used. A combination

[11] http://www.glendaleca.gov/government/city-departments/community-services-parks/programs-services/trail-safety-patrol

[12] http://ipmba.org/blog/comments/trail-patrol-a-proactive-approach-to-public-safety

of automated, permanent counters, and manual counts should be used to collect as much data as possible without exhausting local resources (such as funding, labor/staff, and time).

The National Bicycle and Pedestrian Documentation Project coordinates a nationwide bicycle and pedestrian count twice a year, in which the Shasta region could participate.[13]

Since 2008, Healthy Shasta has been conducting annual bicycle and pedestrian counts which provides existing data and methodology for comparisons at key intersections, both for street and trailheads. The counts currently occur one day a year during an hour and a half during the morning commute and two hours during the afternoon commute. The data collected includes counts for bicyclists and pedestrians, location, direction of travel and turn movements, weather, and gas prices. Some counts gather data on helmet use and gender.

Counts have been taken at some locations consistently since 2008, while other locations have changed, typically to account for infrastructure changes or a need to collect data for funding applications. Future efforts could build off this program and compare trends over past years.

Additional data collection resources for non-motorized counts can be found at the following links:

- *Guidebook on Pedestrian and Bicycle Volume Data Collection* - NCHRP Report 797. http://www.trb.org/Publications/Blurbs/171973.aspx
- *Exploring Pedestrian Counting Procedures: A Review and Compilation of Existing Procedures, Good Practices, and Recommendations* – FHWA. https://www.fhwa.dot.gov/policyinformation/travel_monitoring/pubs/hpl16026/
- *Travel Monitoring and Traffic Volume* – FHWA. https://www.fhwa.dot.gov/policyinformation/tmguide/
- *Bicycle and Pedestrian Count Data – Part 1: Programs, Data, and Metrics* **-** Pedestrian and Bicycle Information Center. http://www.pedbikeinfo.org/training/webinars_PBIC_LC_022117.cfm

Example
The Seattle Department of Transportation (SDOT) has 12 permanent automated bicycle counters on neighborhood greenways, multi-use trails, and several bridges. The counters provide data that are compared to 2014 baseline counts to assess past performance and evaluate progress towards the City's goal of quadrupling ridership by 2030. Three of the counters automatically upload data once a day, and updates SDOT's website display the results in daily, weekly, monthly, and annual totals. The other counters upload data once a month.

[13] http://bikepeddocumentation.org/

Appendix D: Network Development and Prioritization

Network Development Methodology

The recommended bicycle and pedestrian network for the GoShasta ATP was developed through an iterative process using a combination of GIS-based needs analysis, field assessments, and discussions with the local jurisdictions. The network development process began with an assessment of current gaps in the bikeway network in GIS by mapping the existing bikeway and pedestrian networks across the region. Key gaps in the network were marked for bikeway recommendations. Additionally, based on field and aerial reviews of the roadway network across the region, potential bikeway routes and pedestrian focus areas were identified that connected between key destinations (e.g., schools, colleges, shopping centers, rural communities, and employment centers) as well as evaluating bicycle- and pedestrian-involved crashes to identify locations for recommended improvements to address safety concerns.

Following this initial layout of potential route locations, the type of recommended facility was determined through a secondary analysis of the roadway. For bikeways, the results of the level of traffic stress analysis and the posted speed along a roadway were used to recommend bikeway facilities that would provide a lower-stress bicycling experience while recognizing existing right of way constraints. This review also included recommending changes to the existing bikeway network to improve the bicycling experience along those facilities. For pedestrian facilities, different pedestrian environments were recommended based on the expected volume of pedestrian activity and the people that would likely be using the facility (e.g., students or shoppers).

After laying out the initial bikeway and walking improvement recommendations, the network was reviewed by each local jurisdiction to adjust the recommended network based on local knowledge and the feasibility of implementing different facility recommendations. Based on these comments, the network was revised. This revised network was then shared with the public as part of the community outreach for the plan and additional changes were made to the network based on the public input received after review by the local jurisdictions.

Prioritization Methodology

Implementation of the recommended bike and pedestrian projects included in this Plan will require funding from multiple sources and coordination with various agencies. To facilitate this, this section presents the method used to prioritize the GoShasta ATP recommended network. The prioritization method uses GIS data and public input to score the recommended projects and can be rerun as newer data becomes available. Scoring and measures for the prioritization criteria can be viewed in Table D.1.

After prioritization scores were ascribed to projects, local agencies were given the opportunity to reprioritize projects based on qualitative data. The reorganized project list was used to conduct a cost analysis and to determine the final regional constrained and unconstrained project lists.

Table D.1: GoShasta ATP Prioritization Scoring

Factor	Criteria	Measure	Points
Safety		**Total Points Possible**	**40**
	Crash analysis[1]	Tier 1 - High concentration	20
		Tier 2 - Medium to high concentration	10
		Tier 3 - Medium concentration	5
	Level of Traffic Stress (LOS)[2]	LTS 4	20
		LTS 3	10
Connectivity (bike projects only)		**Total Points Possible**	**30**
	Connects with existing bike facility	Connects with 5 or more existing bike facilities	15
		Connects with any existing bike facilities	10
	Connects with 2 or more proposed bike routes	Connects with 2 or more GoShasta ATP bike routes	5
	Closes a network gap	Closes a gap between two existing bike facilities on the same street	5
	Existing Trunk Lines	Directly connects to the Sacramento River Trail and existing trunk lines	5
Demand		**Distance to closest park, transit stop, or school** **Total Points Possible**	**45**
	Parks	1/2 mile	10
		1 mile	5
	Transit stops	1/4 mile from a transit center	10
		1/4 mile from a bus stop	5
	School	1/4 mile	10
		1/4-1/2 mile	5
		1/2-3/4 mile	2
	Strategic Growth Area (SGA)	Within SGA	15
Equity		**Total Points Possible**	**20**
	Low Resource Communities[3]	Within a Low Resource Community	20
WikiMap Feedback		**Total Points Possible**	**10**
	Supporting comments	Directly refers to a proposed project	10
		GRAND TOTAL	**145**

[1] A kernel density analysis using a half-mile distance band was conducted for bicycle crashes and pedestrian crashes that occurred between 2011 and 2015. Crashes were weighted based on the severity of the most severe injury resulting from the crash. Fatal crashes receive 10 points, serious injuries receive 5 points, minor or possible injury crashes receive 3 points, and no injuries or property damage only receive 1 point. Four tiers are classified using natural breaks with the lowest tier being removed from the analysis.

[2] A Level of Traffic Stress Analysis (See Appendix A) was conducted. Roads determined to have a level of traffic stress of 3 or 4 are generally considered to be uncomfortable for less experienced bicyclists due to traffic speeds, volumes and existing bicycle facilities (or lack of). These roads were included in the prioritization analysis because they are good candidates for improvements that would make them more safe and comfortable for a larger segment of the population.

[3] A Low Resource Community is defined in SRTA's 2015 Regional Transportation Plan (RTP). Low Resource Communities are identified in the Disadvantaged Communities Analysis that was conducted as part of the 2015 RTP.

The first step in the prioritization method consists of generating bike and pedestrian GIS heatmaps using the safety, demand, and equity factors. The heatmaps are developed by overlaying weighted buffers at different distance bands for each prioritization criterion. The buffers are merged together and the individual criterion scores were summed to create a subtotal prioritization score. This subtotal score is applied to the individual segments of the regional recommended network. The individual project segments are merged into larger project segments using the heatmap score, existing bikeway network, roadway network, and the recommended bike facility types as breaks in the project network. The average heatmap score is applied to each project segment during the merge creating a project subtotal. Public input received during the WikiMap exercise is then incorporated into the prioritization scoring by reviewing comments that support specific projects or routes. Projects were awarded points if they received a supportive comment.

Bicycle recommendations are included in a connectivity analysis to award points to projects that improve the bikeway network connectivity. The connectivity score is calculated using GIS to count the number of existing bikeways and recommended bikeways that each project is connected to and applies the corresponding connectivity criteria score. Projects that close a network gap between two existing bike facilities on the same street were given an additional five points and projects that directly connect to the Sacramento River Trail are given five points due to the trail's regional popularity.

A final prioritization score is calculated by summing the subtotal, WikiMap, and connectivity scores (connectivity score is applied only to bike recommendations). Recommended pedestrian spot treatments are prioritized using a similar methodology by taking the average pedestrian heatmap score within a 200-foot buffer.

The result of the prioritization scoring for bicycle projects are illustrated on Figures D.1 to D.7, and the result of the prioritization scoring for the pedestrian projects are illustrated on Figures D.8 to D.14. The prioritized projects can be viewed in Tables D.[number]. *Tables are forthcoming.*

The analysis uses easy to follow socio-economic American Community Survey Census data at the Census Block Group level (13 datasets/identifiers) to identify Low Resource Communities. Census Block Groups with 5 or more identifiers are considered Low Resource Communities.

