

Fehr & Peers

Markleeville Community Transportation Plan

DRAFT

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Markleeville Community Transportation Plan

Prepared for:

Alpine County Local Transportation Commission

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Markleeville, CA 96120

Prepared By:

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Table of Contents

Introduction.....	1
Project Background	1
Project Intent	2
Goals & Objectives	2
Existing Conditions	3
Land Use	3
Existing Transportation & Land Use Plans.....	5
Demographics & Economic Background	5
Bicycle & Pedestrian Networks	7
Public Engagement.....	12
Recommendations.....	15
Opportunities.....	15
Overview of Improvements	16
Priority Improvements	19
Project Fact Sheets.....	20
Parking & Wayfinding Materials	23
Implementation.....	25
Phasing	25
Cost Estimates.....	26
Funding Sources.....	27
Transportation Analysis	33
Complete Streets Toolkit.....	34
Community Engagement Plan.....	37
Community Educational Program	37
Community Educational Events	38

Appendices

Appendix A. Existing Conditions

Appendix B. Publicity Materials

List of Figures

Figure 1. Study Area.....	4
Figure 2. Availability of Household Vehicle	5
Figure 3. 12 Month Income by Household.....	6
Figure 4. Downtown Markleeville Mobility Recommendations	18
Figure 5. Off-street Parking Inventory	24

List of Tables

Table 1. USDOT Disadvantaged Community Criteria	7
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Introduction

The Markleeville Community Transportation Plan represents a comprehensive approach to improving transportation options and experiences within this small, rural community. Led by Fehr & Peers in partnership with Alpine County and local stakeholders, the plan addresses key challenges such as mobility, safety, and seasonal congestion by enhancing infrastructure for walking, bicycling, parking, and wayfinding. Through extensive community engagement including surveys, workshops, and stakeholder meetings, the plan reflects local needs and priorities, fostering a shared vision for sustainable transportation solutions that support economic development,

recreational access, and long-term community vitality. The plan also identifies feasible projects, funding strategies, and educational programs to ensure effective implementation and lasting benefits for Markleeville.

Project Background

In April 2022, Caltrans announced the Sustainable Transportation Planning Grant Program awards for Fiscal Year (FY) 2023–2024. Of the 161 applications received, 90 were selected for grant awards totaling approximately \$41.6 million. Alpine County Local Transportation Commission was awarded a grant for the Markleeville Community Transportation Plan under the Sustainable Communities Competitive Category.



The Markleeville Community Transportation Plan creates a strategic vision for the State Route 89 corridor through historic downtown Markleeville and connecting roadways to surrounding neighborhoods and public lands. The plan aims to establish a detailed vision for multimodal transportation improvements that will

- improve the quality of life for local residents;
- strengthen the local economy;
- increase active mobility options in the community; and
- preserve the natural environment.

Project Intent

The Community Transportation Plan will serve as a strategic roadmap to address Markleeville community transportation needs. Currently, SR 89 offers no bicycle or pedestrian infrastructure, and parking and access is disorganized, creating challenging conditions for residents and visitors. By working with the community to identify improvements that reflect local priorities, the plan identify realistic, fundable, and implementable solutions for Markleeville.

The Markleeville Community Transportation Plan will establish a vision for how to improve access to safe and sustainable alternative transportation options throughout downtown Markleeville. This plan will include things like new sidewalks, improvements to bus stops, and more.

The plan will focus on sustainable transportation improvements by centering on existing and future community assets and needs related to accessible health, human services, and

employment opportunities in the Markleeville community. The plan consists of extensive outreach, Complete Streets design implementation, circulation recommendations, and investment strategies for future project construction.

Goals & Objectives

The ultimate goal of the Markleeville Community Transportation Plan is to increase mobility within downtown Markleeville and create a strategy for improving active transportation within the community. The plan identifies a complete and safe network of walking paths and bikeways that connect residents of Markleeville with the downtown core and beyond. In support of this goal, several objectives were identified:

- Develop a community engagement approach that meets people where they are and provides a mix of online and in-person channels.
- Establish region-wide and multi-jurisdiction partnerships, aimed at increasing the eligibility of dedicating regional funding resources to active transportation projects.
- Foster meaningful relationships between the project team and among community stakeholders, building capacity for future collaboration and plan implementation.
- Ensure project recommendations reflect community priorities and the unique nature and character of Markleeville.
- Improve local and regional connectivity and accessibility to enhance economic opportunities, quality of life for residents, and create increased opportunities for healthy living and recreation.



Existing Conditions

This chapter provides an overview of the downtown Markleeville community including demographics, current transportation network conditions, and community characteristics. This information serves as a baseline for the recommendations discussed later in this plan.

Land Use

Markleeville is an unincorporated community of Alpine County. Markleeville includes census tract 100. The community is located to the south of Lake Tahoe and surrounded by three Caltrans facilities: State Route (SR) 88, SR 89, and SR 4. SR 88 bounds the community to the north, SR 89 bounds the community to the east, and SR 4 bounds the community to the south.

Markleeville is a community with primarily residential land uses. There are a few commercial land uses, such as convenience stores and restaurants. There is a general store in Markleeville, but the nearest full-service grocery stores are located in South Lake Tahoe or Gardnerville. Most commercial land uses are located along SR 89, the state highway running through the eastern part of the community. There are no continuous pedestrian and bicycle connections from the residences to the commercial land uses located on SR 89.

Key destinations for bicyclists and pedestrians in downtown Markleeville are shown in **Figure 1** and include the following:

- Public buildings
- Retail areas
- Off-street parking





FIGURE 1

Downtown Markleeville Community

Existing Transportation & Land Use Plans

Goals, policies, and objectives from various planning documents published by Alpine County are relevant to the plan. This plan incorporates goals from these documents and establishes a vision that supports and builds upon those efforts. The following plans were reviewed to create the goals and objectives for this effort. Summaries of each plan can be found in [Appendix A](#), Existing Conditions.

- Alpine Active Transportation Plan (2018)
- Alpine County Bicycle and Pedestrian Master Plan (2010)
- Promoting Safe Bicycle Travel Opportunities for Bicycle Tourism and Economic Development (Interregional Bicycle Tourism Study) (2021)
- Alpine County Regional Transportation Plan (2020)
- Markleeville Downtown Revitalization Plan (1998)
- District 10 Caltrans Active Transportation (CAT) Plans

Demographics & Economic Background

Markleeville is home to approximately 191 residents. People of White descent make up 90% of the community's population, and 63% of the population is 55+ years old.

School Enrollment

There are no schools in the Markleeville community, and residents instead utilize other schools in the Alpine County Unified School District, such as Diamond Valley Elementary School, Bear Valley Elementary School, Alpine Early Learning Center, and the Secondary Community Day School.

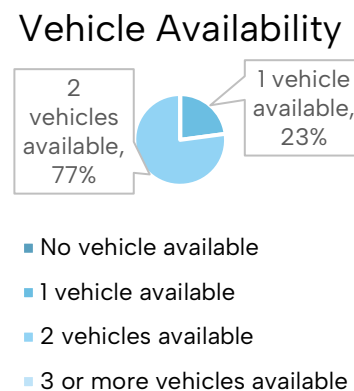
Commuting Characteristics

Markleeville's roadways connect the local community to nearby communities within Alpine County. Due to its remote location, longer trip distances, and lack of bicycle and pedestrian infrastructure, however, many residents choose driving over walking, biking, or riding transit. No regular bus routes serve the Markleeville community. Alpine County Community Development provides a Dial-A-Ride program that operates Monday–Friday between 8 AM and 5 PM. Commuting characteristics provided by the US Census website show that everyone over 16 years old travels by car alone to get to work.

Zero Vehicle Households

All residents in Markleeville rely on automobiles. Seventy-seven percent of Markleeville residents 16 years or older have access to two vehicles per household. **Figure 2** demonstrates the household vehicle breakdown.

