TAHOE CITY MOBILITY PLAN

Tahoe City, California

June 2016

Funded by an On Our Way Grant from the Tahoe Regional Planning Agency

Acknowledgements

Prepared For

Placer County

Tahoe City Public Utility District

Project Delivery Team

Placer County

Tahoe City Public Utility District

Caltrans

North Lake Tahoe Resort Association

Tahoe Transportation District

Tahoe Regional Planning Agency/Tahoe Metropolitan Planning Organization

Truckee North Tahoe Transportation Management Association

Tahoe City Downtown Association

Tahoe City Business Owner – Roger Kahn

Prepared By

Design Workshop

Wood Rodgers

LSC Transportation Consultants

Funded by an On Our Way Grant from the Tahoe Regional Planning Agency

Contents

CHAPTER 1: INTRODUCTION **1**
Overview 2
Project Area 2
Stakeholder and Public Outreach 6
CHAPTER 2: EXISTING MOBILITY CONDITIONS **9**
Summary of Existing Mobility Conditions 10
Roadway Network 17
Transit Network 29
Pedestrian and Bicycle Network 31
CHAPTER 3: MOBILITY ALTERNATIVES AND COMMUNITY PREFERENCES **39**
Overview 40
Commercial Core Pedestrian Circulation and Parking 42
Grove Street Crossing 47
Lakeside Trail 50
CHAPTER 4: NEXT STEPS **69**
Overall Outcomes 70
Implementation Opportunities 72

APPENDIX
Merged Alternatives Survey Summary
Enlarged Integrated Parking Recommendations Diagram

1

INTRODUCTION

Overview

Tahoe City's commercial core area is a vibrant hub of activity, spurred on in recent years by improvements in parks and streetscape, private reinvestment and growth in special events . hese improvements have led to an increase in pedestrian and bicycle activity, parking needs and vehicle traffic activity. The intent of the Tahoe City Mobility Plan (Mobility Plan) is to more fully visualize and design for pedestrian and bicycle connectivity, understand the community support for enhancements, and advance mobility solutions in downtown Tahoe City .

The downtown area includes a number of commercial and recreational uses which generate a large volume of pedestrian and bicycle activity, especially during peak summer periods . tate Route (SR) 28 separates the majority of parking in Tahoe City from Lake Tahoe, creating mobility and safety issues for both motorists and pedestrians . he Mobility Plan works in tandem with two parallel projects to identify and address these issues as described below .

The SR 89/Fanny Bridge Community Revitalization Project (Community Revitalization Project) includes a redesign of the intersection of SR 28 and SR 89 (the "Wye") led by the Tahoe Transportation District (TTD) and engineered by the Federal Highway Administration (FHWA) . he new design includes enhanced pedestrian facilities to improve integration of the transit center into the heart of Tahoe City, to enhance the gateway and re-envision the development of a walkable mixed-use center . A econd project spurred by the Pedestrian and Bicycle Road Safety Audit (PBRSA) and prepared by the FHWA identifies key issues affecting pedestrian and bicycle mobility along SR 28 and describes a series of short-term and long-term improvement recommendations .

The Mobility Plan draws from the recommendations and improvements proposed in the above projects and focuses on identifying solutions and community support for the following areas:

- ***Integrated Parking and Complete Street Enhancements***: Commercial lots are developed as individual parcels which do not provide for circulation between parcels for pedestrians, cyclists or motorists . he lack of connections result in circulation issues and further impact pedestrians and cyclists and motorist search for parking spaces, make U-turns on the state highway and trucks stop in the roadway's center turn lane for loading and unloading . he Mobility Plan describes an integrated parking solution that more fully addresses the parking and circulation issues and enhances place-making along the street frontage .

- ***Grove Street Pedestrian Crossing***: The unsignalized Grove Street/SR 28 crossing has large volumes of pedestrians which result in significant traffic delays and exacerbates tensions between motorists and pedestrians in the commercial area. The Mobility Plan identifies the opportunity for a Pedestrian Hybrid Beacon to enhance pedestrian safety while also addressing traffic concerns. In addition, it includes sidewalk bump outs and other pedestrian mobility features west and east of Grove Street .

- ***Lakeside Trail:*** The award-winning Lakeside Trail has one remaining gap which forces users either back to SR 28 or through a private parking lot . A eries of alternatives were developed, evaluated and put before the community to give the County and the Tahoe City Public Utility District (TCPUD) direction on their efforts to complete the missing link and create a true, integrated trail network that encourages biking and walking .

Project Area

The project area (see Figure 1) includes the commercial core area of Tahoe City along SR 28 and SR 28/89 . t spans from the Truckee River Trail bridge southwest of Fairway Drive to the striped pedestrian crossing of SR 28 at the Lighthouse Center . he area along SR 89 from the transit center northward to the Wye is also included .

Figure 2 shows the ownership in and around the project area . roperties along SR 28 and SR 28/89 are primarily privately-owned. However, they are surrounded by public lands which provide significant recreation opportunities.

The Town Center's location at the source of the Truckee River as it flows from Lake Tahoe makes it one of the most scenic areas in the Tahoe Basin. Downtown businesses afford grand views of Lake Tahoe, but they are also potentially built on low capability lands . igure 3 depicts potential stream environment zones (SEZ) which could limit the type of development or improvements constructed on those lands .

Figure 1: *Project Area*

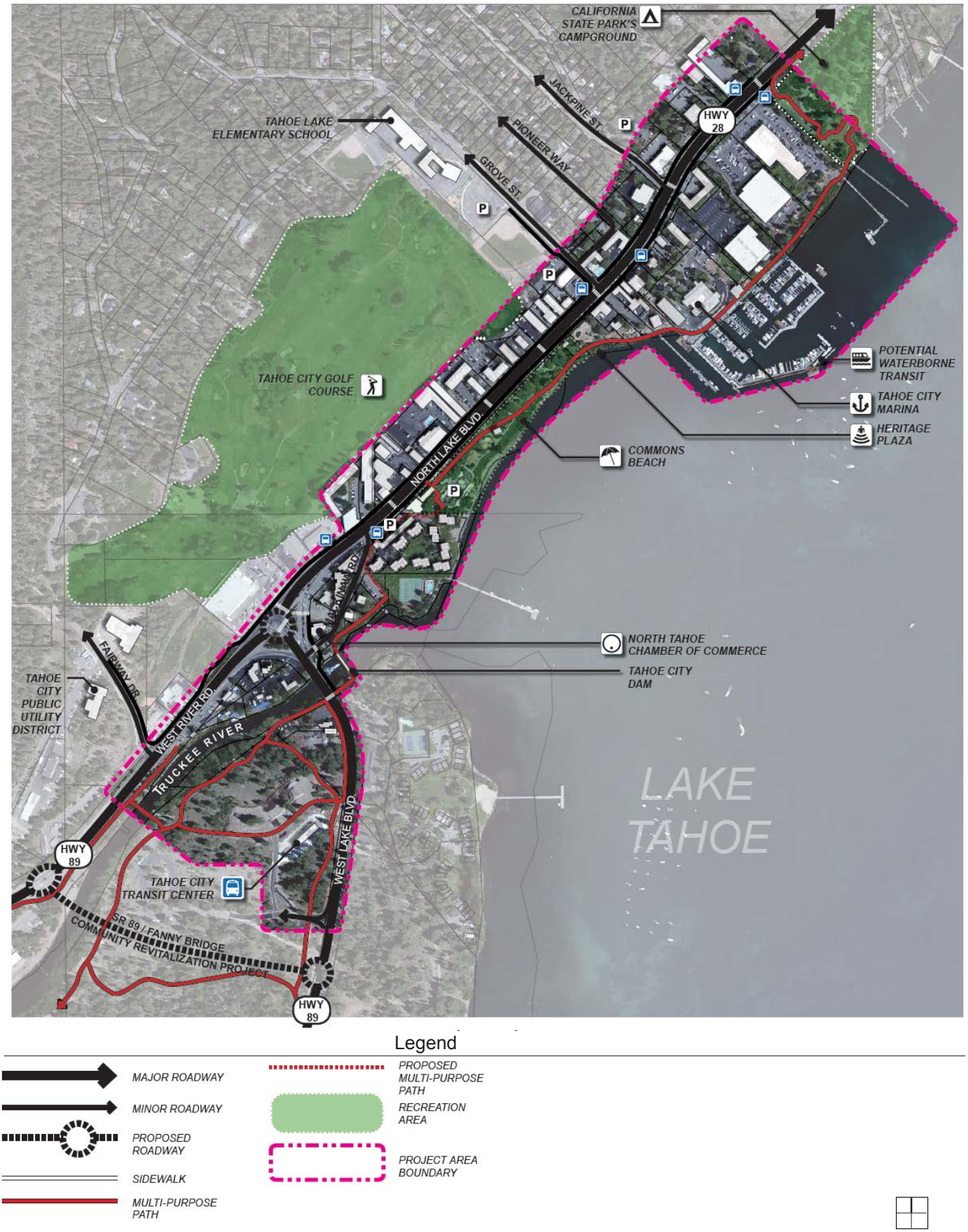
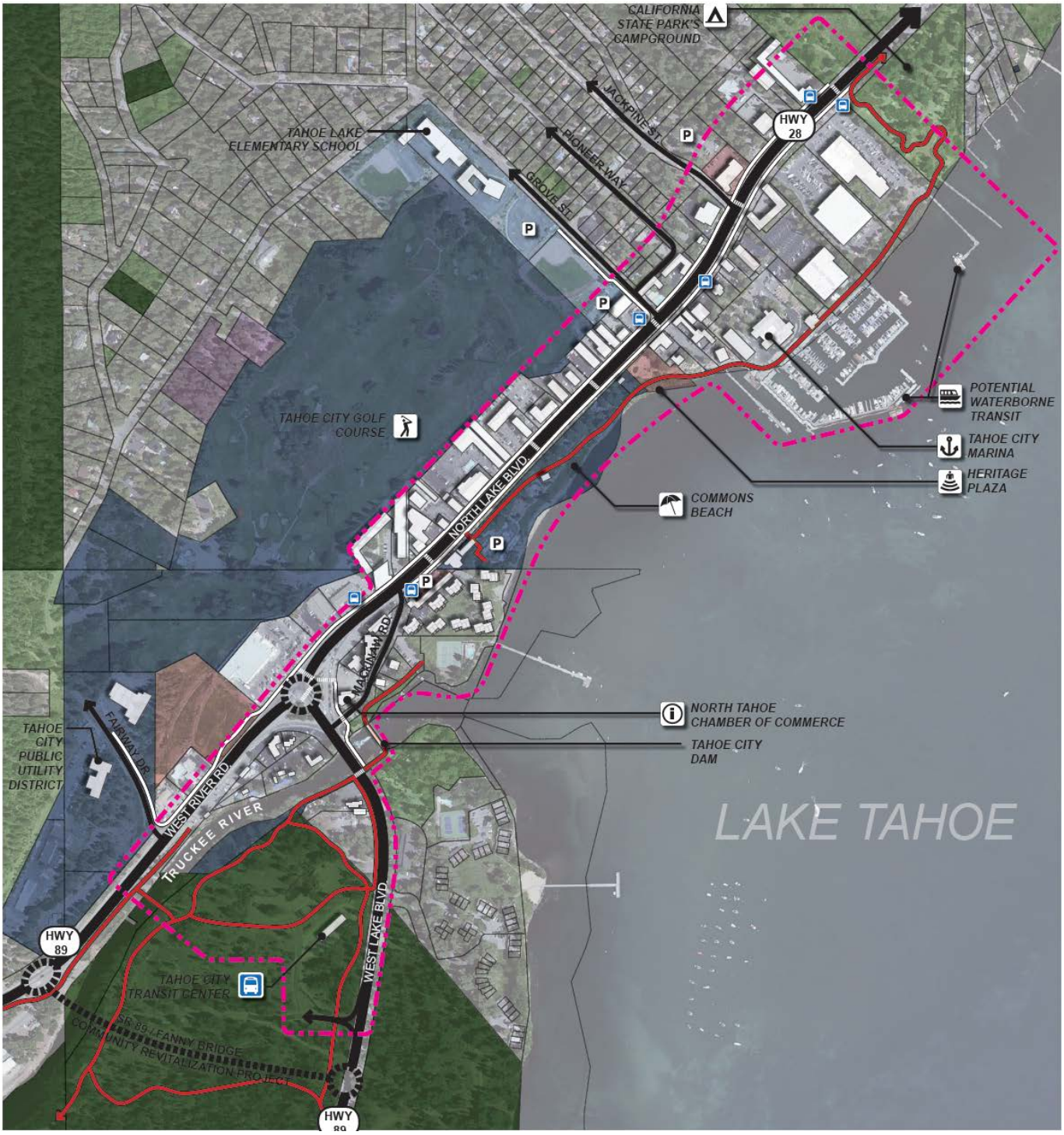


Figure 2: *Ownership*



Legend

MAJOR ROADWAY
MINOR ROADWAY
PROPOSED ROADWAY
SIDEWALK
CLASS I SHARED-USE PATH

UNITED STATES FOREST SERVICE
STATE OF CALIFORNIA
TAHOE CITY PUBLIC UTILITY DISTRICT

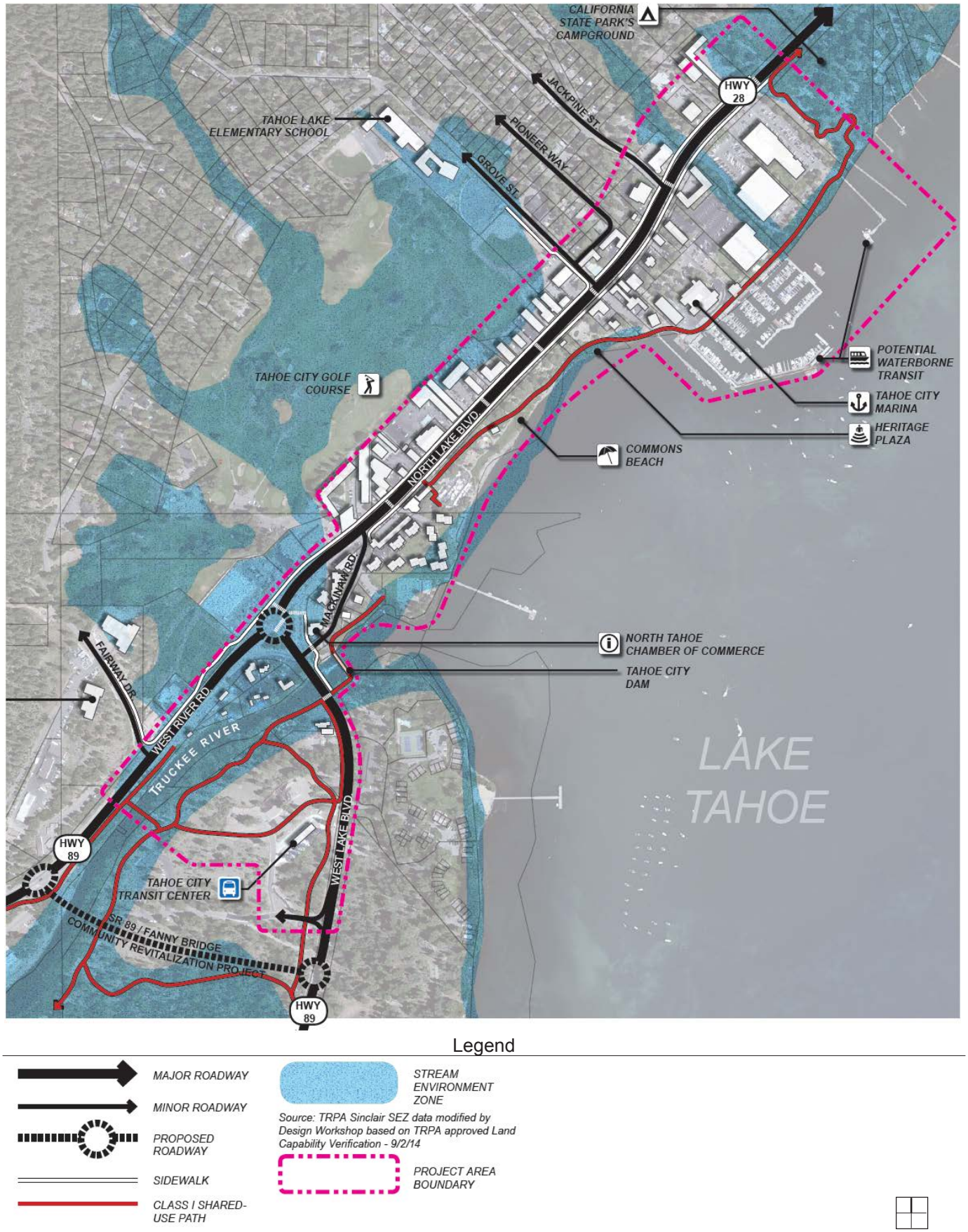
Note: The Golf Course is owned by TCPUD subject to a with Placer County, Truckee Tahoe Airport District, and the North Lake Tahoe Resort Association

TAHOE TRUCKEE UNIFIED SCHOOL DISTRICT
PLACER COUNTY
TAHOE CITY CEMETERY DISTRICT

Source: Placer County

PROJECT AREA BOUNDARY

Figure 3: *Stream Environment Zones*



Public workshop attendees discuss the alternatives

Public workshop attendees discuss the alternatives

Stakeholder and Public Outreach

Community and agency stakeholders and residents were involved throughout the project . utreach primarily occurred in two formats: through Project Delivery Team (PDT) meetings and public workshops/on-line surveys .

The PDT consisted of both project collaborators who might have a role or interest in the implementation of mobility recommendations and area business owners . epresentatives of the following agencies and organizations participated:

- Placer County
  - Public Works and Facilities Department
  - Community Development and Resources Agency
  - County Executive Office
- Tahoe City Public Utility District (TCPUD)
- Caltrans
- Tahoe Regional Planning Agency/Tahoe Metropolitan Organization (TRPA/TMPO)
- Tahoe Transportation District (TTD)
- North Lake Tahoe Resort Association (NTLRA)
- Truckee North Tahoe Transportation Management Association (TNT-TMA)
- Tahoe City Downtown Association
- Tahoe City Business Owners

Because the project dovetailed with the PBRSA and the Community Revitalization Project, FHWA participated in the outreach efforts whenever possible . HWA representatives shared project update information and recommendations in order to help align the different projects .

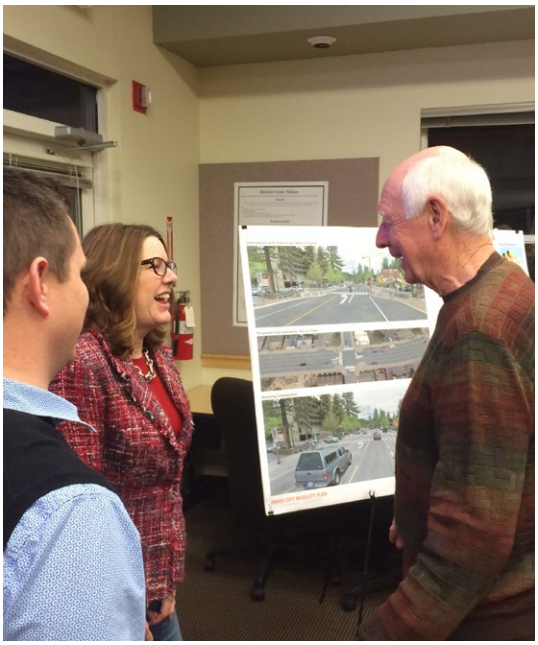
Outreach Activities and Input

Two PDT meetings and two public workshops were held . apping exercises, questionnaires and an on-line survey were conducted to facilitate gathering input and hearing from a broad cross section of the community. Invitations and notifications were sent to the PDT member and to news outlets for distribution . lacer County placed workshop notice flyers in public locations such as the post office and bus stops in Tahoe City .

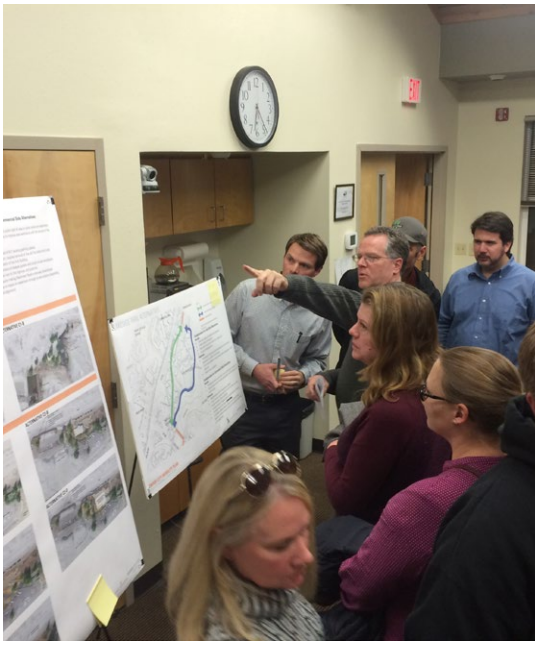
PDT and Public Workshop 1: Mapping Exercises

The first PDT meeting and public workshop concentrated on presenting a summary of the existing conditions and gathering a broad range of ideas from the stakeholders and community members regarding mobility issues and opportunities . ifteen people attended the PDT meeting and 31 people signed in at the public workshop . Key takeaways from the responses included the following:

- Improve pedestrian highway crossings, especially at Grove Street (consider a Pedestrian Hybrid Beacon)
- Provide lighting at crosswalks
- Relocate the pedestrian crossing at Jackpine Street to the western side of the intersection to reduce conflicts with pedestrians and motorists exiting Boatworks Mall
- Reduce the number of driveways off f SR 28
- Complete the Lakeside Trail
- Consider bike/ped opportunities along Mackinaw Road
- Improve wayfinding and signage through town and along SR 89
- Reduce traffic congestion caused by pedestrian/vehicular conflicts
- Address on-street parking impacts with visibility of pedestrians crossing the highway
- Consider opportunities for the Grove Street public parking lot
- Evaluate pedestrian/vehicle movement in the commercial core
- Address lack of pedestrian and bicycle facilities at the Wye
- Keep Tahoe City's community character
- Leverage funding and momentum of the Community Revitalization Project

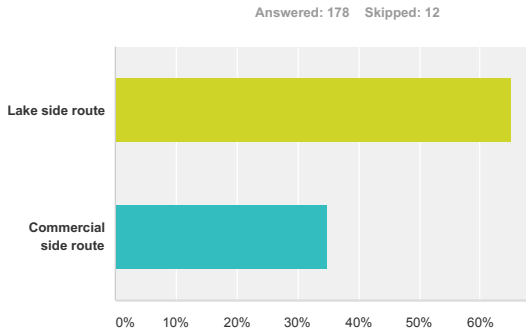


Public workshop attendees discuss the alternatives



Public workshop attendees discuss the alternatives

Given the potential benefits and challenges for each, which general alternative for completing the Lakeside Trail do you support moving forward?



