General Bikeway Plan

Town of Mammoth Lakes, CA
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Chapter 1: Introduction

1.1 Purpose

The Town of Mammoth Lakes Draft Mobility Element provides a foundation for making bicycling an integral part of daily life in Mammoth. The General Bikeway Plan will guide the future development of bicycle facilities and programs in the town. Its recommendations will facilitate bicycling for transportation and recreation and help attain the goals identified in the bicycle section of the Draft Mobility Element (Figure 1.1). The General Bikeway Plan was developed with community input and seeks to meet the community needs and desires for a pleasant, enjoyable, and safer bicycle experience. This Plan is necessary to maintain eligibility for Federal and State transportation dollars for bicycle infrastructure improvements. This plan follows the requirements set by the California Streets and Highways Code, Division 1. State Highways, Chapter 8. Non-motorized Travel, Article 3. California Bicycle Transportation Act, Section 891.2.

1.2 Document History

The Town first adopted its General Bikeway Plan in 1995, which has since undergone four addendums, the last update occurring in 2008 (Figure 1.2). Since its original adoption, and as a result of comprehensive bicycle facility planning, many on-street bicycle facilities, bicycle racks, street-separated multi-use paths, and their associated bridges and under-crossings have been constructed (Figure 1.3).

1.3 The Bicycle Network

Many people bicycle in Mammoth Lakes, particularly during the summer months, but it is desirable to increase bicycle use throughout the year. Targeted investment in bicycle facilities that provide a safe,
interconnected, and high-quality bicycle network is anticipated to increase bicycle use. Bicycle use can help ease congestion, reduce parking demand, and reduce air and noise pollution. Bicycling can also have positive impacts on the local economy, environment, public health, and quality of life.

This Plan establishes an overall framework for developing the bicycle network beginning with a community vision. The goals, policies, and actions in this Plan are from the bicycle section of the Draft Mobility Element of the General Plan (2011).

1.4 Community Vision of Bicycle Network

The town envisions a comprehensive bicycle network that enhances the safety, comfort, and convenience of riding in the town.

1.5 Goals, Policies, and Actions in Draft General Plan Mobility Element (2011) – Bicycle Section

- **Goal M.10.** Support “feet first” objectives by providing a linked year-round recreational and commuter bicycle-system that is safe and comprehensive.

  - **Policy M.10.1** Ensure that all planning processes identify and implement bicycle improvements and that new development improves existing conditions to meet Town standards.

    - **Action M.10.1.1.** As large blocks are developed or redeveloped, increase connectivity by requiring direct and safe bicycle connections to be provided where practical and feasible, via bike lanes, routes, paths, or trails (Figure 1.4).

    - **Action M.10.1.2.** Update the General Bikeway Plan to reflect recommended measures and facilities, such as
expanding the system of multi-use paths, bike lanes, and bike routes, converting some existing bike routes to lanes, and filling key infrastructure gaps.

- **Action M.10.1.3** Identify opportunities to improve connections between the in-town bicycle network and the trail system outside the urban boundary as well as regional bicycle routes.

- **Action M.10.1.4** Study the designation of “Bicycle Boulevards” on certain residential streets, as appropriate, to encourage bicycle travel (Figure 1.5).

- **Action M.10.1.5.** Identify key locations for bicycle racks and/or storage.

- **Action M.10.1.6.** Require major new commercial and residential development or redevelopment to provide covered and secure bicycle parking and shower and locker facilities for bicycle commuters as appropriate, or to assist in funding bicycle improvements in nearby locations.

- **Action M.10.1.7** Establish a program to work with existing local business owners, commercial property owners, and multi-family residential properties to install secure and functional bicycle racks and/or storage (Figure 1.6).

- **Policy M.10.2.** Create a safe and comfortable cycling environment in the town that is accessible to cyclists of all ages.

- **Action M.10.2.1.** Maintain pavement (i.e. fix potholes and cracks) on streets and paths and provide appropriate striping so that they are bicycle-friendly.
- **Action M.10.2.2.** Establish design standards for safely accommodating bicyclists at intersections, and as funding becomes available, upgrade existing intersections to the new standard.

- **Action M.10.2.3.** To the extent possible, widen shoulders to accommodate bike lanes or routes as part of street maintenance (paving) and reconstruction projects.

- **Action M.10.2.4.** Install additional signage as necessary to denote bicycle lanes, routes, and areas where vehicles “share the road” with bicyclists and other users.

- **Action M.10.2.5.** Work with Caltrans to make State Route 203 a complete street by providing improved bicycle facilities and improved safety, including the installation of bike lanes, pavement markings, signage, and crossings (Figure 1.7).

  - **Policy M.10.3.** Continue to support physical and policy related changes to encourage access to regional and local transit service via bicycle.

  - **Action M.10.3.1** Work with transit partners, such as Eastern Sierra Transit Authority and the Mammoth Mountain Ski Area, to improve bicycle access to transit, increase the capacity within the bus to carry bicycles on transit, and increase the capacity to carry bicycles on transit by providing additional bike racks and trailers (Figure 1.8).

- **Goal M.11.** Increase bicycle use through improved public education and marketing of the system.
- **Policy M.11.1.** Support and participate in educational programs and marketing to encourage bicycling.
  
  - **Action M.11.1.1.** Work with Mammoth Lakes Tourism, local businesses, Mammoth Unified School District, and local bicycling groups to provide information on safe bicycling and bicycle route selection.
  
  - **Action M.11.1.2.** Continue to promote and support bicycle programs to increase bicycle safety and awareness and encourage bicycle travel, such as “Bike-to-Work-Day” (Figures 1.9, 1.10).
Chapter 2: Related Planning Documents, Materials, and Data Sources

Where the previous chapter identified the specific goals, policies, and actions for the General Bikeway Plan, this chapter provides a summary of the relevant planning, policy, and regulatory documents that comprise the broad framework for bicycle planning within the Town of Mammoth Lakes. The Town and other local and regional agencies are aware of the importance of enhancing the bicycle environment, as shown in the numerous recommendations in these planning documents. Town documents, along with county and regional plans, are discussed as they relate to the planning and development of bicycle facilities and programs in Mammoth Lakes. Additional resources are listed, such as sources for geographical information systems and accident databases.

Main Street Plan (2014)(Figure 2.1)

The Main Street Plan seeks to transform Main Street into a vibrant, pedestrian-oriented center, serving residents and visitors. This Plan includes recommendations for bicycle improvements, including bicycle paths and intersection crossings. The Main Street Plan provides the preferred street concept, connectivity and place making opportunities, streetscape designs, parking strategies, and new development opportunities. Also described are phasing and implementation, including cost estimates, recommended financing strategies, regulatory amendments, and an implementation timeline with outlined responsibilities to help the Town move from ideas to action. Implementation of the Main Street Plan is expected to occur over the next 20 years as funding becomes available.
Eastern Sierra Transit Authority Coordinated Plan (2013) (Figure 2.2)
The Eastern Sierra Transit Authority (ESTA) provides service in Mammoth Lakes under contract with the Town, Mammoth Mountain Ski Area (MMSA), Yosemite Area Regional Transit (YARTS), and the Inyo National Forest Service (INF). Federal planning requirements specify that the designated recipients of certain funds administered by the Federal Transit Administration must certify those projects are derived from a Coordinated Plan. These projects are intended to improve and enhance the mobility of individuals who are disabled, elderly, or have low-incomes. The updated Coordinated Plan will need to focus on identifying needs specific to those population groups, and transportation needs of the Eastern Sierra region as well as identifying strategies to meet these needs.

Pedestrian Master Plan (2013)(Figure 2.3)
The Town’s Pedestrian Master Plan guides the future development and enhancement of pedestrian facilities and is intended to implement the Draft General Plan Mobility Element goals, policies, and actions related to pedestrian infrastructure. Specifically, it completes Action M.8.1.2 to update the Sidewalk Master Plan. This Plan inventories existing infrastructure, assesses current and future needs, and makes recommendations for the funding and the implementation of pedestrian projects.

Municipal Wayfinding Master Plan (2012)(Figure 2.4)
This plan serves as a guide for future wayfinding in the Mammoth Lakes area. It is intended to provide pedestrian, bicycle, and vehicular directional signage that integrates with the Mammoth Lakes Trail System wayfinding signage.
Parks and Recreation Master Plan (2012) (Figure 2.5)
The Parks and Recreation Master Plan outlines the Town’s recreation needs for the future and establishes goals and policies that guide future park improvements. It contains an analysis of the supply, demand, and needs for park and recreation facilities and services, and includes a comprehensive assessment of public and private facilities available in and around Mammoth Lakes. The Plan also recommends implementation strategies to help address the challenges of providing parks and recreation facilities. Parks attract pedestrians and bicycles, and it is important to provide infrastructure such as sidewalks and multi-use paths in and around these areas.

Bicycle Section of Draft General Plan Mobility Element (2011) (Figure 2.6)
The Bicycle Section of the Draft Mobility Element of the General Plan describes the existing bicycle network and potential for new bicycle connections. It provides goals, policies, and actions to improve bicycle conditions and encourage alternative modes of travel in Mammoth Lakes. The bicycle network maps from this document were updated an incorporated into the update of the General Bikeway Plan. This plan is not yet adopted so it serves as a guide rather than an official planning document. It outlines future multi-use paths that are incorporated into the General Bikeway Plan.

California Transportation Plan 2035 (2011)(Figure 2.7)
The California Transportation Plan 2035 updates state policy framework to meet new trends and challenges, such as climate change. In addition, the CTP 2035 builds upon the 2007 Addendum for SAFETEA-LU, which outlines the need to better integrate transportation planning with environmental and natural resource planning. Actions to create bicycle infrastructure in Mammoth are supportive of the CTP 2035.
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Trail System Master Plan (2011) (Figure 2.8)
The Trail System Master Plan (TSMP) is a comprehensive trails and public access plan that updated the Town’s 1991 Trails System Plan. The TSMP integrates and adopts the Sherwins Area Recreation Plan (SHARP) as a component of the TSMP, which includes proposals for trails, public access, and recreation facilities within the Sherwins area, south of the Town’s urbanized area. This plan requires a high level of interagency cooperation between the Town of Mammoth Lakes, the United States Forest Service (USFS), California Department of Transportation (Caltrans), and other entities. It has specific sections relevant to bicycle and pedestrian transportation.