Figure 2. Availability of Household Vehicle



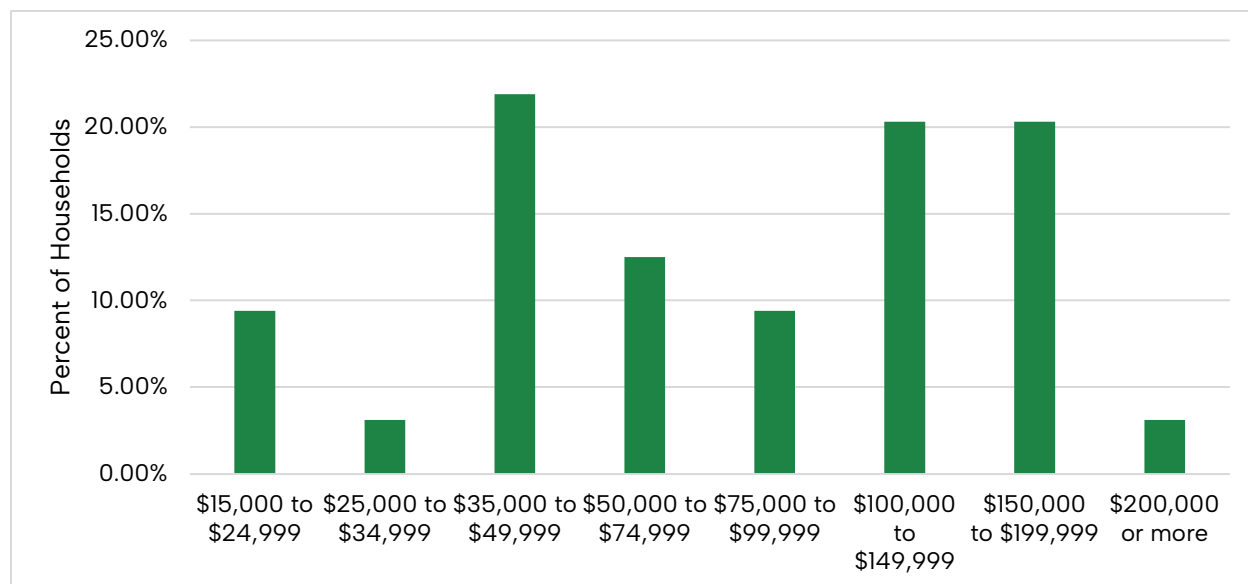
Source: American Community Survey, 2018–2022.

Household Income

Most of the households in the Markleeville community make over \$75,000 a year. The median household income of \$97,321 is about the same as the countywide median household income of \$96,000 a year and statewide median household income of \$96,334 a year.

Figure 3 demonstrates the income breakdown.

Figure 3. 12 Month Income by Household



Source: American Community Survey, 2018–2022.

Disadvantaged Communities

Disadvantaged communities are often affected disproportionately by transportation policy and investments. Residents of these communities are often less likely to have access to a motorized vehicle; are more reliant upon walking, biking, and transit; and stand to benefit most from local air and environmental quality improvements. This section describes several different equity indicators for the Markleeville community.

CALENVIROSCREEN

The CalEnviroScreen 4.0 tool is a measure of environmental health by census tract. Inputs include socioeconomic factors, population characteristics, pollution factors, and environmental factors. Tracts with higher

percentiles are more disadvantaged. Markleeville is in the 22nd percentile of disadvantaged communities in the State of California according to the California Environmental Protection Agency (CalEPA) and based on the California Communities Environmental Health Screening Tool 4.0 (CalEnviroScreen 4.0). Markleeville is included in census tract 100.

More info:

<https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40>

DISADVANTAGED COMMUNITY CRITERIA FOR GRANT FUNDING

Table 1 lists the federal tools used by the U.S. Department of Transportation (USDOT) to determine disadvantaged community status in their DOT grants. The disadvantaged community criteria for each tool are listed, along with whether Markleeville meets these criteria.

Table 1. USDOT Disadvantaged Community Criteria

Climate & Economic Justice Screening Tool (CEJST)		Present in Markleeville
Climate Change		Yes
Energy		Yes
Health		No
Housing		No
Legacy pollution		No
Transportation		No
Water and wastewater		No
Workforce development		No
USDOT Equitable Transportation Community Explorer (ETCE)		Present in Markleeville
Climate & Disaster Risk Burden		No
Environmental Burden		No
Health Vulnerability		Yes
Social Vulnerability		No
Transportation Insecurity		Yes
Areas of Persistent Poverty & Historically Disadvantaged Communities		Present in Markleeville
Area of Persistent Poverty		No

Source: Fehr & Peers, 2025.

Bicycle & Pedestrian Networks

This section quantifies the state of biking and walking in Markleeville. This information helps identify existing bicycle and pedestrian facilities, where people are going, how often they are walking or biking, and what infrastructure is in place to support these modes.



Existing Bicycle Facilities

Few bicycle facilities of any type currently exist within the county. Most that do are located along state routes. Within Markleeville, there is a recently installed marked bicycle facility on Hot Springs Road constructed as part of the Hot Springs Road Reconstruction project. The first phase installed a bicycle facility from Laramie Street to approximately Pleasant Valley Road. When complete, the project will provide a continuous marked bicycle facility from Laramie Street to the entrance of Grover Hot Springs State Park. As of the County's Bicycle and Pedestrian Master Plan (2010), 12.6 additional miles of bicycle facilities or improvements have been proposed for the Markleeville portion of the county's bicycle network.

Bicycle Facility Types

CLASS I (SHARED-USE PATH)

Class I facilities, or shared-use paths, are completely separated from motor vehicle traffic and used by people walking and biking, making them comfortable for people of all ages and abilities. Typically, these facilities are located immediately adjacent and parallel to a roadway or in its own independent right-of-way, such as within a park or along a body of water.

There are no Class I facilities in Markleeville.



CLASS II (BIKE LANES)

Class II facilities, or bicycle lanes, are dedicated lanes for bicycle travel adjacent to traffic. A painted white line separates the bicycle lane from motor vehicle traffic. Class II Buffered Bicycle Lane facilities (Class IIB facilities) are bicycle lanes with additional buffers separating the lanes from vehicle traffic.

Class II bike lanes are installed on Hot Springs Road from Laramie Street to just east of Pleasant Valley Road, for a total distance of 0.82 miles.

CLASS III (BIKE ROUTES)

Class III facilities, or signed bicycle routes, are facilities shared with motor vehicles. Typically signs and/or pavement markings indicate people bicycling can share the travel lane with motor vehicles. This type of facility is more comfortable for confident bicyclists. This design is often recommended on slower streets when space for a bicycle lane may not be feasible and the route provides connectivity to other streets in the bicycle network. Class IIIBs are a subset of bicycle routes, usually known as bicycle boulevards. Bicycle boulevards are bicycle routes on residential streets that prioritize through trips for bicyclists. Traffic calming elements are often included in locations with bicycle boulevards to slow speeds and discourage drivers from using the street as a through route.

There is a Class III facility along SR 89 from Woodfords to Hot Springs Road in Markleeville, a 6.3-mile stretch. Additionally, a Class III facility is situated on Montgomery Street from Laramie Street to SR 89.

CLASS IV

Class IV facilities, often known as cycle tracks or separated bikeways, provide space for bicyclists that is separated from motor vehicle travel lanes, parking lanes, and sidewalks.

Parked cars, curbs, bollards, or planter boxes provide physical separation between bicyclists and moving cars. Where on-street parking is allowed, it is placed between the bikeway and the travel lanes.

There are currently no Class IV facilities in Markleeville.

BIKE PARKING

After on- and off-street facilities, bicycle parking is the most important element of a community's bicycling system. Parking for bikes is a low-cost yet effective way to encourage cycling and improve the functionality of a bikeway network. Short-term parking serves people parking bicycles for two hours or less. While short-term bicycle parking must be secure, the emphasis is on convenience and accessibility. Long-term parking is for bicycle parking and needs of more than two hours, such as for employees during work hours or at people's homes.

Some bike parking options are available throughout Alpine County, but the county lacks amenities such as bike self-repair/fix-it stations and a robust bike rack program for bicyclists. Within the Markleeville community, bicycle parking is located along SR 89 by Stonefly, the Alpine County Library, Alpine County Chamber of Commerce and Visitor Center, and at the Café.



Image: Bicycle parking located in front of the Alpine County Library.

Existing Pedestrian Facilities

Shared-Use Facilities

Class I bikeways, frequently known as shared-use paths or trails, are shared by both pedestrians and bicyclists. As noted above, there are no formal shared-use paths within Markleeville.

Sidewalks

Sidewalks are paved public walkways immediately adjacent to the vehicular right-of-way for the exclusive use of pedestrians. Unless prohibited, they may be used by people riding bicycles; this most frequently occurs when bicyclists must otherwise share road facilities that feel uncomfortable due to speeding vehicles or other conditions.



Downtown Markleeville has a couple short stretches of sidewalk on the south side of Montgomery Street approaching the SR 89 intersection, and along the west side of SR 89. The sidewalks exist along a couple of business frontages but end abruptly. Existing sidewalks are discontinuous, limiting pedestrian connectivity within the downtown core and to Markleeville neighborhoods.

Crosswalks

A crosswalk is a designated space for pedestrians to cross the street. Crosswalks can come in a multitude of styles including marked and unmarked. Marked crosswalks feature striping and other enhancements to delineate a street crossing for pedestrians. There are two types of marked crosswalks:

- *Controlled crosswalks* have stop signs or traffic signals.
- *Uncontrolled crosswalks* do not have stop signs or traffic signals. Under California law, drivers are legally required to yield to pedestrians at uncontrolled crosswalks.