PDT and Public Workshop 2: Alternatives Questionnaire & On-line Survey

The second set of meetings and facilitation tools were geared towards understanding the community's support for the mobility alternatives . fter a short presentation, attendees were provided a questionnaire to record their support and comments regarding the alternatives and project recommendations displayed around the room . n on-line survey duplicated the questionnaire questions and was made available for those who did not want to complete the questionnaire during the meeting and for community members who were not able to attend the meeting .

Eighteen people attended the PDT meeting, 23 people signed in at the public workshop and 12 of those attendees returned a questionnaire . he on-line survey was made available for two weeks after the public workshop and approximately 175 people completed it . Refer to the Appendix for a full summary of the merged questionnaire and on-line survey results .

Input was received regarding integrated parking strategies, a trail connection between the commercial core and the golf course, a Pedestrian Hybrid Beacon at the SR 28/Grove Street intersection and alternatives to complete the Lakeside Trail .

Overall respondents indicated the following:

- Majority support for a Pedestrian Hybrid Beacon at Grove Street
- Majority support for shared parking in the commercial core
- Majority support for a trail between the commercial core and the golf course

In regards to completing the Lakeside Trail, given the potential benefits and challenges for either a lake side connection alternative or a commercial side connection alternative, almost 65 percent of respondents preferred a Lake Side route compared to almost 35 percent of respondents who preferred a Commercial Side route . Further discussion of the alternatives and respondent's preferences is provided in Chapter 3 and the Appendix .

2

EXISTING MOBILITY CONDITIONS

This chapter provides a summary of existing mobility conditions and trends in the Tahoe City area . n addition to roadways, this chapter presents a discussion of parking conditions, transit services and bicycle/pedestrian facilities and summarizes the findings from the 2015 FHWA Pedestrian Road Safety Audit.

Summary of Existing Mobility Conditions

Following is a summary of the key takeaways of the existing mobility conditions evaluation . he remaining portions of the chapter provide more detail for each of the sections . igures 4-6 (starting on page 14) present a graphical summary of existing circulation conditions in the study area . ey elements are as follows:

Traffic olumes and Level of Service (LOS)

- Traffic activity in peak visitor periods is high, particularly in comparison with the limited roadway capacity. The highest daily traffic volumes occur along SR 89 south of SR 28 (the Fanny Bridge area). While traffic levels have dropped somewhat over the last ten years, they still remain at relatively high levels .
- While there are other factors creating congestion (such as on-street parking maneuvers and bicyclists), the conflict between pedestrians crossing the state highways and high traffic volumes is the key factor creating traffic delays a peak times. This conflict can also cause traffic safety impacts.
- The LOS F conditions at SR 28/Grove Street reflect the long delays for movements (particularly left turns) onto the state highway at stop-sign-controlled intersections along the major highways .
- Delays created by the Wye traffic signal are relatively low, as it has an acceptable (D) level of service. Traffic delays do occur at other locations, particularly for left-turn movements onto the state highways .
- Not reflected in the intersection LOS is the congestion created along roadways away from the key intersections. In particular, drivers on SR 89 northbound and SR 28 in both directions through the Tahoe City core area experience substantial (20 minute or more) delays due to a combination of factors including pedestrian crossings, parking maneuvers, vehicular turning movements, and bicyclists . his LOS F condition occurs on peak summer days (generally early July through mid-August) from approximately 10:00 AM to 4:00 PM .

Parking Conditions

- Tahoe City is largely dependent on private parking (particularly east of the Tahoe City Wye), with only limited available public parking . ata indicates a shortage of available parking in public lots throughout the Tahoe City area. Parking shortage in public lots is confined to the weekends, with maximum utilization on other days of the week not exceeding 68 percent .
- An important factor in parking planning for a commercial center is the turnover of parking space – the number of times per day that a space is used by different drivers. A high turnover indicates use by customers (rather than employees) and helps to encourage retail spending . he average estimated length of stay was 1.1 hours . 1 percent of the total parking activity is generated by vehicles parked for greater than 2 hours, and 10 percent by vehicles parked for greater than 4 hours .
- The parking utilization survey conducted during the summer of 2014 indicates that the proportion of total drivers parking in the area for longer-term purposes (such as employees) is quite small . f trends shift and long-term parkers use up a greater capacity of available parking, additional parking for true short-term parkers (such as drivers stopping for lunch or to shop at only one or two stores) could be generated through stricter enforcement of the two-hour limit . his would, however, run the risk of impacting beachgoers, customers that are window shopping, and others making a day trip out of their visit to Tahoe City . herefore, a balance needs to be provided in order to provide adequate public parking for day trip visitors as well as encouraging parking turnover in order to allow for adequate parking for short-term parkers .

Transit Network

- The region is served by a mix of public and private transit services which carry approximately 382,000 passenger-trips per year . ecause of the limited roadway network within the recreation/resort area, public transit services are important in expanding mobility capacity. Placer County continues to look for opportunities to enhance and expand transit services and has prepared an April 2016 update to the Tahoe Area Regional Transit (TART) Systems Plan in order to make transit improvements within the "Resort Triangle" of the North Lake Tahoe area . Those improvements would be connected to the commercial core to provide frequent, fun and free service .

Pedestrian and Bicycle Network

- Reflecting the concentration of recreational and commercial land uses in the area as well as the relatively good bicycling and pedestrian network, there is a high level of pedestrian and bicycle activity in the area . his results in high levels of pedestrian crossing activity of the state highways, particularly at the Fanny Bridge and Grove Street crosswalks . ubstantial crossing activity also occurs at the uncontrolled crosswalks near Cobblestone Center and Commons Beach Road .
- While there have been substantial investments in pedestrian and multipurpose bike/pedestrian facilities, there is a key missing element in the multipurpose path network between Fanny Bridge and Commons Beach . his adds to the potential for wrong-way westbound bicycle travel along the south side of SR 28 east of the Wye and SR 89 west of the Wye between Commons Beach Road and the Truckee River Trail at the trail bridge crossing west of the Wye .
- Pedestrian lighting along sidewalks is adequate but lighting for crosswalks on SR 28 is poor, reducing driver's ability to see pedestrians in the crosswalks .

Collisions

- Three locations stand out as sites of the highest number of collisions: (1) the SR 28/SR 89 Wye intersection where a total of 14 collisions (including 3 that resulted in injuries) were reported in the area without 300 feet to the west or east and 200 feet to the south, (2) the section of SR 28 within 200 feet either side of Commons Beach Road with 14 collisions (4 with injuries) and (3) the section of SR 28 within 150 feet of Grove Street with 12 collisions (2 with injuries) .
- Thirteen reported collisions involved pedestrians or bicyclists (five pedestrians and nine bicyclists). The collisions were relatively evenly spread across the study area indicating that no one area poses a significantly greater level of risk than another .

The Lakeside Trail is an incredible mobility asset for Tahoe City, but it ends at a parking lot and navigating to the next trail connection is not intuitive.

FHWA Pedestrian and Bicycle Road Safety Audit

FHWA conducted a Pedestrian and Bicycle Road Safety Audit (PBRSA) over three days in late April of 2015 . he PBRSA takes into account both documented crash data as well as the perceived risk of users in order to proactively address safety issues . he assessment and recommendation team was comprised of individuals from the FWHA Resource Center and representatives from TCPUD, Placer County, Caltrans, TRPA/TMPO and NLTRA .

In addition to multiple site visits to assess mobility conditions throughout the day, the PBRSA team conducted a public listening session to gain broader input and understanding of potential safety issues and opportunities . he PBRSA can be found at www.tahoempo.org/OnOurWay . oncerns and comments expressed during this session included the following:

- Not as much a safety issue as a mobility problem
- Concern about partnership with State Patrol as it pertains to traffic issues
- Tahoe City has less flexibility because of the state highway designation
- Sidewalks too small or do not exist
- Sight distance issues with parking and lack of parking enforcement are year round issues
- Parking along the roadway can be an issue related to congestion and potential “door dings”
- Pavement markings could be improved (i.e . idth of edgeline markings, maintenance cycle of re-paving, parking tics)

Around the Wye area, there is a lack of sidewalks or defined pedestrian areas.

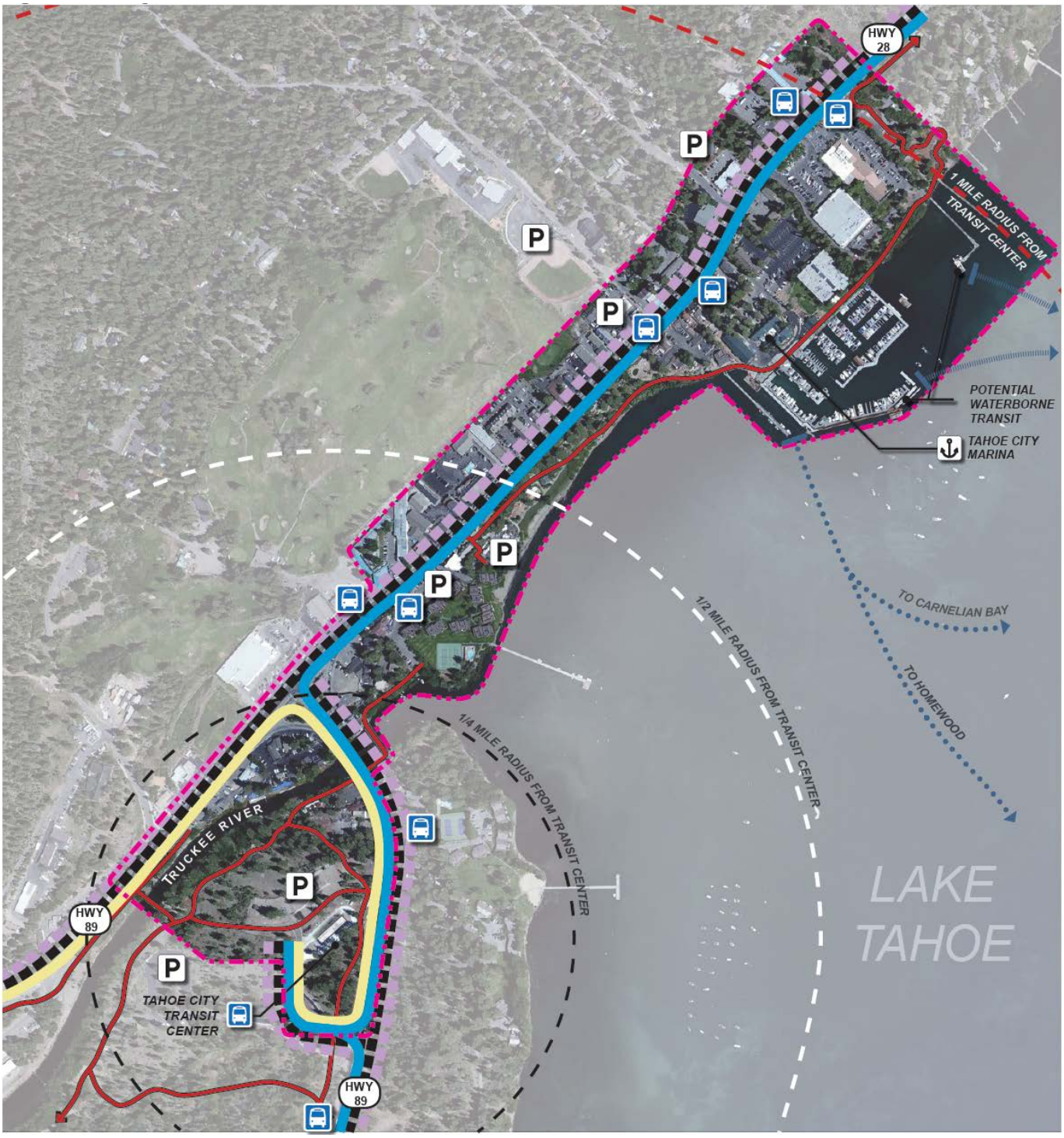
Safety Benefits of Existing Roadway

In addition to the challenges expressed above and described in this Mobility Plan and in the PBRSA, the PBRSA team noted the following positive features along SR 28:

- ***High visibility crosswalk pavement markings***: Most of the marked pedestrian crossings on SR 28 (between Commons Beach Road and the Lighthouse Shopping Center) had high visibility style crosswalk pavement markings .
- ***Crosswalk spacing and locations:*** The marked pedestrian crossings along SR 28 are appropriately spaced in regard to the distance between crossing opportunities and adjacent destinations on both sides of the highway (between 350 ft and 660 ft.)
- ***Sidewalk lighting***: Pedestrian level lighting along the sidewalks provided good visibility along the sidewalk .
- ***Crosswalk signing***: All marked crossings included supplemental pedestrian crossing signs and temporary in-street crossing signs during late spring, summer and early fall .
- ***Multimodal atmosphere***: Most sidewalk widths were desirable based on the number of anticipated pedestrians. Class I shared use paths provide options for users. Many cyclists were riding with traffic on SR 28 and complete Street design amenities such as parking, is present .
- ***Collaboration***: The community and agencies have a good working relationship with Caltrans Maintenance related to snow removal, sweeping, landscaping and roadside maintenance.

Most of the marked pedestrian crossings use high visibility style crosswalk pavement markings which enhance safety at the crossing location.

Figure 4: *Existing Transit Connections*



Legend

- CLASS I SHARED-USE PATH
- TART MAINLINE (hourly)
- TART HWY. 89 ROUT (hourly)
- FREE SKI SHUTTLE (seasonal)
- NIGHT RIDER (seasonal)
- NORTH LAKE TAHOE WATER SHUTTLE

Source: Truckee / North Tahoe Transportation Management Association

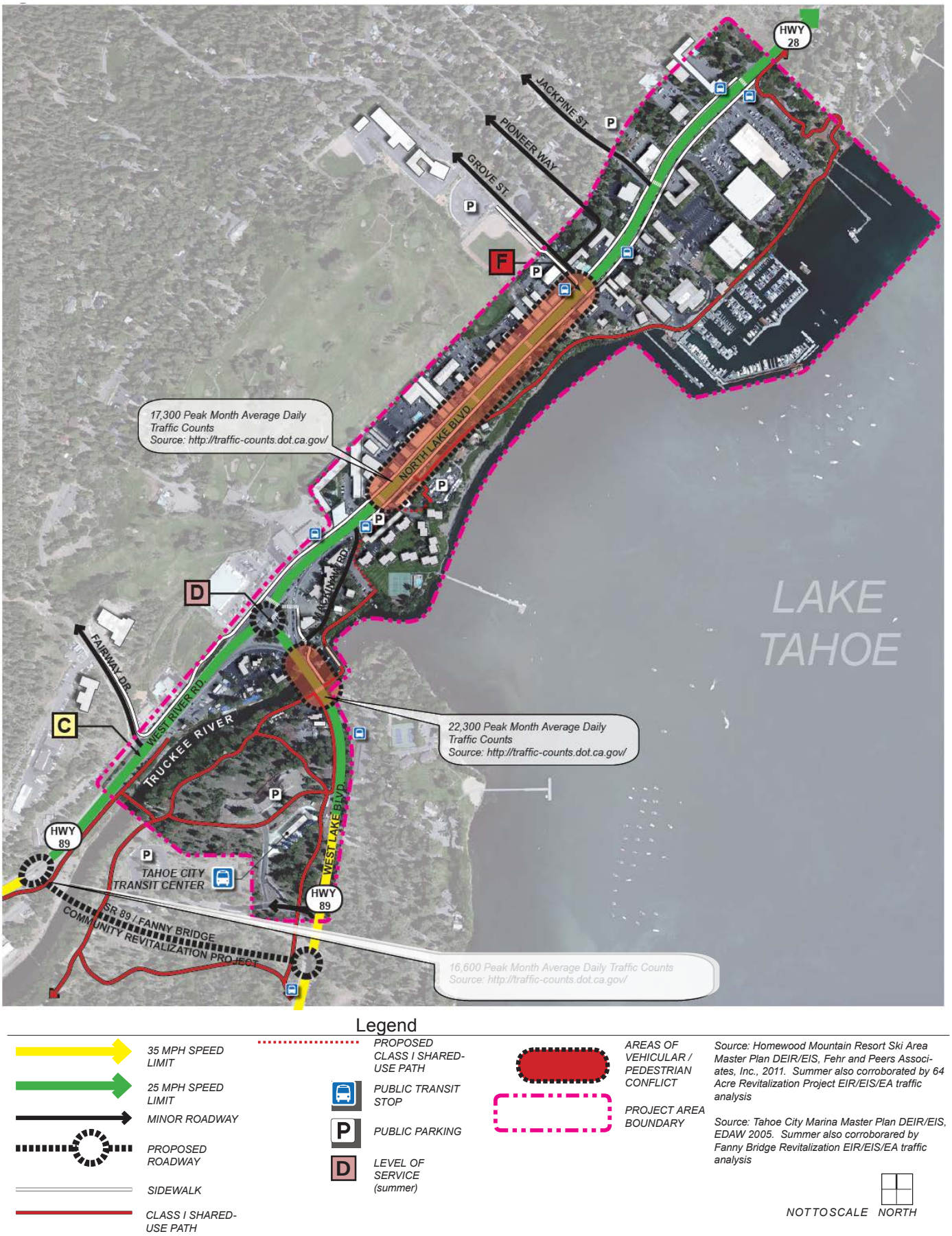
- POTENTIAL PASSENGER FERRY

Source: Tahoe Transportation District

- TRANSIT STOP
- PUBLIC PARKING LOT
- PROJECT AREA BOUNDARY

NOT TO SCALE NORTH

Figure 5: *Vehicular Circulation Conditions*



Legend

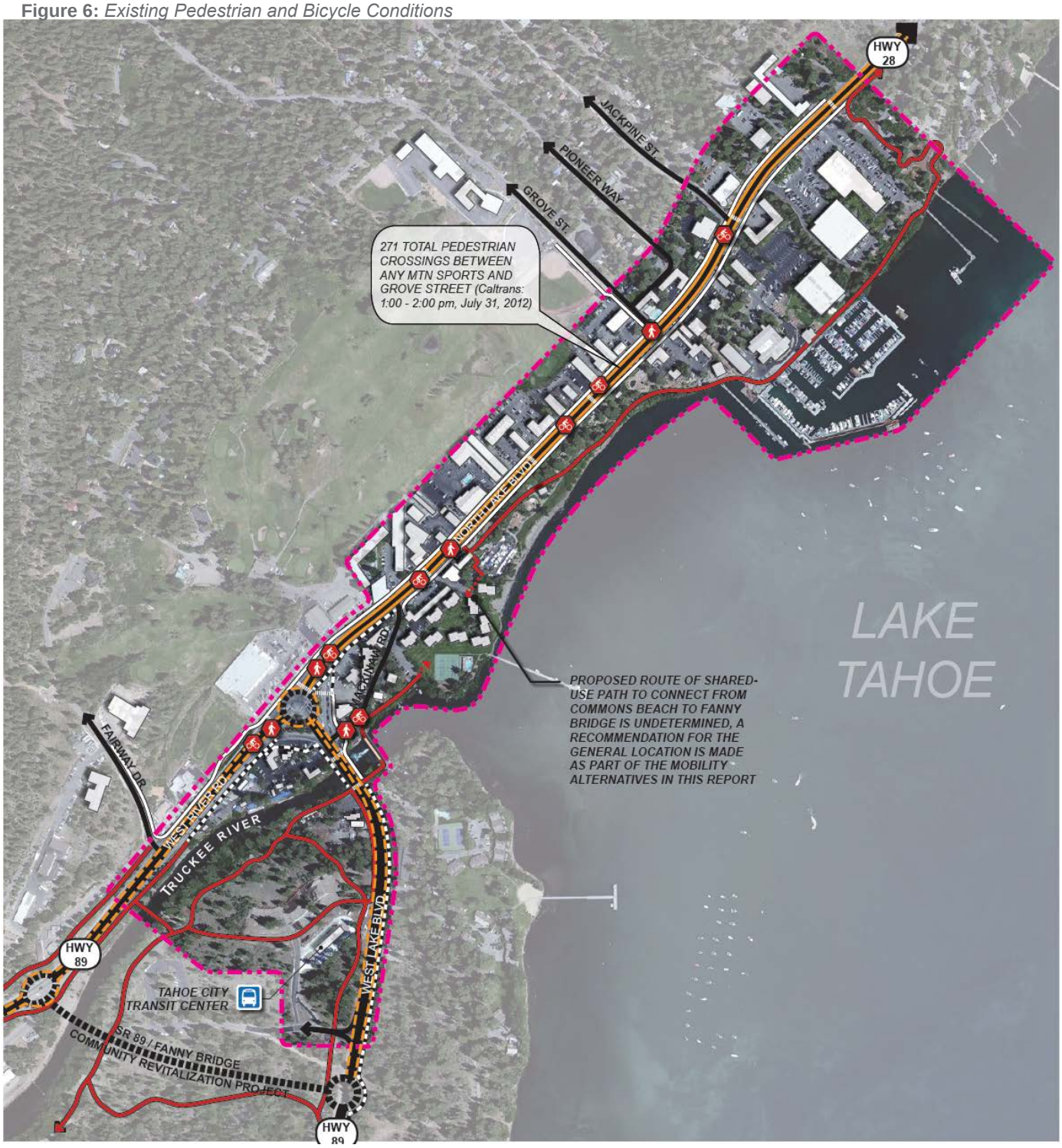
- *35 MPH SPEED LIMIT*
- *25 MPH SPEED LIMIT*
- *MINOR ROADWAY*
- *PROPOSED ROADWAY*
- *SIDEWALK*
- *CLASS I SHARED-USE PATH*
- *PROPOSED CLASS I SHARED-USE PATH*
- *PUBLIC TRANSIT STOP*
- *PUBLIC PARKING*
- *LEVEL OF SERVICE (summer)*
- *AREAS OF VEHICULAR / PEDESTRIAN CONFLICT*
- *PROJECT AREA BOUNDARY*

Source: Homewood Mountain Resort Ski Area Master Plan DEIR/EIS, Fehr and Peers Associates, Inc., 2011. Summer also corroborated by 64 Acre Revitalization Project EIR/EIS/EA traffic analysis

Source: Tahoe City Marina Master Plan DEIR/EIS, EDAW 2005. Summer also corroborated by Fanny Bridge Revitalization EIR/EIS/EA traffic analysis

NOT TO SCALE *NORTH*

Figure 6: *Existing Pedestrian and Bicycle Conditions*



Legend

- MAJOR ROADWAY
- MINOR ROADWAY
- PROPOSED ROADWAY
- SIDEWALK
- PROPOSED SIDEWALK
- CLASS I SHARED-USE PATH
- PROPOSED MULTI-PURPOSE PATH
- CLASS II BIKE LANE
- PROPOSED CLASS II BIKE LANE
- VEHICULAR / PEDESTRIAN COLLISION (2009 - 2013)
- VEHICULAR / BICYCLE COLLISION (2009 - 2013)

Source: California Highway Patrol Statewide Integrated Traffic Records System (SWITRS)

- PROJECT AREA BOUNDARY

NOTE: Proposed facilities are taken from local and regional planning documents and the SR 89/ Fanny Bridge Community Revitalization Project 70% Plans

NOT TO SCALE NORTH

Supporting Information for the Existing Mobility Conditions Evaluation

Roadway Network

The Tahoe City area is served by a network of state and Placer County roadways . ue to topographical constraints, the overall network is very limited, with little in the way of alternate routes .