In 2010, the Technology Transfer Program of the Institute of Transportation Studies at the University of California, Berkeley conducted a traffic safety evaluation (TSE) by request of the Town. The primary objective of the TSE was to evaluate traffic safety of the Town’s roadways and intersections, particularly those with the highest number of collisions. The evaluation team also reviewed the existing marked crosswalks at uncontrolled locations to determine the improvements needed to make the treatments at all such crosswalks consistent throughout Mammoth Lakes. The Town specifically requested the evaluation team to visit Mammoth Lakes during the winter months when snow accumulations and ski season traffic combine to exacerbate the Town’s traffic problems.

Traffic Management Plan (2011) (Figure 2.9)
The purpose of the Traffic Management Plan is to provide the Town with a handbook of potential traffic management strategies, such as traffic calming options and management techniques for peak traffic periods, that can be employed to address excessive traffic speeding or “cut through” issues. This study is based on an assessment of current traffic management issues in the Town, including the identification of potential solutions to traffic conditions or hazards. The document provides a methodology and menu of options for specific Mammoth Lakes’ traffic conditions and can be applied over time to individual streets.
issues. The Strategy provides public and residential areas an avenue to bring local issues to staff attention through petitions.

Sherwin Area Recreation Master Plan (SHARP) (2009)(Figure 2.10)
The Sherwin Area Recreation Master Plan (SHARP) was published in November 2009, and reflects the results of a seven-month collaborative process involving Mammoth Lakes Trails and Public Access (MLTPA), the US Forest Service, the Town, and a broad cross-section of interested stakeholders, known as the Sherwin Working Group (SWG). SHARP identifies potential summer and winter trails as well as recreation projects in the Sherwin Area, south of the Town’s Urban Growth Boundary. This plan is included in the 2010 Trail System Master Plan Appendix.

Mono County Regional Transportation Plan (2008) (Figure 2.11)
The Mono County Regional Transportation Plan provides a clear vision of regional transportation goals, policies, objectives and strategies. The plan provides an assessment of the current modes of transportation and the potential for new travel options within the region. It provides estimates of future needs for travel and goods movement, specific actions necessary to address the region’s mobility and accessibility needs, and guidance for public policy decisions by local, regional, State and Federal officials regarding transportation expenditures and financing. This plan is currently being updated.

The goal of the Town’s snow management effort is to provide for the safest possible movement of traffic throughout the community during winter months, particularly during storm periods. The Snow Management Policy provides Town staff with guidance to ensure that public safety is always the primary concern, all areas are treated equitably, priorities are understood by all, and proper responsibility and authority is established. Snow removal includes clearing key multi-use paths, sidewalks, and pedestrian crossings.
The MLTPA GIC is an inventory of significant points of public access to recreation amenities as well as identified points of jurisdictional importance in the Mammoth Lakes area. MLTPA GIC data was collected using analog field sheets created for each PPA, describing the location, outdoor recreation activities accessed from the PPA, special circumstances, and facilities. Photos of each site’s condition, location, and signage were collected prior to the transcription of the information into a digital database. The MLTPA GIC currently exists as a “living” document as well as verified GIS data.

Sidewalk Master Plan (1997/2003) (Figure 2.12)
The Town’s Sidewalk Master Plan was developed in 1997 and updated in 2003. The Plan recommends sidewalks on both sides of most arterial roadways or areas with high pedestrian activity. The plan recommends sidewalks on at least one side of most collector streets or those that provide access to schools or other major destinations. The 2014 Pedestrian Master Plan will replace the 2003 Sidewalk Master Plan.

Mammoth Lakes Transit Plan (2000)(Figure 2.13)
The transit plan for Mammoth Lakes presents a strategy for focusing on the requirements associated with redevelopment. This document first presents a summary description of then-existing transit services in the area, followed by a recommended transit service, capital, and institutional plan. These elements are intended as a basis for further decision-making regarding a financial implementation strategy, as well as identification of an appropriate institutional form by which to fund and provide a contract for transit services. Transit service is an integral part of pedestrian and bicycle transportation, helping bridge gaps that may exist in the pedestrian and bicycle network.

GIS Databases
Sources of GIS data in the local area come from a variety of sources including the Town of Mammoth Lakes, the Inyo National Forest,
Mono County, and Mammoth Mountain Ski Area. However, a reliable combined source of GIS data from all federal, state, county, municipal and private sources in the Mammoth Lakes region does not currently exist. The Bicycle Master Plan uses primarily data from the Mono County GIS database including layers for roads, multi-use paths, bicycle lanes, sharrows, and bridges and tunnels.

**Statewide Integrated Traffic Records System (SWITRS) (Figure 2.14)**

The Statewide Integrated Traffic Records System (SWITRS) is a database that serves as a means to collect and process data gathered from a collision scene. This data summarizes the number of total pedestrian accidents that have occurred in Town organized by type, cause, and severity. California Highway Patrol (CHP) staff and members of its Allied Agencies throughout California used to request various types of statistical reports. Custom reports can be created by the user to capture data relevant to specified criteria such as jurisdiction, location, or annual or quarterly reports by date. There are also a variety of standardized reports that meet pre-selected criteria as determined by the CHP. SWITRS data is often required when applying for grant funding relevant to transportation.

**RIMS Database (Figure 2.15)**

The RIMS database is maintained by the Mammoth Lakes Police Department and records incidents which have occurred locally. The accident portion of this database is sent to California Highway Patrol to be recorded in the SWITRS database, a comprehensive record submissions database from multiple agencies. The RIMS database can be useful to supplement accident data available from other agencies and to ensure data accuracy. It is also a resource when seeking information about recent accidents that may not yet be recorded in the SWITRS database.
Eastern Sierra Expanded Transit System (ESETS) presents an expanded transit system for the Eastern Sierra including the Lakes Basin transit service in the Town of Mammoth Lakes. This initial study led to the Eastern Sierra Transit Authority.
Chapter 3: Existing Conditions

3.1 Setting

Mammoth Lakes is a unique destination resort community within Mono County, located in California’s high Eastern Sierra Nevada mountain range. Incorporated in 1984, the Town is located along State Route 203 approximately three miles west of its junction with Highway 395. Sitting at an elevation between 7,800 and 8,300 feet, the alpine climate consists of cold winters and mild summers (Figures 3.1, 3.2).

While the area within the Town Boundary is nearly 24 square miles, the Urban Growth Boundary (UGB), where the majority of buildings and roads are found, comprises of approximately four square miles. The remaining area within the Town Boundary is occupied by Inyo National Forest land, including Mammoth Mountain Ski Area. Both areas contribute to recreational tourism which serves as Mammoth’s primary industry.

While the town has a permanent resident population of approximately 8,200, the total population can swell to as high as 35,000 during peak visitation periods. Visitors are attracted to the great hiking, camping, fishing, biking, climbing, skiing, and snowboarding opportunities available in the area. This kind of dynamic population change can create complex demand on the overall transportation system.

3.2 Land Use

Nearly forty-five percent (45%) of the town within the UGB is composed of residential land use, a significant portion of which are second homes and rental units. Nearly twenty-five percent (25%) is designated resorts that includes golf courses, condominiums, and hotel lodging. Open space, commercial activity, and institutional facilities comprise between eight (8%) and ten percent (10%) of the
town’s urban footprint. The Industrial Park has the smallest share at three (3%) percent (Figure 3.3).

3.3 Comprehensive Mobility Strategy

As outlined in the Draft Mobility Element, bicycling a key role in helping the Town achieve its goal of an integrated, multi-modal system of complete streets. To achieve a comprehensive transportation system, the bicycle network must be planned and integrated with walking, transit, and driving. Bicycling has been found to produce many positive effects for cities and towns that invest in a robust network of facilities. Bicycling eases automobile congestion, reduces demand for parking (a significant issue with the town’s current state of commercial and resort development), reduces air and noise pollution associated with automobile use, and contributes to a healthy lifestyle.

Walking

The Draft Mobility Element recognizes pedestrian activity as a crucial component to all other transportation modes. It is the beginning and end of any transportation trip, whether it be a walk to a parked car, bicycle rack, or transit stop. Pedestrian connectivity is mapped in the Draft Mobility Element which establishes a series of zones for which connectivity should be focused and is established:

• Primary pedestrian zones of a 500-foot walking radius and the highest demand for connectivity.

• Secondary zones of a 1,000-foot walking radius and a moderate demand for connectivity.

• General zones that are delineated along the town’s commercial corridors: Old Mammoth Road, Main Street, and a portion of Minaret Road north of Main Street.

Within the context of the bicycle network, these zones represent focus areas for multi-modal transportation (Figure 3.4).
**Transit**
Integrating the transit system with the bicycle network is important to encourage bicycling and increase connectivity. Eastern Sierra Transit Authority (ESTA) operates transit service within and around Mammoth Lakes, including Mammoth Mountain Ski Area’s winter service and the Town’s trolley and bus routes. All of the Town’s trolleys are equipped with a bicycle rack on the front end which can accommodate three bicycles. Seasonal trolleys, such as the Lakes Basin Trolley (Figure 3.5), have trailer-mounted bicycle racks allowing more bicyclists to incorporate transit into their daily riding, whether it serves the recreational community or commuters.

**Roadways**
In general, roadside interactions with drivers present the greatest hazard for bicyclists. Several factors unique to Mammoth Lakes make the threat of collisions even more severe. First, Mammoth Lakes can receive several feet of snow in a single winter storm. Snow and icy conditions make traveling on the road difficult, both for bikers and drivers (Figure 3.6). Exacerbating this issue is that many visiting drivers are inexperienced with driving in snow and ice conditions. Finally, many of the bike lanes and bike routes are not adequately cleared of snow and ice in the winter and do not provide adequate separation between bicycle facilities and vehicle lanes. Reducing the number of collisions and their severity can be accomplished through improved awareness and education, improved maintenance, and improvements to the physical design of roadways and bicycle facilities.