Additional features can be added to crosswalks to increase visibility on busy streets:

- *Bulbouts* shorten crossing distances for pedestrians and slow right-turning vehicles.
- *Refuge islands* provide protection from mid-crossing and slow vehicles down.
- *High-visibility crosswalk markings* add additional striping to the pavement.

There are no marked crosswalks in the Markleeville community.

Rectangular Rapid Flashing Beacon

Rectangular rapid flashing beacons (RRFBs) allow pedestrians to activate a flashing light when crossing.

Pedestrian Hybrid Beacon

Pedestrian hybrid beacons (PHBs) require traffic to stop for pedestrians when activated but allow vehicles to proceed with caution after the pedestrian crossing has been completed.



Additional Modes of Transportation

Transit Connections & Ridership

Transit service within the study area is provided by Alpine County Community Development, which offers a Dial-A-Ride program for the general public and those needing transportation assistance. It operates Monday through Friday from 8 AM to 5 PM. The service area includes trips to and from Markleeville, Woodfords, Hung-A-Lel-Ti, Minden, Gardnerville, Dresslerville, Kirkwood, South Lake Tahoe, and the Carson City area.

Equestrian

Equestrian traffic is common in Alpine County for locals, tourists, and for recreational purposes. While no formal, developed equine facilities exist, numerous dispersed campgrounds and areas offer trails throughout Alpine County where hikers and equestrians share the trails. The Markleeville Downtown Revitalization Plan (1998) sets forth a policy which allows bicycle, pedestrian, or

equestrian trails, paved or soft-surface, within the 25-foot setback established in the Stream Environment Overlay. No equestrian trails or crossings are present in Markleeville.

Origin & Destinations Analysis

A community survey was made available on the project webpage as well as in-person at community outreach events. The purpose of the survey was to solicit information about how, where, and why people travel in Markleeville. It also asked about the challenges people face and the desired community amenities or improvements they would like to see. Survey responses showed that people either live in Markleeville or visit Markleeville to work, dine, engage in recreational activities, or attend meetings at the library. Those that visit Markleeville live in nearby communities like Alpine Village and visit Markleeville a few times a week on random occasions. In Markleeville, people either drive or walk to their destination. Some challenges that people experience in Markleeville are not enough parking, and no sidewalks. Respondents expressed concern for the lack of sidewalks and crosswalks in Markleeville. Destinations people would like to travel to from Markleeville include Bear Valley and Woodfords.

Public Engagement

Community engagement for multimodal transportation projects ensures that projects serve the walking and biking needs of the community, and that when projects are implemented, they are accepted and valued. To achieve these goals, this project sought to engage all members of the Markleeville community and those who visit Markleeville on a regular basis.

The first phase of community engagement was done in conjunction with the existing conditions, work and field walk to capture the current experience of getting around in Markleeville. A second round of outreach was carried out to present project recommendations and circulation of the draft plan document. Throughout the project, several engagement methods were utilized to meet people where they are and provide ways to participate:

- Project website with an interactive map
- Conversations with the steering committee group of representatives
- Community workshops

Project Website

A website that was accessible via phone, tablet, and computer was established at the beginning of the project. The website included information about the project, dates and times for upcoming outreach events, and an interactive map. The



website was advertised on flyers at county offices and around the town of Markleeville. Publicity materials are included in [Appendix B](#).



Image: Markleeville CTP project website.

Interactive Map

An online web map was established on the Social Pinpoint platform, housed on the project website. The map interface allowed the public to view key data such as existing bike and pedestrian facilities, add location-specific comments about the challenges they experience walking and biking, and describe the improvements they would like to see in the community.

Community Charette

The project team gathered in Markleeville for a field walk and project open house on October 3-4, 2024. The goal of the field visit was to understand community needs, identify existing challenges, and begin drafting potential recommendations.

Field Walk

Alpine County staff gathered with the project team for a field walk around the downtown Markleeville area. The team noted existing bike and pedestrian facilities, parking availability, connections to community facilities and resources, and areas for potential improvements. During the field walk, the team spoke to several residents about their experience traveling in Markleeville. Residents expressed some of the following concerns:

- Vehicles speed through the downtown area
- Lack of pedestrian and bicycle space throughout the downtown area
- Lack of pedestrian and bicycle connections to downtown and around Markleeville
- Limited parking around the downtown area makes it difficult to access businesses
- Lack of signage throughout to locate parking and key destinations
- Need for a connection from downtown Markleeville to the library along Montgomery Street



Image: Field walks with the project team and Alpine County staff.

Project Open House

The project open house was held on October 3, 2024, at the County Administration Building in downtown Markleeville from 4:30–6:30 PM. This open house was an opportunity to kick off the project and have residents give their feedback on transportation in Markleeville. The goal of the open house was to establish a strategic vision for the SR 89 corridor through historic downtown Markleeville to surrounding neighborhoods and public lands. Map boards of downtown Markleeville and regional destinations were provided for participants to comment on areas for improvement and destinations which should have better connectivity. A board highlighting objectives was provided for participants to put stickers

next to the goals they found most important. Additionally, participants were able to leave comments on comment cards provided at the event or via the website map. Pictures of the boards and responses received can be found in [Appendix A](#).



Image: Project open house.

Residents would like to see better connectivity from downtown Markleeville to the following places:

- Turtle Rock State Park
- Markleeville Campground
- Grover Hot Springs State Park
- Woodfords
- Indian Creek Campground

The most important goals for residents included prioritizing and addressing sidewalk deficiencies, brainstorming new ideas that will bring more people to Markleeville and surrounding areas, creating walking and biking networks that connect to key destinations and recreational amenities and trails, and preserving the natural feel and historic character of downtown Markleeville.

Project Recommendations Open House

The project team held a community workshop at the County Administration Building in downtown Markleeville on July 16, 2025. The purpose of the workshop was to present project recommendations to the community and gather feedback on the proposed improvements.

Attendees were able to walk around and view the project recommendations boards, which showed conceptual designs of a reimagined downtown Markleeville with organized parking, sidewalks, and pedestrian crossings. Community members were able to place dots on a board with several improvements and mark which features are most important to them. Additionally, participants were able to leave comments on comment cards provided at the event. Pictures of the boards can be found in [Appendix A](#).

The community members at the workshop expressed interest in the reimagined downtown and had positive reactions to the proposed facility improvements. A couple of people mentioned that they would like the county to reestablish a connection to the Elizabeth Coyan Park and picnic area located south of SR 89 across from the courthouse. The path to this area was removed during the bridge replacement and has since been abandoned.



Recommendations

The Community Transportation Plan aims to improve safety, mobility, and access for all users by increasing connectivity and access for multiple modes of transportation. Potential transportation improvements to meet this goal include new roadway connections, additional bicycle facilities, completion of sidewalk networks, and other streetscape and circulation improvements to the downtown core of Markleeville.

Multiple transportation needs were identified in the Markleeville community. This chapter provides an overview of the recommended improvements for bicycling and walking, along with a set of priority projects. As the population of Markleeville continues to get older, the potential transportation improvements that follow, including a well-connected network of sidewalks and multi-use trails, safe intersections for pedestrians, and access to transit—will benefit an aging population and help create a Markleeville that is for people of all ages and abilities.

Opportunities

The plan has identified the following key opportunities and potential improvements around downtown Markleeville.

Central & Regional Connections

Many residents expressed that they are unable to get to downtown Markleeville without the use of a vehicle due to the lack of bicycle and pedestrian connections. Downtown Markleeville is centrally located to its key destinations like Turtle Rock State Park to the north, Grover Hot Springs State Park to the west, and Markleeville Campground to the south. This gives downtown Markleeville an opportunity to become a hub for travelers and tourists using the nearby amenities. In an area with high levels of recreation, walking and biking paths would benefit not only Markleeville residents but visitors as well. The following potential connections were identified during the field walk and mentioned by participants in the open house:



- Pedestrian/bicycle connection from downtown Markleeville to central destinations such as the Alpine County Museum, Alpine County Library, and the Alpine County Visitor Center.
- Shared-use bike/pedestrian trail from downtown Markleeville to Grover Hot Spring State Park, Markleeville Campground via Heritage Park, and Turtle Rock State Park

Traffic Calming

Like several other communities in Alpine County, Markleeville's downtown core is situated along a state route. SR 89 is a two-lane highway that runs directly through Markleeville from Topaz north to Alpine Village. Vehicles approaching Markleeville from the south are notified of the town entrance via a Markleeville welcome sign and a town plaque. The Markleeville Creek Bridge, combined with a slight incline right before entering town, slows vehicles down but does not allow them to recognize they are in a downtown area until they are in the town. From the north, a Markleeville welcome sign exists, and vehicles approach at high speeds and are slowed down by a feedback trailer with flashing red and blue lights just outside of town. Though this feedback trailer may contribute to slowing some vehicles through town, it is located too close to the downtown core and does not provide enough of an advance warning. The posted speed limit on SR 89 through downtown Markleeville is 30



mph, but during the field visit it was often noted that vehicles drive faster than that due to the limited warning signs and high speeds associated with the state highway.