State Highways

The primary through roadways in the area consist of the two state highways, as discussed below .

State Route 28
SR 28 is the major roadway serving Lake Tahoe's North Shore, linking Tahoe City with Kings Beach and Incline Village, Nevada to the east . R 28 is typically a two-lane facility with one lane of travel in each direction . A enter two-way left-turn lane is provided in Tahoe City . he posted speed limit of SR 28 in Tahoe City is 25 miles per hour .

State Route 89
SR 89 serves the Truckee River Canyon and West Shore, as part of the overall route connecting Alpine County on the south with Interstate (I) 5 in Siskiyou County on the north . s the most direct all-weather road connecting the Tahoe area to I-80 and the Sacramento and San Francisco Bay areas, it carries the greatest traffic volumes into the North and West Shores . t also provides access to Squaw Valley and Alpine Meadows . R 89 is generally two lanes in width, with additional turn lanes at major intersections . he speed limit in the Tahoe City area is 25 miles per hour .

Traffic control in the area, beyond stop signs, is limited to a traffic signal along SR 28 at the Wye. A pedestrian actuated traffic signal is also located at the crosswalk on SR 89 at the south end of Fanny Bridge over the Truckee River. In addition, a winter traffic management program is operated in Tahoe City during afternoons on peak winter ski days, coning two eastbound through lanes and an eastbound right turn lane to increase capacity and reduce congestion .

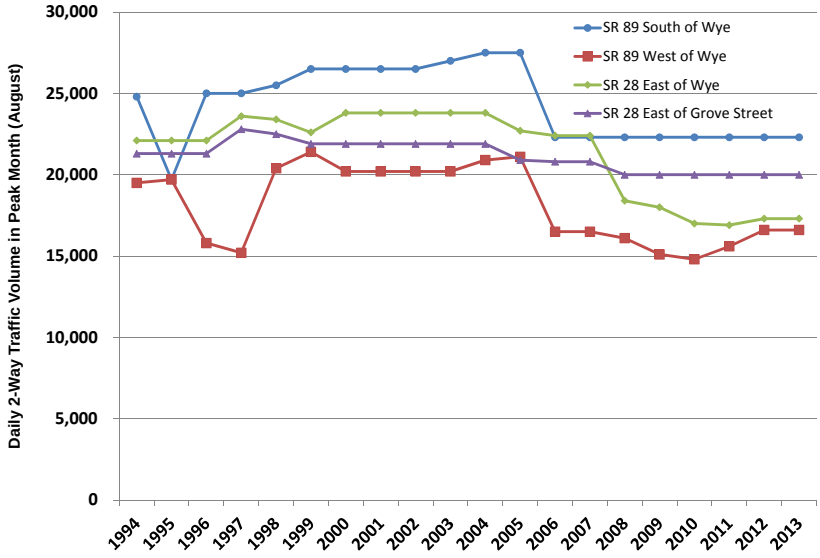
Table 1: *Tahoe City Area Traffic Trends*

		Peak Month Average Daily Traffic Counts				Average Annual Daily Traffic Counts			
	Route	**SR 89**	**SR 89**	**SR 28**	**SR 28**	**SR 89**	**SR 89**	**SR 28**	**SR 28**
	From	Fir Avenue	SR 28	SR 89	Grove Street	Fir Avenue	SR 28	SR 89	Grove Street
Year	To	SR 28	Caltrans Yard	Grove St .	State Park	SR 28	Caltrans Yard	Grove St .	State Park
1994		24,800	19,500	22,100	21,300	16,800	14,900	16,700	16,400
1995		19,700	19,700	22,100	21,300	15,000	15,000	16,700	16,400
1996		25,000	15,800	22,100	21,300	16,000	11,900	16,700	16,400
1997		25,000	15,200	23,600	22,800	16,000	12,000	17,200	16,900
1998		25,500	20,400	23,400	22,500	15,000	14,600	17,600	17,200
1999		26,500	21,400	22,600	21,900	15,600	15,300	17,000	16,700
2000		26,500	20,200	23,800	21,900	15,600	15,500	17,000	16,700
2001		26,500	20,200	23,800	21,900	15,600	15,500	17,000	16,700
2002		26,500	20,200	23,800	21,900	15,600	15,500	17,000	16,700
2003		27,000	20,200	23,800	21,900	15,800	15,500	17,000	16,700
2004		27,500	20,900	23,800	21,900	16,300	16,000	17,000	16,700
2005		27,500	21,100	22,700	20,900	16,300	16,200	16,200	15,900
2006		22,300	16,500	22,400	20,800	13,200	12,700	16,000	15,800
2007		22,300	16,500	22,400	20,800	13,200	12,700	16,000	15,800
2008		22,300	16,100	18,400	20,000	13,200	12,000	14,000	15,200
2009		22,300	15,100	18,000	20,000	13,200	10,800	12,800	15,200
2010		22,300	14,800	17,000	20,000	13,200	10,600	12,400	15,200
2011		22,300	15,600	16,900	20,000	13,200	10,900	12,300	15,200
2012		22,300	16,600	17,300	20,000	13,200	11,400	12,400	15,200
2013		22,300	16,600	17,300	20,000	13,200	11,400	12,400	15,200
Change 2003-2013	#	-4,700	-3,600	-6,500	-1,900	-2,600	-4,100	-4,600	-1,500
	%	-17 .4%	-17 .8%	-27 .3%	-8 .7%	-16 .5%	-26 .5%	-27 .1%	-9 .0%
Average Annual Change	1994-2013	-0 .6%	-0 .8%	-1 .3%	-0 .3%	-1 .3%	-1 .4%	-1 .6%	-0 .4%
	2003-2013	-1 .9%	-1 .9%	-3 .1%	-0 .9%	-1 .8%	-3 .0%	-3 .1%	-0 .9%

Traffic volume counts are conducted by Caltrans. Table 1 presents the available counts for every year from 1994 through 2013 (the most recent year available during the existing conditions phase of the project) throughout the area, for the average daily volume in the peak month of traffic activity (July or August), as well as the average daily volume over the entire year. In addition, Figure 7 presents overall peak month traffic trends for key roadway segments in the study area . A eview of this data indicates the following:

- The greatest traffic volumes in the Tahoe City area in the peak summer are found on SR 89 at Fanny Bridge south to Fir Street, with 22,300 vehicles per day (based on peak monthly average from 2006 to 2013) . n an average annual daily basis, however, the greatest volume is on SR 28 between Grove Street and the State Park (northeast end of town), with 15,200 vehicles per day. This pattern reflects the relatively high proportion of visitor (seasonal) traffic on the West Shore, and the relatively high proportion of resident (year-round) traffic on the North Shore .
- Overall traffic volumes in Tahoe City reached a high in the early 2000's, and have declined overall since then. The drop paralleled the start of the Great Recession, and only a slight rebound has occurred subsequently . Between 2003 and 2013, total peak summer traffic activity dropped by 18 percent, or an annual average of 2 percent . he greatest drop was on SR 28 east of the Wye, with a 27 percent drop . n comparison, the overall change in annual traffic was a drop of 20 percent.

Figure 7: *Peak Month Daily Traffic rends in Tahoe City*



County Roadways

The majority of roadways in the study area are owned and maintained by Placer County . ey Placer County roadways include Grove Street, Jackpine Street, Fairway Drive and Mackinaw Road . now removal is an important element of County roadway activities . ith the highest average snowfall of any county in the lower 48 states, Placer County's snow removal program ranks among the largest four in California .

Level of Service

"Level Of Service" (LOS) is a measure of the quality of operation of roadway elements, ranging from LOS A (free-flow conditions, with minimal delay) to LOS F (stop-and-go conditions, with extensive delays). Placer County, the Tahoe Regional Planning Agency as well as Caltrans have established LOS standards .

It should be noted that SB 743 was enacted in 2013 which directs California's Governor's Office of Planning and Research to develop alternative metrics than LOS, such as vehicle miles travelled (VMT) or trip generation rates . The intent of the bill represents a shift away from the use of LOS as the primary measure for impacts for the California Environmental Quality Act (CEQA) . he overarching goal is to balance congestion management with statewide goals of promoting infill development, improving public health through active transportation and reducing greenhouse gas emission . raft guidelines have been developed but are not yet completed . ocal agencies are still be able to use LOS standards as part of their local planning processes outside of CEQA .

Level of Service Standards

Placer County

Placer County defines its LOS standard as "D" for locations within one-half mile of a state highway, and "C" for other locations in the study area . oadway LOS is measured according to ADT per travel lane, using a table in the Placer County General Plan Environmental Impact Report (EIR) document . or the study area, Placer County requires evaluation of summer or winter Average Daily Traffic (ADT), whichever is higher. According to County policy, the County's LOS standards for the state highway system shall be no worse than those adopted in the Placer County Congestion Management Program (CMP) . he LOS standard in the CMP for roadways and signalized intersections located along state highways is LOS E . n Placer County, a "Peak-Hour" signal warrant analysis is required if the LOS for the worst approach at an unsignalized intersection exceeds LOS standards . f the intersection attains minimum signal warrant volumes, mitigation is required .

Placer County may allow exceptions to its LOS standards where it finds that the improvements or other measures required to achieve the LOS standards are unacceptable based on established criteria . n allowing any exceptions to established LOS standards, the County shall consider the following factors:

- The number of hours per day that the intersection or roadway segment would operate the conditions worse than the standard .
- The ability of the required improvement to significantly reduce peak-hour delay and improve traffic operations.
- The right-of-way needs and the physical impacts on surrounding properties .
- The visual aesthetics of the required improvement and its impact on community identity and character .
- Environmental impacts including air quality and noise impacts .
- Construction and right-of-way acquisition costs .
- The impacts on general safety .
- The impacts of the required construction phasing and traffic maintenance.
- The impacts on quality of life as perceived by residents .
- Consideration of other environmental, social or economic factors on which the County may base findings to allow conditions to exceed the standards .

Exceptions to the standards are only allowed after all feasible measures and options are explored, including alternative forms of transportation .

Tahoe Regional Planning Agency

The TRPA standard is to achieve LOS D or better at signalized intersections, with up to four hours per day at LOS E allowed. In summer, traffic volumes in the Placer County portion of the Tahoe Region vary over the day such that volumes on the fifth-highest hour are frequently within 10 percent of the peak volume, indicating that LOS E conditions could exist during more than four hours if the peak-hour LOS is E . or summer conditions, therefore, a peak-hour LOS of D is appropriate. However, the hourly winter traffic data indicates that the fifth-highest hourly volume is well below the peak-hour volumes; therefore, a peak-hour LOS of E is appropriate for winter conditions . RPA does not have specific standards for unsignalized intersections.

Caltrans

In general, Caltrans tries to maintain LOS D or better, although exceptions are made in specific cases. Caltrans prepares Transportation Concept Reports for each highway in the state system which include a "20 Year Concept LOS" for each segment. Reflecting forecast conditions and the limited opportunities to expand capacity in the Tahoe Region, the most recent Transportation Concept Reports for the three state highways identify the following:

Roadway	Segment	20-Year Concept LOS
SR 28	All	F
SR 89	El Dorado County Line to SR 28	F
SR 89	SR 28 to Nevada County Line	F

Existing Level of Service

Table 2 presents the existing LOS at key intersections. The LOS F conditions at SR 28/Grove Street reflect the long delays for movements (particularly left turns) onto the state highway at stop-sign-controlled intersections along the major highways. The signalized Wye intersection attains LOS standards, indicating that significant traffic delays along SR 28 and SR 89 may not be a direct result of the Wye intersection alone .

Not reflected in the intersection LOS is the congestion created along roadways away from the key intersections. In particular, drivers on SR 89 northbound and SR 28 in both directions through the Tahoe City core area experience substantial (20 minute or more) delays due to a combination of factors including pedestrian crossings, parking maneuvers, vehicular turning movements, and bicyclists . his LOS F condition occurs on peak summer days (generally early July through mid-August) from approximately 10:00 AM to 4:00 PM .

Table 2: *Existing Level of Service at Key Intersections*

	Winter	Summer
SR 89 / SR 28 (Tahoe City Wye)	C	D
SR 28 / Grove Street	F	F
SR 89 / Fairway Drive	--	C
SR 89 / Tavern Shores	--	C
SR 89 / Granlibakken Road	--	F
Note: Based on average delay of all approaches for signalized intersections, and delay on worst approach at unsignalized intersections .		

Source
Homewood Mountain Resort Ski Area Master Plan DEIR/EIS, Fehr and Peers Associates, Inc., 2011. Summer also corroborated by 64 Acre Revitalization Project EIR/EIS/EA traffic analysis
Tahoe City Marina Master Plan DEIR/EIS, EDAW 2005. Summer also corroborated by Fanny Bridge Revitalization EIR/EIS/EA traffic analysis

Vehicle Miles of Travel

Vehicle Miles of Travel (VMT) is a measure of overall traffic activity. As it cannot be directly observed, it is calculated using a computer traffic model. TRPA maintains this model, based on the TransCAD software package, which is calibrated to reflect all vehicle-trips throughout the Tahoe Basin. The VMT Threshold is periodically updated whenever TRPA updates its transportation model . he most recent VMT threshold was calculated at 2,030,938 for a peak summer day, based on the 2014 model update. This differs slightly from the VMT threshold of 2,067,600 which was documented in the 2012 Regional Plan Update EIS .

Parking Conditions

An extensive set of parking inventory and use counts were conducted throughout the Tahoe City commercial core area in the summer of 2014, as part of the North Tahoe Parking Study conducted by LSC for Placer County .

Parking Inventory

Detailed parking inventories conducted for the count areas depicted in Figure 8 . he counts associated with the areas include any “spillover” of commercial core parking into nearby residential areas . arking inventory and use was not included for wholly-residential parcels, though mixed use parcels that include some residential uses are included . or unmarked on-street spaces, legal parking capacity was calculated by dividing total length of available curb space by 25 feet per vehicle .

The existing parking supply in the Tahoe City commercial core is shown in Table 3 . f the total 2,586 parking spaces, 68 percent are in private lots (including 34 spaces temporarily in use for the renovation of the Lighthouse Center), 21 percent are in public lots, and only 11 percent are along public rights-of-way . f the TCPUD and 64-Acre areas are not included in the calculation, the proportion of spaces in private lots increases to 76 percent . verall, Tahoe City is largely dependent on private parking (particularly east of the Tahoe City Wye), with only limited available public parking .

Table 3: *Tahoe City Existing Parking Supply by Parking District (Excluding Residential Properties)*

Parking District	Description	Number of Parking Spaces				
		Highway Right-of-Way	Local Street Right-of-Way	Public Lots	Private Lots	Total Parking Spaces
1	TCPUD	0	32	0	85	117
2	64 Acres and S of Truckee River	0	0	295	67	362
3	South Wye Area	0	0	40	183	223
4	North Wye Area	0	0	0	241	241
5	Commons Beach Area - Both Sides of SR 28	32	0	73	195	300
6	Mid Tahoe City to Grove Street	48	0	0	172	220
7	North of SR 28, East of Grove Street	37	88	142	187	454
8	Tahoe City Marina Area	12	0	0	177	189
9	Safeway and Boatworks Area 1)	24	0	0	456	480
TOTAL STUDY AREA		**153**	**120**	**550**	**1,763**	**2,586**
Total Percent		6%	5%	21%	68%	100%

Note 1: 34 spaces in construction zone at Lighthouse Center .

Tahoe City Parking Count Results.xlsx

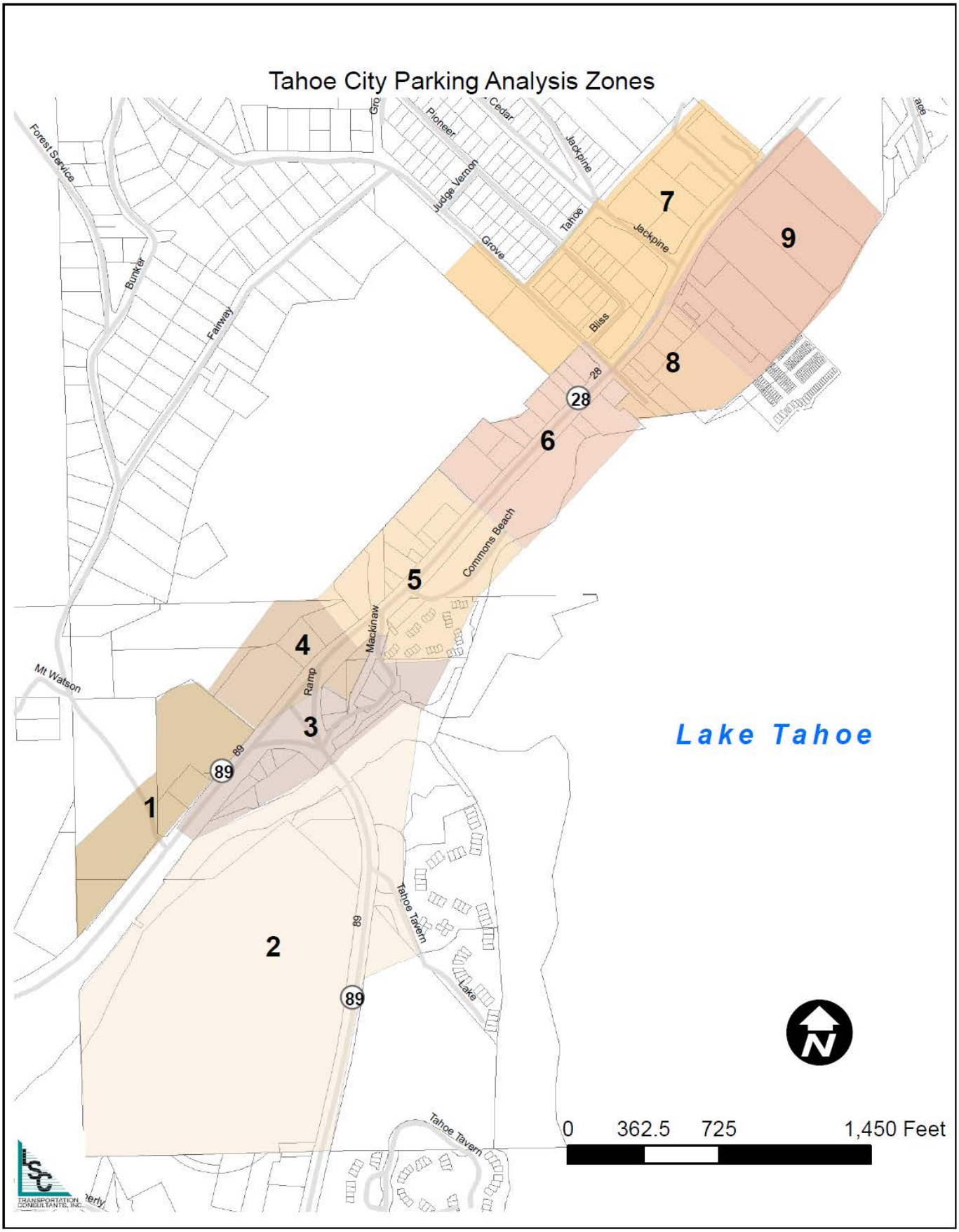


Figure 8: *Tahoe City Parking Analysis Zones*

Parking Utilization

LSC staff onducted counts of parked vehicles throughout the study area on an hourly basis, from the 10 AM hour through the 6 PM hour over the course of a busy summer Saturday (July 12, 2014) . n addition, counts were conducted in the hour of highest parking demand (2 PM hour) each day between July 12 and July 18 . s shown in Table 4 and Figure 9, on the Saturday overall parking utilization peaked in the 2 PM hour, with a maximum of 1,793 parked vehicles . his equates to an overall utilization rate of 69 percent . y district, the only area where parking was observed to exceed supply was the area south of the Truckee River (including the 64 Acres and State Recreation Area Outlet Parcel), where demand exceeded supply by up to 5 percent . mong other areas, only the Wye area (between SR 89/SR 28 and the river) exceeded 80 percent utilization .

The review of parking utilization by type of parking supply, as shown in the bottom portion of Table 4, indicates that the public lots in the Wye and 64 Acres districts (Districts 1-4) have high utilization in the afternoon and reach 103 percent utilization in the 3 PM hour . he public parking lots to the east (Districts 5-9, including the lower school lot) also have high utilization across much of the day, with the greatest utilization of 98 percent in the Noon hour . ublic right-of-way parking utilization is relatively low, at a maximum of 63 percent . he maximum overall utilization of private lots is also 63 percent . verall, this data indicates a shortage of available parking in public lots throughout the Tahoe City area .