3.4 Existing Bicycle Facilities
The Caltrans’ Highway Design Manual defines the criteria for three bikeway classifications; each differs in its relation to the road and intent for the bicyclist. The facility classes are defined and local examples described below.
Class I Bikeways (Multi-Use Paths)(Figure 3.7)
A multi-use path (MUP) provides bicycle and pedestrian travel on a paved right-of-way completely separated from a street or highway. This avoids interaction with motorists. While sidewalks are primarily for pedestrians and are typically directly adjacent to a road, MUPs tend to follow alignments that are not connected to the street grid, serving trips that are recreation-oriented. MUPs can, however, be located adjacent to roads with the intent of providing the safest form of travel within the urban environment.

Caltrans standards require an 8-foot minimum width for a two-way MUP. This ensures an adequate amount of passing space for multiple users traveling at differing speeds. Caltrans recommends that grades do not exceed 5%. MUPs are suited to lower skilled riders including children and the elderly, which is factored into their design and separation from the road.

Town Loop (6.7 miles) (Figure 3.8)
The Town Loop is the most extensive of the five existing MUPs in Town. Primary activity centers that are located directly adjacent to this path include the Shady Rest Campground, Trails End Park, Cerro Coso Community College, Mammoth Creek Park, Snowcreek Resort, Eagle Lodge, and the Main Street District. When completed, the Town Loop will total 6.7 miles. An additional 0.66 miles of path exist providing connectors and extensions that branch off the loop as points of access throughout the community.

Meridian Connector (1.0 mile)(Figure 3.9)
The Meridian Connector, located adjacent to Meridian Boulevard between Sierra Park Road and the Town Loop, provides pedestrians and bicyclists access to the town’s three schools, Trails End Park, the Industrial Park, and the Trails residential neighborhood. While fully functional, this bike path could use targeted rehabilitation to improve the path’s user experience.
**Shady Rest Path (1.2 miles)(Figure 3.10)**
Shady Rest Path connects the Main Street and Old Mammoth Commercial Districts with Shady Rest Park, providing recreational activities including baseball, basketball, soccer, a skate park, and over 100 miles of dirt trails for running, hiking, and mountain biking. In the winter time, Shady Rest Path doubles as a groomed cross country ski trail that is within walking distance of several ski rental shops found on Old Mammoth Road and Main Street.

**Lakes Basin Path (5.3 miles)(Figure 3.11)**
The Lakes Basin Path provides a connection between the town and Lakes Basin at the intersection of Lake Mary Boulevard and Minaret Road up to Horseshoe Lake in the Lakes Basin. Climbing a total elevation of 2,400 feet at an average 7.7% grade, this bike path serves as a challenging ride for visitors and residents alike, providing access to hiking, fishing, and camping.

**Lodestar Connector Path (0.5 miles)(Figure 3.12)**
The Lodestar Connector Path runs parallel to Lodestar Drive and links Meridian Boulevard with a junction point between North Majestic Pines Drive and a private road on the Sierra Star golf course. Currently, this MUP is underused, as it terminates at a dead end.

**Class II Bikeways (Bike Lanes)(Figure 3.13)**
Referred to in the California Highway Design Manual as “Class II” bikeways, bike lanes provide a striped and stenciled lane for one-way bicycle travel on both sides of a typical street or highway. When properly designed, bike lanes can help improve the visibility and positioning of bicyclists. Many factors can affect the use of a bicycle lane including on-street parking, pavement management, debris and roadside landscaping, traffic volumes and speeds, the amount of curb cuts found along the road, and topography.
Old Mammoth Road (1.1 miles) (Figure 3.14)
Currently, the bike lane on Old Mammoth Road covers only a short segment of the road’s entire length. The bike lane runs 1.1 miles west from Mammoth Creek Park to Waterford Avenue. The 0.8 mile segment of Old Mammoth Road between the park and Main Street is heavily used, both by vehicles and bicyclists, as Old Mammoth Road is a major commercial corridor, but there is no bike lane. The 1.2 mile segment of the road west of Waterford Avenue continuing on a steep incline until it intersects with Lake Mary Road in the Lakes Basin and has no bike lane.

Minaret Road (1.3 miles) (Figure 3.15)
Minaret Road links a significant amount of the town’s resort-designated land including Snowcreek, Sierra Star, the Village, and Mammoth Mountain’s Main Lodge. The bike lanes on both sides of the road on Minaret Road, located on both sides of the road, have a significant amount of shoulder space available for safe bicycling.

Canyon Boulevard (0.5 miles) (Figure 3.16)
The bike lanes on Canyon Boulevard connect Canyon Lodge with the Village. This is a high demand facility in the summer as mountain bikers travel back and forth between the mountain bike park on Mammoth Mountain and the transit station in the Village, where they can return to the bike park by shuttle. There are 10 intersections between Canyon Lodge and the Village causing potentially hazardous conditions with the fast downhill speeds some of the bicyclists reach when riding down to the Village. This makes compliance with signage, markings, and lane width especially important to increase drivers’ awareness.

Main Street (1.5 miles) (Figure 3.17)
Main Street is State Highway 203 and is the town’s busiest commercial corridor and often experiences heavy traffic, including many right-hand turns on and off of the adjacent frontage roads. Bike lane widths on both sides of the road average five feet. In addition, the facility is well-marked, including 26 bike lane signs and
20 ground stencils, which help to indicate to drivers the bicyclist’s right-of-way. Main Street is a high-demand bikeway, providing a connection between the Old Mammoth Road corridor and the Village.

**Scenic Loop (3.2 Miles) (Figure 3.18)**
The Scenic Loop is an alternative to State Highway 203 for getting into Mammoth Lakes from Highway 395. The bike lanes on the scenic loop are primarily used by recreational riders, including road bikers and mountain bikers, as well as some commuters traveling from June Lake and beyond.

**Sierra Park Road (0.3 miles) (Figure 3.19)**
Sierra Park Road was retrofitted in 2012 to include 5-foot bicycle lanes and parallel parking. This facility is in high demand in the mornings and late afternoons because the high school and hospital are accessed off of Sierra Park Road. Along with recent improvements to Tavern Road and a short segment of Sierra Nevada Road, this project demonstrates the effort to provide bicycle and sidewalk facilities on all roads within the commercial corridors, where feasible, particularly on routes providing access to the schools.

**Tavern Road (0.2 miles) (Figure 3.20)**
Tavern Road was retrofitted in 2012 to include bike lanes and a sidewalk on one side of the road. Despite being a fairly short segment, Tavern Road is one of the only existing facilities that crosses Old Mammoth Road, connecting the public institutions on its east side with the restaurants and businesses on its west side. The intersection of Tavern Road and Old Mammoth Road includes a pedestrian crosswalk which improves traffic safety conditions.

**Sierra Nevada Road (0.2 miles) (Figure 3.21)**
The section of Sierra Nevada Road between Sierra Park Road and Old Mammoth Road has a designated bike lane. The bike lanes are expected to be extended west to Chaparral Road in the future. Providing a bicycle facility on Sierra Nevada Road is key to connecting the workforce areas of the Sierra Valley Sites to commercial districts.
Class III Bikeways (Bike Routes) (Figure 3.22)
Referred to as “Class III” bikeways, bike routes provide for shared use of the road between bicyclists and motor vehicles and are typically identified with signs only. These facilities aren’t designed to separate bicyclists from motor traffic with pavement markings. Instead, the intent is to offer a “preferred” or “recommended” route of roadways between active locations in the town. Bike routes are more commonly designated for streets with low traffic volumes (< 5,000 vehicles per day) and low traffic speeds (under 30 mph) where bicycle lanes may not be feasible to install. On low-traffic residential roads, bike routes can serve as important connectors to schools and recreational areas such as parks and community facilities. In addition, California state law requires a three foot separation by traffic.

Meridian Boulevard (1.5 miles) (Figure 3.23)
Meridian Boulevard is currently the town’s longest bike route, going from Eagle Lodge to Sierra Park Road. Much of this route is expected to be upgraded to a Class II facility with the recent award of grant funds from the Safe Routes to School Program.

Lakeview Boulevard (0.6 miles)(Figure 3.24)
The Lakeview Boulevard bike route extends from Canyon Lodge to Canyon Boulevard. Although this path is striped and signed for bicycle use, parallel parking is permitted along a significant portion of the path near Canyon Lodge to accommodate for skier parking, which interferes with the bike lane.
**Forest Trail (1.3 miles) (Figure 3.25)**
Forest Trail is currently a designated bike route and has a narrow shoulder, between 2-3 feet wide, between the Village and Main Street, ending near the Mammoth Lakes Fire Station. Right-of-way along the facility is constrained, making widening of the bike route into a bike lane a challenge.

**North Majestic Pines Road (0.5 miles) (Figure 3.26)**
The existing bike route on Majestic Pines Road north of Meridian Boulevard extends to Kelly Road’s intersection with the Lakes Basin MUP. This route terminates about 500 feet from the bike route on Lakeview Boulevard. However, there is not an existing crossing on Lake Mary Road allowing for travel to Lakeview Boulevard. Adding a crossing on Lake Mary Road near this location would help create another continuous north-south bicycle connection. As of the summer of 2014, Majestic Pines Road, south of Meridian Boulevard, will connect to the Town Loop MUP at the Waterford Bridge.

**3.5 Rider Profiles**
There are many types of bicycle riders in Mammoth Lakes, each with different riding purposes, experience levels, and physical abilities. Designating rider profiles ensures that the efforts to plan and improve the bicycle network to accommodate all riders, both existing and future. However, it is not uncommon for a single bicycle rider to fit more than one profile since it is possible for someone to ride for multiple purposes or have different levels of comfort depending on the riding conditions.

The following sets of profiles are an adaptation from the criteria provided in the American Association of State Highway and Transportation Official’s Guide for the Planning, Design, and Operation of Bicycle Facilities (Figure 3.27). They have been adapted to better represent the unique qualities of bicycling in Mammoth Lakes, a small, mountain-resort community.
Adult Commuters
Adult commuters in Mammoth Lakes are typically traveling to one of the primary employment centers: the ski area, and commercial corridors such as the Village and Main Street/Old Mammoth Road. Safety and comfort are major issues with these riders since they must share the road with vehicles (i.e., Main Street and Old Mammoth Road).