To address this, Alpine County could consider additional traffic calming methods to slow vehicles down as they approach downtown Markleeville. These include lane narrowing, separated facilities for bicycles and pedestrians, permanent speed feedback signs, and additional signage on the approaches to downtown Markleeville that are easily seen from SR 89. Lane narrowing, in combination with separated facilities like bike lanes and sidewalks, will slow vehicles through Markleeville's downtown core while encouraging the use of active transportation in this area. The feedback trailer approaching the town from the north is effective at warning drivers of the town entrance but should be moved further north to allow vehicles more time to slow down as they approach town. Alternatively, the county could coordinate with Caltrans to install permanent speed feedback signs on both approaches into town. Lastly, the Markleeville town entrance signs are located away from the roadway and are the only sign of the town approaching. Additional signage could be considered to alert drivers on SR 89 that they are entering into an area with slower speeds and pedestrian activity.

Overview of Improvements

Markleeville is a small residential community defined by its outdoor recreational activities. Despite the nearby recreational opportunities, convenient walking and bicycling routes are limited due to the remote location of the community and SR 89 as the primary travel corridor.

Community feedback from outreach activities indicates that residents want to see a multimodal network of sidewalks and bikeways to increase local regional connectivity. Using

comments received at in-person and online outreach, and mapped data of land use and community destinations, the project's Technical Advisory Committee developed a draft conceptual multimodal improvements network. The network creates a cohesive network of sidewalks and bikeways that link priority destinations within the Markleeville core. The draft network was reviewed and received support from the community at an Open House in July 2025. The conceptual network should be viewed as improvements that create a complete network of transportation infrastructure throughout the community.

The downtown Markleeville mobility recommendations are shown in **Figure 4**. This network connects key destinations in the Markleeville core with pedestrian connections and marked bicycle facilities.

Pedestrian Improvements

One of the primary goals of the Community Transportation Plan is to improve pedestrian safety with dedicated pedestrian facilities. Given the planning level nature of the Community Transportation Plan, the term sidewalk is used to reflect pedestrian improvements that provide a dedicated space for pedestrians that separates them from vehicular traffic. This separation could be a vertical separation (like curb and gutter) or a horizontal separation (like a separated path), but a distinction must be made between the two modes of transportation. As more detailed studies or plans are prepared, the exact type of materials for these sidewalks can be designed within the context of each project. For example, a stamped concrete "boardwalk style" walkway or other aesthetic treatment might be more appropriate for projects in downtown Markleeville, where a conventional concrete sidewalk might be more appropriate in residential neighborhoods. As materials are selected for a project, on-going maintenance

costs and agreements should be factored into the selection process.

The following improvements are recommended to enhance the safety, comfort, and connectivity of pedestrian facilities in the study area:

- Crosswalks are essential to the safety of pedestrians along SR 89. Three crosswalks with rectangular rapid flashing beacons (RRFBs) are recommended in the study area. The first crosswalk would be in front of the Alpine County Visitor Center. This would allow pedestrians to cross SR 89 from the visitor center to locations like the gas station. It would also serve as a warning to vehicles approaching town of pedestrian activity and the need to slow down. The second crosswalk is proposed right in the heart of town and is a priority for implementation. The RRFBs would highlight the visibility of the crosswalk and would create a safe crossing for visitors and local residents to access the businesses along SR 89. The third crosswalk is recommended to be just north of the Alpine County Government Center, connecting the existing bench and picnic table to the general store and the Government Center. The crosswalks at the visitor center and government center can be evaluated after the implementation of the Montgomery Street crossing to determine their feasibility.





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- | | | | | | | | |
|--|---------------------------------------|--|-----------------------------------|--|---------------------------------------|--|---------------------------------|
| | Markleeville Welcome Sign | | Existing Bicycle Parking | | Recommended Crosswalk | | Proposed Bicycle Parking |
| | Recommended Intersection Improvement | | Rectangular Rapid Flashing Beacon | | Recommended Sidewalk | | Proposed Bicycle Repair Station |
| | Formalized Parking (Number of Stalls) | | Existing Class II Bike Lane | | Recommended Trail Connection | | State Highway |
| | | | Existing Class III Bike Route | | Recommended Access Improvements | | Markleeville Boundary |
| | | | Widen Shoulder for Bike Route | | Recommended Walking/Biking Connection | | |

FIGURE 4

Downtown Markleeville Mobility Recommendations

- Installation of sidewalks along Montgomery Street and along both sides of SR 89 between Webster Street and Heritage Park and Nature Area. This continuous connection would encourage residents and visitors to park once and use walking and biking as an alternative mode.
- Extension of the sidewalks along Montgomery Street to allow residents to have a continuous path to get to the Alpine County library, School Street and the nearby residences.

Bicycle Improvements

Organized parking along SR 89 will formalize space and separate vehicular traffic from bicyclists and pedestrians. Bicycle pavement markings will guide bicyclists downtown, with bicycle repair stations located at the Alpine County library and museum. Additional bike parking locations are proposed at locations like Heritage Park.

Roadway Improvements

Lastly, two intersection improvements are shown for the Laramie Street/Montgomery Street/Hot Springs Road intersection. Both options would provide multimodal safety improvements and install crosswalks at the intersection to create a complete pedestrian

connection from downtown Markleeville to the Alpine County Library.

Multimodal improvements that could enhance the safety of cyclists include widening of the shoulders along both sides of SR 89 just north of the Alpine County Visitor Center and along a segment of SR 89 east of Laramie Street.

Existing parking is located at the Alpine County Museum, the Alpine County Visitor Center, the Alpine County Government Center, and at Heritage Park and Nature Area. These parking areas would benefit from additional signage and wayfinding.

Priority Improvements

Improvements proposed in the recommendations figure were grouped to form sets of transportation improvements projects. The identified improvement projects include high-level cost estimates and the application of various Complete Streets tools. The information in this section may be used to inform grant applications or other funding approaches. Additional detailed analysis and design is needed to move these projects forward. Improvements identified in the circulation network map and as priority projects are eligible for state and federal funding sources identified in the implementation chapter.



Project Fact Sheets

SR 89 Improvements

Thousands of recreational tourists are drawn to Markleeville's historic town center and recreational amenities. SR 89 runs through the heart of Markleeville and is the main point of access for people going to the downtown area. The lack of sidewalks and bike facilities throughout downtown forces pedestrians and bicyclists onto the highway's lanes and shoulders. The proposed improvements provide a framework for a safe and accessible transportation network through downtown Markleeville. These improvements consider all modes of transportation and prioritize walking and biking while preserving the town's natural landscape.

One of the primary proposed improvements consists of installing sidewalks on both sides of SR 89 along business frontages. Visitors need an accessible route to the key locations along the downtown core, which include the Alpine County Visitor Center, the Alpine County Courthouse, and businesses such as the Markleeville General Store. These sidewalks will formalize a path where visitors and residents will not have to walk on the highway. Additionally, sidewalks will create a sense of space and community while

protecting the town's historic character and keeping the small-town appeal.



Image: Sidewalks on Sutter Street in Folsom, CA.

At intersections and driveway entrances, accessible curb ramps and crosswalks will be installed to designate space on the street for pedestrians. Bulb-outs are proposed at the SR 89 and Montgomery Street intersection to create a pinch point for vehicles to slow down. RRFB crosswalks are proposed at three locations along SR 89, alerting drivers of pedestrian activity and allowing people to cross safely. RRFBs are proposed at the entrances to the downtown area where the sidewalks begin, creating the feeling of a narrow, slow street for vehicles approaching on SR 89.



Bicyclists approaching the downtown core will be guided by pavement markings and have dedicated shoulder space on the approach to town. There will be designated off-street bicycle parking spaces at several locations along SR 89.

Residents said that they want to maintain on-street parking along SR 89 for easy access to businesses. The improvements formalize street parking by marking parallel parking along SR 89 from the J. Marklee Toll House to the Markleeville General Store. Two ADA accessible parking spaces are proposed, one in front of the Cutthroat Tavern and the other in front of the General Store. On-street parking will have a traffic calming effect and slow vehicles down. Apart from the on-street parking improvements, a new roadway connection to the administrative parking lot north of SR 89 is recommended to be added next to the Upcountry Café and Post Office. Right-of-way mapping provided by the county indicates the county has approximately 25' wide access and utility easement in between the Upcountry Café and Intero Real Estate office building.