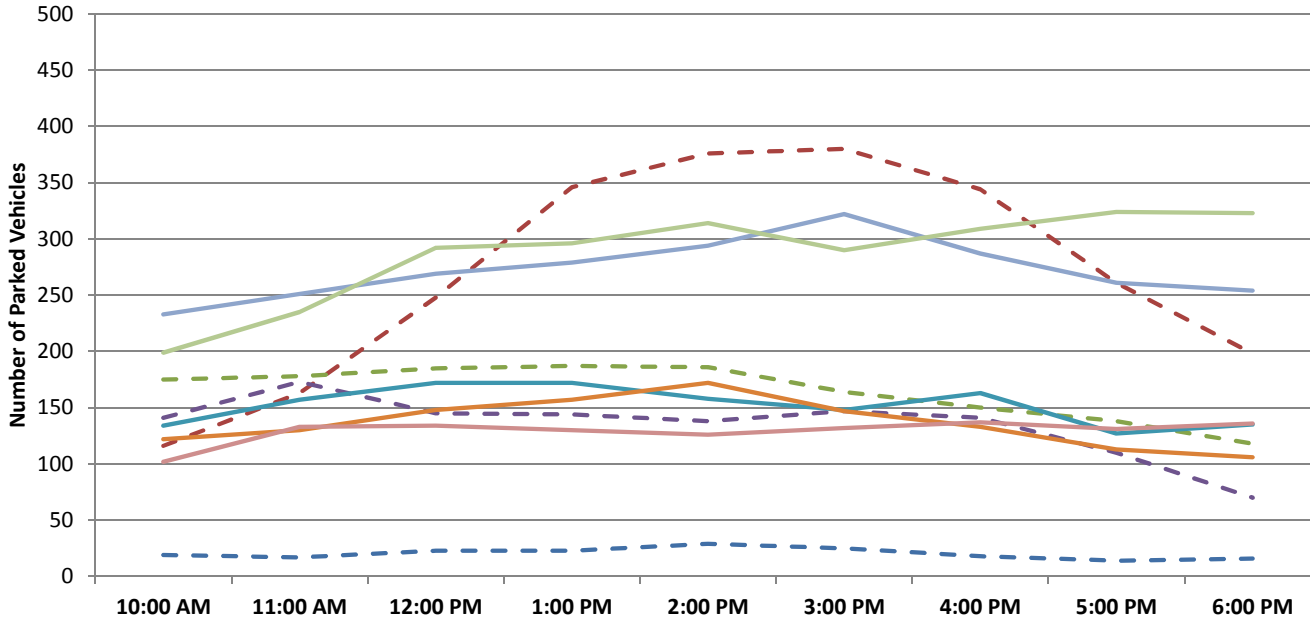
Table 4: *Tahoe City Peak Summer Parking Utilization by Parking District (Excluding Residential Properties)*
Saturday, July 12, 2014

District	Description	Total Parking Spaces	Number of Spaces Occupied									Maximum Spaces Occupied	Supply Minus Demand	Percent Utilization
			10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM			
1	TCPUD	117	19	17	23	23	29	25	18	14	16	29	88	25%
2	64 Acres and S of Truckee River	362	116	163	248	346	376	380	344	261	198	380	-18	105%
3	South Wye Area	223	175	178	185	187	186	164	150	138	118	187	36	84%
4	North Wye Area	241	141	173	145	144	138	147	141	110	70	173	68	72%
5	Commons Beach Area - both sides of SR 28	300	134	157	172	172	158	148	163	127	135	172	128	57%
6	Mid Tahoe City to Grove Street	220	122	130	148	157	172	147	133	113	106	172	48	78%
7	North of SR 28, Grove Street Parking and East	454	233	251	269	279	294	322	287	261	254	322	132	71%
8	TC Marina Area	189	102	133	134	130	126	132	137	131	136	137	52	72%
9	Safeway and Boatworks Area	480	199	235	292	296	314	290	309	324	323	324	156	68%
TOTAL STUDY AREA		*2,586*	*1,241*	*1,437*	*1,616*	*1,734*	*1,793*	*1,755*	*1,682*	*1,479*	*1,356*	*1,793*	*793*	*69%*
	Percent of Peak		*69%*	*80%*	*90%*	*97%*	*100%*	*98%*	*94%*	*82%*	*76%*			
Total Study Area Utilization by Type of Parking														
	Public Lot - Districts 1-4	*335*	*108*	*128*	*203*	*295*	*329*	*345*	*308*	*226*	*163*	**345**	**-10**	**103%**
	Public Lot - Districts 5-9	*215*	*182*	*204*	*211*	*206*	*203*	*194*	*180*	*156*	*149*	211	4	98%
	Public Right-Of-Way - Districts 1-4	*56*	*36*	*28*	*29*	*33*	*32*	*30*	*29*	*30*	*31*	36	20	64%
	Public Right-Of-Way - Districts 5-9	*204*	*97*	*118*	*129*	*120*	*112*	*126*	*134*	*114*	*127*	134	70	66%
	Total Public	*810*	*423*	*478*	*572*	*654*	*676*	*695*	*651*	*526*	*470*	695	115	86%
	Private	*1,776*	*818*	*959*	*1,044*	*1,080*	*1,117*	*1,060*	*1,031*	*953*	*886*	1117	659	63%
Percent Utilization														
1	TCPUD		16%	15%	20%	20%	25%	21%	15%	12%	14%			
2	64 Acres and S of Truckee River		32%	45%	69%	96%	**104%**	**105%**	95%	72%	55%			
3	South Wye Area		78%	80%	83%	84%	83%	74%	67%	62%	53%			
4	North Wye Area		59%	72%	60%	60%	57%	61%	59%	46%	29%			
5	Commons Beach Area - both sides of SR 28		45%	52%	57%	57%	53%	49%	54%	42%	45%			
6	Mid Tahoe City to Grove Street		55%	59%	67%	71%	78%	67%	60%	51%	48%			
7	North of SR 28, Grove Street Parking and East		51%	55%	59%	61%	65%	71%	63%	57%	56%			
8	TC Marina Area		54%	70%	71%	69%	67%	70%	72%	69%	72%			
9	Safeway and Boatworks Area		41%	49%	61%	62%	65%	60%	64%	68%	67%			
TOTAL STUDY AREA			48%	56%	62%	67%	69%	68%	65%	57%	52%			
Percent Total Study Area Utilization by Type of Parking														
	Public Lot - Districts 1-4		32%	38%	61%	88%	98%	**103%**	92%	67%	49%			
	Public Lot - Districts 5-9		85%	95%	98%	96%	94%	90%	84%	73%	69%			
	Public Right-Of-Way - Districts 1-4		64%	50%	52%	59%	57%	54%	52%	54%	55%			
	Public Right-Of-Way - Districts 5-9		48%	58%	63%	59%	55%	62%	66%	56%	62%			
	Total Public		52%	59%	71%	81%	83%	86%	80%	65%	58%			
	Private		46%	54%	59%	61%	63%	60%	58%	54%	50%			

Bold indicated that parking utilization exceeds parking supply

Tahoe City Parking Count Results.xlsx

Figure 9: *Tahoe City Parking Count by District – Saturday July 12, 2014*



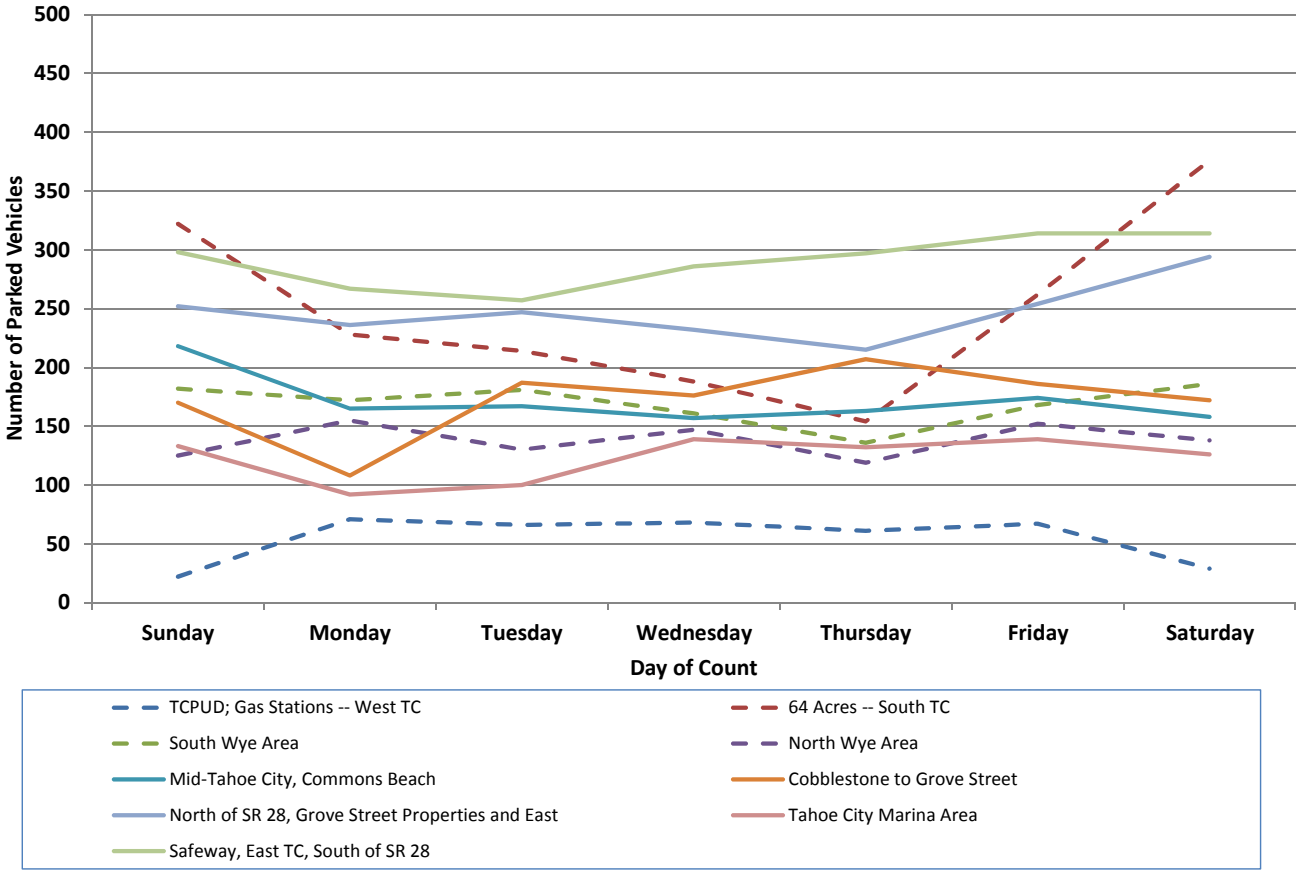
The utilization by day of week peaked on Saturday, as shown in Table 5 and Figure 10 . owever, both Friday and Sunday counts were only 4 percent lower than on Saturday and parking on the remainder of the days was at least 83 percent of the Saturday parking count . his indicates a substantially more consistent parking demand pattern by day of week than occurs in Kings Beach . he Commons Beach and midtown (west of Grove Street) parking use was higher on Sunday, while the TCPUD and northern Wye area had the greatest parking use on Monday and the Tahoe City Marina area had the highest use on Friday. The shortage in public lots is confined to the weekends, with maximum utilization on other days of the week not exceeding 68 percent .

Table 5: *Tahoe City Estimated Parking Utilization by Parking District and Day of Week (Excluding Residential Properties)*

District	Description	Total Parking Spaces	Number of Spaces Occupied in 2 PM Hour							Maximum Spaces Occupied	Supply Minus Demand	Maximum Percent Utilization
			Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday			
1	TCPUD	117	22	71	66	68	61	67	29	71	46	61%
2	64 Acres and S of Truckee River	362	322	228	214	188	154	262	376	376	-14	104%
3	South Wye Area	223	182	172	181	161	136	168	186	186	37	83%
4	North Wye Area	241	125	155	130	147	119	152	138	155	86	64%
5	Commons Beach Area - both sides of SR 28	300	218	165	167	157	163	174	158	218	82	73%
6	Mid Tahoe City to Grove Street	220	170	108	187	176	207	186	172	207	13	94%
7	North of SR 28, Grove Street Parking and East	454	252	236	247	232	215	254	294	294	160	65%
8	TC Marina Area	189	133	92	100	139	132	139	126	139	50	74%
9	Safeway and Boatworks Area	480	298	267	257	286	297	314	314	314	166	65%
TOTAL STUDY AREA		2,586	1,722	1,494	1,549	1,554	1,484	1,716	1,793	1,793	793	69%
Percent of Peak Day			96%	83%	86%	87%	83%	96%	100%			
Percent Utilization												
1	TCPUD		19%	61%	56%	58%	52%	57%	25%			
2	64 Acres and S of Truckee River		89%	63%	59%	52%	43%	72%	104%			
3	South Wye Area		82%	77%	81%	72%	61%	75%	83%			
4	North Wye Area		52%	64%	54%	61%	49%	63%	57%			
5	Commons Beach Area - both sides of SR 28		73%	55%	56%	52%	54%	58%	53%			
6	Mid Tahoe City to Grove Street		77%	49%	85%	80%	94%	85%	78%			
7	North of SR 28, Grove Street Parking and East		56%	52%	54%	51%	47%	56%	65%			
8	TC Marina Area		70%	49%	53%	74%	70%	74%	67%			
9	Safeway and Boatworks Area		62%	56%	54%	60%	62%	65%	65%			
TOTAL STUDY AREA			67%	58%	60%	60%	57%	66%	69%			
Percent Total Study Area Utilization by Type of Parking												
	Public Lot - Districts 1-4		85%	58%	54%	48%	36%	66%	98%			
	Public Lot - Districts 5-9		84%	66%	59%	53%	56%	68%	94%			
	Public Right-Of-Way		78%	65%	73%	67%	68%	80%	55%			
	Total Public		83%	62%	61%	56%	51%	71%	83%			
	Private		59%	56%	59%	62%	60%	64%	63%			

Source: LSC counts conducted July 12 - July 18, 2014 .

Figure 10: *Tahoe City Parking Count at Peak Time by Day of Week*



Parking Duration and Turnover

An important factor in parking planning for a commercial center is the turnover of parking space – the number of times per day that a space is used by different drivers. A high turnover indicates use by customers (rather than employees) and helps to encourage retail spending . o gain insight into this factor, license plates were observed for the key segment of SR 28 between Grove Street and Mackinaw Road in Tahoe City . ach half hour between 8 AM and 4 PM on Sunday August 30th, 2014 (the Sunday of Labor Day Weekend), a LSC staffer walked along both sides of the street recording the last few characters of the license plates in each on-street space . hese license plate numbers were then compared to identify the number of half-hour observations each vehicle was parked in the area .

As summarized in Table 6, a total of 255 vehicles were observed to arrive and depart within the eight-hour survey period. An additional 75 vehicles were observed either in the first or last survey run (the large majority in the last survey run), and thus may have a longer stay than observed . ocusing on the vehicles with stays fully within the survey period, the large majority (85 percent) were observed to stay less than the signed 2 hour maximum stay (e.g., were observed in one to four half-hour periods) and only 2 percent of vehicles were observed to stay more than 4 hours . o vehicles were observed to stay the full eight hours (all either were observed to arrive or to depart), and only 2 individual vehicles were observed to stay more than 5 hours . he average estimated length of stay was 1.1 hours. (A review of the additional vehicles observed in the first or last survey period shows a similar pattern, indicating that a longer survey period would not substantially change the results.)

An individual vehicle parked for a longer period "uses up" more parking capacity than does a vehicle parked for a shorter period . he number of vehicles were weighted by their length of stay to identify the proportion of total space use (as measured in vehicle-hours of parking) used by vehicles parked for longer period . his indicates that 41 percent of the total parking activity is generated by vehicles parked for greater than 2 hours, and 10 percent by vehicles parked for greater than 4 hours .

Table 6: *Observed Parking Turnover in Tahoe City*

SR 28 Between Grove Street and Mackinaw Street — *Sunday August 31, 2014 Between 8 AM and 4 PM*

		Total Stayed Within Survey Period (Not Observed in First or Last Survey Period)				Observed in First or Last Survey Period			
# of Observations	Average Length of Stay (Hours)	North Side	South Side	Total		North Side	South Side	Total	
1	0.25	60	25	85	33.3%	24	5	29	38.7%
2	0.75	41	23	64	25.1%	4	9	13	17.3%
3	1.25	24	21	45	17.6%	1	1	2	2.7%
4	1.75	17	6	23	9.0%	5	4	9	12.0%
5	2.25	11	7	18	7.1%	4	1	5	6.7%
6	2.75	5	1	6	2.4%	3	1	4	5.3%
7	3.25	2	3	5	2.0%	3	4	7	9.3%
8	3.75	2	1	3	1.2%	2	0	2	2.7%
9	4.25	3	1	4	1.6%	1	1	2	2.7%
10	4.75	0	0	0	0.0%	0	1	1	1.3%
11	5.25	0	1	1	0.4%	0	0	0	0.0%
12	5.75	0	0	0	0.0%	0	1	1	1.3%
13	6.25	0	0	0	0.0%	0	0	0	0.0%
14	6.75	1	0	1	0.4%	0	0	0	0.0%
15	7.25	0	0	0	0.0%	0	0	0	0.0%
16	7.75	0	0	0	0.0%	0	0	0	0.0%
Total		166	89	255	100%	47	28	75	29.4%

Average Length of Stay (Hours)	1.1	1.1	1.1
Percent Vehicles Exceeding 2 Hour Stay	14%	16%	15%
Percent Vehicles Exceeding 4 Hour Stay	2%	2%	2%
Percent of Space Use by Vehicles Exceeding 2 Hour Stay	41%	41%	41%
Percent of Space Availability Used by Vehicles Exceeding 4 Hour Stay	11%	9%	10%

Overall, this survey indicates that the proportion of total drivers parking in the area for longer-term purposes (such as employees) is quite small . owever, if trends shift and long-term parkers use up a greater capacity of available parking, additional parking for true short-term parkers (such as drivers stopping for lunch or to shop at only one or two stores) could be generated through stricter enforcement of the two-hour limit . his would, however, run the risk of impacting beachgoers, customers that are window shopping, and others making a day trip out of their visit to Tahoe City . herefore, a balance needs to be provided in order to provide adequate public parking for day trip visitors as well as encouraging parking turnover in order to allow for adequate parking for short-term parkers .

Transit Network

As a recreational/resort area with a limited roadway network, public transit services are important in expanding mobility capacity and improving environmental conditions . ransit is also important in providing mobility to residents, particularly seniors, persons with disabilities, and those with limited incomes . s discussed below, the region is served by a mix of public and private transit services . s shown in Table 7, these services carry on the order of 382,000 passenger-trips per year .

Tahoe Area Regional Transit

The Tahoe Area Regional Transit (TART) system is operated by the Placer County Department of Public Works . Programs serving Tahoe City are as follow:

- TART's "Main Line" route operates on State Routes 28 and 89 along the northern and western shores of Lake Tahoe from Sugar Pine Point State Park in El Dorado County on the southwest to Incline Village, Nevada on the northeast . uring the summer, half-hourly service is provided between Tahoe City and Incline Village, while hourly service is provided along the West Shore. During the winter and off-season, half-hourly service is provided between North Stateline and Incline Village and hourly service is provided for the remainder of the Main Line route .
- The Highway 89 Route provides hourly service between Tahoe City and Truckee, via Squaw Valley, year-round .
- The Complementary Paratransit Service is provided to persons eligible under the Americans With Disability Act that cannot access the fixed route service. It is provided for all portions of eastern Placer County, through a cab contractor .

Throughout the year, TART service operates approximately from 6:00 AM to 6:45 PM, seven days a week throughout the year . n addition to the services discussed above, a route along SR 267 is operated in the summer and winter seasons .

Table 7: *Summary of Existing Transit Programs Serving Tahoe City*

Route/Service	Type of Service	Service Area/Route	Season	Peak # of Buses in Operation	Vehicle-Hours of Service	Ridership (Annual 1-Way Passenger-Trips)
TART						
Mainline	Fixed Route	Tahoma to Hyatt	*All*	4	14,060	231,420
Highway 89	Fixed Route	Tahoe City to Truckee	*All*	2	8,015	82,500
Complementary Paratransit Svc .	On Demand	All TART Routes	*All*	--	161	501
TOTAL			Total Annual	12	25,966	314,421
North Lake Tahoe Express	Demand Response Airport Shuttle	Reno/Tahoe International Airport to North Tahoe Region	*All*	*6*	10,482	12,348
Night Rider	Fixed Route	West Shore, Squaw Valley, Northstar, Crystal Bay	*Winter*	*4*	3,248	34,147
			Summer	*4*	2,236	18,462
			Total Annual		5,084	49,609
Coordinated Skier Shuttle	Fixed Route	North Shore, West Shore, Incline Village	*Winter*	*2*	755	3,201

TRANSIT NETWORK

TART carries approximately 369,000 passenger-trips per year . he largest proportion is carried on the Mainline Route (231,000) followed by the Highway 89 Route .

In 2012, Placer County opened the Tahoe City Transit Center along SR 89 just to the south of the Truckee River . t provides an attractive hub for all TART routes, as well as for skier shuttles, and also provides park-and-ride parking . Other important stops in the Tahoe City area are located east of the Wye (near Mackinaw Road) as well as at the northeastern end of town . n April 2016, Placer County adopted the Tahoe Truckee Area Regional Transit Systems Plan update which provides the framework for expanding transit service and consolidating it with other transit services . his plan should encourage more ridership over the next 5 years at a minimum .

TART Systems Plan Update

Over the course of a decade, Placer County has delivered a level of transit improvement, service, and coordination in excess of the requirements that govern local public transit . lacer County continues to look for opportunities to enhance and expand transit services and has prepared an April 2016 update to the TART Systems Plan . he TART System Plan Update is a culmination of work conducted by the North Tahoe Transit Vision Coalition from 2012 through 2016. The plan identifies priority transit improvements and reasonably foreseeable funding sources, including local, State, Federal and private funding to make transit improvements within the “Resort Triangle” of the North Lake Tahoe area .