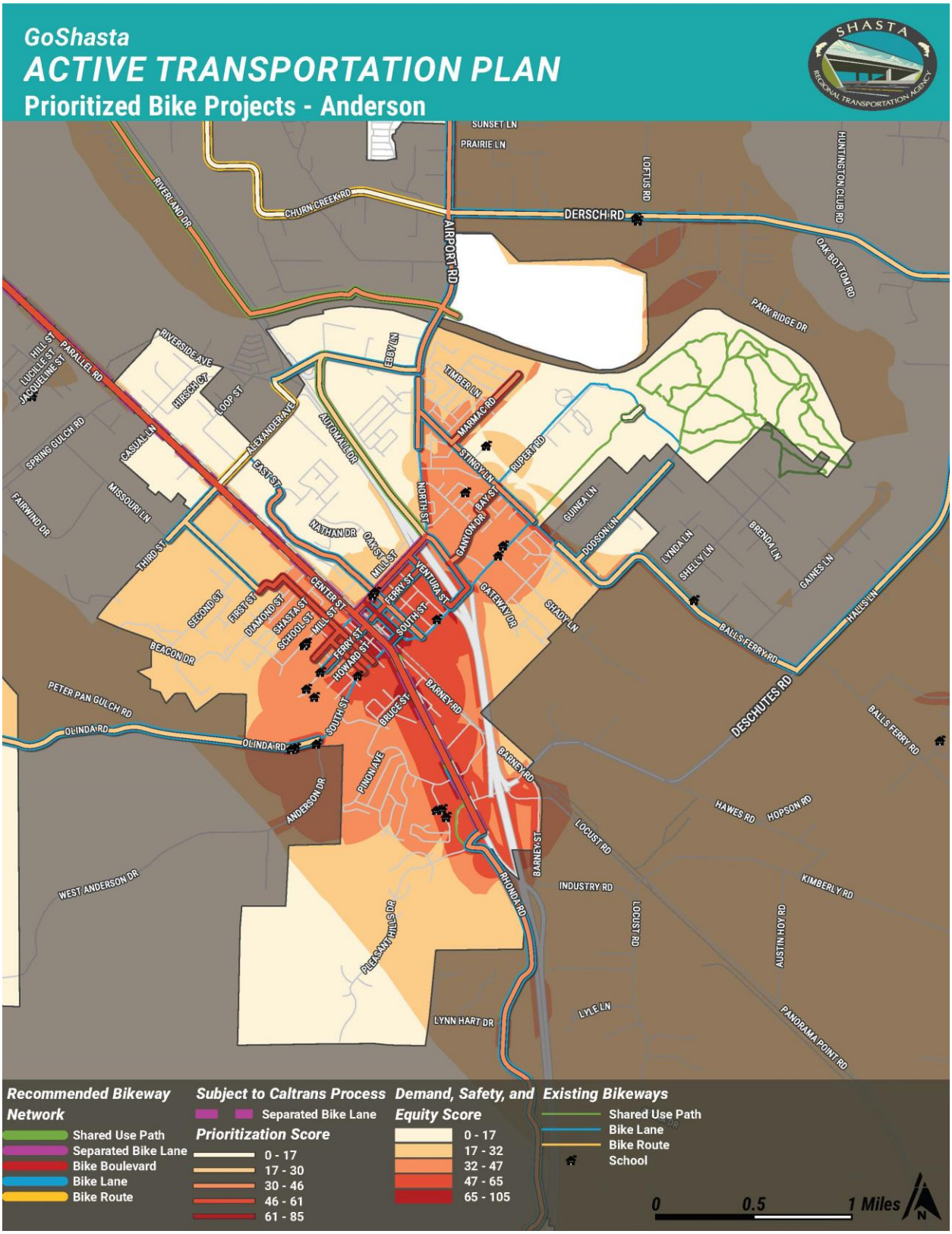


Figure D.1. Prioritized Bike Projects - Anderson

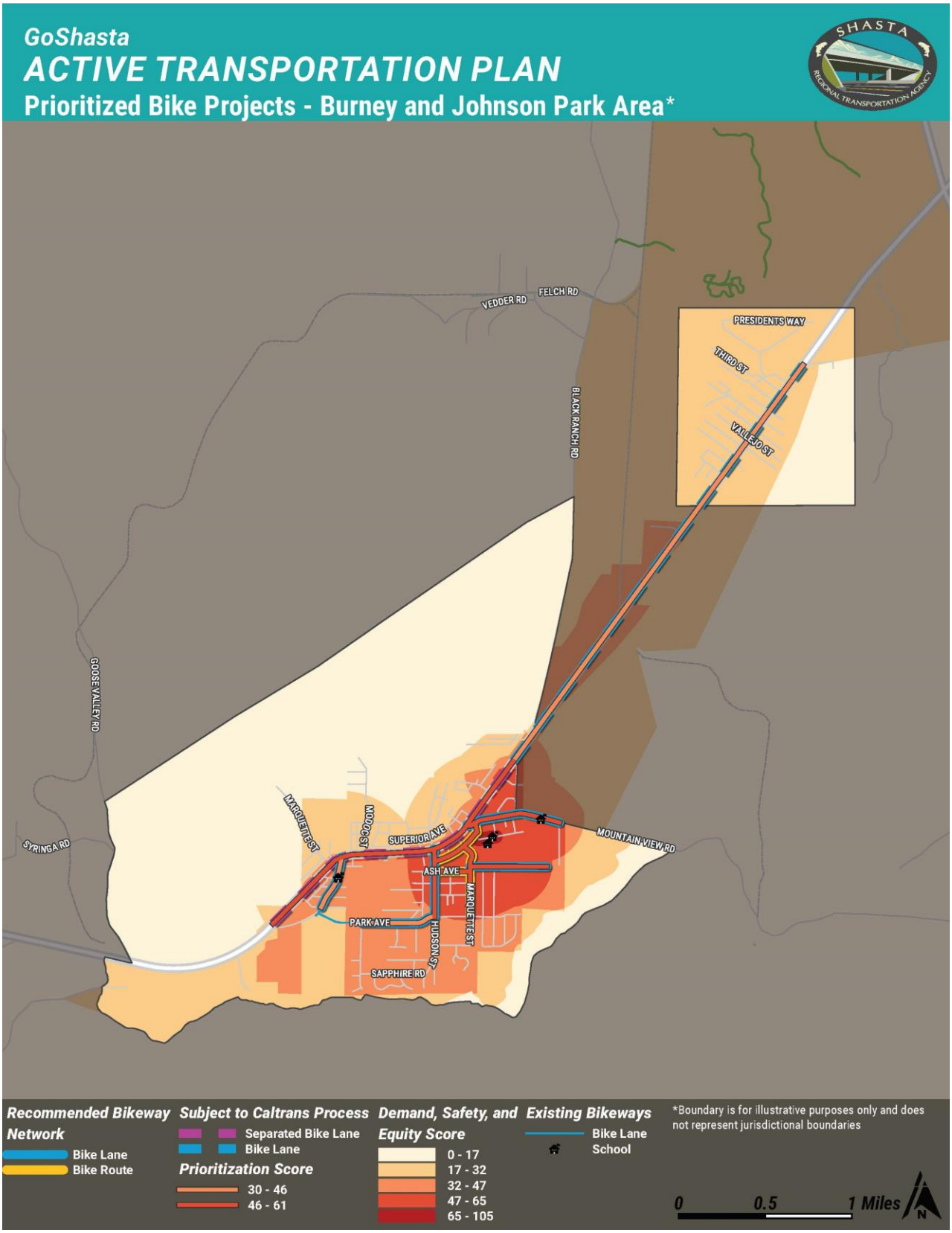


Figure D.2. Prioritized Bike Projects – Burney and Johnson Park Area

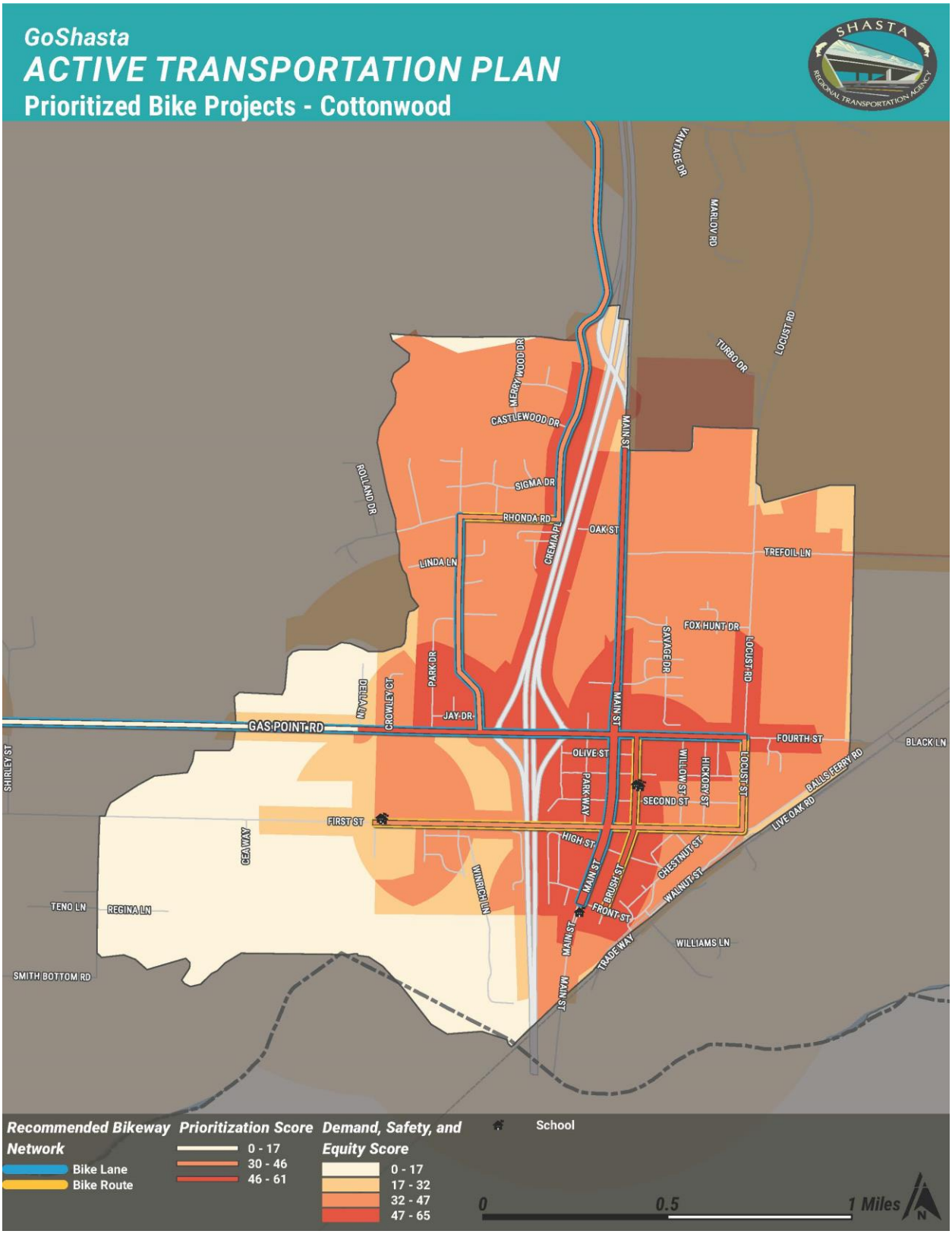


Figure D.3. Prioritized Bike Projects - Cottonwood

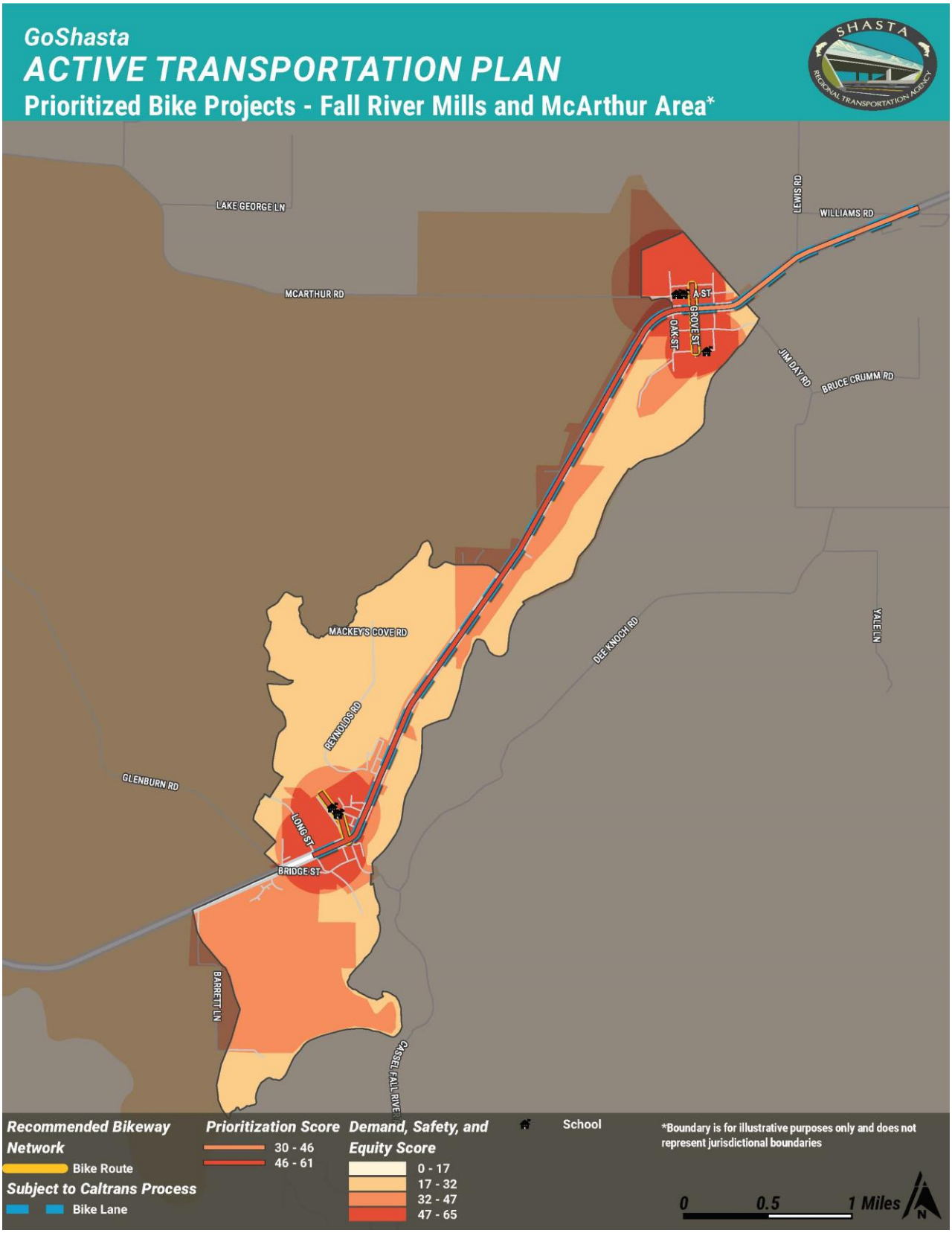


Figure D.4. Prioritized Bike Projects – Fall River Mills and McArthur Area

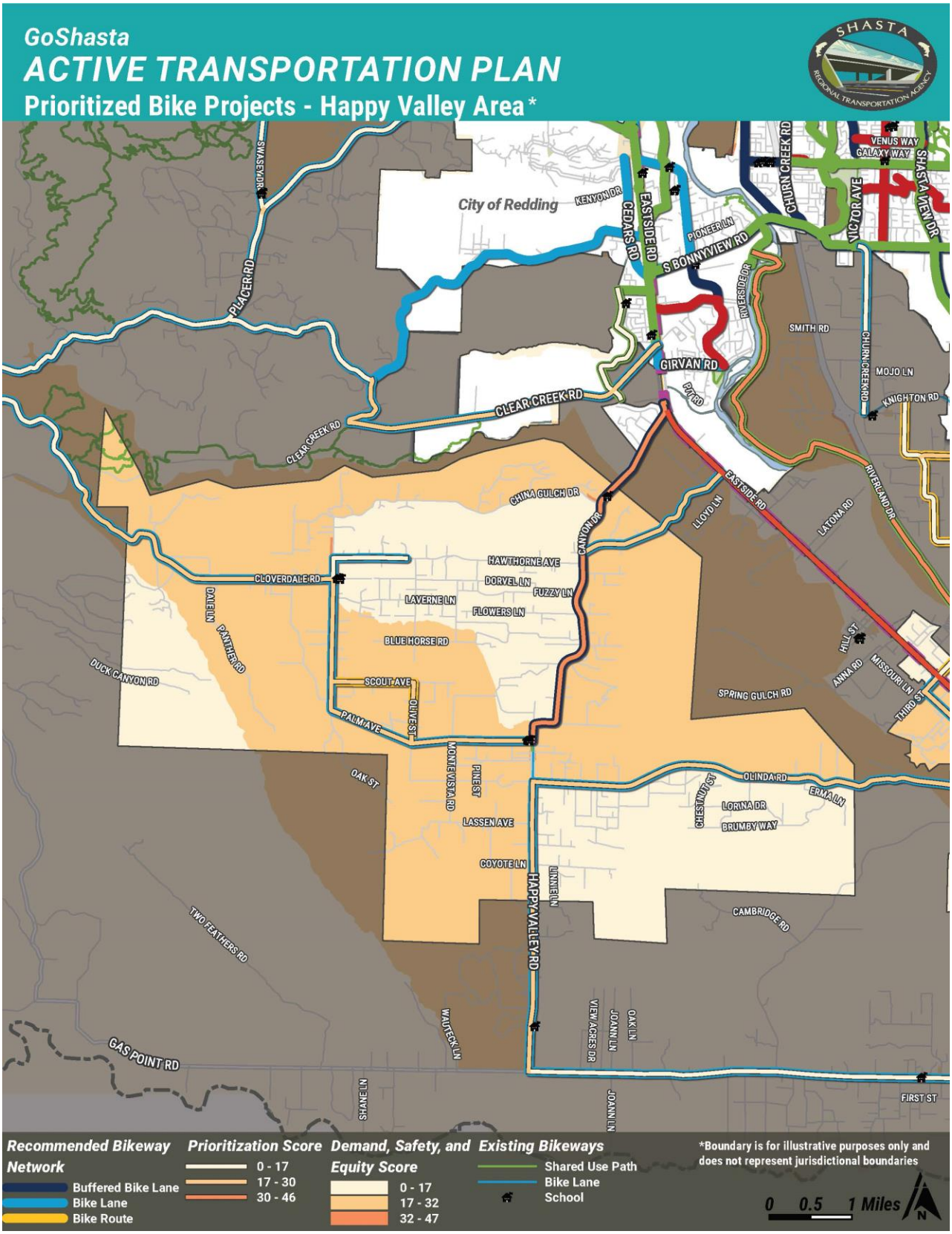


Figure D.5. Prioritized Bike Projects – Happy Valley Area

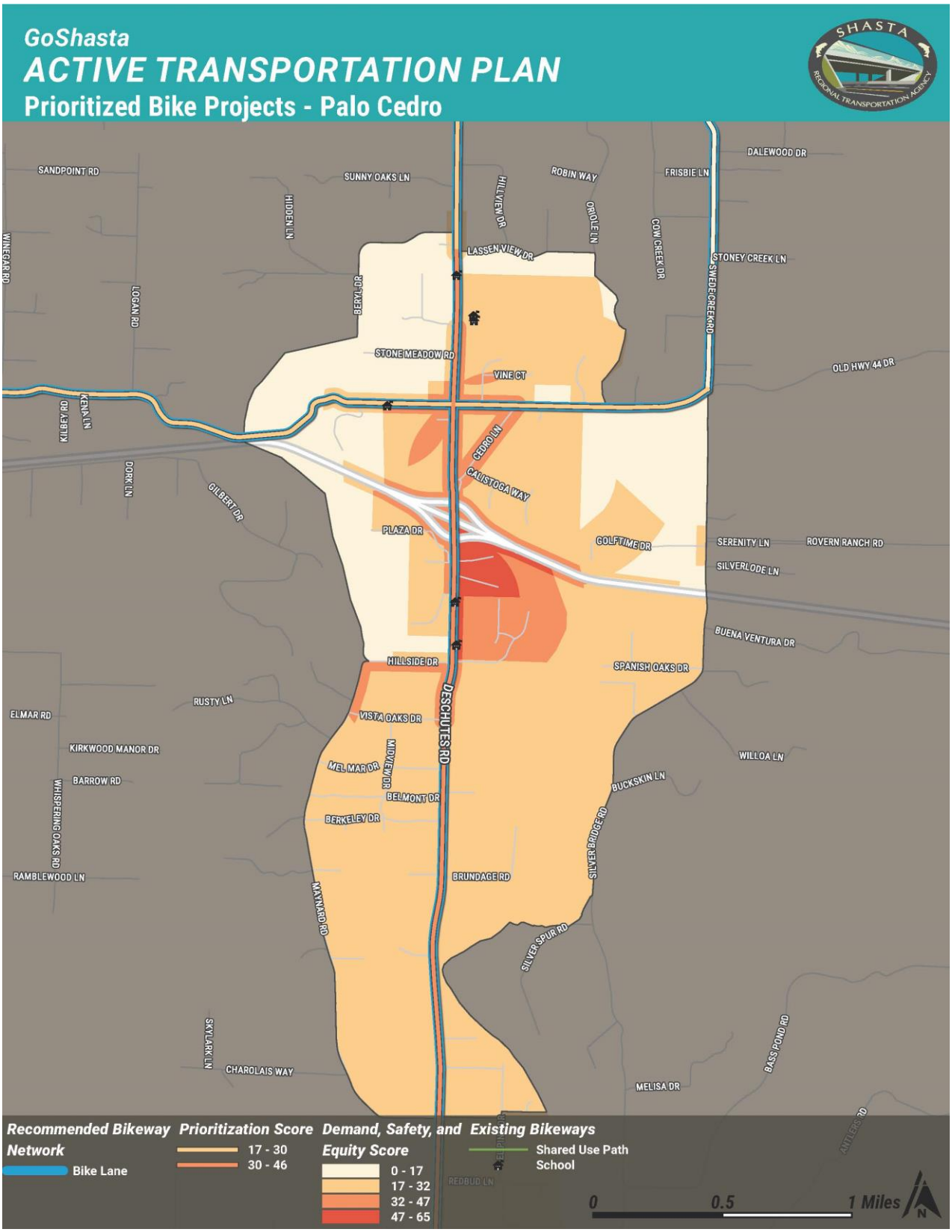


Figure D.6. Prioritized Bike Projects – Palo Cedro

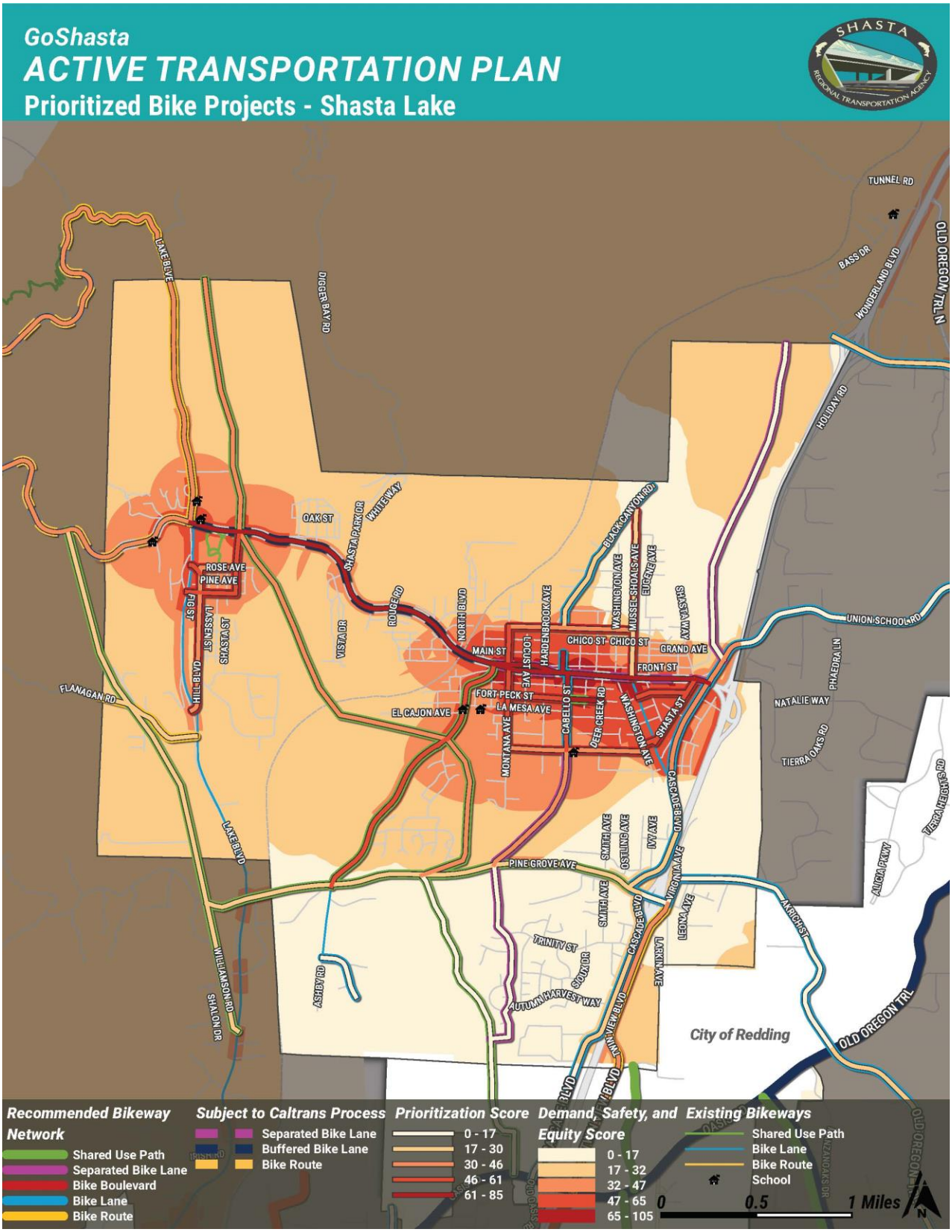


Figure D.7. Prioritized Bike Projects – Shasta Lake



Figure D.8. Prioritized Pedestrian Projects – Anderson

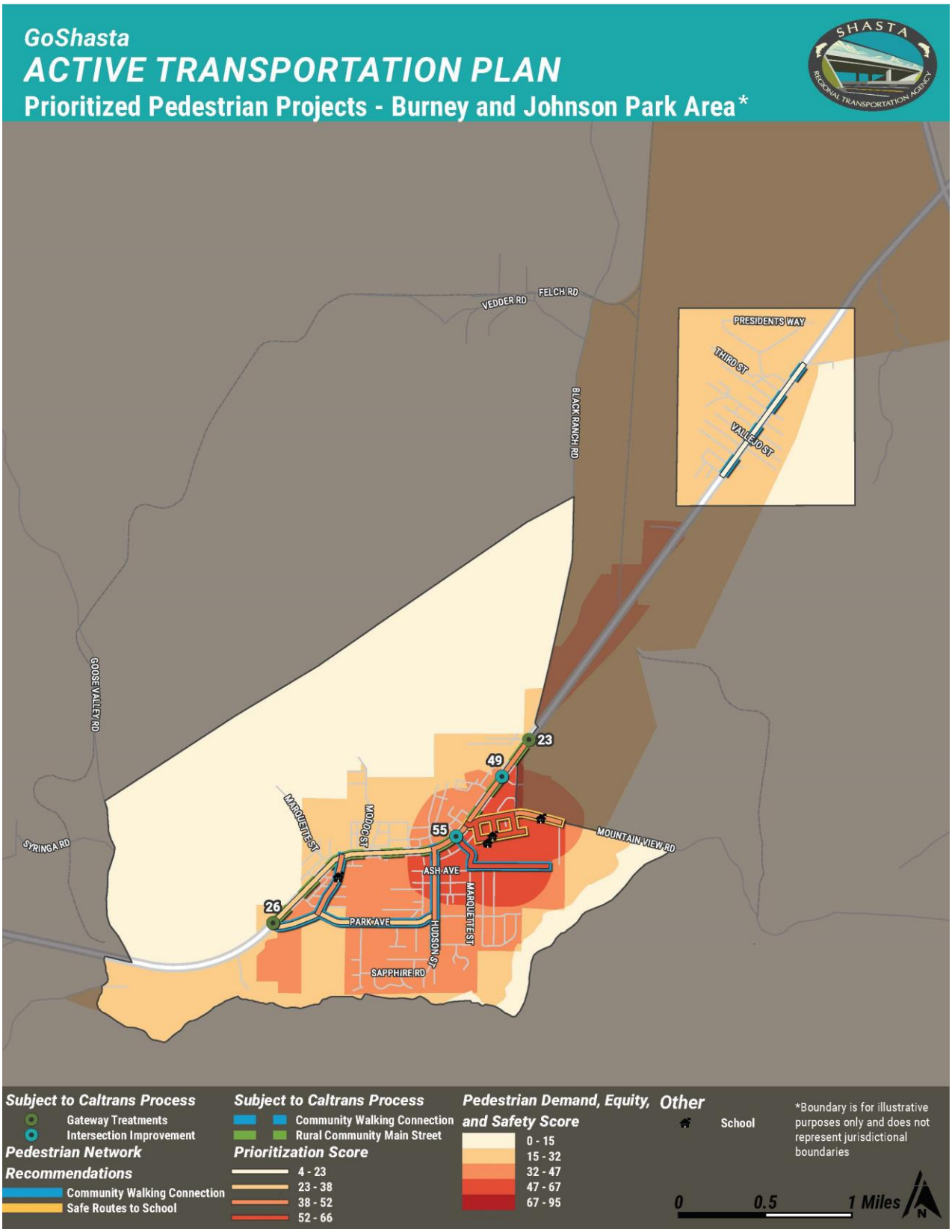


Figure D.9. Prioritized Pedestrian Projects – Burney and Johnson Park Area

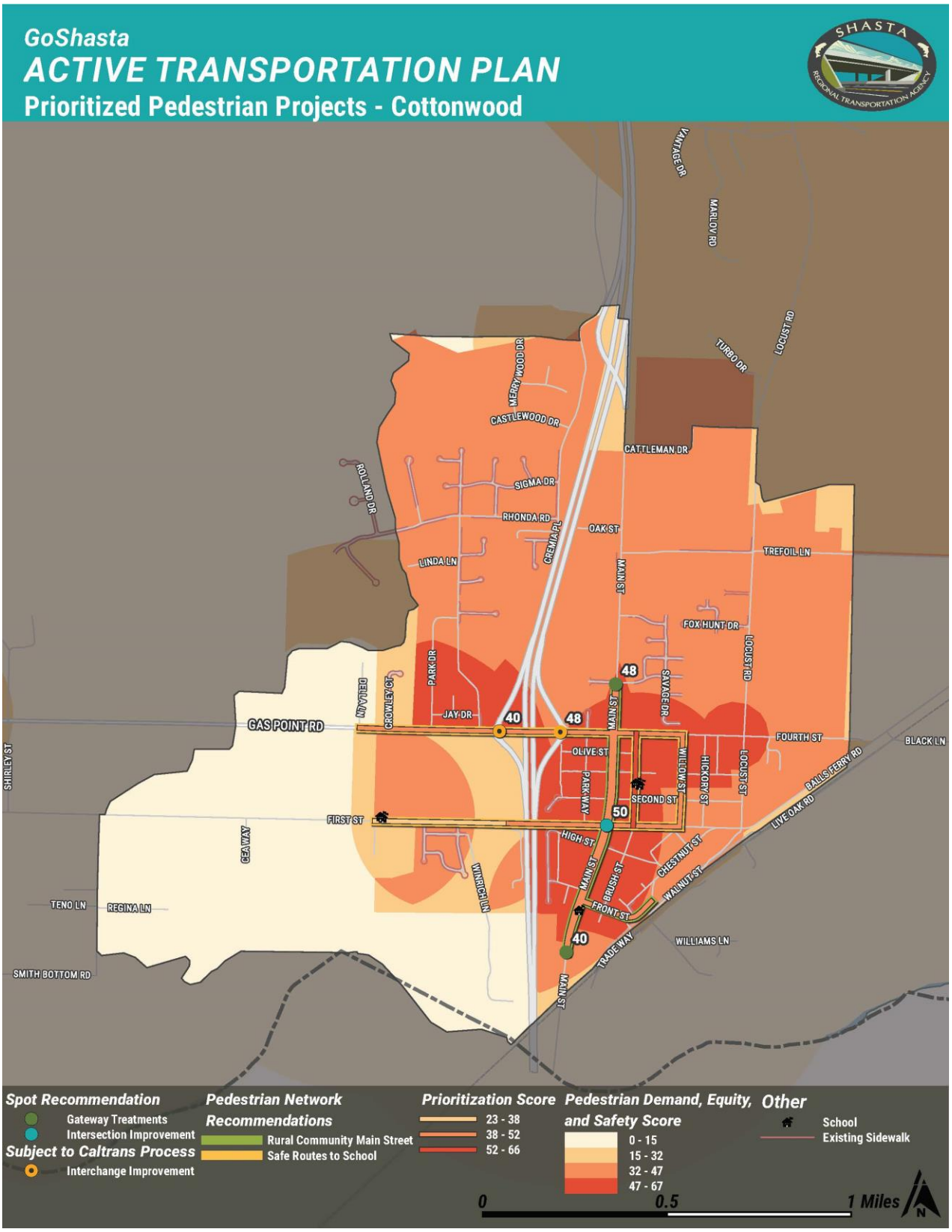


Figure D.10. Prioritized Pedestrian Projects – Cottonwood

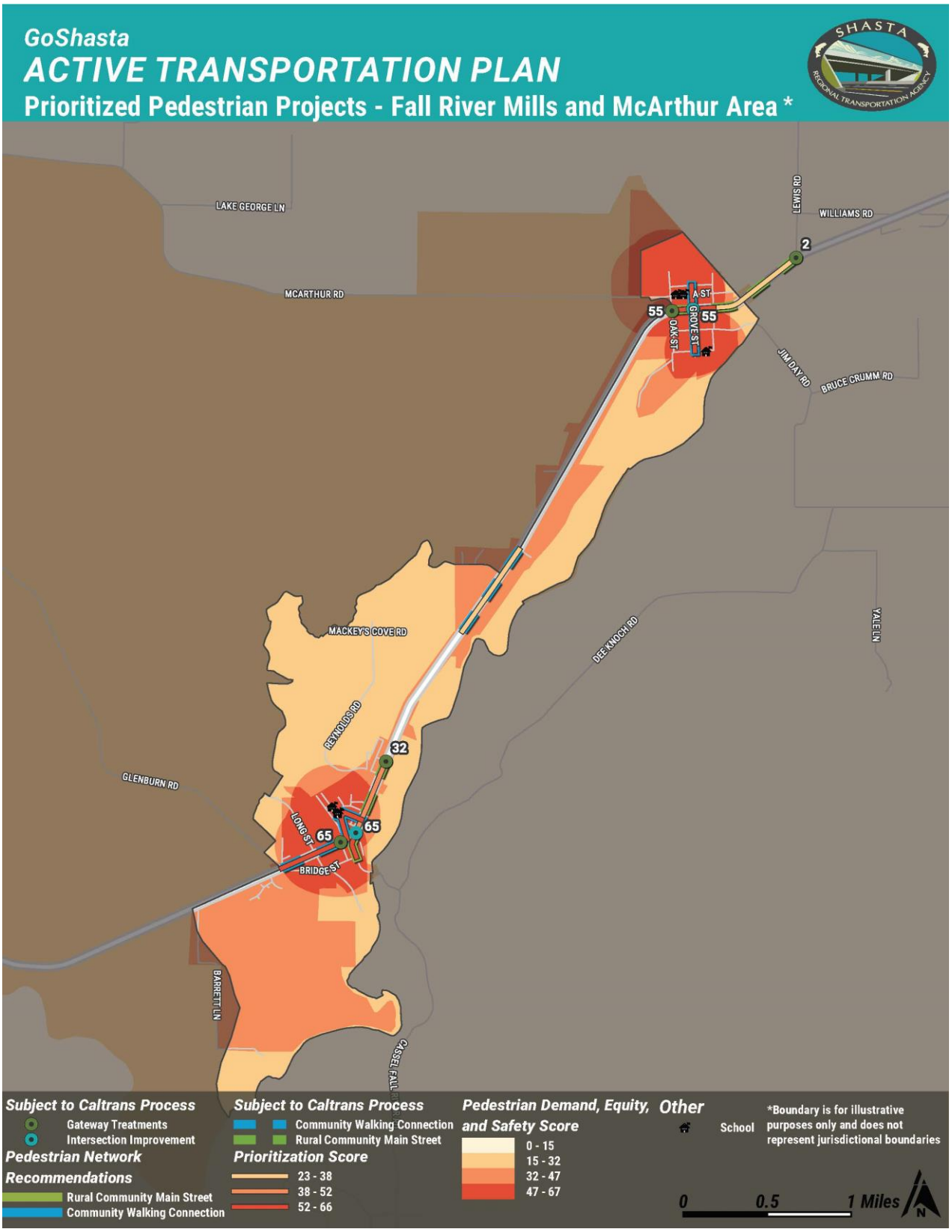


Figure D.11. Prioritized Pedestrian Projects – Fall River Mills and McArthur Area