Montgomery Street Pedestrian Connections

Montgomery Street/Hot Springs Road connects the downtown Markleeville core to Grover Hot Springs State Park, a key regional destination. New bike lanes were recently installed to connect Markleeville to the State Park, improving the safety of community members and recreational visitors.

Montgomery Street is also often used by visitors to downtown businesses such as Cutthroat Tavern. Proposed improvements include installation of sidewalk on the north side of Montgomery Street to the Montgomery Street/Laramie Road/Hot Springs Road intersection. The north side of Montgomery Street was selected to complete pedestrian connections and maintain the existing southside on-street parking that is regularly

used by Cutthroat Tavern patrons. This will create a connection from downtown to the Alpine County Library and the Alpine County Museum. The proposed sidewalk width of 6 feet is narrower than the sidewalks on SR 89 due to existing right-of-way and property line constraints. These constraints are identified in the Feasibility Analysis section of the plan. The addition of sidewalk along Montgomery Street completes the multimodal transportation network, creating an accessible route to Markleeville's main destinations.



Hot Springs Road/ Montgomery Street/ Laramie Street Intersection

The intersection at Montgomery Street/Laramie Street/Hot Springs Road is the main access point for Markleeville residents to access the downtown core and beyond. Consisting of one stop-controlled approach, the intersection lacks control and presents sight-distance issues for vehicles traveling on Laramie Street and Montgomery Street. The Alpine County library, a main destination for residents, is located just south of the intersection. To increase safety and provide multimodal connections to SR 89 and the library, two intersection alternatives were developed.

Alternative 1 would install a high visibility crosswalk on the east and south sides of the intersection, creating a pedestrian connection from SR 89 to the Alpine County library.

Accessible ramps are proposed at the crosswalks to facilitate access for all users. It also proposes considering a stop sign to the Laramie Street approach to increase pedestrian safety and reduce the potential for conflicts with vehicles coming from Hot Springs Road.

Alternative 2 consists of installing a single lane roundabout at the intersection. This alternative includes the installation of crosswalks on the east and south legs of the intersection to create a pedestrian connection and improve safety. By installing a roundabout at the intersection, conflict points are reduced, and vehicles will slow down as they approach the Markleeville community from Hot Springs Road. Sharrows are proposed at the roundabout approaches to signal that vehicles and bicyclists must share the roadway. This alternative would require an engineering study to address utility, drainage, and right-of-way conflicts at the intersection and determine its feasibility.



Parking & Wayfinding Materials

Parking Analysis

One of the most common concerns expressed by community members at the public workshops was parking availability and lack of formalized parking along SR 89. Community members have indicated difficulty finding parking in downtown Markleeville during weekends and special events like the Death Ride. Parking lots exist by the Alpine County Museum, the Alpine County Visitors Center, and the Alpine County Government Center but are not easily identified for vehicles traveling on SR 89. There are 87 off-street parking spaces within walking distance of SR 89 and the core downtown Markleeville area. A map of the existing off-street parking locations and number of spaces in Markleeville is found in **Figure 5**. During the field walk, it was noted that although parking is available in downtown Markleeville near businesses, wayfinding signage is either limited or hard to see, making it difficult for a driver to know where parking exists. The only parking wayfinding sign visible from SR 89 is shown below.



The available parking spaces directly on SR 89 are typically occupied because they are directly accessible to downtown businesses.



Parking spaces in downtown Markleeville are underutilized due to lack of wayfinding signage. County staff noted that parking lots still have capacity even on days when there are downtown area events. To increase the use of the existing car park in downtown Markleeville, additional wayfinding signage needs to be added to alert drivers on SR 89 and encourage them to use the existing off-street parking. This can be accomplished by placing visible signs at key locations along SR 89 to guide vehicles to parking locations.

Wayfinding signs should be clear and large enough for a driver to recognize as they drive through downtown Markleeville. Signs should be placed close to the parking area location and be visible from the roadway.

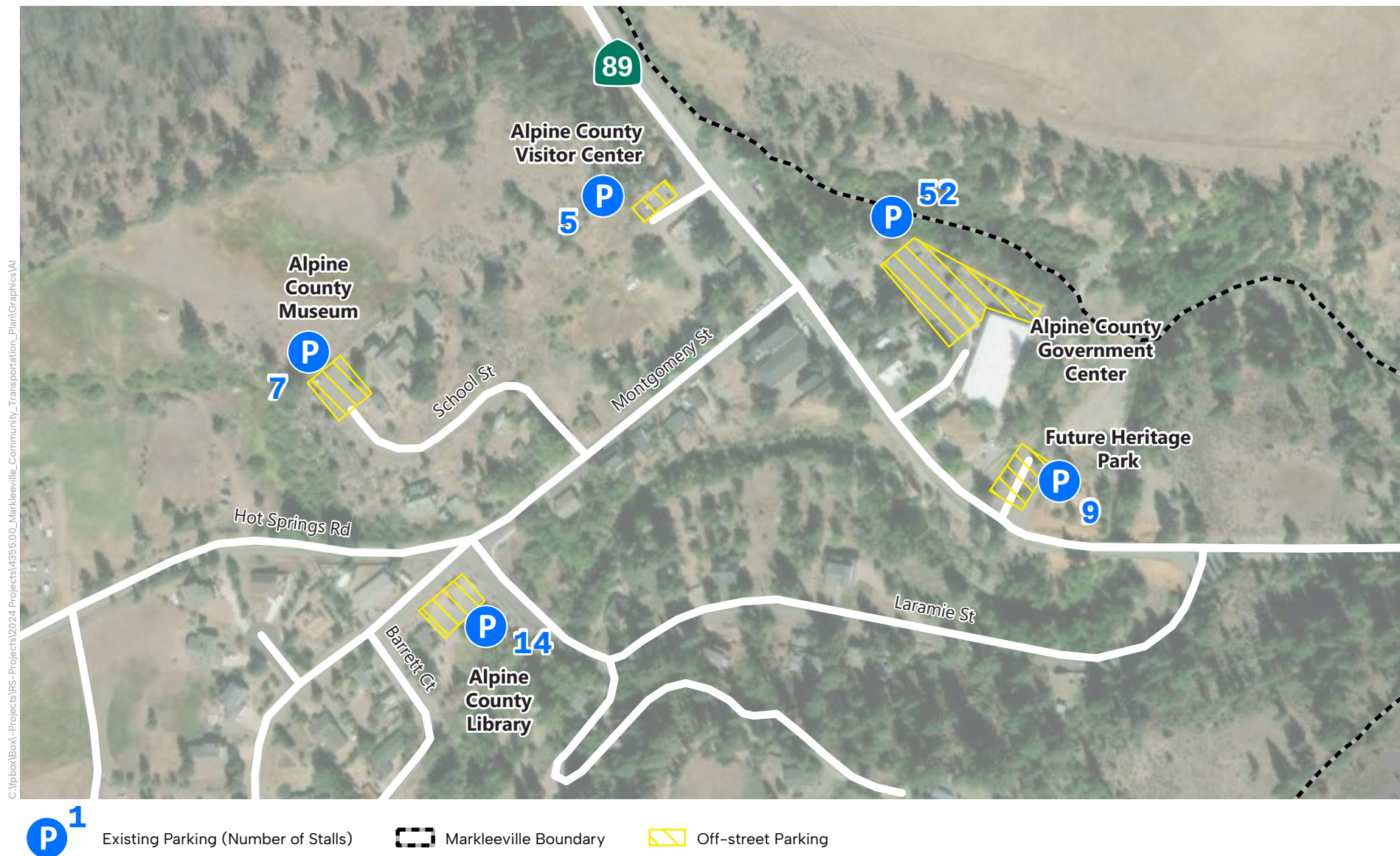


FIGURE 5

Off-street Parking Inventory

Implementation

This plan is intended to develop priorities for implementation of projects in the near-term and set guidance for long-term projects. This plan is a long-range planning document that has taken a holistic look at access and mobility in Markleeville. The recommendations described in this document have not specifically identified funding for implementation. Implementation of the proposed improvements in this plan will require collaboration and assistance from both public and private entities such as Alpine County and Caltrans. This chapter presents considerations for project phasing, along with an overview of regional, state, and federal funding sources available to support bicycle, pedestrian, and similar transportation projects.

Phasing

Given the scope of projects presented, it may take many years to complete, and completion is largely dependent on the availability of funding and successful grant applications. Efforts such as signing and striping and lower-cost traffic calming measures can be opportunistically implemented as work occurs on roadways, such as during routine

maintenance or repaving projects. In these cases, some lower priority improvements may be implemented before the priority projects presented in the Recommendations chapter. The county should also seek to utilize new development and tenant improvement projects as ways to install frontage improvements, such as sidewalk and ADA upgrades, on applicable street segments.