Other Transit Services

North Lake Tahoe Express

The North Lake Tahoe Express provides service between the Reno Tahoe International Airport and the North/West Shores of Lake Tahoe . ervice is available year-round, from roughly 3:30 AM to 11:30 PM . hree routes are operated: a Red Line serving Truckee, Squaw Valley, Tahoe City and the West Shore, a Green Line serving Truckee and Northstar, and a Blue Line serving Incline Village and Kings Beach/Tahoe Vista . ase fare is $45 one way or $85 round trip, with discounts for groups . n Fiscal Year 2012/13, the service carried approximately 12,384 passenger-trips per year .

Night Rider

TART operates Night Rider which provides free night transit during the summer and winter seasons . he service connects Squaw Valley, the West Shore, the North Shore and Northstar . ervice is provided after regular TART service operations end on summer and winter evenings and runs every hour, as late as 2:00 AM .

Ski Area Shuttle Services

In the 2012-13 ski season, a skier shuttle program was initiated through the North Lake Tahoe Resort Association that consisted of five buses operating on three routes (excluding an Incline Village – Northstar route). It currently consists of two buses providing direct, timed connections between Incline Village, the North Shore, Tahoe City, Squaw Valley/Alpine Meadows and Homewood .

Pedestrian and Bicycle Network

Existing Facilities

The Tahoe City Public Utility District (TCPUD) operates a series of multipurpose recreational trails along the Truckee River between Tahoe City and Squaw Valley, along the West Shore between Tahoe City and Sugar Pine Point State Park (with several sections of Class III signed route along low-volume residential streets and a missing 0.9-mile section planned for completion in Summer of 2016), and along the North Shore from Tahoe City to Dollar Hill . hese facilities total 16.2 miles in length . he Lakeside Trail provides a multiuse facility along the lake shore between Commons Beach on the southwest and the State Recreation Area on the northeast (where it connects with the North Shore Trail) . n addition, there are sidewalks along both sides of State Route 28 for the 0.7 mile segment between the Tahoe City Wye and the State Recreation Area . he location of marked crosswalks on SR 28 and the distance from the previous crosswalk are currently as follows (from west to east):

- Tahoe City Wye traffic signal
- Just west of Commons Beach Road (730 feet)
- Just east of main Cobblestone Center driveway (650 feet)
- Just west of Big Tree Center driveway (400 feet)
- Just west of Grove Street (370 feet)
- Just east of Jackpine Street (650 feet)
- Just east of eastern Lighthouse Center driveway (640 feet)

The only two marked crosswalks on SR 89 are at the Wye traffic signal and at the south end of Fanny Bridge, 420 feet to the south . he crosswalks are planned for improvement as part of the Community Revitalization Project .

Table 8: *TCPUD 2014 Bicycle and Pedestrian Counts in Tahoe City*

Facility	Number of Users		User Type		Percent Visitor	Percent That Would Have Used Car if not for Trail
	Peak Hour	Daily (1)	Ped/Runner	Bike		
North Shore Trail	94	722	42%	58%	58%	67 .0%
Lakeside Trail	231	1601	77%	23%	58%	67 .0%
Truckee River Trail	245	1489	12%	88%	68%	49 .0%
West Shore Trail	69	453	18%	82%	42%	37 .0%
64 Acres Bike Path	139	1006	21%	79%	58%	55 .0%
Overall	695	5271	41%	59%	58%	56 .0%

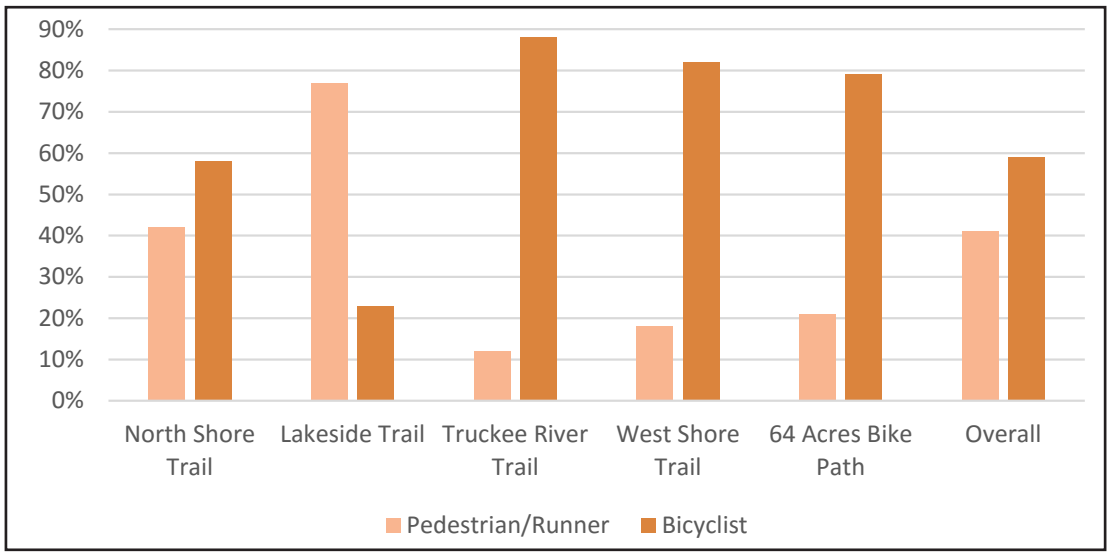
Source: TCPUD
Note 1: 7 AM to 7 PM . Counts conducted in peak August 2014 conditions .

TCPUD Trail Use Data

A summary of trail activity and trail user data collected in 2014 for the TCPUD facilities is presented in Table 8 . he *Summer & Fall 2015 Data Collection Report* prepared for TRPA/TMPO (http://www.tahoempo.org/documents/monitoring/2014%20Monitoring%20Report_final_posted.pdf) also includes information regarding bicycle and pedestrian counts at the Fanny Bridge/SR 89 crossing . his data indicates the following:

- On a daily basis, the busiest trail is the Lakeside Trail, with 1,601 total users over a 12-hour day, followed closely by the Truckee River Trail with 1,489 . n the busiest hour of the day, the Truckee River Trail (245 users) has slightly more volume than the Lakeside Trail (231) .
- User types vary substantially between facilities . n one hand, 77 percent of users of the Lakeside Trail are walking or running, while 23 percent are cycling . n the other hand, only 12 percent of Truckee River Trail users are walking or running, with 88 percent cycling .
- Overall, 58 percent of TCPUD trail users indicate that they are visitors to the area, while 42 percent indicate they are full-time or part-time residents . his proportion of users that are visitors is highest on the Truckee River Trail (68 percent) and lowest on the West Shore Trail (42 percent) .
- 56 percent of trail users indicated that they would have driven to complete their trip if they were not using the trail. This reflects the traffic reduction benefit of the trail system.
- Overall, 35 percent of trail users indicated that they drove to their trail starting point . A light majority of these (53 percent) said that they "did so out of safety concerns or that biking/walking along the road is not enjoyable." These results point to the potential additional traffic reduction that could be generated by expansion/completion of the regional trail network and roadway improvements .
- At the Fanny Bridge/SR 89 crossing, the average hourly volume of pedestrians and bicyclists is 44.25 for the PM peak period and 169.75 on the weekend . ompared to other count locations in the Lake Tahoe region, the crossing had the highest weekend total average hourly volume of pedestrians and bicyclists .

Figure 11: *TCPUD 2014 Percentage of Bicycle and Pedestrian Users on Tahoe City Trails*



Source: TCPUD
Note: 1: 7 AM to 7 PM . ounts conducted in peak August 2014 conditions.

Grove Street/SR 28 Pedestrian Activity Data

Another useful data set regarding pedestrian activity and its impact on traffic operations is a series of counts/observations conducted in August 2003 by LSC for the NLTRA . he focus of these counts was to assess the cause of eastbound traffic delays generated by the SR 28/Grove Street intersections. These counts, conducted both on a busy Friday and a busy Sunday, are shown in Table 9, and indicate the following:

- During the busiest time (Friday afternoon), groups of pedestrians at the crosswalk just west of Grove Street resulted in 75 breaks in the eastbound traffic stream over the course of the hour. At an average stop time of 7.2 seconds (for the lead car), this resulted in eastbound traffic stopped for 15 percent of the total peak hour.
- Conversely, downstream traffic conditions (east of Grove Street) precluded traffic from proceeding eastbound through the Grove Street intersection only once during the Friday peak hour and three times during the Sunday peak hour, indicating that overall capacity increases east of Grove Street .
- There were other sources of traffic delays for eastbound traffic, most notably east-bound drivers that courteously yield the right-of-way to drivers attempting to turn onto the state highway from Grove Street . owever, of the total delays to eastbound traffic, fully 85 percent is due to the pedestrian crossing activity.

Table 9: *Pedestrian Conditions/Impacts on SR 28/Grove Street Intersection*

	8/15/2003 Friday 3:15 - 4:15 PM	8/17/2003 Sunday 12:45 - 1:45 PM
# Pedestrian Groups Crossing SR 28 West of Grove St	75	64
# Times Downstream Traffic Queues Blocked Eastbound SR 28 Traffic Movements at Grove Street	1	3
Percent of Total Hour Eastbound 28 Blocked by Pedestrians	15%	12%
Percent of Total Eastbound 28 Delays Generated by Pedestrians	85%	86%

Source: LSC counts conducted for the NLTRA .

Caltrans Pedestrian/Bicycle Activity Data

On Tuesday, July 31, 2012, Caltrans staff ollected pedestrian and bicycle activity data for the section of SR 28 between Grove Street and Any Mountain Sports approximately 500 feet to the southwest . ounts were conducted in 15 minute increments between 10:00 AM and 2:00 PM . able 10 presents the counts for the busiest hour of overall activity (1:00 PM to 2:00 PM) . s shown, a total of 271 pedestrians were observed crossing the state highway in this hour . f these, 84 percent (226) were observed at the Grove Street crosswalk, 10 percent were observed crossing in the segment between Any Mountain Sports and the Big Tree Center, and 6 percent were observed crossing in the segment between the Big Tree Center and just southwest of the Grove Street crosswalk . Note that this count was conducted prior to the striping of the crosswalk at Big Tree Center, approximately 400 feet southwest of Grove Street) . his data also indicates overall pedestrian travel patterns at the Grove Street crosswalk: pedestrians crossing southbound tend to distribute relatively evenly once they reach the sidewalk on the south side of the highway, while pedestrians crossing northbound predominantly either turn left to head westbound or proceed northbound along Grove Street. This reflects the lack of commercial street frontage to the east of this intersection on the north side of SR 28 and the presence of public parking along Grove Street .

Table 10: *Caltrans 2012 Bicycle and Pedestrian Counts*

1:00 PM to 2:00 PM, Tuesday July 31, 2012	
Marked Crosswalk at Grove Street	
Northbound Pedestrians	
Turning Left at North End	60
Proceeding Straight at North End	41
Turning Right at North End	3
Total	104
Southbound Pedestrians	
Turning Left at South End	52
Proceeding Straight at South End	27
Turning Right at South End	43
Total	122
Bicyclists in Bike Lanes	
Westbound	14
Eastbound	50
Pedestrians Crossing 28 Between Any Mtn Sports and Big Tree Center	
Northbound	21
Southbound	7
Pedestrians Crossing 28 Between Big Tree Center and Fuller Building	
Northbound	15
Southbound	2
Total Pedestrians Crossing 28 Between Any Mtn Sports and Grove Street	
Northbound	140
Southbound	131
Total	271
SOURCE: Caltrans	

Collision Data

Safety is an important consideration in mobility planning. To provide a context for this, the Statewide Integrated Traffic Records System (SWITRS) was reviewed for the most recent available five year period during the existing conditions analysis (2009 through 2013). This database reflects all traffic collisions reported to all law enforcement officials, including California Highway Patrol and Placer County Sheriff's Department. Table 11 presents a summary of all accidents by general location. While this is not intended to be a full safety audit, the information does provide a general overview of traffic safety trends and factors in the study area. A review of this data indicates the following:

- Over the five year period, a total of 96 collisions were reported in the area, or an average of 19.2 per year. Of these, none resulted in a fatality, 29 resulted in one or more injury, and 67 resulted only in property damage. Over the 29 injury collisions, a total of 42 persons were injured.
- A total of 8 collisions were reported that involved a bicyclist, 5 that involved a pedestrian, and 83 that did not involve a pedestrian or bicyclist. This equates to 1.6 bicycle collisions and 1.0 pedestrians collisions per year, on average.
- The majority of collisions occurred during relatively good conditions: 78 percent occurred when roadways were dry (versus 18 percent in snowy/icy conditions and 4 percent in wet conditions), and 83 percent occurred during daylight conditions (versus 13 percent during darkness and 3 percent during dusk/dawn.
- Three locations stand out as the site of the highest number of collisions: (1) the SR 28/SR 89 Wye intersection where a total of 14 collisions (including 3 that resulted in injuries) were reported in the area without 300 feet to the west or east and 200 feet to the south, (2) the section of SR 28 within 200 feet either side of Commons Beach Road with 14 collisions (4 with injuries) and (3) the section of SR 28 within 150 feet of Grove Street with 12 collisions (2 with injuries).

Table 12 provides additional details about the 13 reported collisions involving pedestrians or bicyclists. In total, five pedestrians and nine bicyclists reported injuries. All of the five pedestrian incidents represented a pedestrian hit by a motor vehicle. Of the eight collisions involving bicyclists, five involved a motor vehicle, two consisted of the cyclist hitting a fixed object, and one involved a cyclist overturning. 11 of the 13 collisions occurred during dry roadway conditions, and 10 during daylight conditions. By location, these collisions were relatively evenly spread across the study area. The only location with two collisions in close proximity is on SR 28 approximately 300 feet east of the Wye (where three eastbound lanes merge into one near Swigards Hardware angled parking) with two collisions.

Table 11: *Tahoe City Traffic Collisions*
2009 Through 2013

				# of Collisions by Severity					Vehicle Type			Road Conditions			Lighting			
	State Highway	Cross Street	Feet From Intersection	Total	Injury	Fatality	Property Damage Only	# Persons Injured	Vehicles Only	Ped	Bike	Dry	Wet	Snowy/ Icy	Daylight	Dusk/ Dawn	Dark - No Streetlights	Dark- Streetlight
<< EASTBOUND <<	SR 28	SR 89	0-300 N,E 0-200 S	14	3	0	11	3	11	2	1	12	0	2	12	0	1	1
	SR 28	MacinawDr	0-200	7	2	0	5	4	7	0	0	4	1	2	6	0	0	1
	SR 28	Commons Beach	0-200	14	4	0	10	5	11	1	2	11	0	3	12	0	0	2
	SR 28	Cobblestone Xing	0-250	4	0	0	4	0	4	0	0	3	1	0	4	0	0	0
	SR 28	Big Tree Center Xing	0-250	8	4	0	4	4	6	0	2	6	1	1	7	0	0	1
	SR 28	Grove St	0-150	12	2	0	10	2	11	1	0	9	1	2	8	1	0	3
	SR 28	Jackpine St	0-200	6	3	0	3	3	5	0	1	6	0	0	6	0	0	0
	SR 28	Center Safeway Driveway	0-150	4	3	0	1	3	4	0	0	4	0	0	4	0	0	0
<< NORTHBOUND <<	SR 89	Granlibakken	0-300	8	2	0	6	2	7	0	1	6	0	2	7	0	1	0
	SR 89	Oliver Real Estate	0-50	1	0	0	1	0	1	0	0	1	0	0	1	0	0	0
	SR 89	64 Acres Drive	0-100	4	1	0	3	11	4	0	0	4	0	0	4	0	0	0
	SR 89	Tahoe Tavern Rd	0-205	3	3	0	0	3	1	1	1	1	0	2	3	0	0	0
	SR 89	Fanny Bridge Xing	0-50	1	0	0	1	0	1	0	0	0	0	1	0	0	0	1
	SR 89	Macinaw Dr	0-20	3	1	0	2	1	3	0	0	3	0	0	3	0	0	0
	SR 89	SR 28	300-500 West	1	0	0	1	0	1	0	0	1	0	0	1	0	0	0
	SR 89	Fairway	0-80	1	0	0	1	0	1	0	0	1	0	0	1	0	0	0
	SR 89	Caltrans Maintenance Drive	0-300	2	0	0	2	0	2	0	0	2	0	0	0	1	1	0
	SR 89	Lumberyard Dr	0-300	3	1	0	2	1	3	0	0	1	0	2	1	1	1	0
	Total			**96**	**29**	**0**	**67**	**42**	**83**	**5**	**8**	**75**	**4**	**17**	**80**	**3**	**4**	**9**
	Average Annual			**19.2**	**5.8**	**0.0**	**13.4**	**8.4**	**16.6**	**1.0**	**1.6**	**15.0**	**0.8**	**3.4**	**16.0**	**0.6**	**0.8**	**1.8**
	Percent of Total			100%	30%	0%	70%	--	86%	5%	8%	78%	4%	18%	83%	3%	4%	9%

Source: California Highway Patrol Statewide Integrated Traffic Records System (SWITRS)

Table 12: *Tahoe City Bicycle and Pedestrian Collisions 2009 Through 2013*

	Primary Road	Secondary Road	Feet From Intersection	Direction From Intersection	Date	Time	Weather	Side of Highway	Collision Type	Object/ Person Hit	Pedestrian Action	Road Surface	Lighting	Pedestrians		Bicyclists	
														Killed	Injured	Killed	Injured
<< EASTBOUND <<	SR 89	SR 28	0	--	7/10/2012	1:40 PM	Clear	W	Auto/Ped	Pedestrian	Not in Cross Walk	Dry	Daylight	0	1	0	0
	SR 28	SR 89	298	E	12/22/2012	5:35 PM	Snowing	E	Auto/Ped	Pedestrian	Not in Cross Walk	Snowy/Icy	Dark-Streetlights	0	1	0	0
	SR 28	SR 89	310	E	7/5/2012	3:10 PM	Clear	W	Overturned	Bike	--	Dry	Daylight	0	0	0	1
	SR 28	Commons Beach	0	--	7/28/2011	4:19 PM	Clear	E	Broadside	Bike	--	Dry	Daylight	0	0	0	1
	SR 28	Commons Beach	192	E	6/21/2010	3:56 PM	Clear	W	Rear-End/Auto/Ped	Pedestrian	In Road	Dry	Daylight	0	1	0	0
	SR 28	Commons Beach	1056	E	7/3/2010	12:15 PM	Clear	W	Sideswipe	Bike	--	Dry	Daylight	0	0	0	1
	SR 28	Grove St	528	W	8/3/2013	11:11 AM	Clear	--	Sideswipe	Bike	--	Dry	Daylight	0	0	0	1
	SR 28	Grove St	11	W	4/28/2012	9:20 PM	Clear	E	Auto/Ped	Pedestrian	In Cross Walk at Intersection	Dry	Dark-Streetlights	0	1	0	0
	SR 28	Jackpine	125	W	8/16/2009	3:20 PM	Clear	W	Broadside	Bike	--	Dry	Daylight	0	0	0	1
<< NORTHBOUND <<	SR 89	Granlibakken	285	N	7/1/2011	10:30 PM	Cloudy	--	Hit Object	Bike	--	Dry	Dark- No Street light	0	0	0	1
	SR 89	Mackinaw	806	S	1/11/2013	4:00 PM	Clear	S	Auto/Ped	Pedestrian	In Road	Snowy/Icy	Daylight	0	1	0	0
	SR 89	Mackinaw	737	S	8/1/2009	10:30 AM	Clear	S	Broadside	Bike	--	Dry	Daylight	0	0	0	1
	SR 89	SR 28	140	W	7/26/2009	5:35 PM	Clear	S	Hit Object	Bike	--	Dry	Daylight	0	0	0	1
												Total		**0**	**5**	**0**	**8**
												Average Annual		**0.00**	**1.00**	**0.00**	**1.60**

3

MOBILITY ALTERNATIVES AND COMMUNITY PREFERENCES

On-street parking slows traffic which improve the pedestrian environment, but the pavement markings need to be refreshed and parking needs to be limited to an appropriate distance from the crosswalk to increase sight distance at pedestrian crossings and driveways.

Bicyclists often ride against traffic due to the gap in the trail system and to the location of bicycle rental shops. Visitors tend to avoid crossing SR 28 in order to appropriately position themselves to ride to the Truckee River Trail on the west side of town.

Overview

This Chapter summarizes the mobility alternatives presented to the Tahoe City community and interested agencies and organization . The recommendations address three primary areas:

- Commercial core pedestrian circulation and parking
- Grove Street pedestrian crossing
- Lakeside Trail missing link between Commons Beach and Fanny Bridge

In addition to the alternatives and recommendations for the above three areas, the Mobility Plan supports the assessment and suggested mobility improvements described in the PBRSA which can be found at www.tahoempo.org/OnOurWay . or reference, below is a summary of the short-term, mid-term and long-term strategies presented in the PBRSA, a full list and description can be found in the PBRSA:

Short-Term Strategies

Pavement Markings and Warning Signs

- Refresh the pavement markings (crosswalks, bike lanes, centerline, edgeline, parking)
- Paint the curb in areas for future bump outs with red paint
- Replace the old pedestrian crossing warning signs with new signs
- Provide wayfinding signs for bicyclists using the future Dollar Creek Shared Use Trail to designate transition into Tahoe City

Collaboration, Education and Enforcement

- Consider pedestrian and bike connectivity as a part of the Community Revitalization Project from new roundabouts to Mackinaw Road
- Coordinate with Caltrans District 3 maintenance on pavement markings
- Enforce parking only in designated spots as it pertains to pedestrian crossing sight distance
- Assess the feasibility and funding for a Pedestrian Hybrid Beacon at Grove Street to attempt to decrease delays and spillback through Tahoe City and reduce the reliance on California Highway Patrol (CHP) for pedestrian movements during events and peak volume periods

Mid-Term Strategies

Improve Pedestrian Infrastructure: Sidewalks, Lighting, and Curb and Gutter

- Install curb bump outs at all pedestrian crossings along SR 28 (where right of way exists)
- Improve access points/driveways to businesses and provide pedestrian infrastructure from Fairway Drive to Mackinaw Road.
- Install median refuge islands to create East and West Gateways to Tahoe City .
- Pave connection from Class I Bike trail to Lighthouse development pedestrian crossing .
- Provide crosswalk/pedestrian lighting
- Enhance roadway lighting along the highway to improve pedestrian safety (dimming, low profile, pedestrian activated)

Long-Term Strategies

- Provide a bicycle connection from Commons Beach to Fanny Bridge
- Develop an access management plan for Tahoe City looking at ingress and egress to State Route 89 and 28 as well as considerations for connections through parking lots

Although the sidewalks have appealing pedestrian lighting, inadequate lighting exists to highlight crosswalks .