Youth Commuters (Figure 3.28)
Youth commuters are typically traveling to one of the town’s three schools (Elementary, Middle, and High School), located adjacent to one another. This gives a unique opportunity to address the experience and safety deficiencies of the youth demographic by planning for facilities that are in direct proximity to the schools. Facilities geared toward youth commuters should consider that they tend to travel in larger groups.

Erranders (Figure 3.29)
Erranders are riders who have a utilitarian purpose for their trip. They differ from commuters in the frequency and occurrence of their activity, which isn’t necessarily daily or during peak commuting hours. Examples include riding to the grocery store or other retail establishment. They also differ from recreational riders because they have a defined destination and schedule, and have a greater potential for carrying extra items like shopping bags, which can affect their riding abilities.

Families/Groups (Figure 3.30)
Resident families and families/groups visiting the Town in the summer months ride for recreational purposes and often do not have a particular destination in mind. They tend to ride in small to medium-sized groups, typically ride slower than the utilitarian rider, and prefer safety and convenience. These users tend to prefer riding on Class I MUPs and sidewalks rather than on-street facilities.
Recreational Riders
Single recreation riders have similar characteristics with families and groups, except they travel alone which is less burdensome on narrower facilities. Activity from single riders is typically dispersed throughout the day and week.

Athletic/Exercisers (Figure 3.31)
Athletes and exercise riders are a collective group of bicyclists who are typically riding for training and/or exercise purposes, and desire speed as well as safety. Specific sub-groups include off and on-season athletes like skiers, triathletes, mountain bikers, and road bikers.

Vacationing Visitors
Vacationers resemble characteristics of families and groups, typically traveling to the mountain ski resort and the Lakes Mary Basin. They often ride recreationally, preferring the safety and convenience of Class I MUPs. They travel in small to medium-sized groups, riding slower than adult commuters and exercisers.

3.6 Pavement and Road Conditions
The purpose of this Plan is to focus on the Town’s paved facilities, rather than soft-surface trails mostly used by mountain bikers. Pavement and roadside conditions can play a major role in the level of safety and comfort bicyclists experience on the road or paved paths. Damage to the asphalt (which constitutes the striped shoulder) and to the concrete (which constitutes the curbs and gutters that border many of the striped shoulder segments) areas can pose a roadside hazard for bikeway users. At best, these conditions can cause uncomfortable riding and, in the worst case scenario, may cause bicycle accidents. Overgrown vegetation is another maintenance issue and while not as severe as pavement damage, can force bicyclists out into the adjacent travel lane where the possibility of collision with vehicles becomes much higher. In the winter, ice can accumulate in dark and poorly drained bikeway segments, which may contribute to bicycle accidents.
**Concrete Fracturing (Figure 3.32)**
Certain segments of existing concrete gutter on certain roads have mild to deep fracturing, creating poor riding conditions and possible tire punctures from sharp debris. This can be especially dangerous considering a significant portion of the existing bicycle lanes are of insufficient width and gutter inhibits a significant part of the bike lane.

**Asphalt Alligator Cracking (Figure 3.33)**
The asphalt shoulder of a road can experience fracturing as well, although typically in smaller, more cobbled pieces. Fracturing created typically is not as deep or sharp-edged as fractures that occur in concrete and is therefore less hazardous, but can still be unpleasant to bike over.

**Coarse Surfacing**
Some gutters have coarse surfaces due to severe environmental exposure. This type of road damage is not as severe for bicyclists, but can still detract from the experience of all road users.

**Potholes (Figure 3.34)**
Potholes are severe depressions in the road surface. Potholes can cause serious bicycle accidents, particularly at high speeds.

**Pavement Gutter Separation (Figure 3.35)**
Separation between concrete gutters and the asphalt directly adjacent to them can be especially hazardous given how subtle they can be to a moving bicyclist. A separation of only a few inches can be a dangerous hazard for a moving bike. Road bikes, which have narrow tires, are more susceptible.

**Debris (Figure 3.36)**
Debris on roadways and paved paths present a hazard to bicyclists. Debris should be minimized through proper maintenance.
Ice Patches (Figure 3.37)
Ice patches are seasonal hazards which accumulate in the snowy/rainy months when surface water freezes overnight. While affecting fewer users due to bicycle activity dropping in the winter, ice completely eliminates a bicycle tire’s traction with the road and can cause a bicyclist to lose control. Areas of particular concern are cool, shady locations where water is more likely to accumulate and freeze, and next to locations where snow is stored.

3.7 Existing Events

Bicycle Rodeo (Figure 3.38)
The Bicycle Rodeo is an obstacle course set up by the Mammoth Lakes Police Department to give youth bicycle riders a chance to learn more about proper bicycle safety and riding in a fun and competitive environment. The rodeo is one of the activities at the annual Kid-A-Palooza, a free kids event which also features animals, games, food, and other recreational activities.

Pamper Pedal (Figure 3.39)
The Pamper Pedal is an annual 45-mile, all-women road ride sponsored by a local bicycle shop, Footloose Sports. The ride begins at Footloose Sports and descends 4,000 feet in elevation, ending at Elks Park in Bishop. Averages of 100 to 115 women attend this event annually, with many women wearing costumes to support the annual theme. The ride travels through the breath taking Sierra Nevadas with very minimal climbing and ends with a gourmet lunch.

Tour of Mammoth: Commuter Bike Challenge (Figure 3.40)
The Tour of Mammoth: Commuter Bike Challenge is an annual, day-long event also held by Footloose Sports, that encourages families to ride around town on a scavenger hunt with a series of stops where they are given access to prizes, discount prices at local shops, and to collect stamps from each location in a passport book provided at the beginning of the tour. Completed passports enter
the bicyclists into a raffle for a free bike. This event encourages in-town commuting in a fun, locally-supportive manner.

**Trolleys and Trails (Figure 3.41)**
In July 2008, Footloose Sports partnered with the Town to host an all-women’s event consisting of a scenic, uphill trolley ride to Minaret Summit, with the ride back down to Footloose Sports focusing on improving riding skills. Along the way, Footloose Sports employees provide repair and riding clinics to the 30 participants, and at the end of the ride, host a celebratory wine and cheese party. This event has been a great success in giving women the chance to ask professional staff questions in a fun and relaxed atmosphere.

**Bike-to-Work Week (Figure 3.42)**
National Bike-to-Work Week, which typically occurs in May, encourages residents to temporarily abandon their dependence on the car for a week of pedal-powered commuting. To do their part, local bike shops like P3 and Mammoth Sporting Goods have offered free goods and services, such as rentals and tune-ups, to generate high rider enthusiasm. Some local organizations host events to entice bike riders to adopt this healthier alternative to driving. In 2007, Mammoth Hospital provided a continental breakfast for its employees who rode to work that day, and Eastside Velo Club and Sierra Cycling Foundation co-sponsored a “Ride of Silence” honoring the many cyclists killed or injured on local roads. That same year, Mammoth Middle School hosted their 3rd annual Bike-A-Thon to raise money for Saint Jude’s Hospital.
3.8 Existing Programs

**Mammoth “M” Bike Rack Program**

The MRack program was initiated in 2011 by the Town in partnership with Mammoth Lakes Trails and Public Access (MLTPA) to promote bicycling. MLTPA posted information on their website asking for feedback on the MRack design. Eventually the shape of a giant “M”, standing for Mammoth, was chosen for the bike rack design. However, issues with the design and implementation of the bike rack made the program infeasible. The Town requires more recognizable bicycle racks for future development and capital projects.

3.9 Zoning Code Update 2014

The Zoning Code Update, expected to be adopted by June 2014, includes a number of new policies and development standards intended to encourage and support bicycle use. These primarily include Travel Demand Management (TDM) measures, bicycle parking standards, and standards related to multi-family housing. Managing travel demand is about providing travelers, regardless of whether they drive alone, with travel choices, such as route, time of travel and mode.

**Chapter 17.44 Parking and Loading Standards Bicycle Parking Standards**

The Zoning Code Update Standards, Chapter 17.44, includes a number of TDM measures and bicycle parking standards. If reduced vehicle parking is requested, commute trip reduction measures require employers of all new commercial and mixed-use projects to provide new hires with bicycle commuter information based on size. Employers of 10 to 24 employees must have local bicycle maps, locations of nearest bicycle racks or locker storage facilities, and bicycle safety information. Employers of 25 or more employees must have bicycle parking and shower facilities as a part of the employer’s trip reduction plan (Figure 3.43).
Bicycle facility standards are to be followed in conjunction with a bicycle parking and/or storage plan for any nonresidential uses. Short-term parking (generally less than 2 hours) should be available to the public and located for convenient access outside of designated snow storage areas. Long-term parking shall be provided within a building, a covered garage, or in bicycle lockers in a manner that is secure and weather-protected. Long-term parking should be convenient and accessible 24 hours per day (Figures 3.44, 3.45, 3.46, 3.47, 3.48, and 3.49).

17.44.090 Bicycle Parking

Each multi-family project of four or more units and any nonresidential use shall provide bicycle parking in compliance with this section. A bicycle parking and/or storage plan shall be submitted to the review authority for review and approval. Non-residential uses shall provide temporary long-term and short-term bicycle parking on a seasonal basis as approved by the review authority.

A. Bicycle facility standards. Bicycle parking shall be designed for both short-term and long-term needs. The bicycle parking requirement may be met on-site or may be exempted as provided in 17.44.090C. Bicycle parking facilities shall be designed and installed in accordance with the Public Works Standards.

1. Short-term parking is intended for bicycle trips where bicycles will be left for a short time period (generally less than 2 hours). Short-term parking shall be available to the public and should be located to provide convenient access to destinations. Short-term parking shall not be provided in designated snow-storage areas.