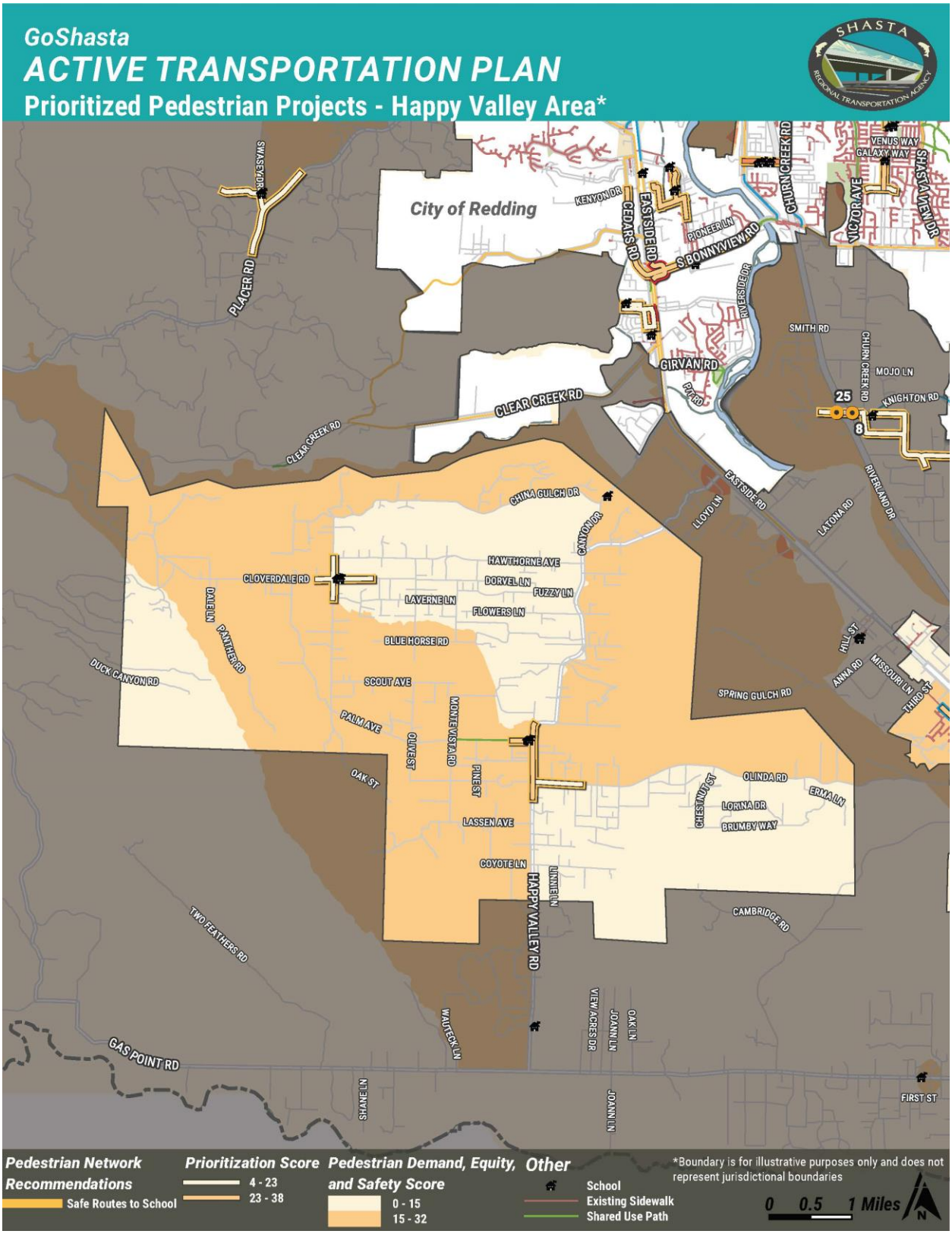


Figure D.12. Prioritized Pedestrian Projects – Happy Valley Area

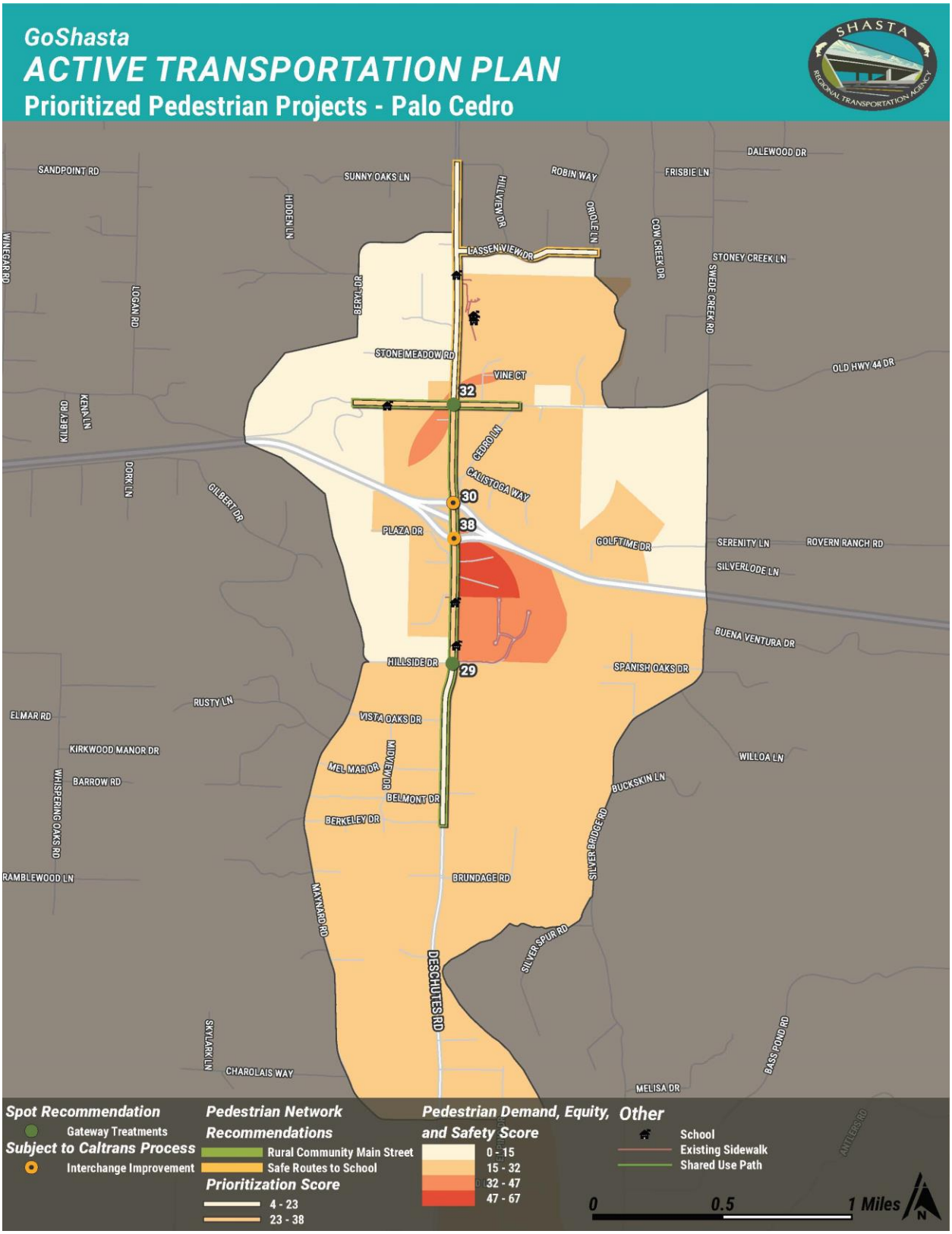


Figure D.13. Prioritized Pedestrian Projects – Palo Cedro

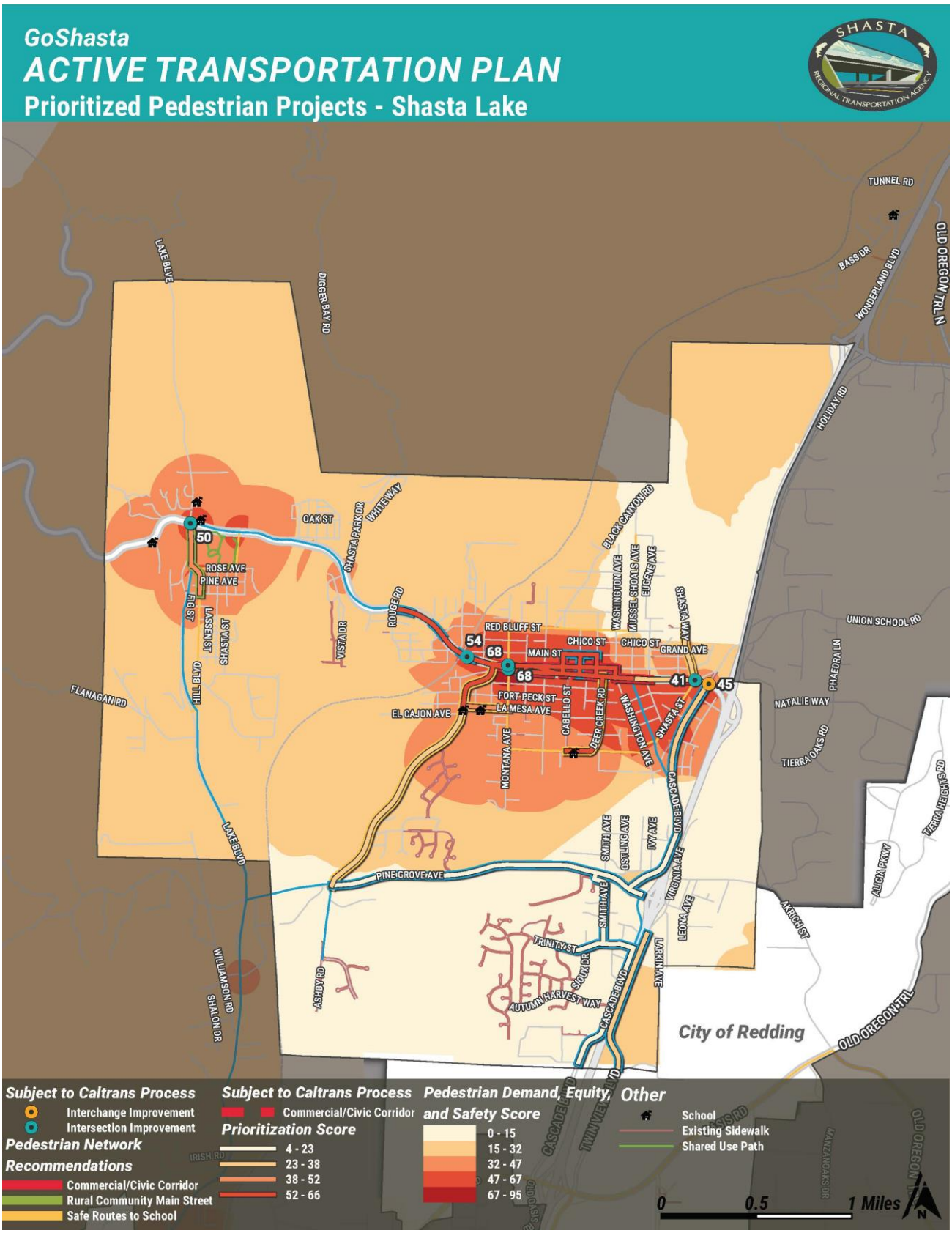


Figure D.14. Prioritized Pedestrian Projects – Shasta Lake

Appendix E: Comprehensive Active Transportation Project List

Comprehensive Active Transportation Project List

Tables E.2 and E.3 present projects that comprise the GoShasta and City of Redding ATP recommended networks as depicted on maps in Chapter 3 of the Plan. Active transportation projects from each jurisdiction in the Shasta Region are represented in the following table, including projects listed in the city of Redding's Active Transportation Plan (ATP). More information on city of Redding projects, policies, and programs can be found Redding's ATP. The ATPs for the city and the region were developed somewhat independently out of the same planning effort and will move forward together. As the city of Redding updates the project list in its ATP, these changes will automatically be incorporated in the GoShasta plan and the regional transportation plan.

Projects are broken into pedestrian, bicycle, and spot projects by local jurisdiction. Project extents have been established based on a GIS analysis, logical breaks (e.g., major junctions, a change in roadway or right-of-way width) and input from local agency partners and are subject to change based on local needs and scoring criteria for grant funding sources that may be pursued. The Project prioritization scores were established based on a quantitative analysis as described in Appendix D. The scoring rubric for prioritizing projects is also provided below as Table E.1. These scores are general indicators of the benefits a given project may provide (the higher the score, the higher the benefit), however there may be additional benefits or opportunities derived by a particular project that have not been captured in the quantitative analysis, which may override its score. Finally, planning-level cost estimates are included for each project. These estimates include materials for implementing the given project plus other soft costs such as the public/design process, maintenance of traffic (during installation), and contingencies. These costs are intended for general planning and programming purposes only. More accurate projects costs would be developed at the project development phase. A number of projects in the following project lists are "subject to Caltrans process." Please refer to page 51 of the GoShasta Active Transportation Plan for more information on Caltran's project development process.

Table E.1: GoShasta ATP Prioritization Scoring

Factor	Criteria	Measure	Points
Safety		**Total Points Possible**	**40**
	Crash analysis[1]	Tier 1 - High concentration	20
		Tier 2 - Medium to high concentration	10
		Tier 3 - Medium concentration	5
	Level of Traffic Stress (LOS)[2]	LTS 4	20
		LTS 3	10
Connectivity (bike projects only)		**Total Points Possible**	**30**
	Connects with existing bike facility	Connects with 5 or more existing bike facilities	15
		Connects with any existing bike facilities	10
	Connects with 2 or more proposed bike routes	Connects with 2 or more GoShasta ATP bike routes	5
	Closes a network gap	Closes a gap between two existing bike facilities on the same street	5
	Existing Trunk Lines	Directly connects to the Sacramento River Trail and existing trunk lines	5
Demand		**Distance to closest park, transit stop, or school** **Total Points Possible**	**45**
	Parks	1/2 mile	10
		1 mile	5
	Transit stops	1/4 mile from a transit center	10
		1/4 mile from a bus stop	5
	School	1/4 mile	10
		1/4-1/2 mile	5
		1/2-3/4 mile	2
	Strategic Growth Area (SGA)	Within SGA	15
Equity		**Total Points Possible**	**20**
	Low Resource Communities[3]	Within a Low Resource Community	20
WikiMap Feedback		**Total Points Possible**	**10**
	Supporting comments	Directly refers to a proposed project	10
		GRAND TOTAL	**145**

[1] A kernel density analysis using a half-mile distance band was conducted for bicycle crashes and pedestrian crashes that occurred between 2011 and 2015. Crashes were weighted based on the severity of the most severe injury resulting from the crash. Fatal crashes receive 10 points, serious injuries receive 5 points, minor or possible injury crashes receive 3 points, and no injuries or property damage only receive 1 point. Four tiers are classified using natural breaks with the lowest tier being removed from the analysis.

[2] A Level of Traffic Stress Analysis (See Appendix A) was conducted. Roads determined to have a level of traffic stress of 3 or 4 are generally considered to be uncomfortable for less experienced bicyclists due to traffic speeds, volumes and existing bicycle facilities (or lack of). These roads were included in the prioritization analysis because they are good candidates for improvements that would make them more safe and comfortable for a larger segment of the population.

[3] A Low Resource Community is defined in SRTA's 2015 Regional Transportation Plan (RTP). Low Resource Communities are identified in the Disadvantaged Communities Analysis that was conducted as part of the 2015 RTP. The analysis uses easy to follow socio-economic American Comity Survey Cens data at e Census Block Group level (13 datasets/identifiers) to identify Low Resource Communities. Census Block Groups with 5 or more identifiers are considered Low Resource Communities.

Table E.2 - GoShasta Project List

Anderson

Pedestrian

Street Name	From Street	To Street	Project Description	Length (Miles)	Safety	Demand					Equity		Total	Cost	Time Band
					Pedestrian Crash Density	Transit Center	Parks	School	Bus Stop	Strategic Growth Area	Disadvantaged Community	Community			
NORTH ST	I 5 NB ON/R/McMURRAY DR	DOUGLAS ST	Commercial/Civic Corridor	0.6	6.0	0.0	0.0	9.1	8.6	4.6	14.5	0.0	42.9	$966,500	2018-2025
STINGY LN	BAY ST/RUPERT RD	NORTH ST	Community Walking Connection	0.8	1.9	0.0	0.0	9.0	7.3	0.0	11.7	0.0	29.8	$725,500	2018-2025
NORTH ST	DOWNING LN/ RIVERSIDE AVE	I 5 NB ON/R/ McMURRAY DR	Commercial/Civic Corridor	0.8	0.0	0.0	0.0	5.7	7.4	0.0	10.7	0.0	23.8	$1,402,000	2018-2025
												Anderson Pedestrian Subtotal		**$3,094,000**	

Shasta Lake

Pedestrian

Street Name	From Street	To Street	Project Description	Length (Miles)	Safety	Demand					Equity		Total	Cost	Time Band
					Pedestrian Crash Density	Transit Center	Parks	School	Bus Stop	Strategic Growth Area	Disadvantaged Community	Community			
MCCONNELL AVE	SHASTA DAM BLVD	MAIN ST	Commercial/Civic Corridor	0.1	5.0	0.0	10.0	4.8	7.7	15.0	20.0	0.0	62.5	$170,546	2018-2025
DEER CREEK RD/ VALLECITO ST	CABELLO ST	SHASTA DAM BLVD	Safe Routes to School	0.5	0.0	0.0	7.9	8.3	2.5	8.8	20.0	309400010.0	57.5	$906,389	2018-2025
ASHBY RD	LOS GATOS AVE	FRONT ST/SHASTA DAM BLVD	Safe Routes to School	0.3	3.2	0.0	8.2	9.4	6.3	9.3	20.0	0.0	56.5	$495,275	2018-2025
CASCADE BLVD	GRAND COULEE BLVD	I 5 NBOFF/R/I 5 SBON/R/SHASTA DAM BLVD	Community Walking Connection	0.6	0.0	0.0	0.0	3.7	6.5	12.7	10.8	0.0	33.7	$512,834	2018-2025
ASHBY RD	PINE GROVE AVE	LA MESA AVE	Safe Routes to School	1.2	0.0	0.0	7.0	4.9	0.0	0.0	18.0	0.0	29.9	$2,049,542	2018-2025
CASCADE BLVD	PINE GROVE AVE	GRAND COULEE BLVD	Community Walking Connection	0.7	2.3	0.0	0.0	1.0	6.5	0.0	0.0	0.0	9.8	$609,157	2018-2025
PINE GROVE AVE	JORZACK WAY	ASHBY RD	Community Walking Connection	1.4	0.0	0.0	0.0	1.3	1.3	0.0	5.0	0.0	7.5	$1,267,255	2018-2025
												Shasta Lake Pedestrian Subtotal		**$6,010,997**	

Bicycle

Street Name	From Street	To Street	Project Description	Length (Miles)	Safety		Connectivity				Demand					Equity		Total	Cost	Time Band
					Level of Traffic Stress	Bike Crash Density	Connects to Proposed Facilities	Closes Network Gap	Connects to Existing Facility	Connects to Sac River Trail	Transit Center	Parks	School	Bus Stop	Strategic Growth Area	Disadvantaged Community	Community			
SHASTA DAM RD	ASHBY RD	LAKE BLVD	Caltrans Project Development Process - Buffered Bike Lane	1.88	1.0	8.0	5.0	0.0	0.0	0.0	0.0	6.3	5.9	7.1	9.3	20.0	0.0	62.6	$203,000	2018-2025
CHURN CREEK TRAIL - CONNEC-TION	OASIS RD	PINE GROVE AVE	Shared-Use Path	1.73	0.0	5.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	0.0	1.7	0.0	15.8	$1,407,500	2018-2025
																	Shasta Lake Bicycle Subtotal		**$1,610,500**	
																	Shasta Lake Subtotal		**$7,621,500**	

Redding

Bicycle

Street Name	From Street	To Street	Project Description	Length (Miles)	Safety		Connectivity				Demand						Equity		Total	Cost	Time Band
					Level of Traffic Stress	Bike Crash Density	Connects to Proposed Facilities	Closes Network Gap	Connects to Existing Facility	Connects to Sac River Trail	Transit Center	Parks	School	Bus Stop	Strategic Growth Area	Popu-lation	Disad-vantaged Community	Com-munity			
BUTTE ST	CONTINENTAL ST	SUNDIAL BRIDGE DR	Buffered Bike Lane	0.39	10.0	10.8	5.0	10.0	0.0	0.0	15.0	0.0	7.7	6.2	1.5	5.0	3.1	0.0	74.2		2018-2025
CONTINENTAL ST	BUTTE ST	TRINITY ST	Separated Bike Lane	0.31	4.0	15.3	5.0	10.0	0.0	0.0	15.0	0.0	6.1	4.7	6.3	5.0	12.6	0.0	83.9		2018-2025
OFF-STREET (TURTLE BAY TO DOWNTOWN TRAIL)	TURTLE BAY	CONTINENTAL ST	Shared-Use Path	0.86	6.0	9.3	0.0	10.0	0.0	5.0	13.0	0.0	8.3	5.0	1.3	5.0	2.7	10.0	75.7		2018-2025
PARK MARINA DR	SUNDIAL BRIDGE DR	E CYPRESS AVE	Shared-Use Path	1.35	6.0	3.5	5.0	15.0	0.0	0.0	12.1	0.0	7.8	4.7	0.0	4.9	0.0	10.0	68.9		2018-2025
PARK MARINA DR	SUNDIAL BRIDGE DR	PARKVIEW AVE	Buffered Bike Lane	1.40	6.0	3.9	0.0	10.0	0.0	0.0	15.0	0.0	8.1	4.1	0.0	4.9	0.0	10.0	62.0		2018-2025
SHASTA ST; WILLIS ST; PLEASANT ST; SOUTH ST	SOUTH ST/SAN FRANCISCO ST	SHASTA ST/ COURT ST	Bike Boulevard	1.46	2.0	6.6	5.0	10.0	0.0	0.0	2.3	0.4	6.9	8.8	5.6	4.6	17.3	10.0	79.5		2018-2025
SHASTA VIEW DR	CASTLEWOOD DR	HWY 44 WB OFF/R/HWY 44 WB ON/R	Buffered Bike Lane	0.74	7.0	0.5	5.0	15.0	0.0	0.0	0.0	0.0	7.1	2.9	10.0	3.6	18.0	0.0	69.1		2018-2025
SHASTA VIEW DR	CASTLEWOOD DR	HARTNELL AVE	Buffered Bike Lane	1.09	9.0	1.4	5.0	15.0	0.0	0.0	0.0	0.0	6.6	5.0	9.6	3.6	3.2	0.0	58.4		2018-2025
TRINITY ST	CENTER ST	CONTINENTAL ST	Separated Bike Lane	0.43	2.0	16.3	5.0	15.0	0.0	0.0	15.0	0.0	8.8	4.8	5.6	5.0	18.8	0.0	96.2		2018-2025
VICTOR AVE	BRAMBLE PL	E CYPRESS AVE	Shared-Use Path	0.62	10.0	7.8	5.0	10.0	0.0	0.0	0.0	0.0	6.6	8.4	9.4	5.0	20.0	10.0	92.2		2018-2025
VICTOR AVE	BRAMBLE PL	OLD ALTURAS RD	Buffered Bike Lane	1.76	10.0	5.2	5.0	15.0	0.0	0.0	0.0	0.0	2.9	6.5	7.3	5.0	13.8	10.0	80.7		2018-2025
																			Redding Bicycle Subtotal		