The Grove Street public parking area is conveniently located within the commercial area, but it has limited capacity.

The current parking layout in the commercial core is inefficient and has no designated pedestria areas for people to move from the parking areas to commercial destinations.

Background

The area of Tahoe City between the Cobblestone Center on the southwest and Grove Street on the northeast has a particularly strong concentration of land uses, including vibrant retail and restaurant commercial uses as well as recreation at Commons Beach . t is also particularly constrained between Lake Tahoe on the southeast and the Tahoe City Golf Course on the northwest . These factors combine to create an area of high pedestrian/motorist conflict and parking shortage. Public parking is limited to 43 spaces in the existing Grove Street lot and 48 spaces along the highway right-of way .

The commercial lots on the northwest side of SR 28 are developed as individual parcels and do not provide for circulation between the individual parcels for pedestrians, cyclists or motorists . lthough the area has nice views of the Golf Course and the forested ridgeline, it is an unattractive jumble of small parking areas, eroding pavement, garbage dumpsters and utility sheds . n addition to not taking advantage of this natural corridor for pedestrian and bicycle circulation, the lack of connections results in several circulation issues: motorists searching for parking spaces make U-turns on the state highway and continually enter and exit the roadway . dditionally, delivery trucks are forced to conduct loading/unloading activities in the center turn lane of SR 28 .

Since the 1992 Tahoe City Community Plan process, there has been a desire in the community to reorganize this area in a way that provides better mobility, improves economic vitality by expanding commercial and public space opportunities and takes better advantage of the natural areas behind the commercial buildings . The purchase of the Tahoe City Golf Course by a public consortium expands the opportunity to reconfigure the Golf Course to allow use for other functions, particularly in the key area between the end of the Grove Street lot and the Cobblestone Center .

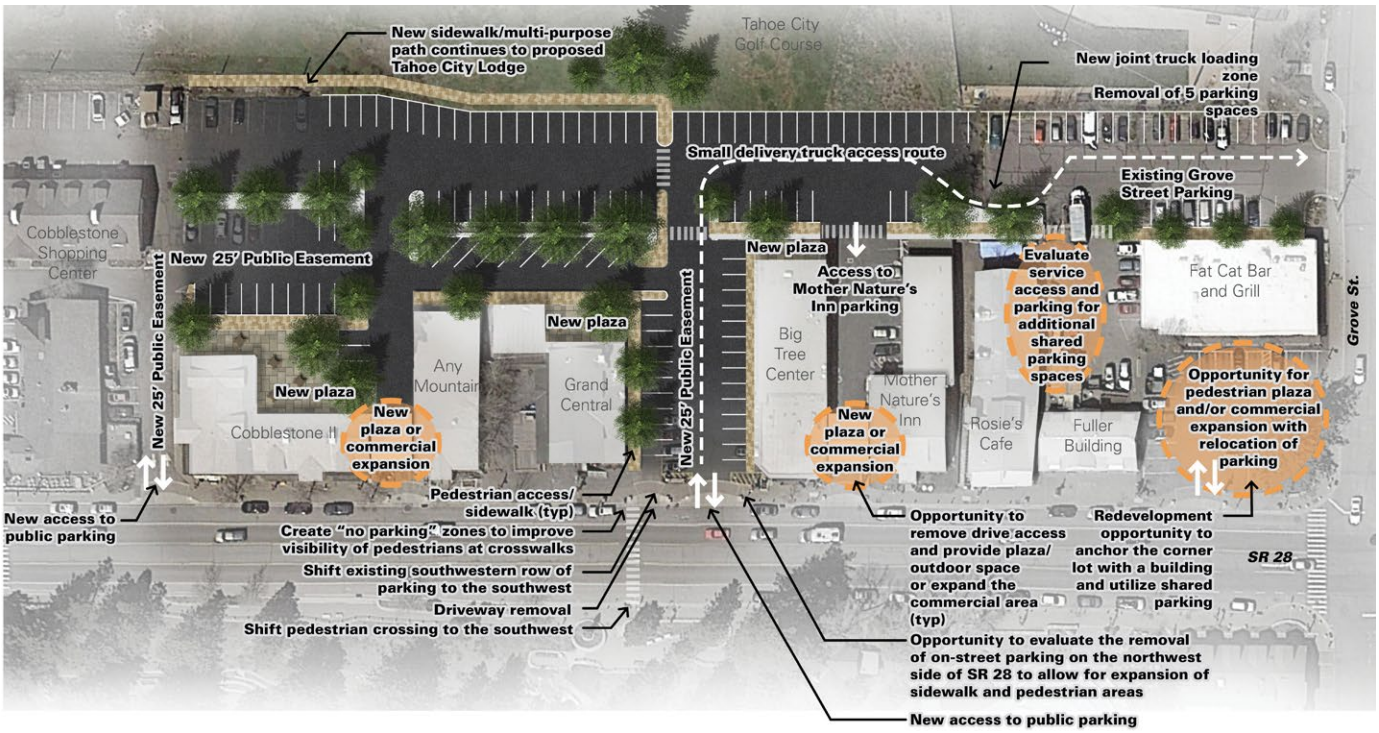
Existing commercial core parking area with individual parking lots and lack of pedestrian circulation.

Integrated Parking Enhancements

Figure 12 illustrates the recommendations for developing an integrated or shared parking strategy within the commercial core . ollowing is a summary of the improvements:

- Net increase of 68 parking spaces for a total of 113 off-street public parking spaces in the commercial core (35 existing spaces)
- Addition of small delivery truck access
- Addition of joint trucking loading zone
- Removal of three driveways along SR 28 and incorporation of commercial infill and public spaces
- Re-striping of on-street parking and potential removal of a few select on-street parking spaces to enhance visibility of pedestrians crossing the street and vehicles entering the highway
- Addition of three or more public plazas and sidewalk space
- Multi-purpose path from Grove street to Cobblestone shopping center with potential to continue to proposed Tahoe City Lodge
- Opportunity sites for additional public plaza space or commercial expansion, for enhancements to the corner lot (pedestrian plaza and/or commercial expansion with relocation of parking), and for evaluating on-street parking removal on the northwest side of SR 28 and expansion of sidewalk and pedestrian zone
- Create red-curb “no parking” zones at crosswalks to improve the visibility of pedestrians using the crosswalk
- The change in use to this section of existing golf course is consistent with the golf course deed restriction language being drafted by TCPUD

Figure 12: *Integrated Parking Recommendations*



COMMERCIAL CORE PEDESTRIAN CIRCULATION AND PARKING

The commercial core area is located between SR 28 on the lake side and the golf course on the mountain side.

The enhancements provide a second public access point to the public parking area by reconfiguring the area between the Grand Central building and Big Tree Center . t present, this area consists of a double-loaded perpendicular parking lot on the Big Tree Center property adjacent to a driveway on the northeast side of the Grand Central building. This inefficient use of overall spaces provides the opportunity to create a public easement of at least 25' width by moving the southwestern parking row onto the Grand Central property, while still providing adequate space for a sidewalk/pedestrian path along the Grand Central building between SR 28 and the parking area . ccess to the rear of the Grand Central property would be provided off f the public parking lot (much as the Fuller Building gains rear access off f the existing Grove Street lot today). A second public easement is provided between the Cobblestone Center and the Cobblestone II buildings .

The two public easements along with the extension of the Grove Street lot provide a path for smaller commercial vehicles (up to approximately a 30-foot truck, such as a food delivery truck) to circulate through this area and access a joint truck loading zone behind Rosie's Restaurant . Crculation aisles approximately 30 feet in width (wider than the current Placer County standard) would aide truck movements and reduce the potential for conflicts.

The plan recommends effectively "erasing" property lines through negotiations in order to fully reconfigure the parking areas and enhance pedestrian movement . he extended public lot is connected to other parking areas, including the Any Mountain (Porter Sports) property . he pedestrian network is extended along the back side of the existing buildings all the way from Cobblestone II to Grove Street, providing the opportunity to create a series of plazas for dining, sidewalk sales, etc. The reconfiguration not only increases the area's parking supply, but it also provides the opportunity to fill some of the existing highway access points with additional commercial uses or public spaces, providing a more cohesive window shopping environment .

Phasing

The improvements could be phased into three stages . tage One involves extending the existing Grove Street lot approximately 340 feet southwest on existing Golf Course property to where it runs into the Cobblestone Center property .

Stage Two reconfigures the area between the Grand Central building and Big Tree Center to provide the second public access and small truck route . ssociated walkways and streetscape improvements would be provided .

Stage Three provides the remaining connections and streetscape and public area improvements . he public access easement between the Cobblestone Center and Cobblestone II buildings would be created along with the series of plazas and/or commercial infill areas .

Community Support

Feedback gathered through the PDT, public workshops and online surveys shows support for moving forward with the Integrated Parking recommendations . ver 43 percent of respondents strongly supported the idea for a weighted average of 3.84 out of 5 . lacer County representatives and an area business representative have spoken informally with other area business owners . he conversations showed positive interest in moving the ideas forward . he Mobility Plan recommends implementing the Integrated Parking improvements .

Private parking areas within the commercial core are separated from one another and can increase the likelihood of motorists pulling off and on SR 28 in order to locate a parking space.

On a scale of 1-5, how do you rate your support of the concept of shared parking within the commercial core? (1-do not support; 5-strongly support)

Answered: 185 Skipped: 5

	Do Not Support (1)	2	3	4	Strongly Support (5)	Total	Weighted Average
Level of Support	**11.35%** 21	**4.86%** 9	**15.68%** 29	**24.86%** 46	**43.24%** 80	185	3.84

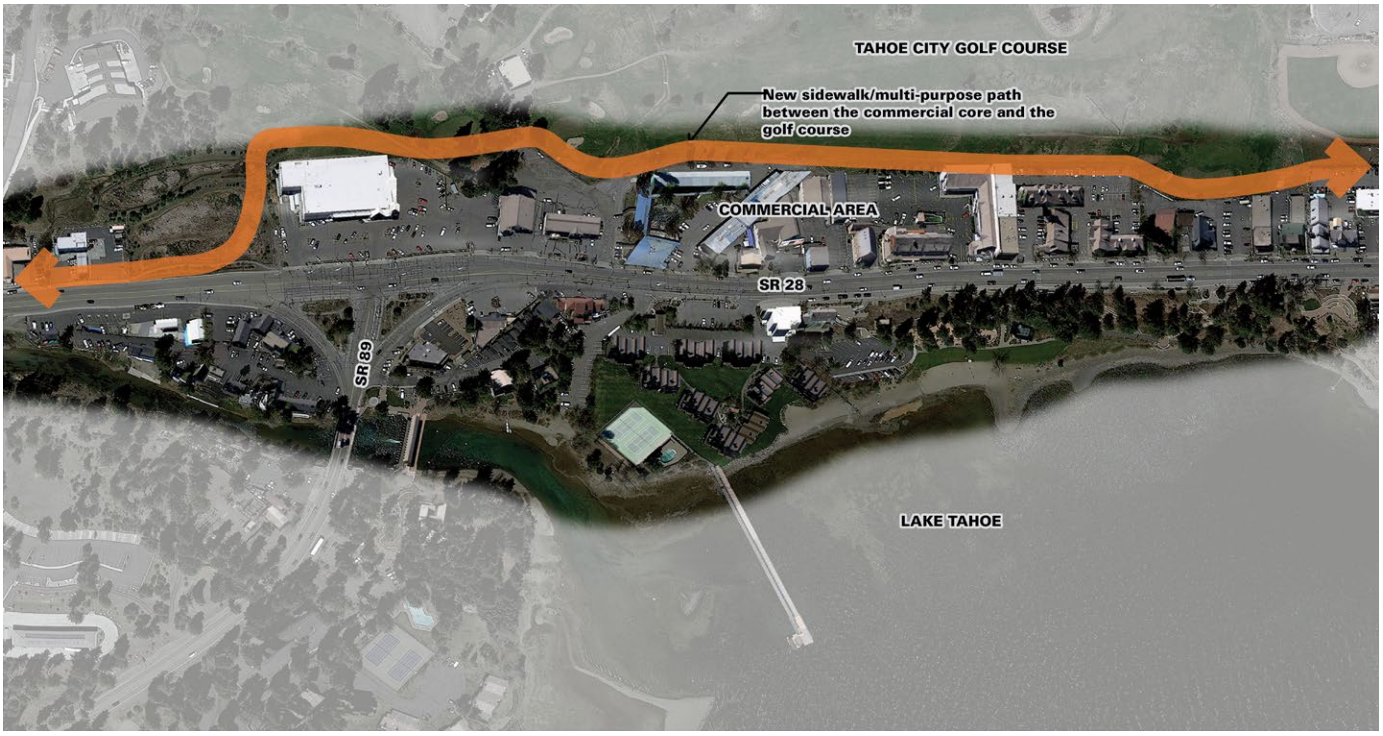
Trail Between Commercial Core and Golf Course

Community support and previous planning efforts, such as the Tahoe City Visioning Options, have identified the opportunity for providing pedestrian and bike connectivity between the commercial core businesses and the golf course . he Mobility Plan community outreach further investigated the level of support for the concept . espondents confirmed their endorsement and interest. Over 40 percent of respondents strongly supported the idea for a weighted average of 3.69 out of 5 in support .

Recommendations for the path connection include the following:

- Incorporate a pathway with the integrated parking improvements that connects pedestrians and bicyclists from Grove Street to Fairway Drive .
- Locate the pathway between the parking improvements and the golf course .
- Enhance the visual connection to golf in the community to highlight the recreation opportunity .
- Connect the pathway to clearly defined pedestrian connections from SR 28 through the commercial core to create a more walkable environment .
- Replace/improve nets along the golf course for safety .

Figure 13: *Potential Trail Alignment Between the Commercial Core and the Golf Course*



On a scale of 1-5, how do you rate your support of a trail between the commercial core and the golf course? (1-do not support; 5-strongly support)

Answered: 187 Skipped: 3

	Do Not Support (1)	2	3	4	Strongly Support (5)	Total	Weighted Average
Level of Support	11.76% 22	8.02% 15	19.79% 37	20.32% 38	40.11% 75	187	3.69

Grove Street Pedestrian Crossing

As described in Chapter 2, a high level of pedestrian crossing activity occurs at the Grove Street/SR 28 intersection . he volume of pedestrians also impacts congestion along the highway, particularly during the peak summer period. CHP provides traffic control during busy times. Their presence, however, can often hinder traffic flows as they regularly stop motorists for individual pedestrians instead of allowing for a group of pedestrians to gather before stopping traffic. There is also some concern about the impact on a visitor's experience when CHP has a visually predominant role in traffic management .

A previous study evaluated the appropriateness for a signalized intersection at the location in order to manage the pedestrian and vehicular traffic conflicts. Community feedback revealed that the residents did not feel that a signalized intersection with an overhead mast arm appropriately represented their community character .

Since the previous study was conducted, elsewhere in the state Caltrans has approved traffic control systems called Pedestrian Hybrid Beacons (PHB) (also known as a High-Intensity Activated Walkway (HAWK)) . dditionally, a PHB is approved for installation in similar circumstances along SR 89 at Camp Richardson near South Lake Tahoe . his opportunity to consider a PHB for the Grove Street intersection was evaluated in relationship to community support . Over 52 percent of respondents strongly supported a PHB at Grove Street for a weighted average of 4.03 out of 5 .

High volumes of pedestrian cross Grove Street at SR 28 in order to access Lake Tahoe and other commercial and recreation sites.

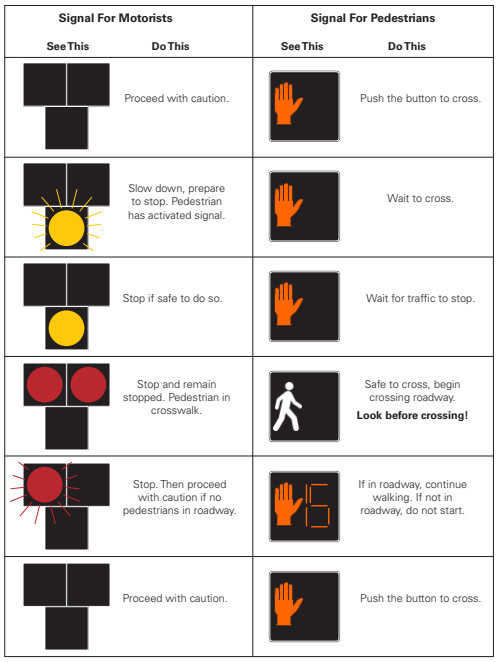


Diagram of PHB operation sequence.

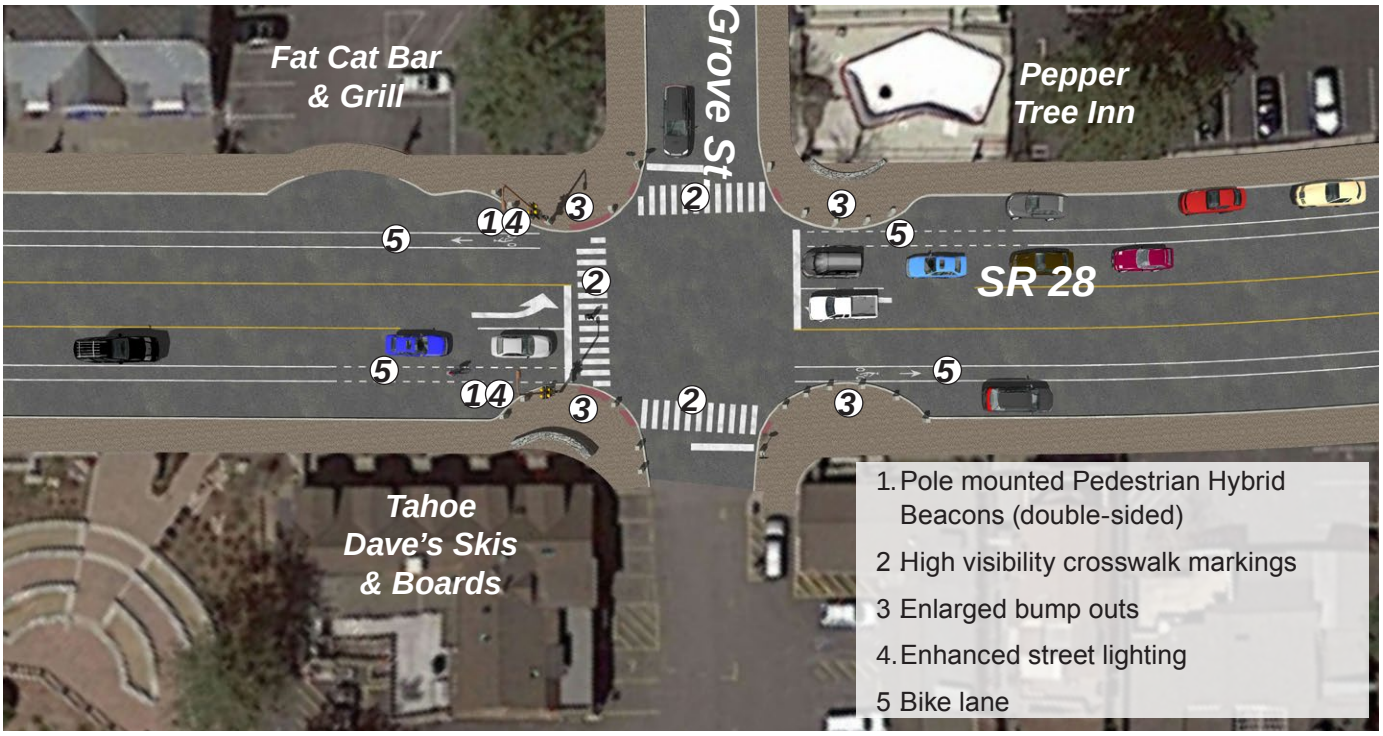
Pedestrian Hybrid Beacons

FHWA has included PHBs as part of their proven safety counter-measures for improved pedestrian safety while allowing for reduced traffic congestion. A PHB is a pedestrian-activated warning device located on the roadside or on mast arms over the roadway . wo red lenses are located above a single yellow lens for each beacon head .

The PHB's light sequence is as follows:

- The beacon is "dark" (no red or yellow lights are shown) until a pedestrian pushes the activation button; traffic moves freely if the crosswalk is clear
- When the system is activated drivers see a yellow flashing light and pedestrians see the *Do Not Cross* signal (Note: PHB activation considers both when a pedestrian pushes the button and the beacon's coordination with other traffic signal timing)
- Drivers see a solid yellow light while pedestrians continue to see the *Do Not Cross* signal
- Drivers see two solid red lights while the pedestrians see the *Walk* signal
- Drivers see flashing red lights and stop or proceed with caution if the crosswalk is clear while pedestrians see the countdown signal to indicate a *Do Not Cross* phase is approaching
- The beacon returns to a dark phase

Figure 14: *Bird's Eye View of Potential Grove Street Intersection Enhancements with Pedestrian Hybrid Beacon*



Enhancement Recommendations

Elements of the Pedestrian Hybrid Beacon improvement recommendations for the Grove Street/SR 28 intersection include the following:

- Incorporate a PHB on the southwestern leg of the Grove Street/SR 28 intersection . inal design of the indicator beacons will be determined in project design . he beacon on the southwestern curb should either be double-sided (facing east and west bound travel lanes) as shown in the image to the right, or it should be single-sided facing eastbound traffic and a separate beacon should be located on the northwestern curb that faces westbound traffic. (The former option is shown in the image below.)
- Use high visibility crosswalk markings for Grove Street crossings and the western leg of SR 28 .
- Enlarge the bump outs to improve sight distance of pedestrians crossing the highway while maintaining the bike lane .
- Provide two pole mounted PHBs on either side of SR 28 (an overhead mast is not required).
- Incorporate street lighting at the crossing to enhance visibility .

Example of a pole mounted PHB.

Existing Grove Street/SR 28 Intersection.

Figure 15: *Illustration of Potential Grove Street Intersection Enhancements with Pedestrian Hybrid Beacon*

Lakeside Trail Missing Link

Completing the Lakeside Trail often rises to the top of the community's list when discussing improving pedestrian and bicycle mobility in Tahoe City . he route through Tahoe City follows the water's edge and provides users spectacular lake views . t also links into a 122-mile Class I network that connects the North Shore, West Shore and the Truckee River and Squaw Valley .