2. Long-term parking is intended for bicycle trips where bicycles will be left for a long-period of time (generally for several hours, overnight, or seasonally). Long-term bicycle parking shall be provided within a building, covered garage, or in bicycle lockers, and shall be secure and protected from weather. Long-term parking should be
conveniently located and be accessible 24 hours a day, 7 days a week. Long-term bicycle parking spaces may be provided as part of a communal storage area or individually as approved by the review authority.

B. Number of bicycle spaces required. Bicycle spaces shall be provided in the proportions outlined in Table 17.44.090B from Town’s “Parking and Loading Standards” for short and long-term needs.

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Spaces Required</th>
<th>Required Short-Term Spaces</th>
<th>Required Long-Term Spaces</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Residential Use Classifications</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multi-Family Residential, Live/Work, Single Room Occupancy, and Group Living Quarters</td>
<td>0.67 per unit</td>
<td>15%</td>
<td>85%</td>
</tr>
</tbody>
</table>

Figure 3.46 Secure, weather-protected, 24-hour bicycle parking

Figure 3.47 Currently, many of the housing units in Mammoth do not currently have designated bicycle parking.
### Non-residential Use Classifications

<table>
<thead>
<tr>
<th>Classifications</th>
<th>Minimum</th>
<th>Over</th>
<th>Under</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lodging</td>
<td>0.2 per unit</td>
<td>15%</td>
<td>85%</td>
</tr>
<tr>
<td>Recreation, Education &amp; Public Assembly</td>
<td>2, plus 0.4 per 1,000 GLA</td>
<td>85%</td>
<td>15%</td>
</tr>
<tr>
<td>Service Use Classifications (except Animal Care and Boarding, Cemeteries and Internment Services, and Warehousing, Storage, and Distribution)</td>
<td>2, plus 0.4 per 1,000 GLA</td>
<td>15%</td>
<td>85%</td>
</tr>
<tr>
<td>Parking Structures</td>
<td>1.0 per 50 parking spaces</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Retail Use Classifications</td>
<td>2, plus 0.4 per 1,000 GLA</td>
<td>85%</td>
<td>15%</td>
</tr>
</tbody>
</table>

C. Exemptions. Where it can be demonstrated that providing bicycle parking spaces required under this subsection is not physically practical or that the nature of the building use is such that bicycle parking spaces would not be used, the review authority may grant an appropriate exemption or reduced level of compliance in return for alternative, multi-modal investments as deemed appropriate by the review authority. Multi-family residential units with unshared individual garages shall be exempt.

Bicycle parking requirements may be granted a reduced level of compliance or exemption if it can be demonstrated that it is not physically practical or needed.
Multi-Family Residential Projects Standards

The provision of at least 100 s.f. of storage space for each unit, which helps provide adequate bicycle storage. The intent of these requirements is to ensure that developers build units that meet minimum standards and amenities necessary for households living and working in Mammoth Lakes.

3.10 California Green Building Code

Code Summary

The Town of Mammoth Lakes Municipal Code is generally consistent with the California Green Building Code (Figure 3.50). If a project is anticipated to generate visitor traffic, the Green Building Code requires permanently anchored and visible bicycle racks within 200 feet of the visitors’ entrance, for 5 percent of visitor motorized vehicle parking capacity. The bike rack must have a minimum of one two-bike capacity. For buildings with over 10 tenant-occupants, secure bicycle parking for 5 percent of motorized vehicle parking capacity is required (Figure 3.51). Acceptable parking facilities shall be convenient from the street and may include: lockable enclosures with permanently anchored racks for bicycles, lockable bicycle rooms with permanently anchored racks, and lockable permanently anchored bicycle lockers.
Chapter 4: Needs Assessment

4.1 Public Outreach

Public outreach regarding bicycle issues has been conducted over the years through various means, including updates to the General Bikeway Plan, the Trails System Master Plan, and most recently the Draft Mobility Element. The Draft Mobility Element was prepared following a series of broad-based public outreach and engagement efforts to solicit public input about issues and priorities for all modes of transportation, including bicycling and the bicycle network. Feedback was gathered in two primary ways: through a public mobility workshop (Figure 4.1) and through an online survey. Many of the comments received were focused on the need to improve the connectivity of the bicycle network, either through extensions of existing facilities or by constructing new facilities.

4.2 Statewide Integrated Traffic Records System (SWITRS)

The Statewide Integrated Traffic Records System (SWITRS) is a database maintained by the California Highway Patrol (CHP) and serves as a means to collect and process data gathered from vehicle collision scenes. Between the years 2000 and 2010 there were a total of 37 vehicle collisions reported in Mammoth Lakes that involved either a bicyclist or pedestrian (Figure 4.2).

The majority of collisions between bicycles and vehicles occurred on the two primary arterial roads in town, Old Mammoth Road and Main Street. The primary causes of these conflicts were from drivers failing to yield the right-of-way to oncoming bicyclists approaching from the opposite direction when making left turns, and from driving too close to bicyclists on the side of the road.

Figure 4.1 Public involvement includes the data collected from the 2011 Draft General Plan Mobility Element.

Figure 4.2 Accidents mapped using SWITRS data
4.3 Americans with Disabilities Act

The Mammoth Lakes ADA Transition Plan 2012 documents the legal and functional goals and objectives of the Town to make existing pedestrian and bicycle facilities within the public right-of-way accessible and usable for persons with disabilities.

The ADA Transition Plan has been prepared pursuant to the Americans with Disabilities Act (ADA), which requires all public agencies develop a transition plan for the installation of curb ramps or other sloped areas at all locations where walkways cross curbs. The plan is required to give a schedule for curb ramp installation, as well as describing other improvements necessary to achieve programmatic accessibility for persons with disabilities (Figures 4.3 and 4.4).

The ADA Transition Plan is a vital component of a larger project intended to optimize the pedestrian and bicycle experience; provide safe and usable facilities for all persons, assure compliance with all federal, state, and local regulations and standards. These facilities include streets and roadways, vehicular and pedestrian bridges, underground and above-ground utilities, vehicular and pedestrian signal systems, signage systems, on-street parking facilities, sidewalks with curb ramps at intersections, planting strips and buffers, pedestrian activity areas, and unimproved open spaces that are part of the public right-of-way.

4.4 Safe Routes to School

In March of 2013, a Safe Routes to School (SRTS) survey was distributed to the parents of Mammoth Unified School District K-8. There were 327 surveys received out of 880 distributed. The information from these surveys was compiled into a report that contains information from parents about their children’s trips to and from school (Figures 4.5 and 4.6). The report also reflects the perceptions of parents regarding whether walking and bicycling to school is appropriate for their child. The data used in this report was collected.
using a survey about walking and bicycling to school for parents from the National Center for Safe Routes to School.

The results of the survey indicated a high number of trips using a family vehicle which included 64% of all trips in the morning and 42% in the afternoon. Only 31% of those surveyed stated that they lived more than two miles from the school. Currently, only 9% of all children reported walking or bicycling in the morning and 18% in the afternoon. For children who live within a half-mile of school, over 50% asked to walk or bicycle to and from school. The main issue parents identified as a reason for why they would not let their child bike to school was weather or climate (70% of the respondents cited this as a barrier). The winter months in Mammoth Lakes are cold and there are hazardous obstacles for children such as snow and ice, making walking and biking less desirable.

Reoccurring Safe Routes to School surveys are planned for 2014 and beyond. They have identified infrastructure improvements such as areas in need of sidewalks, multi-use paths, and bike lanes. Additional surveys will help the Town benchmark progress on increasing the amount of children who walk or bicycle to school.

4.5 Snow Management Policy

The goal of the Town’s snow management effort is to provide the safest possible movement of traffic throughout the community during winter months, particularly during storm periods.

Snow management in Mammoth Lakes is a function of manpower and equipment. There are ten full-time operators and four temporary operators during the winter. There are five full-time mechanics who are used as snow removal operators during storm periods. The snow removal equipment includes five loaders with blades, two trucks with plows and cinder spreaders, one grader and three snow blowers. The manpower and equipment are divided into two 12-hour shifts during storm periods.
The Town currently contracts out snow removal for all assessment and benefit assessment districts, including the Bluffs and Juniper Ridge. For the Bluffs and Juniper Ridge, snow removal consists of plowing and blowing streets. For the North Village and Old Mammoth Road, snow removal consists of plowing streets, blowing streets and sidewalks, and hauling snow with trucks.

Multi-use paths and sidewalks shall be blown once per day or when the snow accumulates in excess of six inches or more either at the conclusion of or during a storm event. Multi-use paths and sidewalks ice is either removed by chipping or other means determined, including ice melt and/or cinders. This includes Town sidewalks, bicycle routes, and trails currently being cleared and those sidewalks to be cleared in the future. Snow berms on Old Mammoth Road and in the North Village shall be removed within four days following the conclusion of a storm event, then removal of the berm shall occur more frequently as time permits during the storm cycle. The pedestrian/bicycle network in the winter includes snow removal from approximately 0.4 miles of promenades, 3.18 miles of sidewalks, and 3.04 miles of multi-use path, and three bridges. Figures 4.7 and 4.8 demonstrate the vast quantity of snow that can accumulate in Mammoth Lakes after a storm.

4.6 Pedestrian and Bicyclist Counts on Multi-Use Paths

The Town of Mammoth Lakes uses TRAFX infrared trail counters by measuring the number of warm, moving objects. The TRAFX Infrared trail counter is designed to count general traffic on trails and paths including hikers, joggers, cyclists, etc. Unlike most infrared trail counters, it does not require a receiving unit or reflector to operate. This results in a very compact, easy-to-hide design, which reduces the risk of vandalism.

There are currently 10 TRAFX Infrared Trail Counters located on multi-use paths in the Mammoth Lakes Trail System. The data from
these counters shows that all of the trails are well-utilized and in high demand, summarized by annual totals (Figure 4.9 and 4.10). The counters at Mamie Bridge, Horseshoe Lake, and Back of College received the highest volume of traffic. With the trail system expanding, and as connections are completed, increased use is anticipated. Detailed information regarding the TRAFX counters is located in Appendix B.
Chapter 5: Recommendations for Near and Long-Term Improvements

This chapter provides recommendations for near and long-term improvements to the Mammoth Lakes bicycle transportation network. These recommendations implement many of the goals, policies, and actions from the bicycle section of the Draft Mobility Element of the General Plan. Guidance for the bicycle facilities comes from multiple sources including Caltrans and Caltrans published resources. Of particular interest, “A Technical Reference and Technology Transfer Synthesis for Caltrans Planners and Engineers”, outlines a number of bicycle facilities currently implemented throughout California. Other resources include the “National Association of City Transportation Officials (NACTO) Urban Bikeway Design Guide”, which lists a number of bicycle facilities and solutions to traffic issues (Figure 5.1).