IN DEVELOPMENT BY CITY OF REDDING

Shasta County

Bicycle

Street Name	From Street	To Street	Project Description	Length (Miles)	Safety		Connectivity				Demand					Equity		Total	Cost	Time Band
					Level of Traffic Stress	Bike Crash Density	Connects to Proposed Facilities	Closes Network Gap	Connects to Existing Facility	Connects to Sac River Trail	Transit Center	Parks	School	Bus Stop	Strategic Growth Area	Disadvantaged Community	Commu-nity			
HUDSON ST	MOUNTAIN VIEW RD/STATE HWY 299 E	CYPRESS AVE	Bike Lane	0.44	4.2	1.2	5.0	0.0	0.0	0.0	0.0	5.0	4.1	0.0	15.0	18.5	0.0	52.9	$64,749	2018-2025
MOUNTAIN VIEW RD	CARBERRY ST	MUSKEGON ST/ STATE HWY 299 E	Bike Lane	0.39	4.4	0.6	0.0	0.0	0.0	0.0	0.0	7.2	10.0	1.6	8.4	18.8	0.0	50.9	$91,196	2018-2025
RHONDA RD	CREMIA PL	MATTHEW CT/ ROBINSON GLEN DR	Bike Route	0.53	5.0	5.0	5.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	15.0	20.0	0.0	50.5	$34,251	2018-2025
PARK AVE/CY-PRESS AVE	HUDSON ST	BARTEL ST	Bike Lane	0.89	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.8	0.0	15.0	20.0	0.0	40.3	$71,184	2018-2025
DESCHUTES RD	BOYLE RD/OLD DESCHUTES RD	LASSEN VIEW DR	Bike Lane	0.95	0.0	7.0	5.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	10.0	27.6	$233,992	2018-2025
OAK ST/HAW-THORNE AVE	DIXIELAND LN	CLOVERDALE RD	Bike Lane	1.13	0.0	5.0	5.0	0.0	0.0	0.0	0.0	0.0	5.9	0.0	0.0	5.0	0.0	20.9	$187,314	2018-2025
																			Shasta County Bicycle Subtotal	**$682,687**	
																			GoShasta Subtotal	**$11,398,187**	

Tables E.3 - Long-Term Project List

Anderson

Bicycle

Street Name	From Street	To Street	Project Description	Length (Miles)	Safety		Connectivity				Demand					Equity		Total	Cost	Time Band
					Level of Traffic Stress	Bike Crash Density	Connects to Proposed Facilities	Closes Network Gap	Connects to Existing Facility	Connects to Sac River Trail	Transit Center	Parks	School	Bus Stop	Strategic Growth Area	Disad-vantaged Community	Commu-nity			
SOUTH ST/FREE-MAN ST	NORTH ST	STATE HWY 273	Bike Lane	0.01	10.0	5.0	5.0	0.0	0.0	0.0	0.0	3.5	9.4	9.7	13.2	18.8	0.0	74.7	$48,893	2026-2040
FERRY ST	CENTER ST	VERNON ST	Bike Lane	0.49	8.6	1.4	5.0	0.0	10.0	0.0	0.0	5.0	10.0	7.1	6.4	20.0	0.0	73.6	$47,865	2026-2040
CHURCH ST	NORTH ST	SOUTH ST	Bike Boule-vard	1.97	5.0	3.8	5.0	0.0	10.0	0.0	0.0	6.3	10.0	6.9	0.0	20.0	0.0	66.9	$155,875	2026-2040
SILVER ST/FIRST ST/BRIGGS ST	FAIRGROUNDS DR	SOUTH ST	Bike Boule-vard	1.59	5.0	1.2	5.0	0.0	10.0	0.0	0.0	2.9	8.5	9.4	4.4	20.0	0.0	66.5	$533,769	2026-2040
FERRY ST	VENTURA ST	CENTER ST	Bike Lane	2.05	7.2	2.2	5.0	0.0	0.0	0.0	0.0	0.0	8.9	7.2	15.0	20.0	0.0	65.6	$60,512	2026-2040
BALLS FERRY RD/ VENTURA ST/ McMURRAY DR	NORTH ST	GANYON DR	Bike Lane	1.97	3.5	6.5	5.0	0.0	0.0	0.0	0.0	0.0	8.2	8.8	9.5	18.8	0.0	60.3	$104,762	2026-2040
NORTH ST	I 5 NB ON/R/ McMURRAY DR	STATE HWY 273	Seprated Bike lane	0.36	6.7	6.9	5.0	0.0	0.0	0.0	0.0	0.0	8.8	8.7	4.5	13.0	0.0	53.7	$131,051	2026-2040
NORTH ST	SILVER ST	VERNON ST	Bike Boule-vard	0.32	5.0	0.0	5.0	0.0	0.0	0.0	0.0	5.0	10.0	6.7	0.0	20.0	0.0	51.7	$131,051	2026-2040
STINGY LN	BAY ST/RUPERT RD	BAY ST/RUPERT RD	Bike Lane	0.87	2.5	5.4	5.0	0.0	10.0	0.0	0.0	0.0	9.0	7.3	0.0	11.7	0.0	50.8	$128,395	2026-2040
McMURRAY DR	I 5 NB ON/R/ NORTH ST	GANYON DR	Bike Lane	0.17	5.0	6.0	5.0	0.0	0.0	0.0	0.0	0.0	6.0	5.0	0.0	16.0	0.0	43.0	$31,052	2026-2040
EAST ST	PORTOLA WAY	BALLS FERRY RD	Bike Lane	0.07	4.6	1.9	5.0	0.0	0.0	0.0	0.0	0.2	7.8	6.5	5.6	9.2	0.0	40.7	$189,785	2026-2040
STINGY LN/ GANYON DR/ SANDSTONE DR/ BAY ST	RUPERT RD	McMURRAY DR	Bike Boule-vard	0.03	3.6	0.0	5.0	0.0	0.0	0.0	0.0	0.0	9.3	8.6	0.0	14.3	0.0	40.7	$342,576	2026-2040
MARMAC RD	RIVERSIDE DR	STINGY LN	Bike Boule-vard	2.62	0.0	3.3	0.0	0.0	0.0	0.0	0.0	1.7	9.2	2.5	0.0	20.0	0.0	36.7	$327,134	2026-2040
NORTH ST	BRIARWOOD DR	WENDY LN	Bike Lane	0.30	1.3	7.8	0.0	0.0	0.0	0.0	0.0	0.0	5.0	7.0	0.0	12.2	0.0	33.3	$56,500	2018-2025
BALLS FERRY RD	RED BUD DR	DESCHUTES RD	Bike Lane	0.01	0.6	9.1	5.0	0.0	0.0	0.0	0.0	0.9	4.5	0.0	0.0	11.8	0.0	31.8	$254,944	2026-2040
RIVERSIDE AVE/ DONALD LN	ALEXANDER AVE	I 5 NB ON/R/ McMURRAY DR/ NORTH ST	Shared-Use Path	0.19	3.6	10.0	5.0	0.0	0.0	0.0	0.0	0.0	3.4	2.9	0.0	2.9	0.0	27.7	$902,636	2018-2025
FARIGROUNDS DR	FIRST ST	THIRD ST	Bike Lane	0.64	0.0	1.5	5.0	0.0	0.0	0.0	0.0	0.0	1.4	3.0	0.0	16.0	0.0	26.9	$85,720	2026-2040
THIRD ST	ALEXANDER AVE/STATE HWY 273	MISSOURI LN	Bike Lane	0.66	0.0	6.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5	0.0	8.3	0.0	22.1	$60,628	2026-2040
RIVERSIDE AVE	AIRPORT RD	NORTH ST	Bike Lane	4.83	0.0	8.5	5.0	0.0	0.0	0.0	0.0	0.0	1.6	2.5	0.0	4.0	0.0	21.6	$126,423	2026-2040
OFF-STREET	RUPERT RD	NA	Shared-Use Path	0.31	0.0	0.0	0.0	0.0	10.0	0.0	0.0	10.0	1.0	0.0	0.0	0.0	0.0	21.0	$78,134	2026-2040
DODSON LN	RUPERT RD	BALLS FERRY RD	Bike Lane	1.64	0.7	2.9	0.0	0.0	0.0	0.0	0.0	2.1	3.7	0.0	0.0	8.6	0.0	18.0	$113,649	2026-2040
RIVERSIDE AVE	DONALD LN	ALEXANDER AVE	Bike Lane	0.36	0.0	10.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0	$1,439	2026-2040
ALEXANDER AVE/ LITTLE ST	RIVERSIDE AVE	STATE HWY 273	Bike Route	1.48	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4	0.0	0.0	0.0	9.4	$93,001	2026-2040
																	Anderson Bicycle Subtotal		**$4,005,794**	

Pedestrian

Street Name	From Street	To Street	Project Description	Length (Miles)	Safety	Demand					Equity		Total	Cost	Time Band
					Pedestrian Crash Density	Transit Center	Parks	School	Bus Stop	Strategic Growth Area	Disadvantaged Community	Community			
SOUTH ST/CENTER ST	NORTH ST	DOUGLAS ST	Commercial/Civic Corridor	0.3	15.3	0.0	3.2	9.7	9.0	12.5	18.3	0.0	68.1	$526,675	2018-2025
PONDEROSA DR/ PINON AVE/ PONDEROSA WAY	SPRUCE ST	SPRUCE ST	Community Walking Connection	0.2	5.0	0.0	5.0	10.0	9.0	15.0	20.0	0.0	64.0	$180,235	2018-2025
VENTURA ST	FERRY ST	BALLS FERRY RD/I 5 SB ON/R	Community Walking Connection	0.3	5.0	0.0	0.0	9.0	9.0	15.0	20.0	0.0	58.0	$229,306	2018-2025
PLEASANT HILLS DR/RHONDA RD/ FACTORY OUTLETS DR/FACTORY OUTLET DR/ARBY WAY	STATE HWY 273	I 5 SB OFF/R	Commercial/Civic Corridor	0.6	3.8	0.0	0.0	8.8	5.6	15.0	20.0	0.0	53.1	$964,488	2018-2025
BRUCE ST/EMILY DR	STATE HWY 273	SOUTH ST	Safe Routes to School	0.5	5.7	0.0	10.0	7.1	3.6	4.3	20.0	0.0	50.7	$797,510	2018-2025
OLINDA RD/SOUTH ST	WEST ST	NORTH VALLEY CONTINUATION HIGH	Safe Routes to School	0.7	2.6	0.0	8.7	9.5	1.1	0.0	20.0	0.0	41.8	$1,260,327	2018-2025
FERRY ST	VERNON ST	ANDERSON HIGH	Safe Routes to School	0.2	3.8	0.0	5.6	10.0	1.3	0.0	20.0	0.0	40.6	$350,602	2018-2025
VENTURA ST	NORTH ST	FERRY ST	Community Walking Connection	0.1	0.5	0.0	0.0	5.0	10.0	9.0	16.0	0.0	40.5	$79,340	2018-2025
McMURRAY DR	I 5 NB ON/R/NORTH ST	BALLS FERRY RD/I 5 NB OFF/R	Commercial/Civic Corridor	0.3	3.6	0.0	0.0	7.1	5.0	0.0	17.1	0.0	32.9	$577,657	2018-2025
FIRST ST/ FAIRGROUNDS DR	100FT SOUTH OF LASSEN WAY	BRIGGS ST/CHURCH ST	Community Walking Connection	0.3	5.0	0.0	0.0	4.3	2.5	0.0	20.0	0.0	31.8	$281,702	2026-2040
RIVERSIDE AVE	I 5 NB ON/R	DOWNING LN/NORTH ST	Community Walking Connection	0.6	0.0	0.0	0.0	1.8	2.8	0.0	4.4	0.0	9.0	$562,468	2026-2040
												Anderson Pedestrian Subtotal		**$5,810,310**	

Spot Treatment

Location	Project Description	Safety	Demand					Equity		Total	Cost	Time Band
		Pedestrian Crash Density	Transit Center	Parks	School	Bus Stop	Strategic Growth Area	Disadvantaged Community	Community			
STATE HIGHWAY 273 AND SOUTH ST	Subject to Caltrans Process - Intersection Improvement	20.0	0.0	5.0	10.0	9.0	15.0	20.0	0.0	79.0	$94,927	2026-2040
BALLS FERRY RD AND I-5 ON-RAMP	Subject to Caltrans Process - Interchange Improvement	5.0	0.0	0.0	10.0	10.0	13.8	20.0	0.0	58.8	$312,576	2026-2040
STATE HIGHWAY 273 AND FACTORY OUTLET DR	Subject to Caltrans Process - Intersection Improvement	5.0	0.0	0.0	10.0	7.5	15.0	20.0	0.0	57.5	$94,927	2026-2040
STATE HIGHWAY 273 AND NORTH ST	Subject to Caltrans Process - Intersection Improvement	10.0	0.0	0.0	10.0	7.6	4.9	15.1	0.0	47.6	$94,927	2026-2040
BALLS FERRY RD AND I-5 OFF-RAMP	Subject to Caltrans Process - Interchange Improvement	5.0	0.0	0.0	10.0	7.1	0.0	20.0	0.0	42.1	$312,576	2026-2040
NORTH STT AND I-5 OFF-RAMP	Subject to Caltrans Process - Interchange Improvement	0.0	0.0	0.0	5.0	10.0	4.3	14.3	0.0	33.6	$312,576	2026-2040
NORTH ST AND I-5 ON-RAMP	Subject to Caltrans Process - Interchange Improvement	2.1	0.0	0.0	5.0	7.1	0.0	14.3	0.0	28.6	$312,576	2026-2040
									Anderson Spot Treatment Subtotal		**$1,535,085**	
									Anderson Total		**$11,351,085**	

Shasta Lake

Bicycle

Street Name	From Street	To Street	Project Description	Length (Miles)	Safety		Connectivity				Demand					Equity		Total	Cost	Time Band
					Level of Traffic Stress	Bike Crash Density	Connects to Proposed Facilities	Closes Network Gap	Connects to Existing Facility	Connects to Sac River Trail	Transit Center	Parks	School	Bus Stop	Strategic Growth Area	Disad-vantaged Community	Com-munity			
SHASTA DAM BLVD	ASHBY RD	CASCADE BLVD	Caltrans Proj-ect Develop-ment Process - Separated Bike Lane	0.97	5.4	8.1	5.0	0.0	10.0	0.0	0.0	8.6	7.0	9.0	15.0	16.8	0.0	84.9	$980,057	2026-2040
FRONT ST	SHASTA DAM BLVD (ASHBY RD)	SHASTA DAM BLVD	Caltrans Proj-ect Develop-ment Process - Separated Bike Lane	2.32	5.0	7.0	5.0	0.0	0.0	0.0	0.0	10.0	7.2	9.8	15.0	20.0	0.0	78.9	$306,170	2026-2040
CABELLO ST	MEADE ST	SHASTA DAM BLVD	Bike Lane	1.54	10.0	6.7	0.0	0.0	0.0	0.0	0.0	10.0	5.0	10.0	15.0	20.0	0.0	76.7	$11,363	2026-2040
ASHBY RD	FRONT ST/SHAS-TA DAM BLVD	WOODLEY AVE	Shared-Use Path	1.24	2.8	9.1	5.0	0.0	10.0	0.0	0.0	7.8	8.2	5.4	7.9	19.5	0.0	75.6	$1,232,232	2026-2040
MCCONNELL AVE	SHASTA DAM BLVD	FRONT ST	Bike Lane	1.84	10.0	6.4	0.0	0.0	0.0	0.0	0.0	10.0	5.0	8.2	15.0	20.0	0.0	74.5	$5,747	2026-2040
CABELLO ST	FORT PECK ST	MEADE ST	Bike Lane	1.04	10.0	0.0	5.0	0.0	0.0	0.0	0.0	10.0	5.0	7.5	15.0	20.0	0.0	72.5	$11,083	2026-2040
SHASTA ST/WASH-INGTON AVE	GRAND COULEE BLVD	KENNETT ST/ SHASTA DAM BLVD/SHASTA WAY	Bike Boulevard	2.87	0.0	5.4	5.0	0.0	10.0	0.0	0.0	2.7	7.3	8.1	15.0	18.5	0.0	71.9	$335,056	2026-2040
MCCONNELL AVE	FRONT ST	MAIN ST	Bike Lane	5.96	9.1	5.0	0.0	0.0	0.0	0.0	0.0	10.0	4.7	7.3	15.0	20.0	0.0	71.1	$11,312	2026-2040
OFF-STREET	CABELLO ST/ FORT PECK ST	FORT PECK ST/ STANTON AVE/ STANTON DR	Shared-Use Path	5.57	10.0	0.0	5.0	0.0	0.0	0.0	0.0	10.0	5.0	5.0	15.0	20.0	0.0	70.0	$77,354	2026-2040
MONTANA AVE	VALLECITO ST	RED BLUFF ST	Bike Boulevard	2.13	3.9	0.8	5.0	0.0	10.0	0.0	0.0	9.7	7.2	5.6	7.5	20.0	0.0	69.7	$430,255	2026-2040
FORT PECK ST	SHASTA ST	GRAND COULEE BLVD	Bike Boulevard	0.60	2.9	2.9	0.0	0.0	10.0	0.0	0.0	5.0	6.4	7.1	15.0	20.0	0.0	69.3	$174,814	2026-2040
CABELLO ST	LA MESA AVE	FORT PECK ST	Bike Lane	0.27	6.7	0.0	5.0	0.0	0.0	0.0	0.0	10.0	6.7	5.0	15.0	20.0	0.0	68.3	$10,889	2026-2040
HILL BLVD	ROSE AVE	PARK PL	Bike Boulevard	3.51	0.0	6.7	5.0	0.0	10.0	0.0	0.0	10.0	6.7	10.0	0.0	20.0	0.0	68.3	$30,684	2026-2040
CABELLO ST	BONNEVILLE ST	LA MESA AVE	Bike Lane	4.68	5.0	0.0	5.0	0.0	0.0	0.0	0.0	7.5	10.0	5.0	15.0	20.0	0.0	67.5	$4,467	2026-2040
HILL BLVD	LAKE BLVD	ROSE AVE	Bike Boulevard	3.00	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	8.3	8.3	0.0	20.0	0.0	66.7	$16,089	2026-2040
FORT PECK ST	CABELLO ST	MONTANA AVE	Bike Boulevard	1.38	6.0	0.0	5.0	0.0	0.0	0.0	0.0	10.0	7.0	5.0	12.0	20.0	0.0	65.0	$208,954	2026-2040
FORT PECK ST	DEER CREEK RD	STANTON AVE/ STANTON DR	Bike Boulevard	1.78	10.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	5.0	5.0	15.0	20.0	0.0	65.0	$56,090	2026-2040
SACRAMENTO ST/ TOYON AVE	SHASTA DAM BLVD	LAKE BLVD	Bike Boulevard	2.51	0.0	4.3	5.0	0.0	10.0	0.0	0.0	10.0	7.1	7.9	0.0	20.0	0.0	64.3	$392,231	2026-2040
SHASTA DAM RD	ASHBY RD	LAKE BLVD	Caltrans Proj-ect Develop-ment Process - Buffered Bike Lane	2.41	1.0	8.0	5.0	0.0	0.0	0.0	0.0	6.3	5.9	7.1	9.3	20.0	0.0	62.6	$203,161	2026-2040
CASCADE BLVD	GRAND COULEE BLVD	UNION SCHOOL RD	Bike Lane	0.34	0.0	9.1	5.0	0.0	10.0	0.0	0.0	0.0	4.9	5.6	12.2	8.8	0.0	55.5	$137,682	2026-2040
CABELLO ST	VALLECITO ST	BONNEVILLE ST	Bike Lane	0.43	3.0	0.0	5.0	0.0	0.0	0.0	0.0	10.0	10.0	1.0	6.0	20.0	0.0	55.0	$28,840	2026-2040
HILL BLVD/PARK PL/ROSE AVE	SACRAMENTO ST	LAKE BLVD	Bike Boulevard	0.78	0.0	2.3	5.0	0.0	10.0	0.0	0.0	3.5	2.5	6.5	0.0	20.0	0.0	49.8	$638,683	2018-2025
OFF-STREET	SACRAMENTO ST/SHASTA DAM BLVD	PINE GROVE AVE	Shared-Use Path	2.52	0.0	2.7	5.0	0.0	10.0	0.0	0.0	6.6	3.9	2.0	0.0	19.1	0.0	49.3	$2,101,828	2026-2040
OFF-STREET	DEAD END	SACRAMENTO ST/SHASTA DAM BLVD	Shared-Use Path	0.08	0.0	1.1	0.0	0.0	10.0	0.0	0.0	5.6	6.9	2.8	0.0	20.0	0.0	46.3	$1,090,454	2026-2040
MUSSEL SHOALS AVE	GRAND COULEE BLVD/SHASTA DAM BLVD	DEAD END	Bike Boulevard	0.26	4.2	3.1	0.0	0.0	10.0	0.0	0.0	7.3	4.2	4.6	6.9	3.1	0.0	43.4	$590,059	2026-2040
VALLECITO ST	MONTANA AVE	WASHINGTON AVE	Bike Boulevard	0.03	1.2	0.0	0.0	0.0	0.0	0.0	0.0	7.1	7.4	0.6	6.2	20.0	0.0	42.4	$484,966	2026-2040
PINE GROVE AVE/ WALKER MINE RD	CASCADE BLVD	BELT LINE RD	Shared-Use Path	0.07	2.0	8.3	5.0	0.0	10.0	0.0	0.0	0.0	0.9	6.9	0.0	8.0	0.0	41.0	$1,851,453	2026-2040
TWIN VIEW BLVD	OASIS RD	PINE GROVE AVE	Bike Route	3.32	3.2	10.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8	0.0	14.5	0.0	39.5	$209,627	2026-2040
RED BLUFF ST	MUSSEL SHOALS AVE	MONTANA AVE	Bike Boulevard	4.11	3.0	0.0	5.0	0.0	0.0	0.0	0.0	9.5	2.9	2.5	0.0	16.0	0.0	38.9	$439,258	2026-2040
LAKE BLVD	SHASTA DAM ACCESS RD/ STATE HWY 151	SHASTA DAM BLVD	Bike Route	1.37	0.0	8.0	0.0	0.0	0.0	0.0	0.0	4.0	5.2	1.5	0.0	20.0	0.0	38.7	$279,891	2026-2040
OFF-STREET	CABELLO ST/ VALLECITO ST	PINE GROVE AVE	Seprated Bike lane	2.05	0.0	3.3	5.0	0.0	0.0	0.0	0.0	5.0	4.4	0.0	0.0	17.8	0.0	35.6	$644,033	2026-2040
CASCADE BLVD/ PINE GROVE AVE	GRAND COULEE BLVD	ARROWHEAD AVE	Bike Lane	0.37	3.5	7.6	5.0	0.0	10.0	0.0	0.0	0.0	0.7	6.6	0.0	0.0	0.0	33.5	$283,779	2018-2025
FLANAGAN RD	LAKE BLVD	1500FT NW OF BELT LINE RD	Bike Route	0.02	0.0	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	26.7	$75,041	2026-2040
BLACK CANYON RD	RED BLUFF ST	DED END	Bike Lane	0.10	1.9	0.0	0.0	0.0	0.0	0.0	0.0	5.0	1.5	0.6	0.0	17.5	0.0	26.5	$147,640	2026-2040
CASCADE BLVD	ARROWHEAD AVE	OASIS RD/OLD OASIS RD	Bike Lane	1.11	0.0	10.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	20.0	$109,832	2026-2040
AVINGTON WAY/ STAFFORD DR	PINE GROVE AVE	PROPOSED OFF-STREET ROUTE	Seprated Bike lane	1.34	0.0	6.0	5.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	4.0	0.0	16.2	$896,696	2026-2040
OFF-STREET	DEAD END	CASCADE BLVD	Seprated Bike lane	2.81	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	5.4	1.7	3.3	4.4	0.0	16.0	$1,500,258	2026-2040
CHURN CREEK TRAIL - CONNEC-TION	OASIS RD	PINE GROVE AVE	Shared-Use Path	4.67	0.0	5.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	0.0	1.7	0.0	15.8	$1,407,338	2026-2040
PINE GROVE AVE/ VIRGINIA AVE/ AKRICH ST	REDWING LN	CASCADE BLVD	Bike Lane	2.83	1.9	5.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0.0	14.2	$298,588	2026-2040
TENNESSEE DR	DEAD END	OASIS RD	Bike Lane	1.88	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	$32,585	2026-2040
SHASTA GATEWAY DR	DEAD END	ASHBY RD	Bike Lane	0.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	$50,479	2026-2040
																	Shasta Lake Bicycle Subtotal		**$17,797,018**	