Projects requiring land acquisition, utility relocation, or substantial drainage modification may require extra time to implement. Projects with construction related activities encroaching into Caltrans right of way will require an encroachment permit with Caltrans District 10. Detailed feasibility and design studies based on local conditions may also be necessary for the implementation of many improvements. In short, implementation of this plan is expected to occur as follows:

- Through active transportation projects and grants pursued to implement this plan.
- in conjunction with maintenance and improvement projects, such as slurry seals, pavement reconstruction, roadway widening, or sidewalk rehabilitation projects.



Cost Estimates

Preliminary cost estimates for the four priority improvements were developed by NCE and are summarized in the table below. These estimates are to be considered as an approximate “order of magnitude” for each improvement and actual costs will vary depending on project-specific design constraints, cultural or biological environmental requirements, and the economic conditions at the time of construction. They are appropriate for the scope and size of the Community Transportation Plan but will require further refinement during environmental approval and design. Broad assumptions were made for each project on a linear foot basis without specific design issues being identified or resolved (i.e. property impacts, grading, etc.).

For each improvement, construction items were approximated on a linear foot basis. These linear-costs were summarized as a subtotal of construction material costs, to which a 25% contingency cost was added to give a total pre-construction cost. Project initiation and design costs have been included with the estimates to better reflect the actual cost for each improvement. Environmental approval for each project will vary depending on the location and impacts of each improvement and could range in CEQA review from categorical exemptions (CE) to Environmental Impact Reports (EIR). For the purpose of the total project cost, 10% of the total pre-construction cost is assumed to be the average cost for PA/ED and permitting. Once environmental clearance is secured, design costs are generally assumed to be 15% of the pre-construction cost. Construction management costs are estimated to be about 20% of the pre-construction cost.

Priority Improvement Project	Total Pre-Construction Cost	PA/ED and Permitting Cost	PS&E Cost	Construction Management Cost	Total Project Cost
SR 89 Improvements	\$6,000,000	\$600,000	\$900,000	\$1,200,000	\$8,700,000
Montgomery Street Pedestrian Connections + Intersection Alternative 1	\$4,100,000	\$410,000	\$615,000	\$820,000	\$5,945,000
Montgomery Street Pedestrian Connections + Intersection Alternative 2	\$5,000,000	\$500,000	\$750,000	\$1,000,000	\$7,250,000

Funding Sources

The following table presents a list of funding sources that may be considered for project implementation.

Source/ Program	Agency	Description	Website
State Funding Sources			
Active Transportation Program	California Department of Transportation (Caltrans)	Primary statewide funding program for active transportation projects, non-infrastructure programs, and planning. Annual cycle.	https://dot.ca.gov/programs/local-assistance/fed-and-state-programs/active-transportation-program#:~:text=The%20ATP%20consolidates%20existing%20federal%20and%20state
Affordable Housing and Sustainable Communities (AHSC) Program	Strategic Growth Council	Program funds can be used for projects which demonstrate reduction in vehicle miles traveled through fewer or shorter vehicle trips or mode shift to transit use, bicycling or walking within areas lacking high quality transit, with an emphasis on providing disadvantaged community benefits.	https://sgc.ca.gov/grant-programs/ahsc/
Local Highway Safety Improvement Program (HSIP)	California Department of Transportation (Caltrans)	The Highway Safety Improvement Program (HSIP), codified as Section 148 of Title 23, United States Code, is a core federal-aid program to States for the purpose of achieving a significant reduction in fatalities and serious injuries on all public roads. The Division of Local Assistance (DLA) manages California's local agency share of HSIP funds. California's Local HSIP focuses on infrastructure projects with nationally recognized crash reduction factors (CRFs). Local HSIP projects must be identified on the basis of crash experience, crash potential, crash rate, or other data-supported means.	https://dot.ca.gov/programs/local-assistance/fed-and-state-programs/highway-safety-improvement-program
Local Streets and Roads (LRSP) Program	California Transportation Commission	The purpose of the program is to provide approximately \$1.5 billion per year to cities and counties for basic road maintenance, rehabilitation, and critical safety projects on the local streets and roads system.	https://catc.ca.gov/%20programs/sb1%20/local-streets-roads-program
Local Partnership	California Transportation Commission	The primary objective of this program is to provide funding to counties, cities, districts, and regional transportation	https://catc.ca.gov/%20programs/sb1%20/local-partnership-program

Source/ Program	Agency	Description	Website
Program (LPP)		agencies in which voters have approved fees or taxes dedicated solely to transportation improvements or that have imposed fees, including uniform developer fees, dedicated solely to transportation improvements. Funding includes \$200 million per year to improve aging infrastructure, active transportation, and safety.	
Local Transportation Fund (LTF)	California Department of Transportation (Caltrans)	Limited amounts (2%) from the Local Transportation Fund (LTF), which is part of the Transportation Development Act (TDA) and derived from a ¼ cent of the general sales tax collected statewide, can be used for bicycle and pedestrian facilities. Article 3 funds for planning and construction of pedestrian and bicycle facilities are administered locally through Alpine LTC and are allocated to member agencies based on population and taxable sales.	https://dot.ca.gov/programs/rail-and-mass-transportation/transportation-development-act
Office of Traffic Safety Grant Program	Office of Traffic Safety	The Program provides funds annually to prevent serious injury and death resulting from motor vehicle crashes. Projects need to be supported by local crash data that demonstrates a need for funding. Safety education and encouragement campaigns for pedestrian and bicycles safety. Applications are due every January.	https://www.ots.ca.gov/Grants/
Reconnecting Communities: Highways to Boulevards	California Department of Transportation (Caltrans)	In response to the adoption of Streets & Highways Code 104.3, this Pilot Program was launched. Funding is for planning and constructing the conversion of key underutilized highways in the State into multimodal corridors to reconnect communities divided by transportation infrastructure. The historical harm will be addressed through community-based transportation planning, design, demolition, and/or reconstruction of city streets, parks, or other infrastructure.	https://dot.ca.gov/programs/local-assistance/fed-and-state-programs/rc-h2b
Recreational Trails Program	California Department of Parks and Recreation	The Recreational Trails Program (RTP) provides funds annually to develop non-motorized recreational trails and trails-related facilities.	https://www.parks.ca.gov/?page_id=24324

Source/ Program	Agency	Description	Website
Road Maintenance and Rehabilitation Account & Highway Users Tax Account (RMRA & HUTA)	California State Controller's Office	A percentage of RMRA funding is apportioned by formula to eligible cities and counties pursuant to Streets and Highways Code section 2032(h) for basic road maintenance, rehabilitation, and critical safety projects on the local streets and roads system. Revenues from the gas tax deposited into the Highway Users Tax Account (HUTA), apportioned by the SCO to cities and counties.	https://www.sco.ca.gov/aud_road_maintenance_sbl.html
State Transportation Improvement Program (STIP)	California Transportation Commission	The STIP is the biennial five-year plan adopted by the CTC for future allocations of certain state transportation funds for state highway improvements, intercity rail, and regional highway and transit improvements. As the Metropolitan Planning Organization, local agencies should work through Fresno COG to nominate projects for inclusion in the STIP.	https://catc.ca.gov/programs/state-transportation-improvement-program
Sustainable Transportation Planning Grants	California Department of Transportation (Caltrans) Division of Transportation Planning	The program encourages local and regional planning that furthers state goals, including the goals and best practices cited in the Regional Transportation Plan Guidelines adopted by the California Transportation Commission.	https://dot.ca.gov/programs/transportation-planning/regional-planning/sustainable-transportation-planning-grants
Federal Funding Sources			
Active Transportation Infrastructure Investment Program (ATIIP)	U.S. Department of Transportation (DOT) Federal Highway Administration (FHWA)	The Active Transportation Infrastructure Investment Program (ATIIP) is a new competitive grant program created by Section 11529 of the Bipartisan Infrastructure Law to construct projects to provide safe and connected active transportation facilities in active transportation networks or active transportation spines.	https://www.fhwa.dot.gov/environment/bicycle_pedestrian/atiip/
Carbon Reduction Program	U.S. Department of Transportation (DOT) Federal Highway Administration (FHWA)	The programs seeks to reduce transportation emissions through the development of state carbon reduction strategies and by funding projects designed to reduce transportation emissions as established by the Infrastructure Investment and Jobs Act (IIJA), also known as the Bipartisan Infrastructure Law (BIL).	https://highways.dot.gov/media/57901