5.1 Narrow Vehicle Travel Lanes to Provide On-street Bicycle Facilities Where Feasible

In some locations, it may be possible to narrow the width of the vehicle travel lanes on a street to create a bicycle lane or increase the width of an existing, but substandard, bicycle lane. This option is possible on lower-volume, lower-speed roads, where a 10 or 11-foot vehicle travel lane, rather than a 12-foot lane, would be appropriate (Figure 5.2).
5.2 Upgrade Class III Bike Routes to Class II Bike Lanes Where Feasible

Class III bike routes function in much the same way as Class II bike lanes. The principal difference is Class II facilities must have appropriate signage and pavement markings, which is only encouraged for Class III facilities. There are currently approximately 3.3 miles of Class III bicycle routes that are striped but lack appropriate signage. In most cases, bringing these facilities up to a Class II standard would require minimal cost and should be a near-term priority. To begin implementing this change, the bicycle network map from the Draft Mobility Element has been updated to include Class III facilities as future Class II facilities (Figure 5.3).

5.3 Improve Signage and Pavement Markings on Existing Class II Bike Lanes

Improvements to Class II facilities would be relatively low cost, and therefore should be a near-term priority for the Town. Currently, approximately half of the Town’s existing Class II bike lanes do not meet Caltrans’ standards for striping, signage, and pavement symbols.

5.4 Provide Class II Bike Lanes on Currently Undesignated Arterial and Collector Road Segments Where Feasible

Several arterial and collector streets do not currently have a designated on-street bicycle facility. Adding Class II bicycle lanes to these streets would improve the overall connectivity of the bicycle network.

In some instances, the existing pavement width is enough to accommodate a Class II bicycle facility and only requires the addition of pavement markings and signage. The cost of this improvement is
relatively low and should be prioritized by the Town in the near-term. Providing bike lanes on arterials and collectors that currently do not have sufficient pavement width and would require additional paving and/or right-of-way should be prioritized as funding and opportunities arise (Figure 5.4).

5.5 Study the Implementation of Buffered and Textured Bicycle Lanes as Appropriate

Buffered and textured bicycle lanes could supplement the standard bicycle lane in Mammoth Lakes. Buffered bicycle lanes would provide additional separation from the adjacent motor vehicle travel lane and/or parking lane. Textured bicycle lanes could alert drivers if they were to drift out of their lane, during conditions of impaired vision from heavy fog or bright sun (Figure 5.5).

5.6 Designate Low-Volume Routes as Shared Facilities Where Feasible

Streets without the necessary pavement width or right-of-way that serve as key routes to commercial, recreation, and other destinations, or provide connectivity to other bicycle facilities, should be designated as shared facilities through the use of “sharrow” pavement markings and signage. Sharrows are pavement markings intended to designate a roadway as a shared bicycle facility, where drivers must share the entire width of their travel lane with bicyclists. Sharrows are a special safety measure typically implemented on roads that have a high bicycle demand to warrant designation as a bicycle facility, but not enough space or funding to implement a bike lane or bike route. It is advised that sharrows are only used on roads with speed limits less than 40 mph to reduce conflicts between vehicles and bicyclists. Implementing sharrows on key low-volume bicycle routes is a lower-cost alternative to providing compliant bike lanes or off-street facilities, and should be a priority for the Town (Figure 5.6).
5.7 Study the Implementation of Bicycle Boulevards on Key Residential Streets

The Draft Mobility Element Bicycle Section outlines a need to study residential streets that may be suitable for bicycle boulevards. Bicycle Boulevards are streets with low motorized traffic volumes and speeds, and are designated and designed to give bicycle travel priority. Bicycle boulevards use signs, pavement markings, and speed and volume management measures to discourage through trips by motor vehicles and create safe, convenient bicycle crossings on busy arterial streets. Currently, there are no bicycle boulevards in Mammoth (Figure 5.7).

5.8 Construct Additional Multi-Use Paths (MUPS) to Increase the Town’s Off-Street Bicycle Network

The Town should construct additional MUPs to provide an improved network of off-street bicycle facilities (Figure 5.8). The construction and maintenance costs for MUPs are generally higher than that of on-street facilities; however, MUPs provide additional safety and user benefits than a traditional on-street facility. The construction of MUPs should be prioritized as funding and opportunities arise, but should generally be prioritized so that existing gaps in the network are closed or extensions of the existing network are made prior to the construction of new facilities. The prioritization of future MUPs should occur by considering the number of users, both pedestrian and bicyclist, that will benefit from the facility and whether there are existing adjacent on-street connections provided.
5.9 Study the Implementation of Cycle Tracks along Main Street and Old Mammoth Road

The 2013 Main Street Plan proposes adding cycle tracks on Main Street. Mammoth Lakes currently has a number of multi-use paths and promenades which are similar to this device.

A cycle track is an exclusive bike facility that is physically separated from motor traffic and is distinct from the sidewalk for the exclusive or primary use of bicycles (Figure 5.9). Physical separation provides an extra level and sense of security for cyclists, and therefore, can be an appealing design solution. Cycle tracks may be one-way or two-way, and may be at street level, at sidewalk level, or at an intermediate level. By separating cyclists from motor traffic, cycle tracks can offer a higher level of security than bike lanes and are attractive to a wider spectrum of the public.

5.10 Implement Bicycle Boxes at Key Intersections with High Volumes of Bicycle Traffic

A bicycle box is a colored area at a signalized intersection that allows bicyclists to pull in front of waiting traffic (Figure 5.10). This device is used only at red lights; the box is intended to reduce car-bike conflicts, increase cyclist visibility, and provide bicyclists with a head start when the light turns green. A bicyclist may simply move to the front of the intersection to increase visibility. This device is recommended at intersections where there are high numbers of cyclists. Locations in Mammoth Lakes best suited for this device include high traffic volume intersections along Old Mammoth Road and Main Street.
5.11 Implement Recommendations from the Wayfinding Master Plan to Further Increase Signage and in Key Locations

Bicycle wayfinding signs are found throughout the multi-use trail network including maps and mile markings (Figure 5.11). Signage is lacking within urbanized areas where Class II and III bicycle facilities are located. The recently implemented Wayfinding Master Plan provides guidance for finding destinations within Mammoth Lakes.

5.12 Provide Additional Access to Public Lands and Areas Outside the Urban Growth Boundary

Providing access to public lands and areas outside the Urban Growth Boundary will encourage further bicycle activity and will result in further connectivity of the bicycle network. Recreational areas outside of the Urban Growth Boundary that would benefit from improved connectivity include the Sherwin area to the south and the Knolls and Shady Rest area to the north.

5.13 Maintain Pavement and Roadside Conditions at an Acceptable Level; Provide Improved Conditions as Feasible

Pavement and roadside conditions are an important component of providing a quality level of service and comfort for bicyclists. The type of pavement that is used, crack sealants, or other treatments applied to the roadside such as rumble strips, can sometimes provide an uncomfortable riding experience. Street rehabilitation or repaving projects should consider the type of pavement used and its application to ensure that on street bicycle facilities and MUPs provide a quality riding experience for the user (Figure 5.12).
Additionally, maintaining visible striping is an important component of providing a safe bicycle facility, both for the bicyclist and for adjacent drivers. Pavement markings are susceptible to fading because of snow and ice conditions. Some cities have begun to use thermoplastic paint in an effort to increase the longevity of pavement markings.

### 5.14 Improve Bicyclist Safety at Signalized Intersections

Signalized intersections that include an exclusive right turn lane and where bicycle lanes are present should be striped to allow the bicycle lane to be on the left side of the right-turn lane as it approaches the intersection. Additional signage is needed to communicate to drivers the need to yield to bicyclists at signalized intersections, allowing for improved safety (Figure 5.13).

### 5.15 Improve Mid-block Crossings with Active Warning Beacons

Active warning Beacons are user-actuated amber flashing lights that supplement warning signs at un-signalized intersections or mid-block crosswalks. Beacons can be actuated either manually by a push-button or passively through detection. A hybrid beacon, also known as a High-intensity Activated Crosswalk, consists of a signal-head with two red lenses over a single yellow lens on the major street, and pedestrian and/or bicycle signal heads for the minor street (Figure 5.14). Hybrid beacons were developed specifically to enhance pedestrian crossings of major streets; however, several cities have installed examples of hybrid beacons explicitly incorporating bicycle movements. This device is recommended by the Main Street Plan 2013 and is referenced in the Pedestrian Master Plan.
5.16 Implement Bicycle Parking

The Association of Pedestrian and Bicycle Professionals (APBP) recommends that bicycle racks should be no more than a 30-second walk (120 feet) from the entrance of any building that is considered to be a bicycle attractor, but should preferably be within 50 feet. In addition to accessibility, bicycle racks should be designed in a manner that is secure enough for a bicyclist to feel comfortable leaving for extended periods of time, even overnight. Bicycle racks should:

- Support the bicycle upright by its frame in two places
- Prevent the wheel of the bicycle from tipping over
- Enable the frame and one or both wheels to be secured
- Support bicycles without a diamond-shaped frame with a horizontal top tube (e.g. a mixed frame)
- Allow front-in parking: a U-lock should be able to lock the front wheel and the down tube of an upright bicycle
- Allow back-in parking: a U-lock should be able to lock the rear wheel and seat tube of the bicycle