Shasta Lake

Pedestrian

Street Name	From Street	To Street	Project Description	Length (Miles)	Safety	Demand					Equity		Total	Cost	Time Band
					Pedestrian Crash Density	Transit Center	Parks	School	Bus Stop	Strategic Growth Area	Disadvantaged Community	Community			
FRONT ST/FRONT ST TO/ FROM SHASTA DAM BLVD	FRONT ST TO/FROM SHASTA DAM BLVD/ SHASTA DAM BLVD	ASHBY RD/SHASTA DAM BLVD	Subject to Caltrans Process - Commercial/ Civic Corridor	0.4	5.0	0.0	10.0	7.2	9.8	15.0	20.0	0.0	67.0	$588,124	2026-2040
MONTANA AVE	SHASTA DAM BLVD	FRONT ST	Subject to Caltrans Process - Commercial/ Civic Corridor	0.0	5.0	0.0	10.0	5.0	10.0	15.0	20.0	0.0	65.0	$31,318	2026-2040
SHASTA DAM BLVD	GRAND COULEE BLVD/ MUSSEL SHOALS AVE	ASHBY RD/FRONT ST	Subject to Caltrans Process - Commercial/ Civic Corridor	0.7	3.4	0.0	10.0	6.6	9.5	15.0	18.9	0.0	63.4	$1,211,724	2026-2040
LOCUST AVE	SHASTA DAM BLVD	FRONT ST/LOCUST	Commercial/Civic Corridor	0.0	5.0	0.0	10.0	5.0	7.5	15.0	20.0	0.0	62.5	$49,293	2026-2040
FRONT ST	WASHINGTON AVE	FRONT ST TO/FROM SHASTA DAM BLVD	Commercial/Civic Corridor	0.4	3.7	0.0	10.0	5.0	8.0	15.0	20.0	0.0	61.7	$705,411	2026-2040
MEDIAN AVE	SHASTA DAM BLVD	MAIN ST	Community Walking Connection	0.1	0.0	0.0	10.0	4.4	8.0	15.0	20.0	0.0	57.4	$95,939	2026-2040
GRAND RIVER AVE	SHASTA DAM BLVD	MAIN ST	Commercial/Civic Corridor	0.1	0.0	0.0	10.0	4.5	7.5	15.0	20.0	0.0	57.0	$183,562	2026-2040
WASHINGTON AVE	SHASTA DAM BLVD	FRONT ST	Commercial/Civic Corridor	0.1	0.0	0.0	10.0	5.0	7.0	15.0	20.0	0.0	57.0	$85,076	2026-2040
SHASTA DAM BLVD	ASHBY RD/FRONT ST	ROUGE RD	Subject to Caltrans Process - Community Walking Connection	0.6	3.0	0.0	6.4	6.9	7.5	12.3	20.0	0.0	56.1	$560,887	2026-2040
MAIN ST	GRAN RIVER AVE	MCCONELL AVE	Community Walking Connection	0.2	2.5	0.0	10.0	2.0	5.0	15.0	20.0	0.0	54.5	$159,983	2026-2040
SHASTA DAM BLVD	CASCADE BLVD/I 5 NBOFF/R/I 5 SBON/R	GRAND COULEE BLVD/ MUSSEL SHOALS AVE	Subject to Caltrans Process - Commercial/ Civic Corridor	0.4	0.0	0.0	5.6	7.5	8.1	15.0	10.0	0.0	46.3	$670,878	2026-2040
HILL BLVD/LAKE BLVD	SHASTA DAM BLVD	TOYON AVE	Rural Community Main Street	0.4	0.0	0.0	10.0	7.5	8.8	0.0	20.0	0.0	46.3	$644,760	2026-2040
LA MESA AVE	MONTANA AVE	ASHBY RD	Safe Routes to School	0.2	0.0	0.0	9.0	10.0	2.0	0.0	20.0	0.0	41.0	$399,718	2026-2040
SHASTA WAY	KENNETT ST/SHASTA DAM BLVD/SHASTA ST	MOON SHADOW CT	Safe Routes to School	0.3	0.0	0.0	2.5	10.0	6.0	13.5	2.0	0.0	34.0	$481,701	2026-2040
TWIN VIEW BLVD	CROOKED OAK LN	POPPY LN	Community Walking Connection	0.7	2.0	0.0	0.0	0.0	7.5	0.0	14.0	0.0	23.5	$671,883	2026-2040
PINE GROVE AVE	CASCADE BLVD	JORZACK WAY	Community Walking Connection	0.3	3.9	0.0	0.0	1.3	8.3	0.0	0.0	0.0	13.6	$238,590	2026-2040
TRINITY ST	CASCADE BLVD	BUTTERFLY LN	Community Walking Connection	0.4	2.5	0.0	0.0	0.0	5.8	0.0	0.0	0.0	8.3	$364,906	2026-2040
CASCADE BLVD	TRINITY ST	ARROWHEAD AVE	Community Walking Connection	0.7	0.6	0.0	0.0	0.0	6.9	0.0	0.0	0.0	7.5	$616,913	2026-2040
SMITH AVE/JORZACK WAY	TRINITY ST	PINE GROVE AVE	Community Walking Connection	0.4	1.7	0.0	0.0	1.3	4.4	0.0	0.0	0.0	7.4	$374,810	2026-2040
													Shasta Lake Pedestrian Subtotal		**$8,135,476**

Spot Recommendations

Location	Project Description	Safety	Demand					Equity		Total	Cost	Time Band
		Pedestrian Crash Density	Transit Center	Parks	School	Bus Stop	Strategic Growth Area	Disadvantaged Community	Community			
SHASTA DAM BLVD AND MONTANA AVE	Subject to Caltrans Process - Intersection Improvement	5.0	0.0	10.0	7.5	10.0	15.0	20.0	0.0	67.5	$94,927	2026-2040
FRONT AVE AND MONTANA AVE	Subject to Caltrans Process - Intersection Improvement	5.0	0.0	10.0	7.5	10.0	15.0	20.0	0.0	67.5	$94,927	2026-2040
SHASTA DAM BLVD AND CASCADE BLVD	Subject to Caltrans Process - Interchange Improvement	0.0	0.0	0.0	10.0	10.0	15.0	10.0	0.0	45.0	$312,576	2026-2040
SHASTA DAM BLVD BETWEEN NORTH BLVD AND LASSEN AVE	Subject to Caltrans Process - Intersection Improvement	0.0	0.0	5.0	5.4	8.5	15.0	20.0	0.0	53.8	$94,927	2026-2040
SHASTA DAM BLVD AND SHASTA WAY	Subject to Caltrans Process - Intersection Improvement	0.0	0.0	2.1	10.0	8.6	15.0	5.7	0.0	41.4	$94,927	2026-2040
SHASTA DAMN BLVD AND LAKE BLVD	Subject to Caltrans Process - Intersection Improvement	0.0	0.0	10.0	10.0	10.0	0.0	20.0	0.0	50.0	$94,927	2026-2040
									Shasta Lake Spot Treatment Subtotal		**$787,211**	
									Shasta Lake Total		**$26,719,705**	

Redding

Bicycle

IN DEVELOPMENT BY CITY OF REDDING

Street Name	From Street	To Street	Project Description	Length (Miles)	Safety		Connectivity				Demand						Equity		Total	Cost	Time Band
					Level of Traffic Stress	Bike Crash Density	Connects to Proposed Facilities	Closes Network Gap	Connects to Existing Facility	Connects to Sac River Trail	Transit Center	Parks	School	Bus Stop	Strategic Growth Area	Population	Disadvantaged Community	Community			
CALIFORNIA ST	YUBA ST	PLACER ST	Separated Bike Lane	0.07	5.0	20.0	5.0	10.0	0.0	0.0	15.0	10.0	10.0	10.0	10.0	5.0	20.0	10.0	130.0		2026-2040
CALIFORNIA ST	DIVISION ST	YUBA ST	Separated Bike Lane	0.27	6.0	20.0	5.0	10.0	0.0	0.0	15.0	10.0	10.0	7.0	10.0	5.0	20.0	10.0	128.0		2026-2040
SOUTH ST	COURT ST	EAST ST	Bike Lane	0.41	6.0	20.0	5.0	15.0	0.0	0.0	15.0	5.3	9.0	10.0	9.3	5.0	18.7	0.0	118.3		2026-2040
PINE ST	S MARKET ST	TRINITY ST	Subject to Caltrans Process Buffered Bike Lane	1.01	6.0	20.0	5.0	15.0	5.0	0.0	15.0	2.2	9.6	9.1	8.7	5.0	17.4	0.0	118.0		2026-2040
COURT ST; N COURT ST	COURT ST/SOUTH ST	N COURT ST/ BENTON DR	Bike Lane	0.82	7.0	18.2	5.0	15.0	0.0	0.0	15.0	5.0	7.9	9.6	7.1	5.0	20.0	0.0	114.9		2026-2040
YUBA ST	COURT ST	LIBERTY ST	Bike Route	0.45	4.0	20.0	5.0	15.0	0.0	0.0	15.0	5.3	8.3	9.0	9.3	5.0	18.7	0.0	114.7		2026-2040
CALIFORNIA ST; GOLD ST; S MARKET ST	S MARKET ST/W. CYPRESS AVE	CALIFORNIA ST/ PLACER ST	Buffered Bike Lane	0.60	7.0	20.0	5.0	10.0	0.0	0.0	15.0	1.5	9.6	10.0	10.0	5.0	20.0	0.0	113.2		2026-2040
CENTER ST; RIVERSIDE DR; DIVISION ST; CALIFORNIA ST	BENTON DR/N COURT ST	PLACER ST	Separated Bike Lane	0.42	4.0	18.0	5.0	10.0	5.0	0.0	15.0	3.3	8.7	5.0	4.0	5.0	20.0	10.0	113.0		2026-2040
EAST ST	PLACER ST	TRINITY ST	Bike Lane	0.46	7.0	19.5	5.0	15.0	0.0	0.0	15.0	0.0	8.7	7.6	10.0	5.0	20.0	0.0	112.8		2026-2040
TEHAMA ST	WEST ST	CALIFORNIA ST	Bike Route	0.28	3.0	20.0	5.0	10.0	0.0	0.0	13.3	7.8	7.2	9.4	10.0	5.0	20.0	0.0	110.8		2026-2040
HARTNELL AVE	CHURN CREEK RD	VICTOR AVE	Buffered Bike Lane	0.72	9.0	16.3	5.0	15.0	0.0	0.0	0.0	0.0	7.5	6.8	10.0	5.0	20.0	10.0	104.6		2026-2040
S MARKET ST	SOUTH ST	PLACER ST	Bike Route	0.11	4.0	20.0	0.0	0.0	0.0	0.0	15.0	7.5	10.0	10.0	10.0	5.0	20.0	0.0	101.5		2026-2040
HARTNELL AVE	E CYPRESS AVE	CHURN CREEK RD	Buffered Bike Lane	1.26	6.0	14.4	5.0	15.0	0.0	0.0	0.0	0.0	6.8	9.4	9.4	5.0	20.0	10.0	101.1		2026-2040
BUTTE ST; LIBERTY ST	LIBERTY ST/YUBA ST	BUTTE ST/CONTINENTAL ST	Bike Boulevard	0.14	5.0	20.0	5.0	10.0	0.0	0.0	15.0	0.0	6.9	6.9	8.8	5.0	17.5	0.0	100.0		2026-2040
EAST ST	PINE ST	LOCUST ST	Bike Lane	0.09	5.0	20.0	5.0	10.0	5.0	0.0	15.0	0.0	10.0	10.0	5.0	5.0	10.0	0.0	100.0		2026-2040
SOUTH ST	WEST ST	COURT ST	Bike Boulevard	0.08	5.0	12.5	5.0	10.0	0.0	0.0	13.1	0.0	8.8	10.0	10.0	5.0	20.0	0.0	99.4		2026-2040

Redding

Bicycle

Street Name	From Street	To Street	Project Description	Length (Miles)	Safety		Connectivity				Demand						Equity		Total	Cost	Time Band
					Level of Traffic Stress	Bike Crash Density	Connects to Proposed Facilities	Closes Network Gap	Connects to Existing Facility	Connects to Sac River Trail	Transit Center	Parks	School	Bus Stop	Strategic Growth Area	Popu-lation	Disad-vantaged Community	Com-munity			
PLACER ST	PLEASANT ST	COURT ST	Buffered Bike Lane	0.95	10.0	9.3	5.0	15.0	5.0	0.0	4.3	1.7	8.0	9.3	7.4	3.2	20.0	0.0	98.2		2026-2040
COURT ST; SCHLEY AVE	SCHLEY AVE/ RAILROAD AVE	COURT ST/SOUTH ST	Buffered Bike Lane	1.80	8.0	7.2	5.0	15.0	0.0	0.0	15.0	0.0	6.1	4.8	6.8	4.9	15.0	10.0	97.8		2026-2040
S MARKET ST	QUARTZ HILL RD	TRINITY ST	Bike Lane	0.47	10.0	7.9	0.0	10.0	5.0	5.0	15.0	0.0	10.0	4.4	3.8	5.0	20.0	0.0	96.1		2026-2040
CHURN CREEK RD	E CYPRESS AVE	HARTNELL AVE	Buffered Bike Lane	0.50	9.0	16.7	5.0	15.0	0.0	0.0	0.0	0.0	7.5	8.3	8.9	5.0	20.0	0.0	95.4		2026-2040
W CYPRESS AVE	PINE ST	GRAPE AVE	Buffered Bike Lane	0.18	7.0	16.3	0.0	15.0	0.0	0.0	15.0	0.0	10.0	10.0	5.6	5.0	11.3	0.0	95.1		2026-2040
WEST ST	EUREKA WAY	N COURT ST	Buffered Bike Lane	0.13	6.0	11.4	5.0	10.0	0.0	0.0	15.0	0.0	5.0	10.0	1.4	5.0	20.0	0.0	88.9		2026-2040
E CYPRESS AVE	CHURN CREEK RD	HARTNELL AVE/ HEMSTED DR	Bike Lane	0.87	9.0	14.0	5.0	15.0	0.0	0.0	0.0	0.0	4.2	10.0	5.0	5.0	20.0	0.0	87.2		2026-2040
CONTINENTAL ST	SOUTH ST	BUTTE ST	Bike Boulevard	0.32	2.0	20.0	5.0	10.0	5.0	0.0	10.3	0.0	5.0	8.4	5.3	5.0	10.5	0.0	86.5		2026-2040
RAILROAD AVE	BUENAVENTURA BLVD	SOUTH ST	Shared-Use Path	1.80	8.0	8.5	5.0	0.0	0.0	0.0	15.0	0.5	7.3	4.7	5.9	4.8	11.9	10.0	81.6		2026-2040
WEST ST; LOGAN ST	WEST ST/LINDEN AVE	LOGAN ST/RAIL-ROAD AVE	Bike Route	0.19	5.0	8.2	0.0	10.0	0.0	0.0	12.3	0.0	10.0	2.8	8.2	5.0	20.0	0.0	81.5		2026-2040
OFF-STREET (DIESTELHORST TO DOWNTOWN TRAIL--OVER BENTON DR)	SOUTH OF DIESTEL-HORST BRIDGE	BENTON DR/ RIVERSIDE DR	Shared-Use Path	0.30	2.0	10.0	5.0	10.0	0.0	5.0	15.0	0.0	8.3	5.8	0.0	0.0	20.0	0.0	81.2		2026-2040
E CYPRESS AVE	VICTOR AVE	ALFREDA WAY	Buffered Bike Lane	0.47	10.0	5.0	5.0	15.0	0.0	0.0	0.0	0.0	9.1	7.3	5.5	4.0	20.0	0.0	80.8		2026-2040
BECHELLI LN	S BONNYVIEW RD	E CYPRESS AVE	Buffered Bike Lane	2.38	8.0	7.0	5.0	15.0	0.0	0.0	0.0	0.0	0.9	6.2	3.9	4.5	20.0	10.0	80.5		2026-2040
HARTNELL AVE	VICTOR AVE	SHASTA VIEW DR	Buffered Bike Lane	0.74	9.0	4.3	5.0	15.0	0.0	0.0	0.0	0.0	2.8	5.7	10.0	5.0	13.3	10.0	80.2		2026-2040
WEST ST	7TH ST	EUREKA WAY	Buffered Bike Lane	0.50	6.0	12.7	5.0	0.0	0.0	0.0	15.0	0.0	5.0	10.0	1.3	5.0	20.0	0.0	80.0		2026-2040
WEST ST; GOLD ST; AIRPARK DR	WEST ST/EUREKA WAY	AIRPARK DR/ PLACER ST	Bike Boulevard	1.23	3.0	14.1	5.0	0.0	0.0	0.0	5.4	2.0	7.3	9.7	8.6	4.6	20.0	0.0	79.8		2026-2040
OFF-STREET	100FT WEST OF BENTON DR	CENTER ST/ RIVERSIDE DR	Shared-Use Path	0.08	2.0	10.0	5.0	0.0	0.0	0.0	15.0	0.0	8.3	5.0	0.0	4.4	20.0	10.0	79.7		2026-2040
BENTON DR	N COURT ST/RIVER-SIDE DR	N MARKET ST	Bike Lane	1.47	8.0	5.2	5.0	15.0	0.0	5.0	4.3	0.0	9.5	4.1	0.0	4.4	16.4	0.0	76.9		2026-2040
CHURN CREEK RD	HARTNELL AVE	S BONNYVIEW RD	Buffered Bike Lane	1.83	7.0	6.8	5.0	15.0	0.0	0.0	0.0	0.0	4.2	8.7	5.8	4.3	20.0	0.0	76.8		2026-2040
LAKE BLVD	OASIS RD	100 FT WEST OF N MARKET ST	Buffered Bike Lane	1.98	9.0	7.3	5.0	15.0	0.0	0.0	0.0	2.8	1.3	6.4	4.8	5.0	20.0	0.0	76.6		2026-2040
N MARKET ST	SULPHUR CREEK RD	BENTON DR	Bike Lane	0.09	10.0	5.0	5.0	10.0	0.0	0.0	3.8	0.0	10.0	7.5	0.0	5.0	20.0	0.0	76.3		2026-2040
EUREKA WAY	BUENAVENTURA BLVD	COURT ST	Subject to Cal-trans Process Bike Lane	1.60	10.0	7.9	5.0	10.0	0.0	0.0	4.1	0.0	6.7	7.8	4.9	5.0	13.2	0.0	74.6		2026-2040
SOUTH ST	EAST ST	PARK MARINA DR	Bike Boulevard	0.94	1.0	11.1	5.0	15.0	0.0	0.0	8.6	0.0	5.0	7.3	2.1	5.0	4.3	10.0	74.3		2026-2040
HEMSTED DR	BECHELLI LN	E CYPRESS AVE/ HARTNELL AVE	Bike Route	0.47	4.0	12.8	5.0	10.0	0.0	0.0	0.0	0.0	7.8	8.6	1.1	5.0	20.0	0.0	74.3		2026-2040
OFF-STREET (SUL-PHUR CREEK RD)	DOGWOOD LN	SULPHUR CREEK RD/LOST RD	Shared-Use Path	1.46	3.0	6.0	5.0	10.0	0.0	5.0	1.9	3.3	9.0	8.1	0.0	4.3	18.3	0.0	74.0		2026-2040
LOCUST ST; CIVIC CENTER DR	LOCUST ST/EAST ST	CIVIC CENTER DR/W CYPRESS AVE	Bike Route	0.46	5.0	12.1	0.0	10.0	0.0	0.0	13.9	0.0	10.0	10.0	2.1	5.0	4.3	0.0	72.5		2026-2040
STATE HIGHWAY 44 CROSSING	PARK MARINA DR	WB STATE HIGH-WAY 44 OFF- AND ON-RAMPS	Subject to Cal-trans Process Shared-Use Path	0.08	10.0	5.0	5.0	0.0	0.0	5.0	15.0	0.0	10.0	7.5	0.0	4.9	0.0	10.0	72.4		2026-2040
CONSTITUTION WAY; TWIN VIEW BLVD; NORTHPOINT DR	CONSTITUTION WAY/MOUNTAIN VIEW DR	NORTHPOINT DR/ LAKE BLVD	Bike Lane	1.38	7.0	7.0	5.0	10.0	0.0	0.0	0.0	3.9	2.9	4.8	5.4	5.0	20.0	0.0	70.9		2026-2040
OFF-STREET (ACID CANAL TRAIL)	PARKVIEW AVE	N BONNYVIEW RD/ EASTSISDE RD	Shared-Use Path	2.24	2.0	3.4	5.0	10.0	5.0	0.0	5.9	0.0	3.9	7.3	3.0	4.4	7.9	10.0	67.9		2026-2040
OFF-STREET (ACID CANAL TRAIL)	PARK MARINA DR	PARKVIEW AVE	Shared-Use Path	0.18	5.0	10.0	5.0	10.0	0.0	0.0	15.0	0.0	10.0	5.0	2.5	0.0	5.0	0.0	67.5		2026-2040
WALNUT AVE	EUREKA WAY	SHASTA ST	Bike Boulevard	0.23	5.0	5.0	5.0	0.0	0.0	0.0	0.0	0.0	10.0	10.0	7.5	5.0	20.0	0.0	67.5		2026-2040
LOMA VISTA DR	CHURN CREEK RD	EL PORTAL DR	Bike Lane	0.16	8.0	3.2	5.0	10.0	0.0	0.0	0.0	0.0	1.8	10.0	4.1	5.0	20.0	0.0	67.1		2026-2040
LOMA VISTA DR; REMI LN; ETHAN LN; MONTERRA LN	CHURN CREEK RD	ROESNER AVE	Bike Boulevard	0.35	5.0	2.5	5.0	10.0	0.0	0.0	0.0	0.0	4.0	9.2	6.5	4.4	20.0	0.0	66.8		2026-2040
OFF-STREET (DIESTELHORST TO DOWNTOWN TRAIL--UNDER BENTON DR)	WEST OF DIESTEL-HORST BRIDGE	RIVERSIDE DR	Shared-Use Path	0.38	2.0	6.8	5.0	10.0	0.0	5.0	8.6	0.0	10.0	5.0	0.0	0.0	14.3	0.0	66.6		2026-2040
HILLTOP DR	SE OF LAKE BLVD/N MARKET ST	LAKE BLVD	Bike Lane	0.36	10.0	7.1	0.0	15.0	0.0	0.0	0.0	5.2	5.5	6.0	3.8	5.0	8.6	0.0	66.2		2026-2040
LAKE BLVD	NORTHERN CITY LIMIT	OASIS RD	Bike Lane	0.56	9.0	0.0	5.0	15.0	0.0	0.0	0.0	0.0	7.4	6.4	0.0	3.2	20.0	0.0	66.0		2026-2040
MARAGLIA ST	CHURN CREEK RD	HILLTOP DR	Buffered Bike Lane	0.31	4.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	7.0	10.0	0.0	20.0	0.0	66.0		2026-2040
E CYPRESS AVE (FUTURE)	SHASTA VIEW DR	VICTOR AVE	Shared-Use Path	0.70	3.0	1.7	5.0	15.0	5.0	0.0	0.0	0.0	4.3	3.9	6.3	1.6	20.0	0.0	65.7		2026-2040
HILLTOP DR	PALISADES AVE	SE OF LAKE BLVD/N MARKET ST	Buffered Bike Lane	1.16	10.0	2.8	5.0	15.0	0.0	5.0	0.0	0.0	8.9	3.1	3.3	5.0	6.7	0.0	64.8		2026-2040
WRIGHT DR; ALDER ST; MOUNTAIN SHADOWS BLVD	WRIGHT DR/BIG EAGLE LN	MOUNTAIN SHADOWS BLVD/ LAKE BLVD	Bike Boulevard	0.45	4.0	9.0	5.0	10.0	0.0	0.0	0.0	0.0	0.0	3.8	8.0	4.7	20.0	0.0	64.5		2026-2040
S MARKET ST	BUENAVENTURA BLVD	ANGELO AVE/ CALIFORNIA ST	Subject to Cal-trans Process Bike Lane	1.69	10.0	5.5	5.0	0.0	5.0	0.0	15.0	0.0	6.7	4.2	2.8	4.5	5.5	0.0	64.2		2026-2040
BRANSTETTER LN; TEXAS SPRINGS RD	STATE HWY 273	WESTERN CITY LIMIT	Bike Lane	3.74	10.0	1.9	5.0	15.0	0.0	0.0	0.0	0.0	0.0	4.5	0.0	2.5	15.0	10.0	63.9		2026-2040
CHURN CREEK RD	E CYPRESS AVE	DANA DR	Buffered Bike Lane	1.11	7.0	7.6	5.0	15.0	0.0	0.0	0.0	1.4	2.4	7.3	6.8	5.0	6.4	0.0	63.8		2026-2040
DOGWOOD LN; BUCK-EYE TER; CLAY ST	CLAY ST/LAKE BLVD	DOGWOOD LN (EASTERN END)	Bike Boulevard	0.36	3.0	10.0	5.0	10.0	0.0	0.0	0.0	3.3	0.3	6.0	1.3	4.7	20.0	0.0	63.7		2026-2040
BOULDER DR	CAMPERS CT	BLACK MARBLE WAY	Subject to Cal-trans Process Shared-Use Path	0.18	10.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	5.0	3.0	10.0	5.0	20.0	0.0	63.0		2026-2040
I-5 CROSSING	BECHELLI LN	HILLTOP DR/ MISTLETOE LN	Subject to Cal-trans Process Shared-Use Path	0.19	6.0	10.0	0.0	10.0	0.0	0.0	0.0	0.0	7.7	5.0	0.9	5.0	18.2	0.0	62.8		2026-2040
BROWNING ST	OLD ALTURAS RD	HILTOP DR	Buffered Bike Lane	1.02	8.0	7.6	5.0	15.0	0.0	0.0	0.0	1.0	6.9	6.9	6.6	5.0	0.0	0.0	62.0		2026-2040