Source/ Program	Agency	Description	Website
Congestion Mitigation and Air Quality Improvement Program (CMAQ)	U.S. Department of Transportation (DOT) Federal Highway Administration (FHWA)	The program provides a flexible funding source to State and local governments for transportation projects and programs to help meet the requirements of the Clean Air Act. The program supports surface transportation projects and other related efforts that contribute to air quality improvement and provide congestion relief, including bicycle and pedestrian facilities, shared micromobility projects, diesel engine retrofits, transit improvements, and more. Federal funds from STBGP and CMAQ programs are allocated to Fresno COG. Distribution is allocated either competitively or proportionally according to jurisdiction population.	https://www.fhwa.dot.gov/ENVIRONMENT/air_quality/cmaq/
Highway Safety Improvement Program (HSIP) Grants	U.S. Department of Transportation (DOT) Federal Highway Administration (FHWA)	The program focuses on roadway safety; Projects with documented collision history are typically ranked higher. While this funding source is often used for major roadway improvement projects, installation of traffic signals, and most other cost-intensive projects, funding has routinely been awarded to bicycle and pedestrian projects. Successful projects have included: median refuges and curb extensions, curb, gutter, and sidewalk, paved shoulders, upgraded traffic signals with pedestrian countdown signals, pedestrian-scale lighting, bicycle lane striping, crosswalk striping, and rectangular rapid flashing beacons (RRFB). The Caltrans Division of Local Assistance (DLA) manages California's local agency share of HSIP funds. Solicitation varies from annually to semi-annually.	https://dot.ca.gov/programs/local-assistance/fed-and-state-programs/highway-safety-improvement-program
Better Utilizing Investments to Leverage Development (BUILD) Grant Program	U.S. Department of Transportation	The U.S. Department of Transportation's (USDOT) Better Utilizing Investments to Leverage Development (BUILD) grant program provides grants for surface transportation infrastructure projects with significant local or regional impact. The eligibility requirements of BUILD allow project sponsors, including state and local governments, counties, Tribal governments, transit agencies, and port	https://www.transportation.gov/BUILDgrants

Source/ Program	Agency	Description	Website
		authorities, to pursue multi-modal and multi-jurisdictional projects that are more difficult to fund through other grant programs.	
Rural Surface Transportation Grant Program	U.S. Department of Transportation	The Rural Surface Transportation Grant Program supports projects that improve and expand the surface transportation infrastructure in rural areas to increase connectivity, improve the safety and reliability of the movement of people and freight, and generate regional economic growth and improve quality of life.	https://www.transportation.gov/grants/rural-surface-transportation-grant
Safe Streets and Roads for All (SS4A)	U.S. Department of Transportation	The program funds regional, local, and Tribal initiatives through grants to prevent roadway deaths and serious injuries. The SS4A program supports the U.S. Department of Transportation's National Roadway Safety Strategy and our goal of zero roadway deaths using a Safe System Approach. Funding is available until 2026. Over \$3 billion is still available for future funding rounds.	https://www.transportation.gov/grants/SS4A
Surface Transportation Block Grant Program (STBGP)	U.S. Department of Transportation	Federal funding is authorized through the Surface Transportation Block Grant Program (STBGP). The STBGP provides flexible funding that may be used by localities for projects on any Federal-aid highway, bridge and tunnel projects on any public road, pedestrian and bicycle infrastructure, and transit capital projects. STBG promotes flexibility in local transportation decisions and provides flexible funding to best address regional and local transportation needs.	https://www.fhwa.dot.gov/specialfunding/stp/

1. The federal funding landscape is rapidly changing, and these programs were available as of September 2025.

Funding Programs to Monitor

We recommend Alpine County continue to monitor the following sources to determine where projects may be eligible for opportunities to secure funding:

1. **Active Transportation Program (ATP)** – ATP grant funding can help with planning, quick build, and implementation projects aimed at encouraging use of active modes of transportation such as walking and bicycling. The goals are focused upon increasing the proportion of walking and biking trips, increasing safety, reduction of greenhouse gases, enhancing public health, and benefits to disadvantaged communities.
2. **State Transportation Improvement Project (STIP)** – The STIP is a five-year multimodal program funded through the State Highway Account and other sources. All STIP projects must be capital projects (including project development costs) needed to improve transportation. These projects generally include, but are not limited to, improving state highways, local roads, public transit, intercity rail, pedestrian and bicycle facilities, grade separations, transportation system management, transportation demand management, sound walls, intermodal facilities, and safety. STIP funding is split into two programs, 25% to the Interregional Transportation Improvement Program (ITIP) for projects nominated by Caltrans, and 75% to County Shares for the state's 58 counties for projects nominated in each county's Regional

Transportation Improvement Program (RTIP). The overall STIP is adopted by the California Transportation Commission, which can accept or reject each RTIP and ITIP in its entirety.

3. **State Highway Operations and Protection Program (SHOPP)** – The SHOPP is a ten-year program developed by Caltrans for the expenditure of transportation funds for major capital improvements necessary to preserve and protect the state highway system. SHOPP projects are limited to capital improvements relative to maintenance, safety, and rehabilitation of state highways and bridges which do not add capacity to the system.
4. **Federal Lands Access Program (FLAP)** – The Federal Lands Access Program was established in 23 U.S.C. 204 to improve transportation facilities that provide access to, are adjacent to, or are located within Federal lands. The Access Program supplements State and local resources for public roads, transit systems, and other transportation facilities, with an emphasis on high-use recreation sites and economic generators.

Multiple funding sources can be considered to fund implementation of projects identified in the Markleeville Community Transportation Plan. We recommend continued review of current and future funding programs to determine eligibility and alignment with the projects where financial resources are needed. An ambitious program of grant funding pursuits can leverage local funding to secure competitive grant funding to address needs within the Markleeville community area.



Transportation Analysis

As part of the Community Transportation Plan, an infrastructure audit and feasibility assessment of the proposed recommendations was conducted by NCE. Priority projects were evaluated at a high level for potential environmental and right-of-way concerns and constraints.

Infrastructure Audit

An infrastructure audit of the Markleeville core area indicates that asphalt paving, concrete structures, and existing drainage inlet structures are generally in poor condition along SR 89. Full pavement reconstruction should be considered as part of the SR 89 improvements. Drainage facilities should be inspected to determine if existing storm drains are in good condition and are sized appropriately for proposed changes. Additionally, survey of existing features should be completed to identify historical buildings and right-of-way constraints.

Permitting

This is a notable town with many historic buildings; It is unknown if existing historic buildings or adjustments or demolition of existing stone walls may require State Historic Preservation Office (SHPO) review. While most proposed construction is in areas with existing asphalt or concrete cover, archaeological resources may need to be addressed as part of planning.

Caltrans often requires an Aerially Deposited Lead Study to be performed prior to construction to determine potential impacts to the public and construction workers as well as to determine if landfill soil disposal is required.

Several locations involve proposed construction immediately adjacent to streams and drainage channels. While careful and well-thought-out construction practices can mitigate impacts on riparian corridors, the

engineering team should be aware of these environmentally sensitive areas and be equipped to prepare permit documents and site-specific mitigation controls to protect stream environments.

Tree removal adjacent to roadways may be required with associated improvements; we suggest planning for a nesting bird study associated with any tree removal and advise all trees to be removed during winter months after all hatchlings have fledged.

Maintainability Review

It is understood that Caltrans or the county may plow roads, considerations may be needed to construct simple swales associated with plowed parking lots for stow storage and infiltration. In addition, state and county maintenance crews may not be properly equipped with small equipment to remove snow on sidewalks, and the responsibility for this task may fall on business and homeowners.



Complete Streets Toolkit

Complete Streets are designed and operated to enable safe access for all users, including people with disabilities, motorists, pedestrians and bicyclists, and transit riders of all ages and abilities. All Complete Streets improvements recommended by the final study will be informed by and measured against the Markleeville Downtown Revitalization Plan values, the input received during the community outreach events and through the Interactive Map and Travel Survey. At its core, the Complete Streets concept is about giving all people transportation options by improving connectivity, which is also a goal of the Community Transportation Plan.

Design Elements

While some specific design elements of a “complete street” that are typically applied in an urban environment may not be appropriate in a rural setting, there are a number of Complete Streets design features that have successfully been implemented in rural and historic settings similar to Markleeville’s downtown core. These design features have

simultaneously preserved the rural and historic character of their respective locations while providing much needed connectivity benefits. The types of Complete Streets design features compatible with the rural and historic character of the project area include the following:

SHOULDERS

Adding standard shoulders to a roadway with no shoulders or unmarked shoulders can be an inexpensive and effective way to improve safety. Pedestrians and bicyclists will naturally gravitate toward shoulders in a rural environment where sidewalks and bike lanes are not practical, and a well-marked shoulder provides a visual separation with vehicular traffic. Shoulders also have a minimal impact on existing roadside ditches in a rural drainage environment.