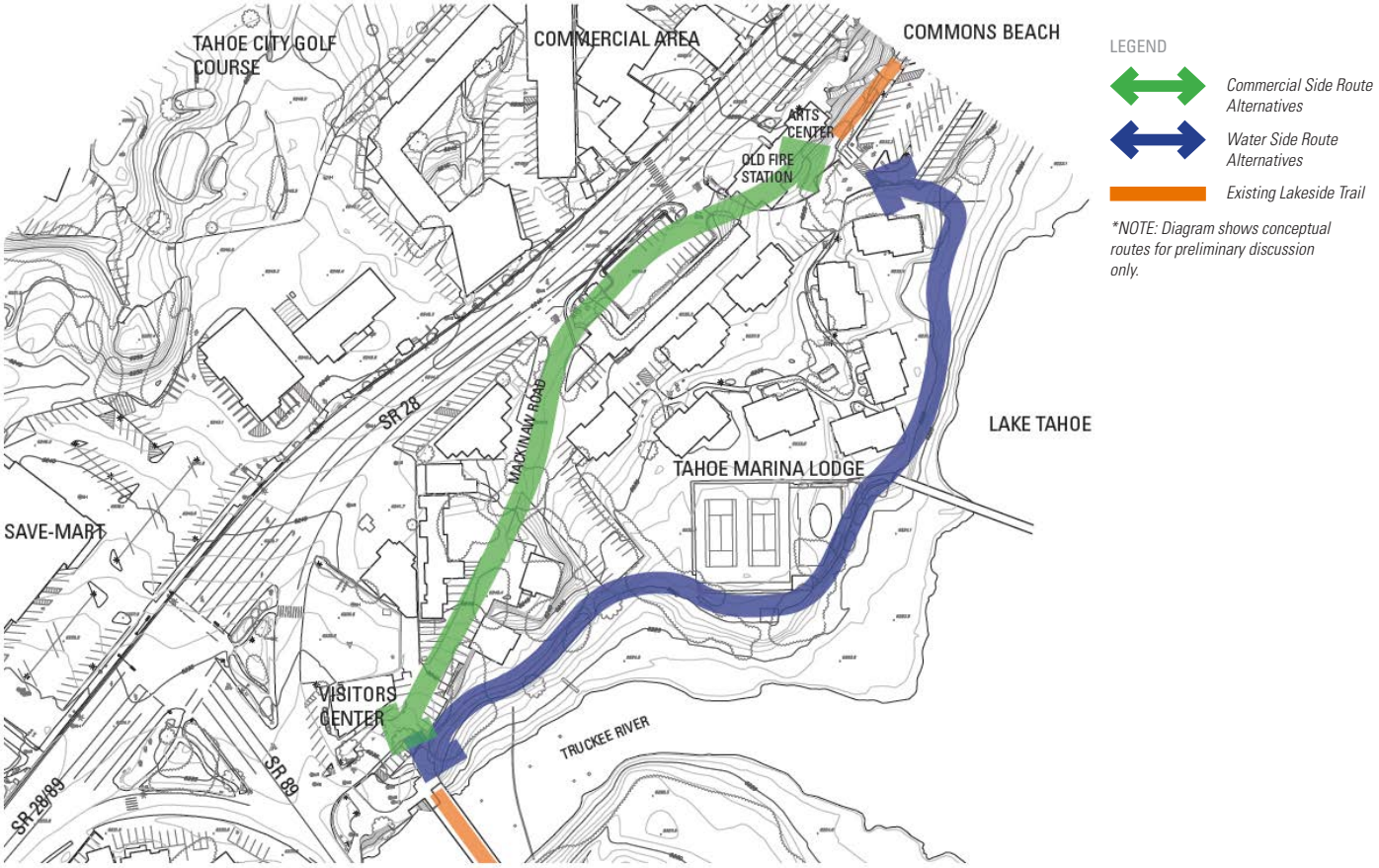
The gap in the system occurs between Commons Beach and Fanny Bridge . his missing link creates mobility issues as visiting trail users can not easily navigate through driveways, parking lots and roadways to find the next segment. Often bicyclists connect back to SR 28 and travel against traffic to reach the Truckee River portion of the trail system .

A number of different trail alternatives have been considered throughout the years, but the determination of where the route should be located has not yet been resolved .

The desired outcome of the Mobility Plan is to provide Placer County and other implementing agencies information regarding both the alternatives available and the community's support or desire for a preferred route . t is anticipated that either Placer County or another implementing agency would develop more detailed plans and studies to move the preferred alternative forward .

This section first describes the primary alternatives: Water Side or Commercial Side routes. The focus of this study is to recommend whether further evaluation should be continued for either a Water Side route or a Commercial Side route . A ariety of more detailed route alternatives for each of the primary trail locations are also presented for further information and consideration . A escription of the Water Side detailed route alternatives begins on page 49 and a description of the Commercial Side detailed route alternatives begins on page 53 .

Figure 16: *Primary Trail Location Alternatives*



Primary Trail Location Alternatives: Water Side Route or Commercial Side Route

The first question posed to the community and stakeholders regarding the trail alternatives is whether the project proponent should pursue a trail route that follows the shores of Lake Tahoe (the Water Side Route) or a route that is located closer to SR 28 (the Commercial Side Route). In addition to the location, one of the primary differences between the two alternatives is the known opposition to any Water Side Routes by the adjacent property owners . t is also recognized that any Commercial Side Route which impacts how Mackinaw Road functions is not desired by an adjacent business owner in that area .

Public workshop attendees and survey respondents were asked which of the two primary trail location alternative they preferred, a Water Side Route or a Commercial Side Route. Benefits and challenges for each route were provided for consideration .

Considerations for the Water Side Route

Benefits

- Scenic lake views and desirable user experience
- Utilizes existing trail segments
- Clear route of travel and connectivity to existing trail
- No loss of existing parking

Challenges

- Extensive permitting and environmental clearance with shorezone disturbance and visibility from the Lake
- Could require easement through private property (depending on final alignment)
- Property owner opposition

Considerations for the Commercial Side Route

Benefits

- Trail aligned mostly in public right of way or public lands and easements
- Provides more direct access to commercial retail
- Area aesthetics improved with the removal of the old fire station (which may happen independent of this project)

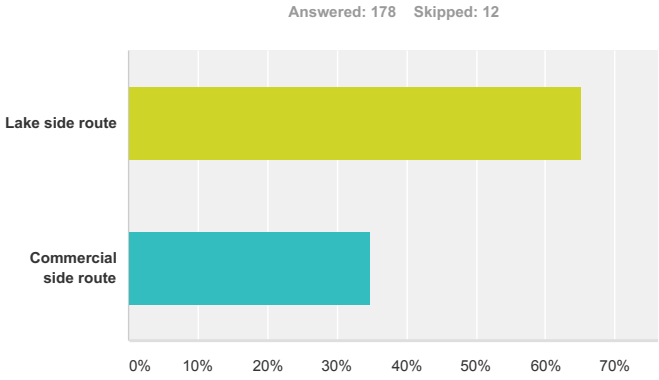
Challenges

- Requires removal of between 9-11 existing parking spaces
- Could require removal of the old fire station and could include relocation of the Tahoe City Community Center Building
- Includes sections of steeper grades and could include switchbacks
- Trail aligned next to the highway, reducing quality of experience
- Could require making Mackinaw Road a one-way street/shared roadway which is not supported by adjacent businesses
- Could require an easement through private property (depending on final alignment)
- Requires several driveway crossings

Community Support

Survey and workshop participants showed a strong preference for completing the Lakeside Trail by pursuing one of the Water Side Alternatives . ver 65 percent of respondents chose to support a Water Side Route to move forward in comparison to almost 35 percent who supported having a Commercial Side Route move forward .

Given the potential benefits and challenges for each, which primary trail location for the Lakeside Trail connection do you support moving forward?



Detailed Alternatives

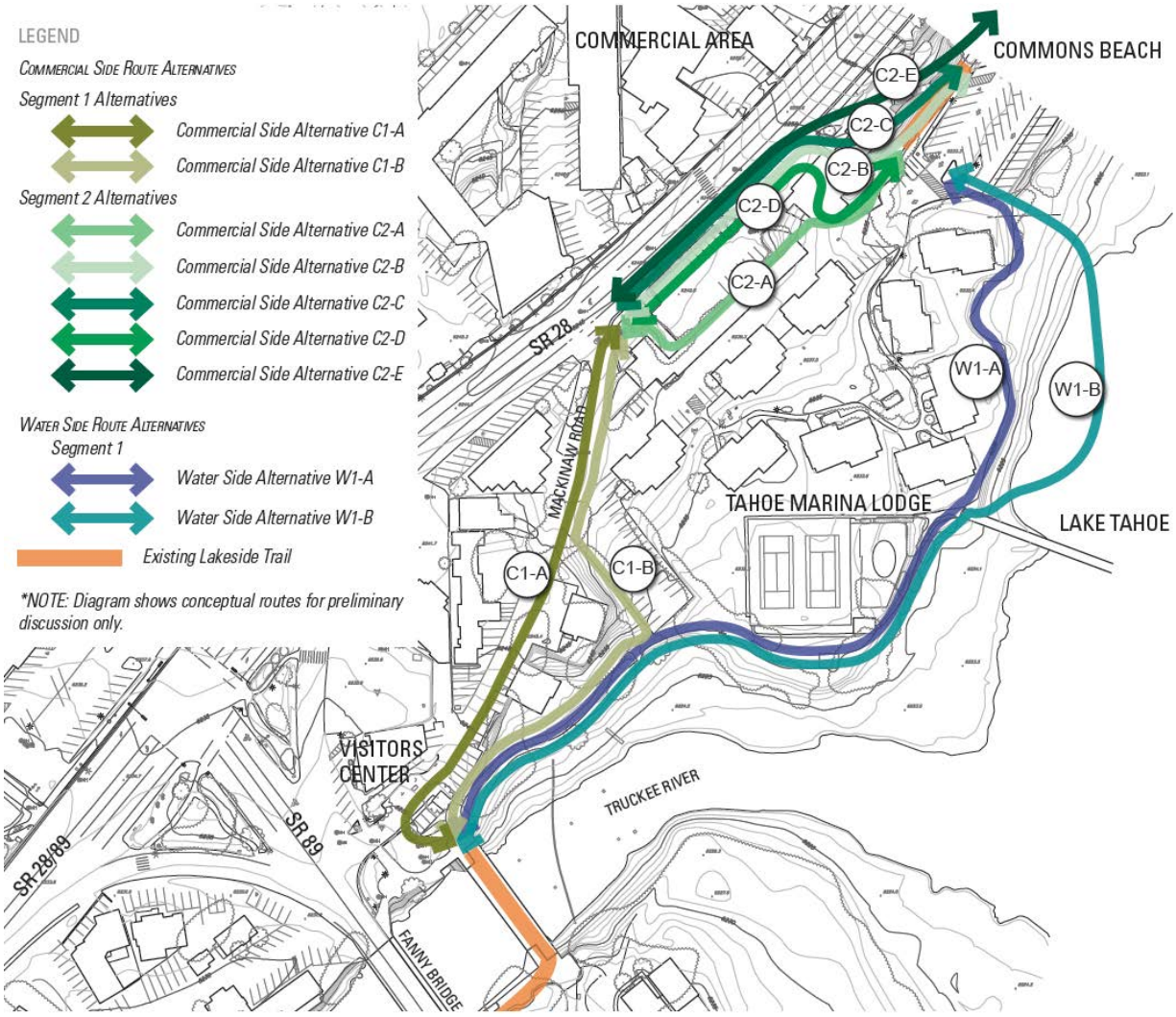
After respondents indicated the primary trail location they supported moving forward, participants were presented a series of more detailed alternatives for both the Water Side Route and the Commercial Side Route . Note that the Commercial Side Route is broken into two segments as described below.) Respondents were able to indicate their preference for one or none of the detailed alternatives for each of the routes .

The Water Side Route includes two detailed alternatives (W1-A and W1-B) .

The Commercial Side Route is broken into two segments according to common starting/stopping points . lternatives were developed for each of the segments. The first segment begins at the SR 89/Mackinaw intersection (Fanny Bridge) and continues to the SR 28/Mackinaw Road intersection . wo detailed alternatives are described for this location (C1-A and C1-B) . he second segment begins at the SR 28/Mackinaw Road intersection and continues to the Lakeside Trail at Commons Beach . ive detailed alternatives are described for this location (C2-A, C2-B, C2-C, C2-D and C2-E) .

This report makes a recommendation between the Water Side or Commercial Side Routes for further analysis, design and implementation. A recommendation between the more detailed alternatives is not specified. However, the evaluation presented in this report and the community feedback on the more detailed alternatives should be used as part of those future design studies .

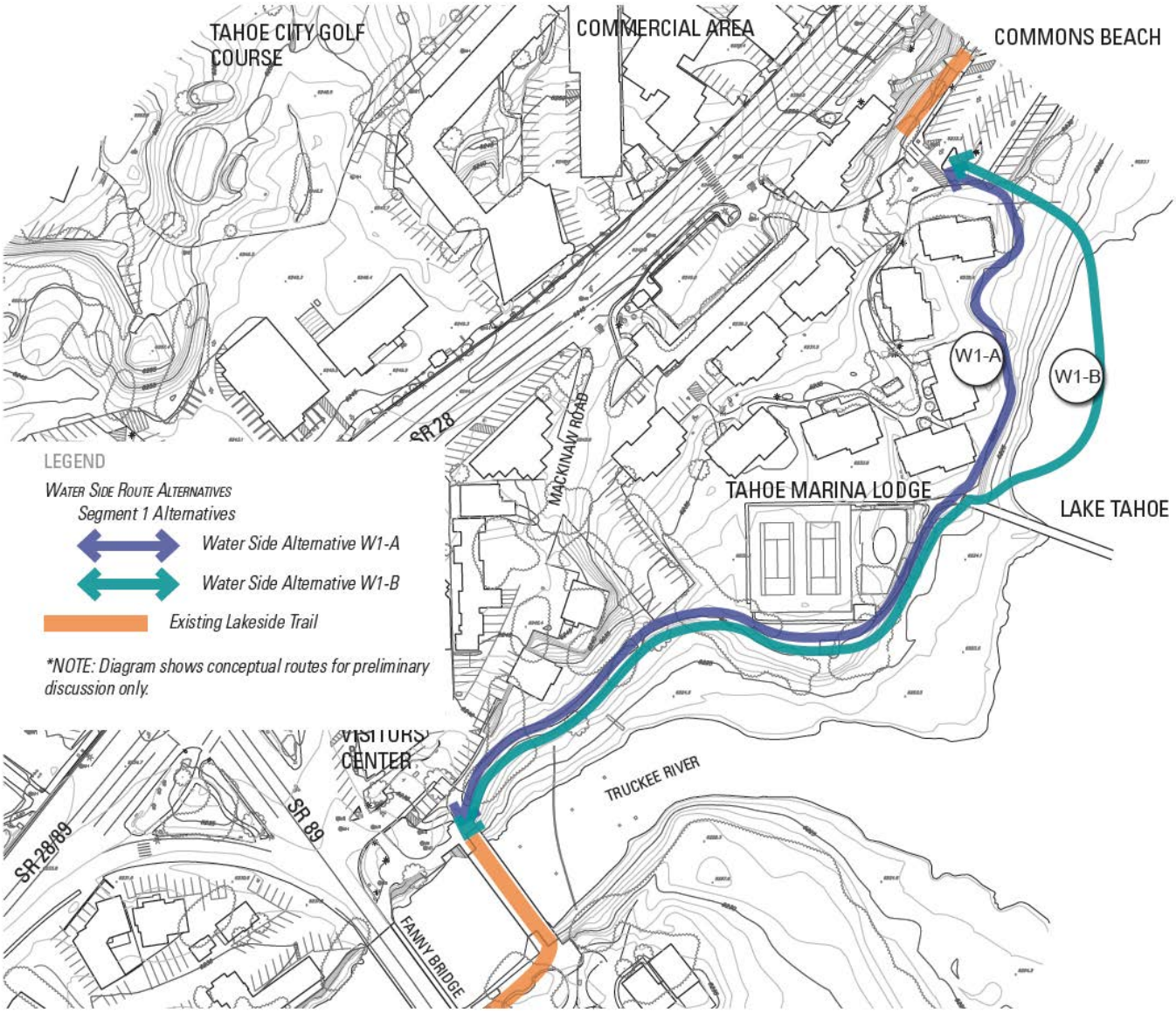
Figure 17: *Detailed Alternatives for the Water Side and Commercial Side Routes*



Water Side Route: Detailed Alternatives

The two detailed alternatives for the Water Side Route (W1-A and W1-B) are primarily differentiated by how they are aligned between the pier and Commons Beach . 1-A follows the shoreline and W1-B extends into Lake Tahoe as a boardwalk in order to avoid being located on private property .

Figure 18: *Detailed Alternatives for Water Side Route*



Beach area in front of Tahoe Marina Lodge.

Alternative W1-A: Trail Along the Beach

- From Fanny Bridge, the trail uses the existing Class I path to the parking lot south of Mackinaw
- The trail continues along the route of the existing 3' path to the existing pier through the Sierra Pacific parcel; the path is widened to 10' with additional retaining provided where needed
- The trail then heads north to Commons Beach along the edge of the beach in front of the Tahoe Marina Lodge
- A striped crosswalk connects the trail to the existing Lakeside Trail

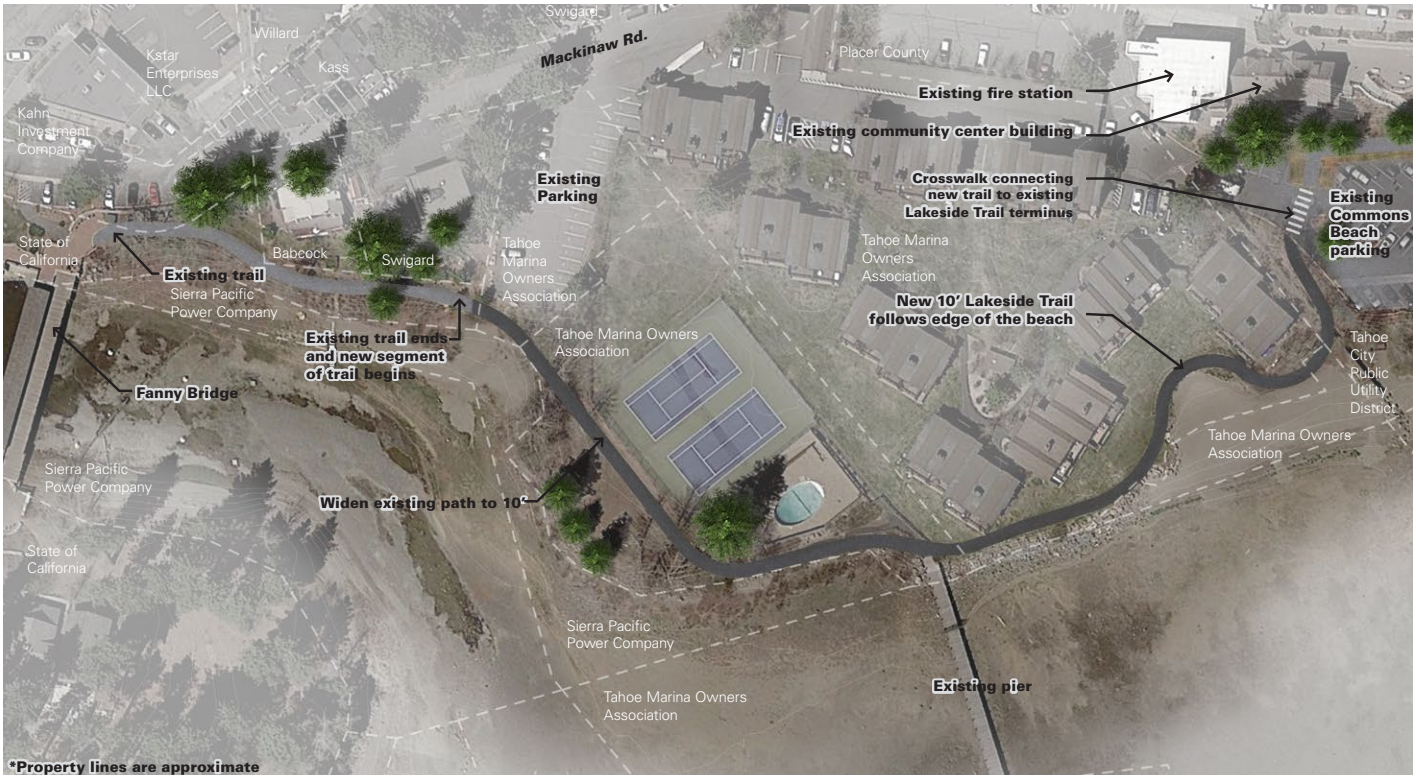
Benefits

- Potentially less disturbance to shorezone and fishery habitat
- Uses existing trails and easements where possible

Challenges

- Passes through private property with owners have opposed the project being located on the lake side

Figure 19: *Alternative W1-A: Trail Along the Beach*



Alternative W1-B: Boardwalk in the Lake

- From Fanny Bridge, the trail uses the existing Class I path to the parking lot south of Mackinaw
- The trail continues along the route of the existing 3' path to the existing pier through the Sierra Pacific parcel; the path is widened to 10' with additional retaining provided where needed
- The trail then heads north to Commons Beach through the water as an elevated boardwalk in the public trust area (between the high water (6229.1 feet) and low water elevations (6223.0 feet))
- A striped crosswalk connects the trail to the existing Lakeside Trail

Benefits

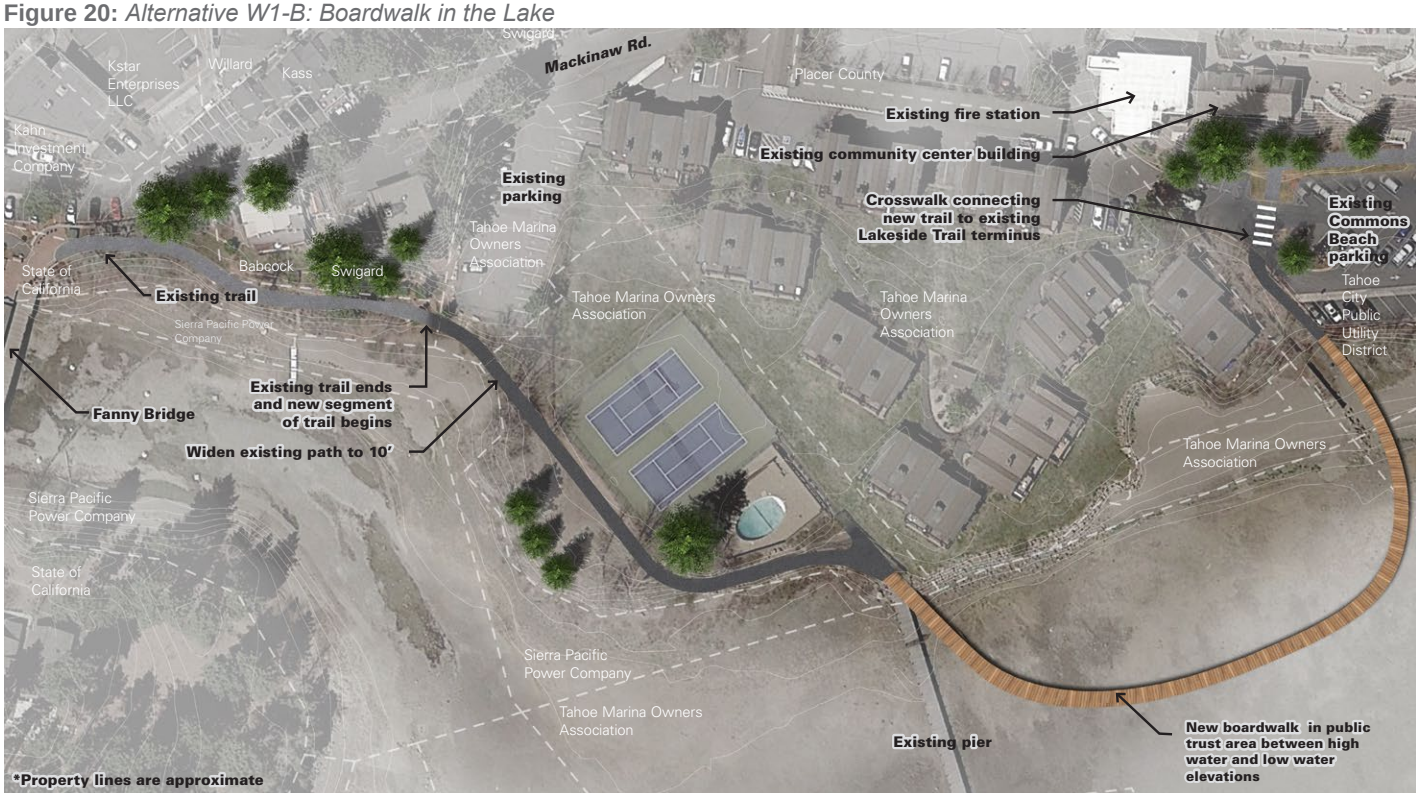
- Provides greater physical separation from private property areas
- Uses existing trails and easements where possible

Challenges

- Extensive permitting considerations due to proximity and visibility from the Lake

Land between the high water and low water elevations is within the public trust and is a potential boardwalk location for the trail.