IN DEVELOPMENT BY CITY OF REDDING

Redding

Bicycle

Street Name	From Street	To Street	Project Description	Length (Miles)	Safety		Connectivity				Demand						Equity		Total	Cost	Time Band
					Level of Traffic Stress	Bike Crash Density	Connects to Proposed Facilities	Closes Network Gap	Connects to Existing Facility	Connects to Sac River Trail	Transit Center	Parks	School	Bus Stop	Strategic Growth Area	Popu-lation	Disad-vantaged Community	Com-munity			
OFF-STREET (LOMA VISTA TRAIL)	SAFFRON WAY	ETHAN LN/LOMA VISTA DR	Shared-Use Path	1.74	4.0	2.0	5.0	10.0	0.0	0.0	0.0	0.0	7.6	7.0	7.3	2.6	6.5	10.0	61.9		2026-2040
HAWLEY RD	NORTHERN END	COLLYER DR	Buffered Bike Lane	0.41	10.0	1.0	5.0	10.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	4.2	20.0	10.0	61.8		2026-2040
DANA DR	CHURN CREEK RD	HILLTOP DR	Bike Lane	0.36	8.0	10.0	0.0	10.0	5.0	5.0	0.0	5.4	1.9	5.0	6.2	4.6	0.0	0.0	61.0		2026-2040
CEDARS RD	S BONNYVIEW RD/ STATE HWY 273	EL RENO LN	Bike Lane	1.53	9.0	5.0	5.0	15.0	0.0	0.0	0.0	0.0	0.0	6.3	0.0	4.7	15.2	0.0	60.2		2026-2040
LOMA VISTA DR	CHURN CREEK RD	EL PORTAL DR	Buffered Bike Lane	0.35	5.0	5.0	5.0	10.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	5.0	20.0	0.0	60.0		2026-2040
8TH ST; MARY ST; OVERHILL DR	8TH ST/8TH ST	OVERHILL DR/ EUREKA WAY	Bike Boulevard	0.75	2.0	5.4	5.0	0.0	0.0	5.0	6.3	0.0	5.0	10.0	0.8	1.7	18.3	0.0	59.5		2026-2040
OFF-STREET (CHURN CREEK)	CYPRESS AVE	CHURN CREEK RD/ HARTMEYER LN	Shared-Use Path	3.48	2.0	2.7	5.0	10.0	0.0	0.0	0.0	0.0	3.3	3.3	5.6	2.4	14.8	10.0	59.1		2026-2040
KESWICK DAM RD	LAKE BLVD	WESTERN CITY LIMIT	Bike Lane	0.83	10.0	0.0	5.0	15.0	0.0	0.0	0.0	0.0	1.8	3.4	0.5	2.5	20.0	0.0	58.1		2026-2040
CHURN CREEK RD	BROWNING ST	BODENHAMER BLVD	Buffered Bike Lane	0.52	9.0	2.9	0.0	10.0	0.0	0.0	0.0	0.0	8.6	7.1	5.5	5.0	0.0	10.0	58.1		2026-2040
WESTSIDE RD	CANYON RD	BUENAVENTURA BLVD	Shared-Use Path	3.55	9.0	1.5	5.0	15.0	0.0	0.0	1.4	0.0	0.5	4.6	0.0	4.4	6.0	10.0	57.5		2026-2040
OFF-STREET (PLACER ST)	PLACER ST (EASTERN END)	PARK MARINA DR	Shared-Use Path	0.08	3.0	5.0	5.0	0.0	0.0	0.0	10.0	0.0	10.0	9.2	0.0	4.9	0.0	10.0	57.0		2026-2040
HAWLEY RD; CHURN CREEK RD	HAWLEY RD/ COLLYER DR	CHURN CREEK RD/ PALACIO DR	Buffered Bike Lane	0.82	10.0	2.3	5.0	15.0	0.0	0.0	0.0	0.0	0.0	2.7	3.8	4.2	3.1	10.0	56.1		2026-2040
HARTNELL AVE	AIRPORT RD/OLD OREGON TRL	SHASTA VIEW DR	Bike Lane	1.43	9.0	0.0	5.0	10.0	0.0	0.0	0.0	0.0	6.7	5.4	7.6	1.8	10.3	0.0	55.8		2026-2040
S BONNYVIEW RD	STATE HWY 273	BECHELLI LN	Shared-Use Path	0.52	9.0	4.1	5.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.0	2.6	18.8	10.0	55.3		2026-2040
MISTLETOE LN	CARPENTER LN/ SHASTA PINES WAY	CHURN CREEK RD	Bike Lane	0.14	9.0	1.7	0.0	10.0	5.0	0.0	0.0	0.0	0.0	10.0	5.6	5.0	8.9	0.0	55.1		2026-2040
S BONNYVIEW RD	STATE HWY 273	BECHELLI LN	Buffered Bike Lane	1.70	9.0	3.1	5.0	15.0	0.0	0.0	0.0	0.0	0.0	5.8	0.0	0.0	7.2	10.0	55.1		2026-2040
TWIN VIEW BLVD; MOUNTAIN VIEW DR; COLLYER DR	TWIN VIEW BLVD/ OASIS RD	COLLYER DR/ HAWLEY RD	Bike Boulevard	2.47	5.0	1.6	5.0	15.0	0.0	0.0	0.0	0.0	4.1	1.9	0.0	2.5	20.0	0.0	55.0		2026-2040
EASTSIDE RD	N BONNYVIEW RD	S BONNYVIEW RD	Shared-Use Path	1.02	6.0	5.0	5.0	10.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	2.9	20.0	0.0	54.5		2026-2040
QUARTZ HILL RD	TERRA NOVA DR	BENTON DR	Buffered Bike Lane	0.93	10.0	3.5	5.0	15.0	0.0	0.0	0.0	0.0	6.5	1.4	0.0	1.4	10.0	0.0	52.8		2026-2040
OFF-STREET (LITTLE CHURN CREEK)	CHURN CREEK	LAWRENCE RD	Shared-Use Path	0.77	0.0	4.1	0.0	0.0	0.0	0.0	0.0	0.0	5.3	5.8	7.1	1.3	18.8	10.0	52.3		2026-2040
OFF-STREET (SULPHUR CREEK)	N MARKET ST	ARBORETUM PERIMETER TRAIL	Shared-Use Path	0.33	4.0	5.0	5.0	10.0	0.0	5.0	0.0	0.0	10.0	5.0	0.0	0.0	8.0	0.0	52.0		2026-2040
OFF-STREET	OASIS RD	EASTERN CITY LIMIT	Buffered Bike Lane	1.49	9.0	5.2	5.0	15.0	0.0	0.0	0.0	0.0	0.3	7.5	9.7	0.0	0.0	0.0	51.7		2026-2040
PLACER ST	CONTINENTAL ST	PLACER ST (EASTERN END)	Bike Boulevard	0.31	0.0	13.6	5.0	0.0	0.0	0.0	5.5	0.0	6.8	10.0	1.8	5.0	3.6	0.0	51.4		2026-2040
ALTA MESA DR	RANCHO RD	HARTNELL AVE	Bike Boulevard	2.00	8.0	1.3	5.0	10.0	0.0	0.0	0.0	0.0	5.6	6.4	9.5	4.2	1.4	0.0	51.3		2026-2040
8TH ST	WEST ST	8TH ST/8TH ST	Bike Lane	0.08	3.0	5.7	5.0	0.0	0.0	0.0	2.1	0.0	5.0	10.0	1.4	1.7	17.1	0.0	51.1		2026-2040
E BONNYVIEW RD; RADIO LN	E BONNYVIEW RD/S BONNYVIEW RD	RADIO LN/EASTSIDE RD	Bike Lane	1.58	10.0	0.9	5.0	10.0	0.0	0.0	0.0	0.0	0.0	8.8	0.0	5.0	11.3	0.0	50.9		2026-2040
BUENAVENTURA BLVD	PLACER ST	EUREKA WAY	Buffered Bike Lane	0.83	10.0	0.0	5.0	15.0	0.0	0.0	0.0	0.0	6.4	2.0	4.3	5.0	2.9	0.0	50.6		2026-2040
S BONNYVIEW RD	BECHELLI LN	CHURN CREEK RD	Subject to Caltrans Process Buffered Bike Lane	0.31	10.0	4.0	5.0	10.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	20.0	0.0	49.8		2026-2040
BECHELLI LN	SAC RIVER TRAIL	BECHELLI LN (NORTHERN END)	Bike Lane	0.14	6.0	5.0	0.0	0.0	5.0	0.0	0.0	0.0	10.0	2.0	0.0	1.3	20.0	0.0	49.3		2026-2040
S BONNYVIEW RD	BECHELLIN	CHURCH CREEK RD	Subject to Caltrans Process Shared-Use Path	0.31	10.0	3.8	5.0	10.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	20.0	0.0	49.3		2026-2040
SHASTA VIEW DR	HWY 44 WB OFF/R/ HWY 44 WB ON/R	COLLEGE VIEW DR	Buffered Bike Lane	3.12	10.0	2.3	5.0	15.0	0.0	0.0	0.0	0.0	2.5	3.9	5.6	4.0	0.0	0.0	48.4		2026-2040
OFF-STREET	PALISADES AVE	PRIVATE DR	Shared-Use Path	1.17	10.0	2.1	5.0	10.0	0.0	5.0	0.0	0.0	8.3	2.9	0.0	5.0	0.0	0.0	48.3		2026-2040
VENUS WAY; MERCURY DR; VEGA ST	VENUS WAY/SHASTA VIEW DR	VEGA ST/VICTOR AVE	Bike Boulevard	0.84	3.0	1.1	5.0	10.0	0.0	0.0	0.0	0.0	8.2	7.7	9.5	3.4	0.0	0.0	48.0		2026-2040
SHASTA VIEW	HWY 44 WB OFF/R/ HWY 44 WB ON/R	HARTNELL AVE	Shared-Use Path	0.74	6.0	0.8	5.0	0.0	0.0	0.0	0.0	0.0	5.0	1.8	10.0	4.0	15.4	0.0	48.0		2026-2040
MISTLETOE LN	VICTOR AVE	SHADY LN	Bike Lane	0.29	9.0	1.7	0.0	10.0	5.0	0.0	0.0	0.0	0.0	4.7	5.9	3.2	8.1	0.0	47.6		2026-2040
LAKESIDE DR; FOOTHILL BLVD; LAS ANIMAS DR; MONTE BELLO DR; MANZANITA HILLS AVE	MANZANITA HILLS AVE/SHASTA ST	LAKESIDE DR/ BUENAVENTURA BLVD	Bike Boulevard	0.94	1.0	2.7	5.0	10.0	0.0	0.0	0.0	0.0	6.9	6.0	8.5	4.0	3.1	0.0	47.2		2026-2040
COLLYER DR	POISON OAK LN	HAWLEY RD	Buffered Bike Lane	1.10	10.0	0.9	5.0	15.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	5.0	7.3	0.0	45.6		2026-2040
OASIS RD	LAKE BLVD	AKRICH ST/OLD OREGON TRL	Buffered Bike Lane	4.15	8.0	0.2	5.0	15.0	0.0	0.0	0.0	0.0	4.6	4.4	0.0	2.9	5.2	0.0	45.2		2026-2040
SHASTA VIEW DR	RANCHO RD	CASTLEWOOD DR	Buffered Bike Lane	1.03	10.0	2.1	5.0	15.0	0.0	0.0	0.0	0.0	6.3	3.0	3.3	0.0	0.0	0.0	44.7		2026-2040
AIRPORT RD	STATE HWY 44	RANCHO RD	Bike Lane	1.84	10.0	0.0	5.0	15.0	5.0	0.0	0.0	0.0	2.1	2.6	0.6	0.0	3.5	0.0	43.8		2026-2040
OFF-STREET (LINDEN CREEK)	BUENA VENTURA BLVD	WEST ST	Shared-Use Path	0.91	1.0	2.1	0.0	0.0	0.0	0.0	1.6	0.0	8.4	2.3	4.2	3.9	20.0	0.0	43.6		2026-2040
HILLTOP DR	BROWNING ST	PALISADES AVE	Buffered Bike Lane	0.31	9.0	2.8	5.0	10.0	0.0	0.0	0.0	0.0	5.0	6.7	0.0	5.0	0.0	0.0	43.4		2026-2040
TIDMORE LN	COLLYER DR	COLLEGE VIEW DR	Shared-Use Path	0.24	7.0	4.3	5.0	10.0	0.0	0.0	0.0	0.0	0.0	2.0	1.4	2.8	0.0	10.0	42.5		2026-2040
BUENAVENTURA BLVD	STATE HWY 273	PLACER ST	Buffered Bike Lane	2.24	10.0	0.0	5.0	15.0	0.0	0.0	0.6	0.0	3.1	1.5	0.4	2.5	3.7	0.0	41.8		2026-2040
COLLEGE VIEW DR	OLD OREGON TRL	CHURN CREEK RD	Buffered Bike Lane	1.70	9.0	2.2	5.0	15.0	0.0	0.0	0.0	0.0	0.0	4.5	0.6	4.3	0.0	0.0	40.7		2026-2040
OFF-STREET (BOULDER CREEK)	CHURN CREEK RD	NB I-5 OFF-RAMP/ STATE HWY 299 (SE QUAD)	Shared-Use Path	1.41	2.0	0.7	5.0	10.0	0.0	0.0	0.0	0.0	2.3	7.8	0.7	1.5	0.0	10.0	40.0		2026-2040
S BONNYVIEW RD	ALROSE LN	STATE HWY 273	Shared-Use Path	1.18	10.0	1.5	5.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1	0.0	2.6	4.0	10.0	39.2		2026-2040
CHURN CREEK RD	CHURN CREEK RD/S BONNYVIEW RD	RANCHO RD	Buffered Bike Lane	0.80	8.0	0.0	5.0	15.0	0.0	0.0	0.0	0.0	2.6	0.0	1.5	0.0	6.7	0.0	38.8		2026-2040
MADISON RIVER DR; YELLOWSTONE DR; WESTERN OAK DR; SARATOGA DR; EL VISTA ST	BANJO LN/GOODWATER AVE	EL VISTA ST/ VICTOR AVE	Bike Boulevard	1.60	5.0	0.2	5.0	10.0	0.0	0.0	0.0	0.0	7.6	3.6	5.2	2.1	0.0	0.0	38.7		2026-2040

IN DEVELOPMENT BY CITY OF REDDING

Redding

Bicycle

Street Name	From Street	To Street	Project Description	Length (Miles)	Safety		Connectivity				Demand						Equity		Total	Cost	Time Band
					Level of Traffic Stress	Bike Crash Density	Connects to Proposed Facilities	Closes Network Gap	Connects to Existing Facility	Connects to Sac River Trail	Transit Center	Parks	School	Bus Stop	Strategic Growth Area	Popu-lation	Disad-vantaged Community	Com-munity			
CAPRICORN WAY	CASTLEWOOD DR	HARTNELL AVE	Shared-Use Path	1.09	6.0	1.0	5.0	0.0	0.0	0.0	0.0	0.0	7.7	4.4	10.0	3.2	1.3	0.0	38.6		2026-2040
SHASTA VIEW DR	HWY 44 WB OFF/R/ HWY 44 WB ON/R	COLLEGE VIEW DR	Shared-Use Path	3.10	5.0	1.8	5.0	10.0	0.0	0.0	0.0	0.0	2.7	3.7	6.3	4.0	0.0	0.0	38.5		2026-2040
CHURN CREEK ROAD	CHURN CREEK/ BONNYVIEW RD	RANCHO RD	Shared-Use Path	0.79	8.0	0.0	5.0	10.0	0.0	0.0	0.0	0.0	3.3	0.0	1.1	0.0	10.4	0.0	37.8		2026-2040
SHASTA VIEW DR (FUTURE)	COLLEGE VIEW DR	NORTHERN CITY LIMIT	Shared-Use Path	3.14	8.0	2.8	5.0	10.0	0.0	0.0	0.0	0.0	0.0	6.1	5.6	0.0	0.0	0.0	37.4		2026-2040
RANCHO RD	CHURN CREEK RD	AIRPORT RD	Buffered Bike Lane	1.73	9.0	0.0	5.0	15.0	0.0	0.0	0.0	0.0	0.6	5.3	1.4	0.0	1.1	0.0	37.3		2026-2040
OFF-STREET (SUL-PHUR CREEK)	KESWICK DAM RD	MARKET ST	Shared-Use Path	2.84	2.0	1.9	5.0	0.0	0.0	0.0	0.0	0.0	3.8	4.1	0.0	0.3	20.0	0.0	37.2		2026-2040
OFF-STREET (BOUL-DER CREEK/CHURN CREEK)	CHURN CREEK RD	OLD ALTURAS RD	Shared-Use Path	1.62	2.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	5.5	7.9	7.6	1.5	0.0	10.0	36.9		2026-2040
VICTOR AVE	CHURN CREEK RD	EL VISTA ST/PVT ROAD	Buffered Bike Lane	0.70	9.0	0.0	5.0	10.0	0.0	0.0	0.0	0.0	5.4	0.9	4.2	1.9	0.0	0.0	36.4		2026-2040
AIRPORT RD	HOLE IN ONE DR	SHASTA VIEW DR	Bike Lane	2.32	9.0	1.4	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	8.9	10.0	35.9		2026-2040
AIRPORT RD (FUTURE FRONTAGE RD)	RANCHO RD	SHASTA VIEW DR	Buffered Bike Lane	0.81	10.0	0.0	5.0	10.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	8.6	0.0	35.9		2026-2040
BUENAVENTURA BLVD	PLACER ST	EUREKA WAY	Shared-Use Path	0.82	10.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	6.7	2.0	6.7	5.0	0.0	0.0	35.3		2026-2040
OFF-STREET	HILLTOP DR	PEPPERTREE PARK	Shared-Use Path	0.59	1.0	0.0	5.0	10.0	0.0	0.0	0.0	0.0	8.8	3.9	1.3	2.9	2.5	0.0	35.2		2026-2040
BELTLINE RD	OASIS RD	CATERPILLAR RD	Bike Lane	0.56	10.0	0.0	5.0	10.0	0.0	0.0	0.0	0.0	2.5	3.5	0.0	4.0	0.0	0.0	35.0		2026-2040
VENTURE PKWY/ RANCHO RD	RANCHO RD/ AIRPORT RD	AIRPORT RD/FIG TREE LN	Bike Lane	4.30	8.0	0.0	5.0	10.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	1.7	6.7	0.0	33.3		2026-2040
MISSION DE ORO DR; MILL VALLEY PKWY	MILL VALLEY PKWY (NORTHERN END)	MISSION DE ORO DR/TANGLEWOOD DR	Bike Boulevard	0.71	2.0	2.3	5.0	0.0	0.0	0.0	0.0	0.0	7.3	5.4	0.0	0.9	0.0	10.0	32.9		2026-2040
RANCHO RD	CHURN CREEK RD	AIRPORT RD	Shared-Use Path	1.74	9.0	0.0	5.0	10.0	0.0	0.0	0.0	0.0	0.8	5.1	3.0	0.0	0.0	0.0	32.9		2026-2040
OFF-STREET (VIEW TRAIL)	MISSION DEL ORO DR	BROWNING ST/ VIEW AVE	Shared-Use Path	0.42	9.0	2.1	5.0	0.0	0.0	0.0	0.0	0.0	5.0	6.4	0.0	5.0	0.0	0.0	32.6		2026-2040
QUARTZ HILL RD	WESTERN CITY LIMIT	TERRA NOVA DR	Buffered Bike Lane	0.89	8.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	1.4	12.0	0.0	31.8		2026-2040
E BONNYVIEW RD (FUTURE)	CREEKSIDE ST/ SACRAMENTO DR	S BONNYVIEW RD	Buffered Bike Lane	0.68	4.0	0.0	5.0	10.0	0.0	0.0	0.0	0.0	0.0	8.2	0.0	2.5	2.0	0.0	31.7		2026-2040
PALISADES AVE	(SOUTHERN END)	HILLTOP DR	Shared-Use Path	0.42	9.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	6.7	6.7	0.0	5.0	0.0	0.0	30.7		2026-2040
CANYON RD	STATE HWY 273	SOUTHWESTERN CITY LIMIT	Bike Lane	2.79	10.0	0.0	0.0	15.0	0.0	0.0	0.0	0.0	0.4	4.9	0.0	0.0	0.0	0.0	30.3		2026-2040
OFF-STREET (CHURN CREEK)	OLD ALTURAS RD	E CYPRESS AVE	Shared-Use Path	1.70	3.0	1.0	5.0	0.0	0.0	0.0	0.0	0.0	1.0	3.6	9.2	1.4	5.6	0.0	29.7		2026-2040
OFF-STREET (CLO-VER CREEK)	CLOVER CREEK PRESERVE	HARTNELL AVE	Shared-Use Path	0.54	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.3	6.7	8.9	1.4	2.2	0.0	29.5		2026-2040
CASCADE BLVD	NORTHERN CITY LIMIT	OASIS RD	Bike Lane	0.66	10.0	0.0	0.0	10.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	0.0	0.0	29.2		2026-2040
BUENAVENTURA BLVD	STATE HWY 273	TETON DR	Shared-Use Path	1.25	10.0	0.0	0.0	10.0	0.0	0.0	2.8	0.0	1.6	1.1	0.0	2.9	0.0	0.0	28.4		2026-2040
EUREKA WAY	LOWER SPRINGS RD	BUENAVENTURA BLVD	Bike Lane	1.07	10.0	0.3	5.0	0.0	0.0	0.0	0.0	0.0	4.0	0.3	4.0	4.2	0.0	0.0	27.8		2026-2040
SHASTA VIEW DR (FUTURE)	AIRPORT RD	RANCHO RD	Buffered Bike Lane	1.40	6.0	0.0	5.0	10.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	2.7	2.7	0.0	27.5		2026-2040
STAR DR; SAC-RAMENTO DR; CREEKSIDE ST	CREEKSIDE ST/ ISLAND DR	STAR DR/EAST-SIDE RD	Bike Boulevard	1.74	2.0	0.3	5.0	10.0	0.0	0.0	0.0	0.0	4.2	3.5	0.0	1.7	0.0	0.0	26.6		2026-2040
OFF-STREET (CHURN CREEK)	CROOKED OAK LN	HAWLEY LN	Shared-Use Path	2.55	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	1.0	20.0	0.0	25.7		2026-2040
SHASTA VIEW DR	RANCHO RD	CASTLEWOOD DR	Shared-Use Path	1.03	5.0	1.3	5.0	0.0	0.0	0.0	0.0	0.0	6.0	3.0	4.0	0.0	0.0	0.0	24.3		2026-2040
OLD OREGON TRL	NORTHEAST CITY LIMIT	OASIS RD/OLD OREGON	Buffered Bike Lane	2.31	8.0	0.0	5.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	24.3		2026-2040
AKRICH ST	OASIS RD/OLD OREGON TRL	NORTHERN CITY LIMIT	Bike Lane	1.06	5.0	0.0	5.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	0.0	0.0	23.3		2026-2040
OFF-STREET (WRIGHT DR)	BELTLINE RD (SOUTHERN END)	WRIGHT DR/BIG EAGLE LN	Shared-Use Path	0.10	5.0	3.8	5.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.5	0.0	5.0	0.0	23.3		2026-2040
GIRVAN RD	CREEKSIDE ST/ ISLAND DR	STATE HWY/ EASTSIDE RD	Bike Lane	0.77	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.4	2.7	0.0	2.3	0.0	0.0	21.4		2026-2040
CANYON DR	STATE HWY 273	SOUTHWESTERN CITY LIMIT	Bike Lane	0.75	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	8.8	0.0	18.1		2026-2040
SHASTA VIEW DR (FUTURE)	COLLEGE VIEW DR	NORTHERN CITY LIMIT	Buffered Bike Lane	2.25	4.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0	0.0	0.0	16.8		2026-2040
VICTOR AVE	CHURN CREEK RD	EL VISTA ST/PVT ROAD	Shared-Use Path	0.70	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5	1.0	0.0	1.7	0.0	0.0	16.2		2026-2040
OFF-STREET	RIVERSIDE DR	BONNYVIEW BOAT RAMP	Shared-Use Path	0.56	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	10.0	12.3		2026-2040
SHASTA VIEW DR (FUTURE)	AIRPORT RD	RANCHO RD	Shared-Use Path	1.45	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	2.2	2.4	0.0	11.6		2026-2040
BELT LINE RD	NORTHERN CITY LIMIT (GOPHER LN)	OASIS RD	Bike Route	0.70	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	2.4	0.0	3.8	0.0	0.0	11.5		2026-2040
BELTLINE RD	CATERPILLAR RD	BELTLINE RD (SOUTHERN END)	Bike Boulevard	0.36	4.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	10.6		2026-2040
OFF-STREET	CANYON CREEK RD	WEST OF CANYON CREEK RD	Shared-Use Path	0.30	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	10.0		2026-2040
CHURN CREEK TRAIL - CONNECTION	OASIS RD	PINE GROVE AVE	Shared-Use Path	0.66	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	7.0		2026-2040
																		Redding Bicycle Subtotal			