ENHANCED SHOULDERS

Enhanced shoulders are shoulders accentuated with a different treatment than standard asphalt (usually with a stamped



pattern and/or a color additive). They have the same benefits as regular shoulders for bikes and pedestrians, but the contrast with regular asphalt has a traffic calming benefit for vehicular traffic. They are more expensive than regular shoulders to construct and have on-going maintenance costs to maintain the contrast but are very effective as a safety improvement measure.

SHARED-USE PATHS/TRAILS

Shared-use paths provide a completely separated right-of-way for the exclusive use of bicycles and pedestrians. These paths offer opportunities not provided by the roadway system. They can provide recreational opportunities or unimpeded, long-distance routes if cross flow of vehicles and pedestrian conflicts are minimized. Given Markleeville's interest in recreation, off-street trails could be a long term option that serves both recreation and transportation for people living outside of the immediate downtown area.

CLASS III BICYCLE ROUTES

Class III bicycle routes are an inexpensive way to accommodate bicyclists in a rural environment. They are intended to inform vehicular traffic to be aware of cyclists and "share the road" by means of special roadway



signs and pavement markings. They are simple to implement and do not require additional roadway widening but do have limitations; most rural local and collector roads with low traffic volumes and speeds are ideally suited for Class III bicycle routes, but higher speed facilities such as minor or major arterials present too much of a speed differential between automobile and bicycle traffic to be safe.

With an Average Daily Traffic (ADT) of 1,900 vehicles on SR 89 between Montgomery Street and Water Street, Class III bike routes are recommended along this stretch. The low 25 mph speed limit and the addition of formalized on-street parking and sidewalks slows vehicles through the main part of town and allows for bicyclists to remain visible and share the road.

CLASS II BICYCLE LANES

Class II bicycle lanes are moderately more difficult to implement than Class III bike routes but provide an exclusive space for bicyclists that separates them from vehicular traffic. This makes them better suited on high-speed facilities like minor and major arterials where there is a substantial speed differential between bicycles and automobiles. Similar to a shoulder widening, they are well suited in a rural setting that relies predominantly on roadside ditches for drainage.

CLASS I BICYCLE PATHS

Class I bicycle paths separate bicyclists and vehicular traffic entirely, making them the safest of the three bicycle facilities. They can also be widened to more easily accommodate other modes of active transportation including pedestrians and equestrians, making them a popular recreational amenity. However, they are also the most expensive non-motorized facility to construct and maintain.

DETACHED SIDEWALKS

Detached sidewalks provide a pedestrian walkway that is physically separated from the vehicular traveled way. This provides a buffer space which both improves pedestrian safety and affords landscaping or other pedestrian amenity opportunities. Detached sidewalks are advantageous in a rural environment with roadside ditches since the existing drainage can sometimes be incorporated in the buffer space; however, they require more right-of-way than a conventional attached sidewalk.

ATTACHED SIDEWALKS

Attached sidewalks are directly adjacent to the vehicular traveled way and require a curb and gutter section to separate pedestrians and vehicular traffic. This creates a more formal space for pedestrians than shoulders alone, with fewer right-of-way impacts than a detached sidewalk, but it does require drainage modifications to existing roadside ditches to accommodate curb and gutter drainage. Attached sidewalks accommodate on-street parking and frequent driveway access points more efficiently than detached sidewalks without curb and gutter.

MEDIANS

Medians can be used as a traffic calming feature on busy roadway segments to organize or limit left turn access and create a refuge for pedestrians as they cross the street. They also provide an opportunity site for landscaping and other aesthetic amenities that can accentuate the culture or history of an area.

ENHANCED INTERSECTIONS

Intersections can be enhanced in historic and commercial areas to improve pedestrian safety and better control vehicular traffic. Improvements could include high-visibility crosswalks, bulb-outs to reduce pedestrian crossing distances, and aesthetic streetscape improvements that improve the public space with wayfinding or entrance monuments.

ORGANIZED PARKING

A well-designed layout of on-street parking properly distinguishes vehicular and pedestrian space and provides enhancement opportunities for bulb-outs and other traffic calming measures to improve pedestrian safety. A proper parking layout is easier to regulate and enforce and can be an effective tool in encouraging higher turnover for local businesses.



Image: Sidewalks on Sutter Street (Folsom, CA).

Community Engagement Plan

Building community awareness and support is a vital component of successful active transportation planning in Markleeville. This section presents a suite of educational and outreach strategies designed to communicate the benefits of both proposed and completed infrastructure improvements. By focusing on near-term messaging and engagement opportunities—such as flyers, events, and marketing campaigns—these recommendations aim to foster public understanding and enthusiasm for the town’s long-term transportation vision. Major community events like the Death Ride offer opportunities to promote these recommendations and gather community input. Through clear, accessible, and locally tailored communication, Markleeville can empower residents and visitors to embrace safe, multimodal travel options and actively participate in shaping the future of mobility.

Community Educational Program

Effectively communicating the benefits of these proposed and completed improvements is essential to building community support and encouraging community members to use the active transportation network. This section outlines a set of recommendations for messaging strategies that highlight both proposed improvements and the existing network. Recognizing that many infrastructure projects may take years to implement, we focus on near-term communication approaches that can foster public engagement and awareness today, while also providing guidance for future

messaging as projects are completed. These strategies aim to ensure that residents and visitors alike understand the value of ongoing investments in safe, accessible, and enjoyable active transportation options throughout Markleeville.

Project Webpage

Establish a central hub for the project on the Alpine County website. In addition to hosting the plan documents and history, this can be a place to provide updates and ongoing communication as implementation of the plan progresses.

Flyers

Flyers are a simple yet effective tool to engage the Markleeville community and share near- and long-term transportation improvements. They can be posted at downtown businesses, the post office, the county office, and the library, or distributed at events and through mailers, ensuring information reaches residents where they naturally seek updates. Flyers should offer clear, visual messaging that can

be tailored to specific audiences, helping build awareness, highlight progress, and encourage community involvement. A sample flyer for the Markleeville Creek Restoration Project, which will bring improved accessibility and a new parking lot to Heritage Park, is included in [Appendix B](#).

Social Media

Leverage the county’s existing social media channels (such as Facebook, Instagram, and Next Door) to provide updates on the project.



Text and images should be clear, concise, and easy for readers to share and distribute within their own social networks, as well as offer opportunities for participation or ways to learn more about the project, where applicable.

Email Notifications

Use and expand the contact list established as part of this project to provide updates at key milestones, such as when funding is secured, construction is set to begin, or when project components are completed. Pairing email notifications with the above strategies will also help amplify messaging, as readers can forward or share visual elements.

Downtown Markleeville Brochure

As project elements are completed, consider the development of a brochure, in partnership with the visitor and tourism board, highlighting active transportation opportunities in and around Downtown Markleeville. This could include information on the bike lanes on Hot Springs Road, improvements to Heritage Park, bicycle and car parking locations, and a map of nearby walking or bicycling trails. Brochures should provide information useful to residents, while also orienting visitors and tourists to the transportation amenities available within the community.

Community Educational Events

Markleeville hosts a variety of community events that offer a valuable opportunity to engage with residents and visitors in promoting active transportation and enhancing mobility. The Death Ride brings cyclists and visitors to Markleeville and encourages bicycle tourism and economic vitality in the community. These events can serve as platforms to foster a sense of community while simultaneously educating residents about safe bicycling and walking practices. An example of this is highlighting

wayfinding and signage at these events as an educational tool that familiarizes participants with key destinations, routes, and amenities present in the Markleeville community. Physical signs and posters or flyers can be used to showcase these wayfinding concepts. By placing signage at event locations, the community can understand how to navigate the area safely and encourage more frequent use of the pedestrian and bicycle facilities, while promoting Markleeville's long-term transportation goals and vision.

Long-term transportation goals for Markleeville include improvements along SR 89 that will create multimodal facilities and connections to the town's key destinations. Because these improvements will take time to develop, it is important that the community is aware of and supports what is proposed. One way to do this is by creating an infographic to place on bulletin boards or at key destinations in Markleeville such as the Alpine County Library and the Markleeville General Store. This infographic would show the concept designs and include information about the proposed improvements. Community driven events such as Music in the Park and the Markleeville Market create opportunities for locals and visitors alike to experience Markleeville and learn about ways in which the community can benefit from multimodal improvements.

Open streets community events such as bicycle rodeos with the California Highway Patrol or the Alpine County Sheriff's Office create an active way for families and students to learn bicycle safety skills. These events could be hosted on roads adjacent to SR 89 like Montgomery Street and Laramie Street, which offer a more controlled environment that allows students to learn the necessary skills to ride a bike confidently. Additionally, educational partnerships with the Alpine County Library can instruct children about bicycle and pedestrian safety with books that talk about bicycling, walking, or hiking.

Appendix A. Existing Conditions

Appendix B. Publicity Materials