Bicycle Parking is an important element of the bicycle network. Aside from providing a reasonable amount of bicycle racks, wayfinding to these racks is necessary when racks are not easily visible from the bike lanes and MUPs; this is especially critical given the amount of tourists who bicycle in the summer months. The Bicycle Parking Area (D4-3) sign or Bicycle Parking (G93C (CA)) sign may be installed where it is desirable to show the direction to a designated bicycle parking area (Figure 5.15). The legend and border of the Bicycle Parking Area sign shall be green on a retro-reflectorized white background.
5.17 Bicycle Racks Proposed Locations

Bicycle parking is insufficient in many areas of Mammoth Lakes. There are some areas of Town that are well equipped with bicycle racks (i.e. throughout the Village area of Mammoth) (Figure 5.16, 5.17, 5.18). Other areas have bicycle parking, but it is not centrally located and only one rack is available at the entrances of businesses. More bicycle racks, which are convenient and secure, need to be implemented throughout Town. These racks will vary in size depending on the amount of ridership estimated at these locations. Proposed bicycle rack locations are listed below:

1. Old Mammoth Road segment of the Town Loop near Snowcreek Athletic Club
2. ESTA Transit Stop 25 outside Vons
3. ESTA Transit Stop 10 adjacent to Park & Ride Lot
4. ESTA Transit Stop 38 on the intersection of Joaquin Rd. & S. Frontage Rd.
5. ESTA Transit Stop 13 outside Post Office
6. MMSA Transit Stop 12 opposite Laurel Mountain Rd.
7. ESTA Transit Stop 10 outside Rafters
8. S-E Corner of Bell-Shaped Parcel
9. Mammoth Creek Connector of the Town Loop outside Utility Building
10. Mammoth Community Park outside Tennis Courts
11. Trails End Park outside Volcom Brothers Skate Park
12. Trails End Park outside playground
13. Industrial Park on Commerce Dr.

15. Shady Rest Park underneath picnic canopy

5.18 Provide Lockers Where Feasible

While bicycle lockers provide the most secure form of bicycle parking, they are also the most expensive solution and require more space than traditional bike racks (Figure 5.19). Bicycle lockers are most suitable for long-term storage; therefore, providing this type of infrastructure in larger multifamily residential and commercial projects may be more appropriate.

5.19 Provide Restrooms and Staging Areas in Appropriate Areas Where Feasible

Public restrooms are currently found in the Town’s four major parks: Shady Rest, Trails End, Community Center, and Mammoth Creek. Staging areas are locations which serve as a more convenient rest stop for bicyclists. A complete staging area may include: restrooms, picnic tables, play areas, drinking water, vehicular parking, benches, and secure bicycle parking. Many of these amenities can typically be found in public parks making them a natural setting for bicycle staging areas. The Town should consider constructing additional restrooms and staging areas for bicyclists and other uses as feasible.

5.20 Provide Shower Facilities as Appropriate and Feasible

Public shower facilities and changing rooms have become popular in dense urban cities like San Francisco and Los Angeles where bicycle riders engage in long commutes. While there is minimal long-distance
bicycle commuting in and around Mammoth Lakes, shower facilities could also serve other users, such as backpackers, campers, and recreational bicycle riders (Figure 5.20).

### 5.21 Implement Bicycle Signage as Appropriate

The Manual on Uniform Traffic Control Devices (MUTCD) defines the standards used by road managers nationwide to install and maintain traffic control devices on all public streets, highways, bikeways, and private roads open to the public. Signs are a large component of the traffic control devices bicyclists need in order to ride safely along roads and highways. They provide caution for upcoming hazards and inform moving vehicles on how they are to interact with bicycles on the road (Figure 5.21).

### 5.22 Make Progress toward Being Designated a Bicycle Friendly Community

The Bicycle Friendly Communities Campaign is an awards program that recognizes municipalities that actively support bicycling as a primary mode of transportation (Figure 5.22). The League of American Bicyclists, who sponsors the program, defines a bicycle-friendly community as one that provides safe accommodation for cycling and one that encourages its residents to bike for daily transportation as well as recreation. Progress is critiqued in a variety of areas, in addition to the physical infrastructure making up the bike network. Promotional and educational events, forward-thinking policies, and successful branding of the network all contribute to receiving a Bicycle Friendly Community designation.

The Town applied for BFC status in 2007 and was denied primarily due to a lack of promotional and educational efforts and a deficiency in the overall coverage and connectivity of the network. So far, South Lake Tahoe is the only municipality in the Eastern Sierra Region that has
been designated a Bicycle Friendly Community. Obtaining a BFC designation serves as a valuable indicator of general improvement and may increase visitation.

5.23 Study the Implementation of a Bicycle Sharing Program

A bicycle sharing system is a service in which bicycles are made available for shared use to individuals on a very short term basis (Figure 5.23). The central concept of these systems is to provide free or affordable access to bicycles for short-distance trips in an urban area as an alternative to motorized public transport or private vehicles, thereby reducing traffic congestion, noise, and air pollution.

Public bike sharing programs address some of the primary disadvantages to bicycle ownership, including loss from theft or vandalism, lack of parking or storage, and maintenance requirements. Funding can be subsidized by commercial interests, typically in the form of advertising on stations or the bicycles themselves. User fees also help pay for a bicycle program over time and assist with the costs of maintenance and managing the program.

A bicycle sharing system would be fitting in Mammoth Lakes given the large tourist population which relies heavily on alternative modes of transportation. The main areas for locating bicycle stations would be at the Village, the Downtown Main Street, and along Old Mammoth Road. Rental bicycles would create a fun and inviting atmosphere for tourists and could be used not just for transportation but also recreational purposes such as use on the multi-use bicycle paths. It would help Mammoth create an atmosphere friendly to tourists and would promote

![Figure 5.23 Bicycle Docking Station for Bicycle Share Program](image-url)
Chapter 6: Proposed Facilities

This chapter describes the priorities for the near and long-term implementation of Class I Multi-Use Paths, Class II Bikeways, and Sharrows. The projects include cost estimates based on similar projects that the Town has previously constructed. The preliminary cost estimates are based on a cost per linear foot basis for MUPs and on a formula that accounts for additional shoulder width, signage, and striping distance for bicycle lanes. Architectural and engineering costs are also taken into account. Each bicycle facility type is organized within a specific hierarchy that is designed to support the Town’s near and long-term goals for the overall network. This table includes cost estimates which may differ from the actual cost of a project until further project studies are completed.

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<th>Map ID</th>
<th>Name</th>
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<th>Length (Feet)</th>
<th>Estimated Cost</th>
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Future Bicycle Lanes and Sharrows

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Chapter 7 Indicators

7.1 Infrastructure
1. Total miles of Class I Facilities installed (Multi-Use Paths)
2. Total miles of Class II Facilities Installed (Bicycle Lanes)
3. Total miles of roadways with sharrows installed

7.2 Bicycle Safety
1. Reduction in the number of accidents based on SWITRS and RIMS data
2. Public perception of roadways as safer based on community-wide surveys including Safe Routes to School
3. Develop a system for reporting bicycle hazards and track how many have been reported and subsequently mitigated each year

7.3 Bicycle Activity
1. Increases in the number of persons commuting to school and work using bicycles based on surveys and counts at bicycle racks
2. Bicycle counts in key locations showing increases in bicycle usage such as TRAFX Trail Counters located on multi-use paths
Chapter 8 Funding Sources

This chapter covers federal, state, regional, and local sources of bicycle funding that have been used by local agencies to fund infrastructure and programs. Funding is expected to come from a variety of sources and will be phased over several years in order to implement this plan.

8.1 Federal Funding Sources

1. Moving Ahead Progress for the 21st Century (MAP-21)

MAP-21 is administered by the Federal Highway Administration and creates a streamlined, performance-based, and multi-modal program to address the many challenges facing the U.S. transportation system. These challenges include improving safety, maintaining infrastructure conditions, reducing traffic congestion, improving efficiency of the system and freight movement, protecting the environment, and reducing delays in project delivery. MAP-21 builds on and refines many of the highway, transit, bike, and pedestrian programs and policies established in the previous federal transportation legislation, SAFETEA-LU.

2. Transportation Alternatives Program (TAP)

The Transportation Alternatives Program (TAP) was authorized under the MAP-21 and provides for the reservation of funds apportioned to States to carry out the program. The national total reserved for the TAP is equal to two percent of the total amount authorized from the Highway Account of the Highway Trust Fund for Federal-aid highways each fiscal year. The TAP provides funding for programs and projects defined as transportation alternatives, including on- and off-road pedestrian and bicycle facilities, infrastructure projects for improving non-driver access to public transportation and enhanced mobility, community improvement activities, and environmental mitigation, recreational trail program projects, safe routes to school projects, and projects for planning, designing, or constructing boulevards and other roadways largely in the right- of-way of former Interstate System routes or other divided highways.

3. Congestion Mitigation and Air Quality (CMAQ)

CMAQ funds projects that are likely to contribute to the attainment of national ambient air quality standards. Funds are available for projects and programs in areas that have been designated as non-attainment or maintenance for ozone, carbon monoxide, or other particulate matter. MAP-21 provided just over $2.2 billion in CMAQ funding in 2012. While project eligibility remains basically the same under MAP-21, the legislation places considerable emphasis on diesel engine retrofits and other efforts that underscore the priority on reducing fine particle pollution.
4. Recreational Trails Program (RTP)

MAP-21 authorized the Recreational Trails Program (RTP) through Federal fiscal years 2013 and 2014, set-aside from the new Transportation Alternatives Program. The RTP program provides funds to the States to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. The RTP is an assistance program of the Department of Transportation’s Federal Highway Administration (FHWA). Federal transportation funds benefit recreation including hiking, bicycling, in-line skating, equestrian use, cross-country skiing, snowmobiling, off-road motorcycling, all-terrain vehicle riding, four-wheel driving, or using other off-road motorized vehicles.

5. Safe Routes to School Program

The new MAP-21 does not provide specific funding for Safe Routes to School (SRTS). Instead, SRTS activities will be eligible to compete for funding alongside other programs, including the Transportation Enhancements program and Recreational Trails program, as part of the new Transportation Alternatives.