IN DEVELOPMENT BY CITY OF REDDING

IN DEVELOPMENT BY CITY OF REDDING

Redding

Spot Treatment

Location	Project Description	Safety	Demand					Equity		Total	Cost	Time Band
		Pedestrian Crash Density	Transit Center	Parks	School	Bus Stop	Strategic Growth Area	Population Density	Disadvantaged Community	Community			
CYPRESS AVE AND PINE ST	Interchange Improvement	20.0	0.0	10.0	10.0	10.0	15.0	6.7	13.3	0.0	85.0		2026-2040
HARTNELL AVE AND CHURN CREEK RD	Intersection Improvement	20.0	0.0	10.0	10.0	10.0	0.0	10.0	20.0	0.0	80.0		2026-2040
HARTNELL AVE AT YANA AVE	Intersection Improvement	20.0	0.0	2.8	10.0	6.7	0.0	10.0	20.0	0.0	69.4		2026-2040
EUREKA WAY AND WALNUT AVE	Interchange Improvement	15.0	0.0	7.5	10.0	10.0	0.0	3.0	20.0	0.0	65.5		2026-2040
I-5 AND CYPRESS AVE	Interchange Improvement	20.0	0.0	0.0	10.0	5.0	0.0	6.7	20.0	0.0	61.7		2026-2040
CYPRESS AVE AND CHURN CREEK RD	Intersection Improvement	7.5	0.0	5.0	8.8	10.0	0.0	6.3	20.0	0.0	57.5		2026-2040
LAKE BLVD SOUITH OF CANADA DR	Intersection Improvement	5.0	3.3	5.0	5.8	10.0	0.0	3.3	6.7	0.0	39.2		2026-2040
SUNDIAL BRIDGE DR AND STATE HWY 44	Interchange Improvement	0.0	0.0	10.0	6.7	6.7	15.0	0.0	0.0	0.0	38.3		2026-2040
STATE HWY 273 AT EL RENO LN	Interchange Improvement	5.0	0.0	0.0	10.0	10.0	0.0	0.0	13.3	0.0	38.3		2026-2040
GOODWATER AVE WEST OF SHASTA VIEW DR	Intersection Improvement	0.0	0.0	5.0	3.0	0.0	0.0	5.0	20.0	0.0	33.0		2026-2040
BROWNING ST AND LANCERS LN	Intersection Improvement	5.0	0.0	5.0	5.0	5.0	0.0	10.0	0.0	0.0	30.0		2026-2040
DANA DR AND HILLTOP DR	Interchange Improvement	5.0	0.0	5.0	6.3	5.0	0.0	3.8	0.0	0.0	25.0		2026-2040
EAST OF MONTERRA LN AND ROESNER AVE	Intersection Improvement	0.0	0.0	10.0	3.5	0.0	0.0	0.0	10.0	0.0	23.5		2026-2040
I-5 AND HILLTOP DR	Interchange Improvement	3.0	0.0	5.0	5.0	9.0	0.0	0.0	0.0	0.0	22.0		2026-2040
HILLTOP DR AND SANDPOINTE DR	Intersection Improvement	0.0	0.0	10.0	2.0	10.0	0.0	0.0	0.0	0.0	22.0		2026-2040
										Redding Spot Treatment Subtotal			
										Redding Total			

Shasta County

Bicycle

Street Name	From Street	To Street	Project Description	Length (Miles)	Safety		Connectivity				Demand					Equity		Total	Cost	Time Band
					Level of Traffic Stress	Bike Crash Density	Connects to Proposed Facilities	Closes Network Gap	Connects to Existing Facility	Connects to Sac River Trail	Transit Center	Parks	School	Bus Stop	Strategic Growth Area	Disad-vantaged Community	Com-munity			
FIRST ST	MAIN ST	MAIN ST	Bike Route	3.14	0.0	10.0	5.0	0.0	0.0	0.0	0.0	5.0	10.0	0.0	15.0	20.0	0.0	65.0	$1,133	2026-2040
HURON AVE/ERIE ST	MOUNTAIN VIEW RD	HUDSON ST	Bike Route	1.42	5.0	2.5	5.0	0.0	0.0	0.0	0.0	7.5	8.3	0.0	15.0	20.0	0.0	63.3	$45,978	2026-2040
BRUSH ST	FOURTH ST	FRONT ST	Bike Route	0.88	2.5	2.5	5.0	0.0	0.0	0.0	0.0	5.0	10.0	0.0	15.0	20.0	0.0	60.0	$62,958	2026-2040
MARQUETTE ST	HURON AVE	CYPRESS AVE	Bike Route	0.20	5.0	0.0	5.0	0.0	0.0	0.0	0.0	8.0	7.0	0.0	15.0	20.0	0.0	60.0	$54,990	2026-2040
ASH AVE	MARQUETTE ST	HUDSON ST	Bike Route	1.95	5.0	0.0	5.0	0.0	0.0	0.0	0.0	7.5	6.3	0.0	15.0	20.0	0.0	58.8	$26,281	2026-2040
STATE HWY 273	PLEASANT HILLS DR	CITY OF REDDING BOUNDARY	Caltrans Project Development Process - Separated Bike Lane	11.77	4.1	9.1	5.0	0.0	10.0	0.0	0.0	1.3	5.5	6.5	5.0	12.1	0.0	58.6	$11,786,458	2026-2040
FIRST ST/MAIN ST/SECOND ST/ THIRD ST/OLIVE ST/ FOURTH ST/FRONT ST/HIGH ST	CATTLEMAN DR	MUSKET WAY/ STOWA WAY	Bike Lane	0.48	3.8	6.9	5.0	0.0	0.0	0.0	0.0	2.9	5.5	0.0	14.4	20.0	0.0	58.4	$304,836	2026-2040
BAILEY AVE	100FT WEST CARBERRY ST	MARQUETTE ST	Bike Lane	0.63	4.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	8.0	0.0	15.0	20.0	0.0	57.0	$73,049	2018-2025
GROVE ST	B ST	WALNUT ST	Bike Route	0.19	0.0	3.3	0.0	0.0	0.0	0.0	0.0	8.3	10.0	0.0	15.0	20.0	0.0	56.7	$50,149	2026-2040
FOURTH ST/GAS POINT RD	LOCUST RD/ LOCUST ST	DELLA LN	Bike Lane	0.76	3.3	6.5	5.0	0.0	0.0	0.0	0.0	7.3	7.3	0.0	12.8	13.0	0.0	55.0	$172,427	2026-2040
CURVE ST	DEAD END	STATE HWY 299 E	Bike Route	0.43	0.0	1.3	0.0	0.0	0.0	0.0	0.0	8.8	10.0	0.0	15.0	20.0	0.0	55.0	$41,614	2026-2040
STATE HWY 299	LONG ST	GROVE ST	Caltrans Project Development Process - Bike Lane	0.39	0.0	5.5	5.0	0.0	0.0	0.0	0.0	5.2	5.5	0.0	13.6	20.0	0.0	54.8	$671,909	2026-2040
STATE HWY 299	COMMERCE WAY	TAMARACK AVE	Caltrans Project Development Process - Separated Bike Lane	0.21	3.6	6.9	5.0	0.0	0.0	0.0	0.0	3.4	7.3	3.0	15.0	10.2	0.0	54.4	$1,534,767	2026-2040
DESCHUTES RD	LASSEN VIEW DR	GRAND ESTATES DR	Bike Lane	0.21	0.0	7.5	5.0	0.0	0.0	0.0	0.0	4.0	8.8	0.0	8.8	5.6	10.0	49.6	$262,432	2026-2040
RHONDA RD	MATTHEW CT/ROB-INSON GLEN DR	GAS POINT RD	Bike Lane	1.76	0.6	2.5	5.0	0.0	0.0	0.0	0.0	6.3	2.4	0.0	15.0	17.5	0.0	49.3	$99,915	2026-2040
LOCUST ST/FIRST ST	FOURTH ST/ LOCUST RD	MEMORY LN	Bike Route	0.31	0.8	5.0	5.0	0.0	0.0	0.0	0.0	6.5	8.0	0.0	12.0	10.0	0.0	47.3	$158,481	2026-2040
TAMARACK AVE	STATE HWY 299 E	FIR ST	Bike Lane	0.83	0.0	4.2	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	12.5	16.7	0.0	43.3	$52,056	2026-2040
STATE HWY 151	LAKE BLVD	SHASTA DAM RD	Caltrans Project Development Process - Bike Route	0.07	0.0	6.0	5.0	0.0	0.0	0.0	0.0	4.0	5.7	1.5	0.0	20.0	0.0	42.2	$495,106	2026-2040
OLD OREGON TRL	COLLYER DR/SHAS-TA COLLEGE DR	OLD ALTURAS RD	Bike Lane	0.07	2.1	6.9	5.0	0.0	10.0	0.0	0.0	0.0	3.5	2.9	0.0	0.0	10.0	40.5	$414,899	2026-2040
KESWICK DAM RD	BUENAVENTURA BLVD/MENLO WAY	BUENAVENTURA BLVD/MENLO WAY	Bike Lane	3.63	0.0	8.6	5.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	15.7	0.0	39.3	$145,090	2026-2040
STATE HWY 299	ROCKY RIDGE RD	COMMERCE WAY	Caltrans Project Development Process - Bike Lane	5.61	1.5	8.1	0.0	0.0	0.0	0.0	0.0	0.0	3.1	1.1	10.4	14.4	0.0	38.6	$467,487	2026-2040
CANYON DR	STATE HWY 273	PALM AVE	Buffered Bike Lane	2.20	0.0	8.4	5.0	0.0	10.0	0.0	0.0	0.0	2.6	2.0	0.0	10.3	0.0	38.3	$526,010	2026-2040
OFF-STREET	NORTH ST	CITY BOUNDARY (NEAR RIVERSIDE DR)	Shared-Use Path	0.07	0.9	4.8	5.0	0.0	0.0	0.0	0.0	1.1	0.9	0.0	0.0	15.7	10.0	38.3	$6,218,215	2026-2040
DESCHUTES RD	MAYNARD RD	GREENBROOK LN	Bike Lane	2.05	0.0	7.1	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0	0.0	15.0	10.0	38.1	$495,599	2026-2040
AIRPORT RD	RIVERSIDE AVE	FIG TREE LN	Bike Lane	1.95	2.2	8.4	5.0	10.0	0.0	0.0	0.0	0.0	0.6	0.5	0.0	11.1	0.0	37.8	$269,260	2026-2040
RHONDA RD/PLEAS-ANT HILLS DR	STATE HWY 273	CREMIA PL	Bike Lane	0.05	1.3	8.9	0.0	0.0	0.0	0.0	0.0	0.0	2.2	1.8	7.1	15.8	0.0	37.2	$474,873	2026-2040
DESCHUTES RD	CHOLET WAY	LANCELOT LN	Bike Lane	2.79	0.0	6.3	5.0	0.0	0.0	0.0	0.0	0.0	4.4	6.1	0.0	4.2	10.0	36.0	$548,752	2026-2040
STATE HWY 299	GROVE ST	PITTVILLE RD	Caltrans Project Development Process - Bike Lane	0.69	0.0	6.4	0.0	0.0	0.0	0.0	0.0	4.3	5.9	0.0	8.6	10.0	0.0	35.1	$244,693	2026-2040

Shasta County

Bicycle

Street Name	From Street	To Street	Project Description	Length (Miles)	Safety		Connectivity				Demand					Equity		Total	Cost	Time Band
					Level of Traffic Stress	Bike Crash Density	Connects to Proposed Facilities	Closes Network Gap	Connects to Existing Facility	Connects to Sac River Trail	Transit Center	Parks	School	Bus Stop	Strategic Growth Area	Disad-vantaged Community	Com-munity			
KESWICK DAM RD	BUENAVENTURA BLVD/MENLO WAY	ROXANA DR	Bike Route	0.52	0.0	10.0	5.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	35.0	$27,476	2026-2040
DESCHUTES RD	DERSCH RD	BALLS FERRY RD	Bike Lane	0.37	0.0	5.8	5.0	0.0	0.0	0.0	0.0	1.1	0.9	0.0	0.0	11.1	10.0	33.9	$383,556	2026-2040
HAPPY VALLEY RD	OLINDA RD	GAS POINT RD	Bike Lane	0.79	1.9	2.4	5.0	0.0	0.0	0.0	0.0	1.5	2.3	0.0	0.0	10.7	10.0	33.8	$580,149	2018-2025
COLLYER DR	OLD OREGON TRL/ SHASTA COLLEGE DR	POISON OAK LN	Buffered Bike Lane	1.15	3.2	6.4	5.0	0.0	0.0	0.0	0.0	0.0	5.6	3.6	0.0	0.0	10.0	33.8	$70,332	2026-2040
OAK ST/PALM AVE	CLOVERDALE RD	HAPPY VALLEY RD	Bike Lane	0.29	0.0	6.1	5.0	0.0	0.0	0.0	0.0	0.0	5.3	0.0	0.0	16.7	0.0	33.1	$679,783	2018-2025
STATE HWY 299	LOWER SPRINGS RD	JFK MEMORIAL DR	Caltrans Project Development Process - Bike Lane	0.73	0.3	9.4	5.0	0.0	10.0	0.0	0.0	0.0	2.8	2.2	0.0	3.1	0.0	32.8	$771,807	2026-2040
DESCHUTES RD	DREAM CATCHER LN	DERSCH RD	Bike Lane	0.93	0.0	6.3	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	10.0	31.3	$338,125	2026-2040
CLOVERDALE RD	OAK ST	MODESTA VIEW CT	Bike Lane	3.42	0.0	2.9	5.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0	0.0	17.1	0.0	31.0	$600,395	2026-2040
OLIVE ST/SCOUT AVE	OAK ST	PALM AVE	Bike Route	0.58	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	30.0	$222,600	2026-2040
DERSCH RD	DESCHUTES RD	AIRPORT RD/ CHURN CREEK RD	Bike Lane	0.65	1.8	5.0	5.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	15.8	0.0	29.9	$461,724	2026-2040
OLD ALTURAS RD	OLD OREGON TRL	BROWNING ST	Buffered Bike Lane	0.51	0.0	9.2	0.0	0.0	15.0	0.0	0.0	0.0	3.3	1.5	0.0	0.0	0.0	29.1	$108,870	2026-2040
OLINDA RD	SOUTH ST/WEST ANDERSON DR	HAPPY VALLEY RD	Bike Lane	0.23	0.4	5.6	0.0	0.0	0.0	0.0	0.0	2.2	3.9	0.0	0.0	15.6	0.0	27.6	$919,933	2018-2025
OLD 44 DR	SILVER BRIDGE RD/ SWEDE CREEK RD	VIA LINDA DR	Bike Lane	0.50	0.0	5.3	5.0	0.0	0.0	0.0	0.0	6.0	4.4	0.0	6.0	0.0	0.0	26.7	$227,519	2026-2040
WILLIAMSON RD/ BELT LINE RD/ BELTLINE RD	LAKE BLVD	STATE HWY 151	Shared-Use Path	0.65	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	1.2	4.0	0.0	20.0	0.0	26.7	$2,283,925	2026-2040
PLACER RD	SWASEY DR	HORSELESS CARRIAGE DR	Bike Lane	0.05	0.0	5.0	5.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0	6.7	0.0	26.7	$7,799	2026-2040
OLD OREGON TRL/ OLD OREGON TRL	AKRICH ST/OASIS RD	COLLYER DR/ SHASTA COLLEGE DR	Bike Lane	1.89	0.4	6.3	5.0	0.0	0.0	0.0	0.0	0.0	3.1	0.8	0.0	0.0	10.0	25.6	$398,200	2026-2040
CLEAR CREEK RD/ HONEYBEE RD	TEXAS SPRINGS RD	STATE HWY 273	Bike Lane	0.10	0.0	8.8	5.0	0.0	5.0	0.0	0.0	0.3	3.7	2.2	0.0	0.0	0.0	24.9	$797,726	2026-2040
LOWER SPRINGS RD	EUREKA WAY/ STATE HWY 299	SWASEY DR	Bike Route	1.73	1.0	10.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0	24.0	$242,636	2026-2040
HAPPY VALLEY RD	STATE HWY 273	CANYON DR/ MEEKS LANDING LN	Bike Lane	1.76	0.0	8.3	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.2	0.0	13.3	0.0	23.4	$352,840	2026-2040
AIRPORT RD	BILLY JEAN LN	NORDONA LN	Buffered Bike Lane	1.01	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	5.0	0.0	3.6	0.0	22.6	$104,813	2026-2040
SWASEY DR	LOWER SPRINGS RD	PLACER RD	Bike Lane	1.81	0.0	2.7	5.0	0.0	0.0	0.0	0.0	0.0	4.9	0.0	0.0	9.2	0.0	21.8	$321,954	2026-2040
KESWICK DAM RD	ROXANA DR	IRON MOUNTAIN RD	Bike Route	1.72	0.0	8.6	5.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	21.4	$252,878	2026-2040
PLACER RD	PLACER ST/ THOMPSON LN	SWASEY DR	Bike Lane	0.55	0.0	7.1	5.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	6.7	0.0	21.0	$433,381	2026-2040
SWASEY DR	STATE HWY 299	LOWER SPRINGS RD	Bike Lane	1.74	0.0	4.2	5.0	0.0	0.0	0.0	0.0	0.0	3.3	0.0	0.0	8.3	0.0	20.8	$338,069	2026-2040
CHURN CREEK RD	WEEKS RD	KNIGHTON RD	Bike Route	2.18	1.8	8.8	5.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	2.4	0.0	19.4	$438,170	2026-2040
OLD 44 DR	VIA LINDA DR	OLD 44 DR	Bike Lane	0.59	0.0	8.2	5.0	0.0	0.0	0.0	0.0	4.5	1.5	0.0	0.0	0.0	0.0	19.3	$519,358	2026-2040
SWEDE CREEK RD	BUCKBOARD TRL/ FRENCH CREEK RD	OLD 44 DR/SILVER BRIDGE RD	Bike Lane	0.31	0.0	10.0	5.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0	19.3	$325,920	2026-2040
MEADOW VIEW DR	LOCKHEED DR	CHURN CREEK RD	Bike Route	0.75	2.3	10.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	19.1	$119,276	2026-2040
PLACER RD/CLOVER-DALE RD	TEXAS SPRINGS RD	MODESTA VIEW CT	Bike Lane	1.74	0.0	2.7	5.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	9.2	0.0	19.1	$926,678	2026-2040
GAS POINT RD	DELLA LN	HAPPY VALLEY RD	Bike Lane	1.04	1.1	7.4	5.0	0.0	0.0	0.0	0.0	0.8	4.2	0.0	0.0	0.6	0.0	19.0	$985,277	2026-2040
OLD OREGON TRL	OLD ALTURAS RD	DUFFY LN	Buffered Bike Lane	2.28	0.0	8.3	5.0	0.0	0.0	0.0	0.0	1.1	4.4	0.0	0.0	0.0	0.0	18.8	$192,559	2026-2040
OLD OREGON TRL/ OP 687	TRANQUILO LN	WONDERLAND BLVD	Bike Lane	2.59	1.2	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	7.7	0.0	18.7	$417,030	2026-2040
UNION SCHOOL RD	OLD OREGON TRL	CASCADE BLVD	Bike Lane	1.52	0.7	7.0	5.0	0.0	0.0	0.0	0.0	0.0	4.6	0.0	1.0	0.0	0.0	18.3	$291,574	2026-2040
OLD ALTURAS RD/ BOYLE RD/SWEDE CREEK RD/OLD DESCHUTES RD	DESCHUTES RD	OLD OREGON TRL	Bike Lane	3.86	0.0	6.7	5.0	0.0	0.0	0.0	0.0	0.0	3.9	0.0	0.0	0.0	0.0	15.5	$773,189	2026-2040
PLACER RD	HORSELESS CAR-RIAGE DR	TEXAS SPRINGS RD	Bike Lane	1.14	0.0	5.0	5.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0	14.3	$226,347	2026-2040
CHURN CREEK RD	RANCHO RD	KNIGHTON RD/ PACHECO RD	Bike Lane	4.06	0.3	6.6	0.0	0.0	0.0	0.0	0.0	1.3	1.7	0.0	0.0	0.0	0.0	9.8	$339,391	2026-2040
SOUTH SHORE DR/ JUDGE FRANCIS CARR POWERHOUSE RD/JFK MEMORIAL DR	STATE HWY 299	STATE HWY 299	Bike Route	13.70	0.0	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	7.5	$1,509,025	2026-2040
TEXAS SPRINGS RD	HONEYBEE RD	PLACER RD	Bike Lane	4.86	0.0	2.5	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5	$364,147	2026-2040
IRON MOUNTAIN RD	HOMESTAKE RD	KESWICK DAM RD	Bike Route	1.63	0.0	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	7.3	$249,824	2026-2040
OFF-STREET	600FT EAST OF CLEAR CREEK RD	JEWELL LN	Shared-Use Path	7.65	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	4.6	0.0	0.0	0.0	0.0	5.9	$1,433,037	2026-2040
PLACER RD	DIGGINS WAY	LEANING PINE RD	Bike Lane	1.78	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	$11,753	2026-2040
																	Shasta County Bicycle Subtotal		**$45,748,462**	

Shasta County

Pedestrian

Street Name	From Street	To Street	Project Description	Length (Miles)		Demand					Equity		Total	Cost	Time Band
					Pedestrian Crash Density	Transit Center	Parks	School	Bus Stop	Strategic Growth Area	Disadvantaged Community	Commu-nity			
ERIE ST	MOUNTAIN VIEW RD	TORONTO AVE	Safe Routes to School	0.1	10.0	0.0	10.0	10.0	0.0	15.0	20.0	0.0	65.0	$168,725	2026-2040
QUEBEC ST	MOUNTAIN VIEW RD	TORONTO AVE	Safe Routes to School	0.1	10.0	0.0	10.0	10.0	0.0	15.0	20.0	0.0	65.0	$185,988	2026-2040
TORONTO AVE	100FT EAST OF TALL TIMBER ST	ERIE ST	Safe Routes to School	0.3	8.3	0.0	10.0	10.0	0.0	15.0	20.0	0.0	63.3	$445,400	2026-2040
TALL TIMBER ST	MOUNTAIN VIEW RD	TORONTO AVE	Safe Routes to School	0.1	5.0	0.0	10.0	10.0	2.5	15.0	20.0	0.0	62.5	$184,675	2026-2040
MOUNTAIN VIEW RD	CARBERRY ST	TALL TIMBER LN	Safe Routes to School	0.3	8.0	0.0	10.0	10.0	1.0	15.0	16.0	0.0	60.0	$465,316	2026-2040
BAILEY AVE	100FT WEST OF CARBERRY ST	MARQUETTE ST	Community Walking Connection	0.4	3.0	0.0	10.0	8.0	0.0	15.0	20.0	0.0	56.0	$399,773	2026-2040
MARQUETTE ST	STATE HWY 299 E	BAILEY AVE	Community Walking Connection	0.2	10.0	0.0	8.0	10.0	0.0	15.0	12.0	0.0	55.0	$189,625	2026-2040
MOUNTAIN VIEW RD	CARBERRY ST	TALL TIMBER LN	Safe Routes to School	0.3	2.7	0.0	6.5	10.0	1.9	6.9	20.0	0.0	48.1	$478,478	2026-2040
HUDSON ST	MOUNTAIN VIEW RD/ STATE HWY 299 E	TIMBER HILL DR	Community Walking Connection	0.6	4.0	0.0	4.3	3.8	0.0	15.0	18.7	0.0	45.8	$503,168	2026-2040
STATE HWY 299 E	CORNAZ DR	HUDSON ST/MOUNTAIN VIEW RD	Subject to Caltrans Process - Rural Community Main Street	0.8	5.2	0.0	4.4	6.9	4.8	14.0	10.3	0.0	45.6	$1,394,620	2026-2040
TAMARACK AVE	STATE HWY 299 E	PARK AVE	Community Walking Connection	0.4	0.0	0.0	0.0	10.0	0.0	12.5	16.7	0.0	39.2	$320,973	2026-2040
STATE HWY 299 E	HUDSON ST/MOUNTAIN VIEW RD	TAMARACK AVE	Subject to Caltrans Process - Rural Community Main Street	0.5	4.6	0.0	1.9	5.8	0.0	15.0	10.8	0.0	38.1	$882,299	2026-2040
PARK AVE/CYPRESS AVE	HUDSON ST	TAMARACK AVE	Community Walking Connection	0.7	0.0	0.0	1.7	4.3	0.0	10.0	20.0	0.0	36.0	$625,252	2026-2040
STATE HWY 299 E	TAMARACK AVE	TAMARACK AVE	Subject to Caltrans Process - Rural Community Main Street	0.6	0.0	0.0	0.0	9.0	0.0	15.0	10.0	0.0	34.0	$911,382	2026-2040
TAMARACK AVE	PARK AVE	STATE HWY 299 E	Community Walking Connection	0.3	0.0	0.0	0.0	5.8	0.0	7.5	16.7	0.0	30.0	$258,067	2026-2040
STATE HWY 299 E	ROCKY RIDGE RD	SONOMA ST	Subject to Caltrans Process - Community Walking Connection	0.8	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	20.0	$705,682	2026-2040
BRUSH ST	FOURTH ST	FIRST ST	Safe Routes to School	0.3	3.8	0.0	5.0	10.0	0.0	15.0	20.0	0.0	53.8	$429,386	2026-2040
MAIN ST/SECOND ST/ THIRD ST/OLIVE ST/ FOURTH ST/FRONT ST/ HIGH ST/FIRST ST	MUSKET WAY	COTTONWOOD CREEK CHARTER	Rural Community Main Street	1.5	3.2	0.0	5.0	8.6	0.0	13.6	20.0	0.0	50.5	$2,512,954	2026-2040
WILLOW ST	FOURTH ST	THIRD ST	Safe Routes to School	0.1	5.0	0.0	0.0	10.0	0.0	15.0	20.0	0.0	50.0	$182,628	2026-2040
FOURTH ST	WILLOW ST	GAS POINT RD/I 5 NBOFF/R/I 5 NBON/R	Safe Routes to School	0.3	1.7	0.0	4.2	8.3	0.0	15.0	20.0	0.0	49.2	$554,058	2026-2040
WILLOW ST	THIRD ST	SECOND ST	Safe Routes to School	0.1	3.3	0.0	0.0	10.0	0.0	15.0	20.0	0.0	48.3	$122,821	2026-2040
FRONT ST/WALNUT ST	MAGNOLIA ST	MAIN ST	Rural Community Main Street	0.2	0.0	0.0	3.3	10.0	0.0	15.0	20.0	0.0	48.3	$350,985	2026-2040
WILLOW ST	SECOND ST	FIRST ST	Safe Routes to School	0.1	0.0	0.0	0.0	10.0	0.0	15.0	20.0	0.0	45.0	$122,360	2026-2040
FIRST ST	WILLOW ST	WILLOW ST	Safe Routes to School	0.5	0.0	0.0	7.1	7.9	0.0	15.0	14.3	0.0	44.3	$778,472	2026-2040
GAS POINT RD	FOURTH ST/I 5 NBOFF/R/I 5 NBON/R	DELLA LN	Safe Routes to School	0.5	0.0	0.0	9.6	6.5	0.0	11.5	9.2	0.0	36.9	$931,561	2026-2040
FIRST ST	CITIZENS LN	MEMORY LN	Safe Routes to School	0.4	0.0	0.0	10.0	9.0	0.0	9.0	0.0	0.0	28.0	$620,700	2026-2040
CURVE ST	BURNEY ST	STATE HWY 299 E	Community Walking Connection	0.1	10.0	0.0	10.0	10.0	0.0	15.0	20.0	0.0	65.0	$129,056	2026-2040
CURVE ST/BURNEY ST	THIRD ST	THIRD ST	Community Walking Connection	0.0	10.0	0.0	10.0	10.0	0.0	15.0	20.0	0.0	65.0	$43,327	2026-2040
MAIN ST	STATE HWY 299 E	BRIDGE ST	Rural Community Main Street	0.2	10.0	0.0	10.0	8.3	0.0	15.0	20.0	0.0	63.3	$253,995	2026-2040
THIRD ST	BURNEY ST	STATE HWY 299 E	Community Walking Connection	0.1	10.0	0.0	7.5	10.0	0.0	15.0	20.0	0.0	62.5	$102,532	2026-2040
STATE HWY 299 E	MAIN ST	OAK ST	Subject to Caltrans Process - Rural Community Main Street	0.2	0.0	0.0	10.0	10.0	0.0	15.0	20.0	0.0	55.0	$409,877	2026-2040
STATE HWY 299 E	MAIN ST	BRIDGE ST/FORT CROOK AVE/GLENBURN RD	Subject to Caltrans Process - Community Walking Connection	0.4	5.0	0.0	9.0	6.0	0.0	15.0	20.0	0.0	55.0	$345,839	2026-2040
GROVE ST	B ST	WALNUT ST	Community Walking Connection	0.4	0.0	0.0	8.3	10.0	0.0	15.0	20.0	0.0	53.3	$353,987	2026-2040
STATE HWY 299 E	MECHANIC ST	MAIN ST	Subject to Caltrans Process - Rural Community Main Street	0.6	4.2	0.0	5.0	8.3	0.0	15.0	20.0	0.0	52.5	$938,193	2026-2040
STATE HWY 299 E	TWO BILL LN	NA	Subject to Caltrans Process - Community Walking Connection	0.6	0.0	0.0	0.0	0.0	0.0	15.0	20.0	0.0	35.0	$533,153	2026-2040
STATE HWY 299 E	LEWIS RD	MAIN ST	Subject to Caltrans Process - Rural Community Main Street	0.6	0.0	0.0	5.0	7.2	0.0	10.5	12.0	0.0	34.7	$968,743	2026-2040
PALM AVE	HAPPY VALLEY RD	CURLEY LN	Safe Routes to School	0.2	0.0	0.0	0.0	10.0	0.0	0.0	20.0	0.0	30.0	$424,770	2026-2040
HAPPY VALLEY RD	MARYANN LN	ARTIC LN	Safe Routes to School	0.9	0.0	0.0	0.0	6.5	0.0	0.0	18.3	0.0	24.8	$1,490,035	2026-2040
OAK ST	HAWTHORNE AVE	CRAIG LN	Safe Routes to School	0.5	0.0	0.0	0.0	8.3	0.0	0.0	10.0	0.0	18.3	$832,845	2026-2040
CLOVERDALE RD	HAPPY VALLEY PRIMARY SCHOOL	MAGNUM DR	Safe Routes to School	0.7	0.0	0.0	0.0	8.3	0.0	0.0	10.0	0.0	18.3	$1,120,054	2026-2040
OLINDA RD	MAYBELLE WAY	HAPPY VALLEY RD	Safe Routes to School	0.6	0.0	0.0	0.0	2.3	0.0	0.0	15.0	0.0	17.3	$979,015	2026-2040
DESCHUTES RD	OLD 44 DR	GRAND ESTATES DR	Rural Community Main Street	1.0	0.0	0.0	4.3	8.7	0.0	11.1	8.7	0.0	32.8	$1,638,931	2026-2040
OLD 44 DR	CEDRO LN	VIA LINDA DR	Rural Community Main Street	0.6	0.0	0.0	6.7	8.3	0.0	10.0	0.0	0.0	25.0	$1,024,563	2026-2040
DESCHUTES RD	GRAND ESTATES DR	HILLSIDE DR	Rural Community Main Street	0.6	0.0	0.0	0.0	7.2	0.0	0.0	16.0	0.0	23.2	$1,023,682	2026-2040
DESCHUTES RD	WESLEY DR	OLD 44 DR	Safe Routes to School	0.9	0.0	0.0	2.7	7.7	0.0	3.8	0.0	0.0	14.1	$1,587,213	2026-2040
LASSEN VIEW DR	ORIOLE LN	DESCHUTES RD	Safe Routes to School	0.5	0.0	0.0	0.0	7.4	0.0	0.0	0.0	0.0	7.4	$937,011	2026-2040
DERSCH RD	CLEAR VIEW DR	DRAKE LN	Safe Routes to School	0.9	1.0	0.0	0.0	7.0	0.0	0.0	20.0	0.0	28.0	$1,509,123	2026-2040
SHASTA COLLEGE DR	SOUTHERN LIMIT	NORTHERN LIMIT	Safe Routes to School	0.6	0.0	0.0	0.0	10.0	5.0	0.0	0.0	10.0	25.0	$1,082,638	2026-2040
OLD OREGON TRL	SHASTA COLLEGE DR	COLLEGE VIEW DR	Safe Routes to School	0.7	0.0	0.0	0.0	6.8	5.4	0.0	0.0	10.0	22.1	$1,247,227	2026-2040
SHASTA COLLEGE DR	COLLYER DR/OLD OREGON TRL	OLD OREGON TRL	Safe Routes to School	1.3	0.0	0.0	0.0	7.2	2.8	0.0	0.0	10.0	20.0	$2,219,451	2026-2040
STATE HWY 299 E	JACKSON LN	BISHOPS WHEEL DR	Subject to Caltrans Process - Rural Community Main Street	0.1	0.0	0.0	0.0	10.0	10.0	0.0	0.0	0.0	20.0	$91,052	2026-2040
WHITMORE RD	WHITMORE VILLAGE RD	ATKINS RD	Community Walking Connection	0.2	0.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0	20.0	$224,074	2026-2040
MAIN ST	MAIN ST/FRONTAGE RD	CASTELLA LOOP	Safe Routes to School	0.5	0.0	0.0	10.0	8.3	0.0	0.0	0.0	0.0	18.3	$778,673	2026-2040
CASTELLA LOOP	CASTELLA LOOP/ fRONTAGE rD	CASTELLA LOOP/ EASTSIDE ST	Safe Routes to School	0.7	0.0	0.0	8.8	8.8	0.0	0.0	0.0	0.0	17.5	$1,165,186	2026-2040
SWASEY DR	NAUVOO TRL	PLACER RD	Safe Routes to School	0.5	0.0	0.0	0.0	8.6	0.0	0.0	8.6	0.0	17.1	$798,386	2026-2040
PLACER RD	CLOVERDALE RD	IGO-ONO ELEMENTARY	Rural Community Main Street	0.4	0.0	0.0	0.0	8.0	0.0	0.0	8.0	0.0	16.0	$638,830	2026-2040
MIDDLETOWN PARK DR	SWASEY DR	GOLDSTONE LN	Safe Routes to School	0.5	0.0	0.0	0.0	8.3	0.0	0.0	6.7	0.0	15.0	$782,139	2026-2040
ATKINS RD	BOGGS LN	WHITMORE RD	Community Walking Connection	0.0	0.0	0.0	0.0	7.5	0.0	0.0	6.7	0.0	14.2	$28,556	2026-2040
PLACER RD	PLATEAU CIR	SWASEY DR	Safe Routes to School	0.6	0.0	0.0	0.0	6.1	0.0	0.0	7.5	0.0	13.6	$1,049,481	2026-2040
STATE HWY 299 E	BISHOPS WHEEL DR	OLD BERTAGNA PL	Subject to Caltrans Process - Rural Community Main Street	0.3	0.0	0.0	0.0	6.3	6.3	0.0	0.0	0.0	12.5	$430,829	2026-2040
KNIGHTON RD/CLOVER RD/ PACHECO RD	DANISH LN	CHURN CREEK RD	Safe Routes to School	1.2	0.5	0.0	0.0	6.9	0.0	0.0	4.2	0.0	11.7	$2,122,246	2026-2040
OAK RUN TO FERN RD	ENGLISH WAY	200FT WEST OF ENGLISH WAY	Community Walking Connection	0.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	10.0	$35,563	2026-2040
ENGLISH WAY	OAK RUN TO FERN RD	RASPBERRY LN	Community Walking Connection	0.1	0.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	10.0	$67,445	2026-2040
PLACER RD	SWASEY DR	RANCHLAND DR	Safe Routes to School	0.5	0.0	0.0	0.0	6.3	0.0	0.0	2.9	0.0	9.1	$920,558	2026-2040
CHURN CREEK RD/ MEADOW VIEW DR/ PACHECO SCHOOL RD	GREEN HOLLOW LN	ROBLES DR	Safe Routes to School	1.6	2.3	0.0	0.0	4.0	0.0	0.0	0.0	0.0	6.3	$2,777,858	2026-2040
MAIN ST	CLINE GULCH RD	FRENCH GULCH RD	Rural Community Main Street	0.5	0.0	0.0	3.3	2.7	0.0	0.0	0.0	0.0	6.0	$838,543	2026-2040
													Shasta County Pedestrian Subtotal		**$48,670,027**

Shasta County

Spot Treatments

Location	Project Description	Safety	Demand					Equity		Total	Cost	Time Band
		Pedestrian Crash Density	Transit Center	Parks	School	Bus Stop	Strategic Growth Area	Disadvantaged Community	Community			
STATE HWY 299 AND MAIN ST	Subject to Caltrans Process - Intersection Improvement	10.0	0.0	10.0	10.0	0.0	15.0	20.0	0.0	65.0	$94,927	2026-2040
STATE HWY AND MECHANIC ST	Subject to Caltrans Process - Gateway Treatment	10.0	0.0	10.0	10.0	0.0	15.0	20.0	0.0	65.0	$106,944	2026-2040
STATE HWY AND OAK ST	Subject to Caltrans Process - Gateway Treatment	0.0	0.0	10.0	10.0	0.0	15.0	20.0	0.0	55.0	$106,944	2026-2040
STATE HWY 299 AND MARQUETTE ST	Subject to Caltrans Process - Intersection Improvement	10.0	0.0	8.0	10.0	0.0	15.0	12.0	0.0	55.0	$94,927	2026-2040
STATE HWY 299 AND GROVE ST	Subject to Caltrans Process - Intersection Improvement	0.0	0.0	10.0	10.0	0.0	15.0	20.0	0.0	55.0	$94,927	2026-2040
MAIN ST AND FRIST ST	Interchange Improvement	0.0	0.0	5.0	10.0	0.0	15.0	20.0	0.0	50.0	$94,927	2026-2040
STATE HWY 299 AND ENTERPRISE DR	Subject to Caltrans Process - Intersection Improvement	2.0	0.0	5.0	5.0	10.0	15.0	12.0	0.0	49.0	$94,927	2026-2040
MAIN ST AND STOWAWAY	Gateway Treatment	3.1	0.0	4.2	6.2	0.0	15.0	20.0	0.0	48.5	$106,944	2026-2040
GAS POINT RD AND I-5 ON-RAMP	Subject to Caltrans Process - Interchange Improvement	0.0	0.0	6.0	7.0	0.0	15.0	20.0	0.0	48.0	$312,576	2026-2040
MAIN ST SOUTH OF FRONT ST	Gateway Treatment	0.0	0.0	5.0	10.0	0.0	5.0	20.0	0.0	40.0	$106,944	2026-2040
GAS POINT RD AND I-5 OFF-RAMP	Subject to Caltrans Process - Interchange Improvement	0.0	0.0	10.0	5.0	0.0	15.0	10.0	0.0	40.0	$312,576	2026-2040
DESCHUTES RD AND EB ON-RAMP	Subject to Caltrans Process - Interchange Improvement	0.0	0.0	6.7	6.7	0.0	15.0	10.0	0.0	38.3	$312,576	2026-2040
STATE HWY 299 AND EIGHTH ST	Subject to Caltrans Process - Gateway Treatment	0.0	0.0	0.0	5.0	0.0	7.5	20.0	0.0	32.5	$106,944	2026-2040
DESCHUTES RD AND OLD 44 DR	Gateway Treatment	0.0	0.0	10.0	6.7	0.0	15.0	0.0	0.0	31.7	$106,944	2026-2040
DESCHUTES RD AND WB OFF-RAMP	Subject to Caltrans Process - Interchange Improvement	0.0	0.0	10.0	5.0	0.0	15.0	0.0	0.0	30.0	$312,576	2026-2040
DESCHUTES RD AND HILLSIDE DR	Gateway Treatment	0.0	0.0	0.0	10.0	0.0	4.1	14.5	0.0	28.6	$106,944	2026-2040
STATE HWY 299 AND TAMARACK AVE	Subject to Caltrans Process - Gateway Treatment	0.0	0.0	0.0	5.0	0.0	11.3	10.0	0.0	26.3	$106,944	2026-2040
KNIGHTON RD AND I-5 ON-RAMP	Subject to Caltrans Process - Interchange Improvement	0.0	0.0	0.0	5.0	0.0	0.0	20.0	0.0	25.0	$312,576	2026-2040
STATE HWY 299 AND CORNAZ DR	Subject to Caltrans Process - Gateway Treatment	0.0	0.0	0.0	5.0	2.8	6.7	8.9	0.0	23.3	$106,944	2026-2040
CASTELLA LOOP BETWEEN EASTSIDE ST AND MAIN ST	Interchange Improvement	0.0	0.0	10.0	7.5	0.0	0.0	0.0	0.0	17.5	$94,927	2026-2040
KNIGHTON RD AND I-5 OFF-RAMP	Subject to Caltrans Process - Interchange Improvement	0.0	0.0	0.0	7.9	0.0	0.0	0.0	0.0	7.9	$312,576	2026-2040
STATE HWY 299 AND LEWIS RD	Subject to Caltrans Process - Gateway Treatment	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	2.0	$106,944	2026-2040
										Shasta County Spot Treatment Subtotal	**$3,514,458**	
										Shasta County Subtotal	**$97,932,947**	

GoShasta Projects Subtotal (Table E.2)	**$11,398,187**
Long-Term Projects Subtotal (Table E.3)	**$136,003,840**
Comprehensive Active Transportation Projects Total	**$147,402,027**