6. Transportation, Community and System Preservation Program

The Transportation, Community, and System Preservation (TCSP) Program provides funding for a comprehensive initiative including planning grants, implementation grants, and research to investigate and address the relationships between transportation, community, and system preservation and to identify private sector-based initiatives. States, metropolitan planning organizations (MPO), local governments, and tribal governments are eligible for TCSP Program discretionary grants to plan and implement strategies which improve the efficiency of the transportation system, reduce environmental impacts of transportation, reduce the need for costly future public infrastructure investments, ensure efficient access to jobs, services and centers of trade, and examine development patterns and identify strategies to encourage private sector development patterns which achieve these goals.

7. Federal Lands Highway Funds

The Federal Lands Access Program (FLAP) was established to improve transportation facilities that provide access to, are adjacent to, or are located within Federal lands. FLAP 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. The program is designed to provide flexibility for a wide range of transportation projects in the 50 States, the District of Columbia, and Puerto Rico. The Access Program is funded by contract authority from the Highway Trust Fund. Funds are subject to the overall Federal-aid obligation limitation. Funds will be allocated among the States using a new statutory formula based on road mileage, number of bridges, land area, and visitation. Federal Lands Highway funds may be used to build pedestrian facilities in conjunction with roads and parkways at the discretion of the department charged with
administration of the funds. The projects must be transportation-related and tied to a plan adopted by the State and metropolitan planning organization.

8. Highway Safety Improvement Program (HSIP)

Under MAP-21, the Highway Safety Improvement Program (HSIP) remains as one of the core federal-aid programs. The High Risk Rural Roads (HR3) Program is part of the HSIP Program in MAP-21, not a set-aside as in the previous federal surface transportation act. This program approves grant applications for road improvements. The sole criterion for this program is benefit/cost ratio which is determined by the monetary benefit of a countermeasure compared with the cost of accidents. This program is administered by the California Department of Transportation.

8.2 State Funding Sources

The State of California uses both federal sources and its own budget to fund bicycle projects and programs. Many of the following programs are also listed under the federal funding sources; however, a description is given for how they are applied in the State of California.

1. California SB 99

Moving Ahead for Progress in the 21st Century Act (Map-21) reconstitutes various federal transportation funding programs, including the former Transportation Enhancements Program, Bicycle Transportation Account, and the Safe Routes to School Program. It implements MAP-21 in California, creating the new federal Transportation Alternatives Program comprised of various former separate programs. Senate Bill 99 implements MAP-21 in California, creating the Active Transportation Program in the Department of Transportation, to be funded in the annual Budget Act from specified federal and state transportation funds, including 100% of the available federal Transportation Alternatives Program funds and federal Recreational Trails Program funds, except as specified; $21,000,000 of federal Highway Safety Improvement Program funds or other federal funds, a specified amount of fuel tax revenues from the Highway Users Tax Account and the State Highway Account, and from other available funds. The bill would provide for funds to be allocated to eligible projects by the California Transportation Commission, with 40% of available funds to be made available for programming by metropolitan planning organizations in urbanized areas with a population greater than 200,000, 10% for small urban and rural regions, and 50% on a statewide basis, with all awards to be made competitively, as specified.
2. Land and Conservation Fund

The Land and Water Conservation Fund is a federal program that provides grants for planning and acquiring outdoor recreation areas and facilities, including trails. The Fund is administered by the California State Parks Department and has been reauthorized until 2015. Priority development projects include trails, campgrounds, picnic areas, natural areas and cultural areas for recreational use. Property acquired or developed under the program must be maintained in perpetuity for public outdoor recreation use. Cities, counties and districts are authorized to acquire, develop, operate and maintain park and recreation areas. The grant requires a minimum 50% match.

3. California Safe Routes to Schools (SR2S)

Caltrans administers funding for Safe Routes to School projects through two separate and distinct programs: the state-legislated Program (SR2S) and the federally-legislated Program (SRTS). Both programs competitively award reimbursement grants with the goal of increasing the number of children who walk or bicycle to school. The programs differ in some important respects. The California Safe Routes to School Program requires a 10% local match, is eligible to cities and counties, and targets children in grades K-12. The fund is primarily for construction, but up to 10% of the program funds can be used for education, encouragement, enforcement, and evaluation activities.

4. Environmental Justice: Context Sensitive Planning Grants

The Caltrans-administered Environmental Justice Context Sensitive Planning Grants Program funds planning activities that assist low-income, minority and Native American communities in becoming active participants in transportation planning and project development. Grants are available to transit districts, cities, counties, and tribal governments. This grant is funded by the State Highway Account at $1.5 million annually statewide. Grants are capped at $250,000.

5. Office of Traffic Safety (OTS) Grants

The California Office of Traffic Safety distributes federal funding apportioned to California under the National Highway Safety Act and TEA-21. Grants are used to establish new traffic safety programs and to expand ongoing programs to address deficiencies in current programs. Pedestrian safety is included in the list of traffic safety priority areas. Eligible grantees include governmental agencies, state colleges and state universities, local city and county government agencies, school districts, fire departments, and public emergency services providers. Grant funding cannot replace existing program expenditures, nor can traffic safety funds be used for program maintenance, research, rehabilitation, or construction. Grants are awarded on a competitive basis, and priority is given to agencies with the greatest need. Evaluation criteria to assess need include potential traffic safety impacts, collision statistics and rankings, seriousness of problems, and performance on previous grants.
8.3 Regional and Local Funding Sources

1. Transportation Development Act (TDA)

The Transportation Development Act (TDA) provides two major sources of funding for public transportation: the Local Transportation Fund (LTF) and the State Transit Assistance Fund (STA). These funds are for the development and support of public transportation needs that exist in California and are allocated to areas of each county based on population, taxable sales and transit performance. Some counties have the option of using LTF for local streets and roads projects, if they can show there are no unmet transit needs. The branch provides oversight of the public hearing process used to identify unmet transit needs. It provides interpretation of and initiates changes or additions to legislation and regulations concerning all aspects of the TDA. It also provides training and documentation regarding TDA statutes and regulations. The branch ensures local planning agencies complete performance audits required for participation in the TDA.

Pedestrian and bicycle projects are allocated two percent of the revenue from a 1/4 cent of the general state sales tax, which is dedicated to local transportation. These funds are collected by the State, returned to each county based on sales tax revenues, and typically apportioned to areas within the county based on population. Eligible pedestrian projects include construction and engineering for capital projects and development of comprehensive pedestrian facilities plans. A city or county is allowed to apply for funding for pedestrian plans not more than once every five years. These funds may be used to meet local match requirements for federal funding sources.

2. Community Development Block Grants Program

The Community Development Block Grants program (CDBG) provides money for streetscape revitalization which can include pedestrian and bicycle improvements. CDBG grantees may use funds for activities that include (but are not limited to) acquiring real property; building public facilities and improvements, such as streets, sidewalks and recreational facilities; and planning and administrative expenses, such as costs related to developing a consolidated plan and managing CDBG funds.

Over a 1, 2, or 3-year period, as selected by the grantee, not less than 70 percent of CDBG funds must be used for activities that benefit low and moderate income persons. In addition, each activity must meet one of the following national objectives for the program: benefit low and moderate income persons, prevention or elimination of slums or blight, or address community development needs having a particular urgency because existing conditions pose a serious and immediate threat to the health or welfare of the community for which other funding is not available.
3. Requirements for New Development

With the increasing support for “routine accommodation” and “complete streets,” road widening and requirements for new development, new developments provide opportunities to construct facilities. The Town’s updated zoning code incorporates multi-modal transportation requirements, including streetscape improvements, bicycle infrastructure, and pedestrian infrastructure.

4. Impact Fees

One potential local source of funding is developer impact fees, typically tied to trip generation rates and traffic impacts produced by a proposed project. A developer may attempt to reduce the number of trips (and hence impacts and cost) by paying for on-and off-site pedestrian improvements designed to encourage residents, employees and visitors to the new development to walk rather than drive. Establishing a clear nexus or connection between the impact fee and the project’s impacts is critical for avoiding a potential lawsuit.

5. Measure R

Measure R is a local tax measure passed by the local voters of Mammoth Lakes to fund additional and/or the improvement of existing recreation opportunities for residents and visitors. It provides the means to prioritize parks, trails and recreation needs and to allocate funds accordingly with the goal to improve the visitor experience, enhance the quality of life for local residents, and to achieve a sustainable year-round economy. Measure R is a special fund designated for use by the Town of Mammoth Lakes only for the planning, construction, operation, maintenance, programming and administration of all trails, parks and recreation facilities managed by the Town of Mammoth Lakes without supplanting existing parks and recreation facility maintenance funds.

6. Measure U

The Measure U or “Mammoth Lakes Mobility, Recreation and Arts & Culture Utility Users Tax Ordinance” was adopted by the Mammoth Lakes Town Council on March 17, 2010, and approved by the voters of the Town of Mammoth Lakes on June 8, 2010. The ordinance states that all proceeds of the tax and imposed hereunder shall be accounted for and paid into a special fund designated for use by the Town of Mammoth Lakes, and used only for the following purposes: planning, construction, operation, maintenance, programming and administration of facilities and projects for mobility, recreation and arts & culture.
7. Transient Occupancy Tax (TOT)
Transient Occupancy Tax, or TOT, is a 13% tax that is charged “for the privilege of occupancy of any transient occupancy facility” (Town of Mammoth Lakes Municipal Code § 3.12.040). The tax is required to be paid by the guest to the operator of the transient facility at the time that the rent is paid. It is the operator’s responsibility to remit the TOT to the Town. TOT is an essential component of the Town’s funding mechanisms and makes up approximately 60% of the General Fund, providing for services such as snow removal, recreational programming, and road maintenance. The Town of Mammoth Lakes is responsible for the collection of transient occupancy taxes and has established a staff team dedicated to providing effective TOT enforcement and revenue collection services.

8. Local Assessment Districts
Local assessment districts can be created that access a property tax which is compared to real estate parcels for certain public projects. A special assessment may only be levied against parcels of real estate which have been identified as having received a direct and unique “benefit” from a public project. Examples of potential improvements include sidewalks, street lights, and streetscape improvements. This is a tool the Town could use to have property owners pay for a higher level of service. Assessment districts currently exist on Old Mammoth Road and in the North Village.