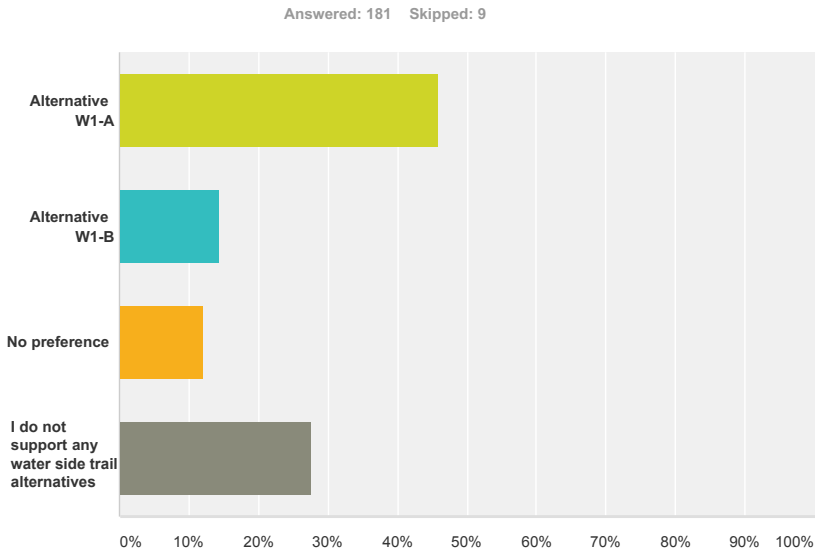
Figure 20: *Alternative W1-B: Boardwalk in the Lake*



Community Preference

Responses showed a preference for Alternative W1-A (47 percent) which consists of the trail alignment located directly along the edge of the lake shore (beach side option) . t should be noted that almost 30 percent of respondents indicated that they did not support any of the Water Side Alternatives .

Of the Water Side Route Alternatives which is your preferred route?



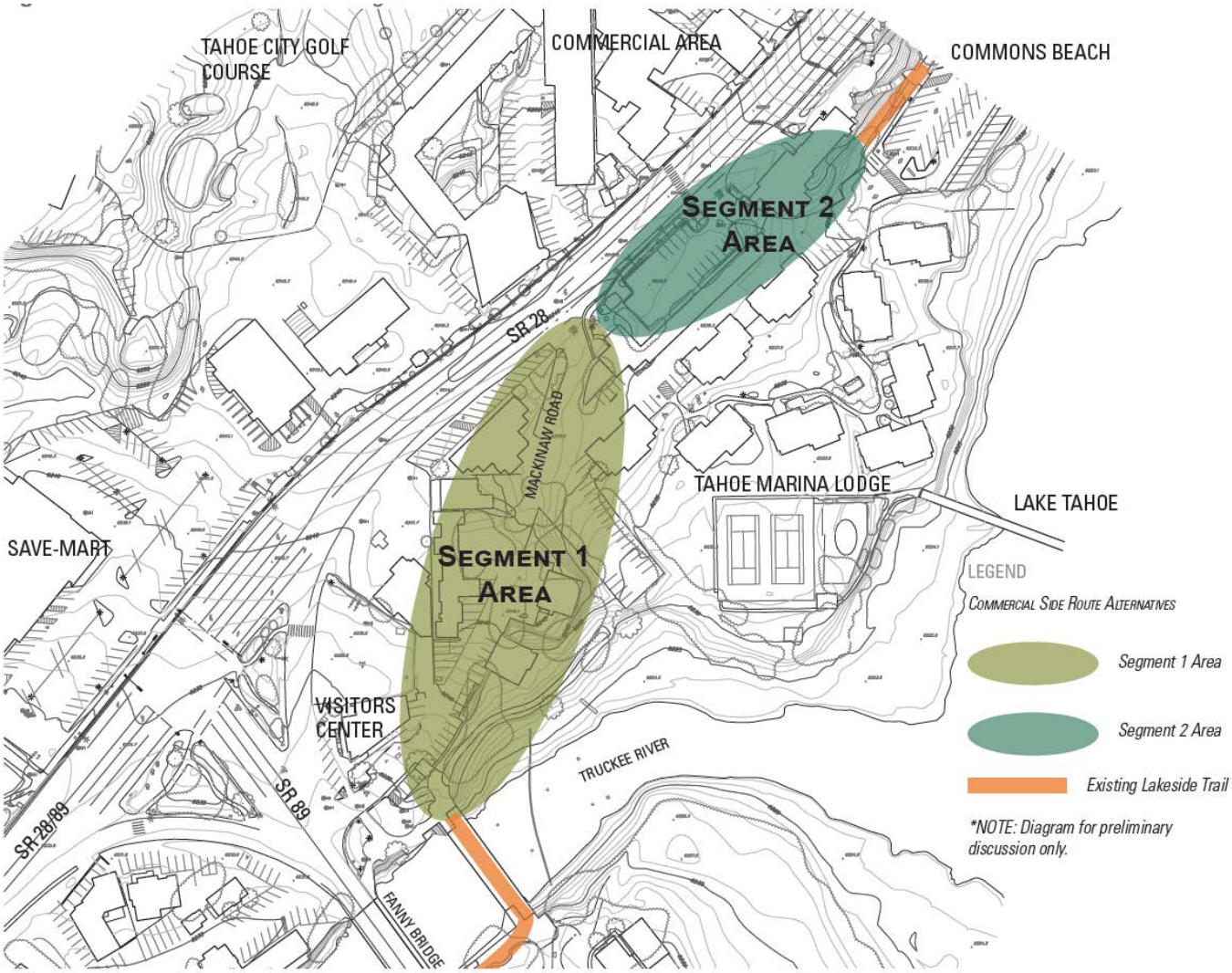
Commercial Side Route: Segment 1 and Segment 2

The Commercial Side Route is organized into two segments according to common starting/stopping points . he Segment 1 Area begins at the SR 89/Mackinaw intersection (Fanny Bridge) and continues to the SR 28/Mackinaw Road intersection . he Segment 2 Area begins at the SR 28/Mackinaw Road intersection and continues to the Lakeside Trail at Commons Beach .

Segment 1 has two alternatives and Segment 2 has five alternatives. Either of the Segment 1 alternatives can be combined with any of the Segment 2 alternatives in order to make the connection from Fanny Bridge to Commons Beach .

Participants were able to select their preferred alternative for each segment area .

Figure 21: *Commercial Side Route Segments*



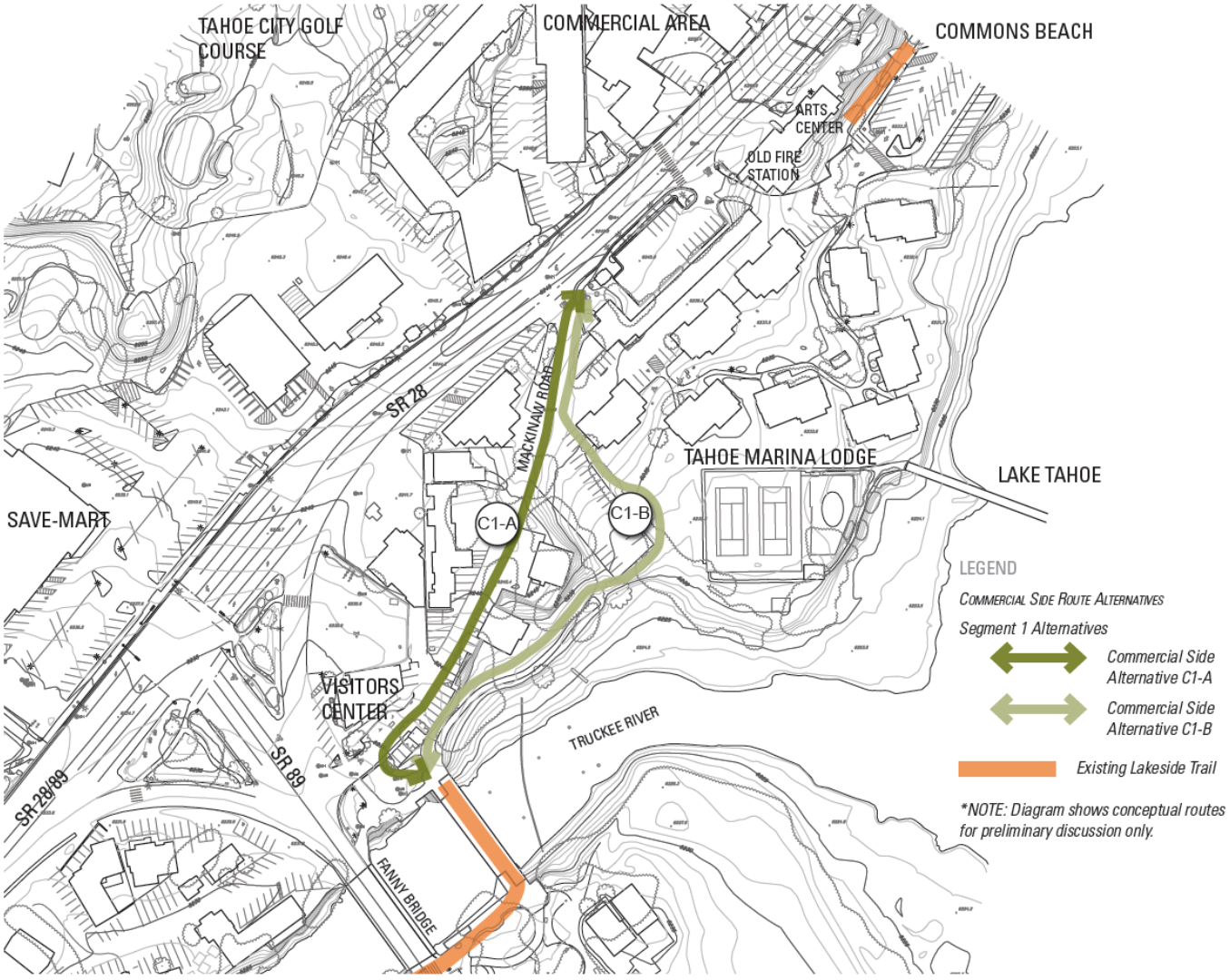
Mackinaw Road is a low volume street that provides an opportunity to have a shared environment between vehicles, pedestrians and bicyclists.

Commercial Side Route: Segment 1

Segment 1 begins at the SR 89/Mackinaw intersection (Fanny Bridge) and continues to the SR 28/Mackinaw Road intersection . Two detailed alternatives are described for this location (C1-A and C1-B).

The primary difference between the two alternatives is the conversion of Mackinaw Road into a one-way road . lternative C1-A converts Mackinaw Road into a one-way street . ortions of the trail are separated from vehicular traffic and other portions are part of the roadway in a “shared street” configuration. Alternative C1-B keeps Mackinaw Road as a two-way road but uses a short portion of it as a shared street .

Figure 22: *Commercial Side Route: Segment 1 Alternatives*



Alternative C1-A: Shared Street Along Mackinaw Road

- From Fanny Bridge, the trail connects to Mackinaw Road near SR 89
- Mackinaw Road is converted to a one-way road with access from SR 28 and exit onto SR 89
- Vehicular traffic is separated from the trail area along Mackinaw Road between the SR 89 intersection and the parallel on-street parking near Lake Tahoe Mortgage
- Trail users and vehicular traffic share the Mackinaw Road from the parallel parking area northeast to the Tahoe Marina Lodge parking drive access
- The bike/ped portion and "shared" portions of the street can be distinguished by signage, striping and an alternative paving material such as colored concrete, pavers, etc .

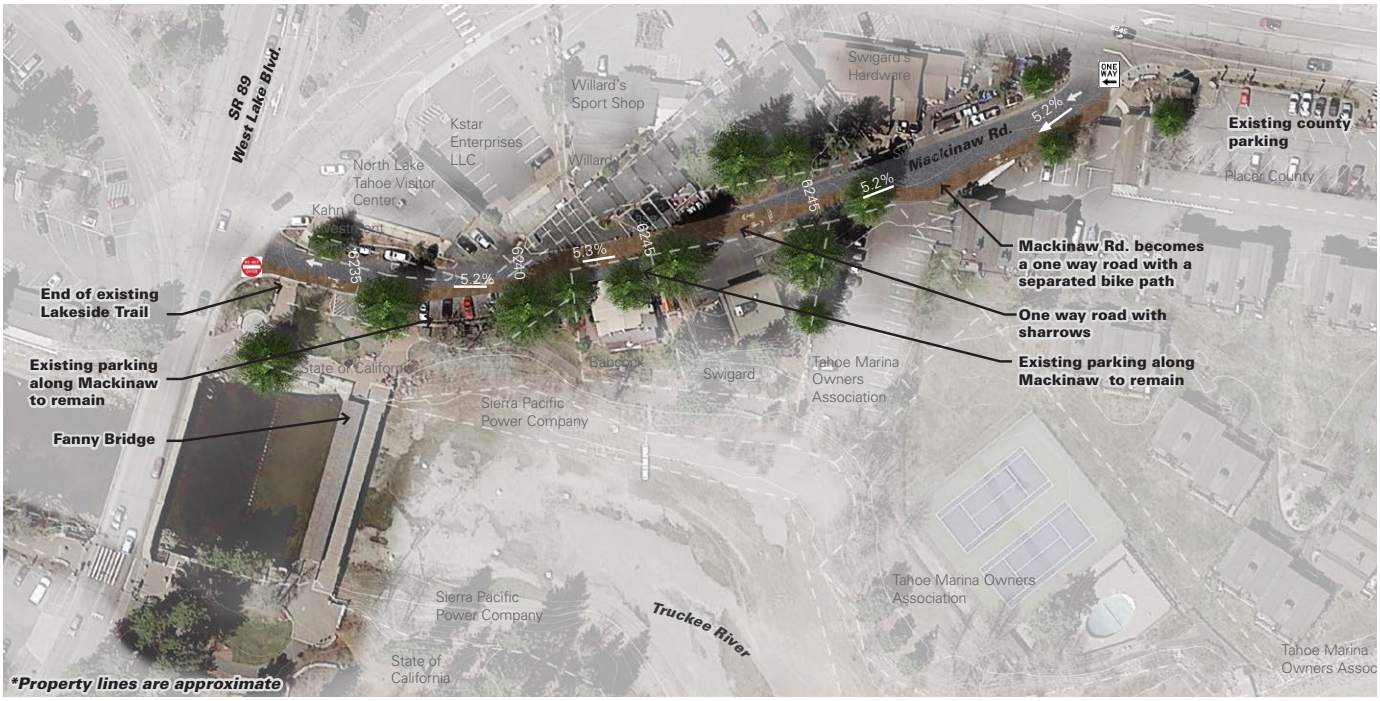
Benefits

- Utilizes existing public right of way
- Clarifies vehicular circulation patterns within the narrow road corridor
- Highlights the presence of the cyclist in the roadway

Challenges

- Loss of nine parking spaces
- Trail users interface with vehicles for entire route (roadway users and parked vehicles)
- Requires conversion of Mackinaw Road to a one-way street which may conflict with large delivery truck circulation needs
- A one-way street is not desired by some adjacent businesses
- Short section of roadway exceeds 5 percent
- Requires two (2) roadway surface crossings of Commons Beach Road and Mackinaw Road

Figure 23: *Alternative C1-A: Shared Street Along Mackinaw Road*



Alternative C1-B: South Mackinaw Parking Area Route

- From Fanny Bridge, the trail uses the existing Class I path to the parking lot south of Mackinaw
- The trail would head toward the north and continue along the eastern edge of the parking lot through Tahoe Marina Lodge property
- The main parking area would remain the same, but the three northern-most parking spaces would be removed for the trail alignment
- The trail would continue to the north along Mackinaw Road as a sharrows (or shared street)
- The bike/ped portion and “shared” portions of the street can be distinguished by signage, striping and an alternative paving material such as colored concrete, pavers, etc .

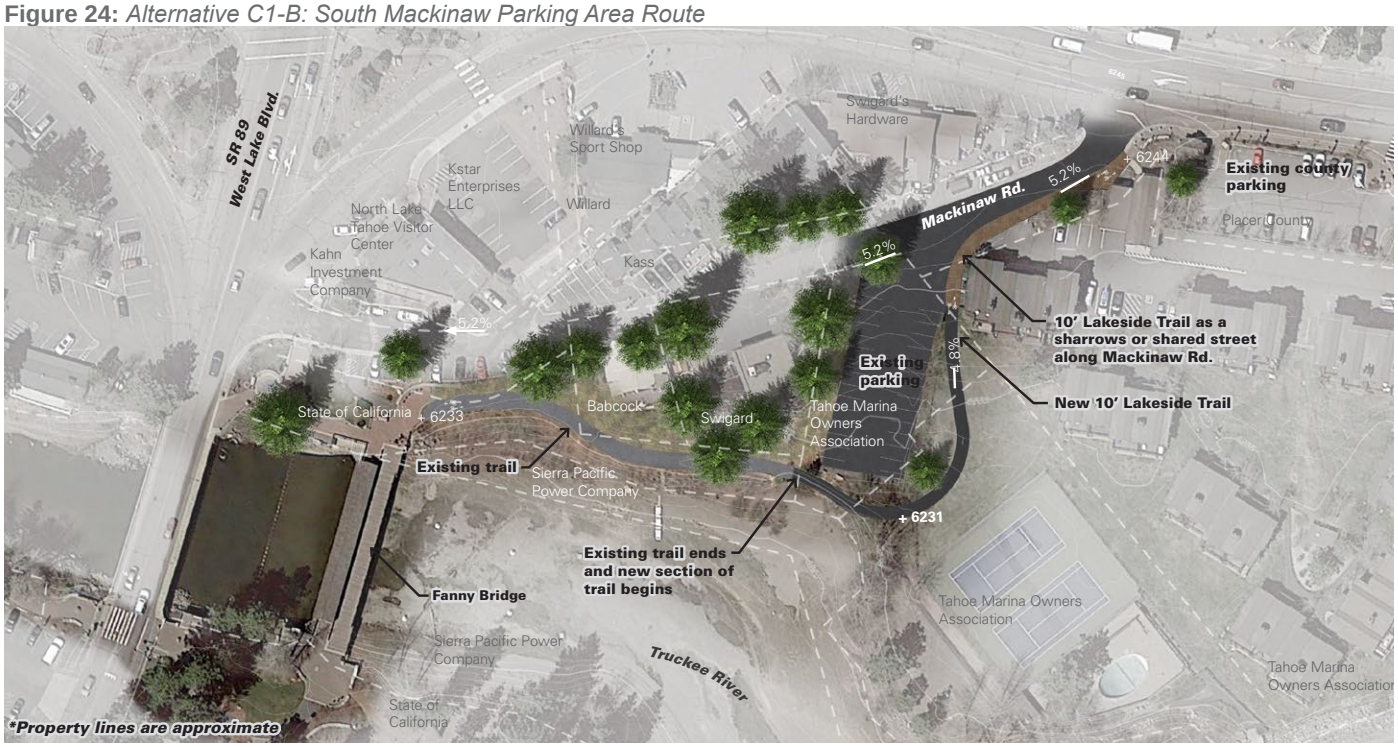
Benefits

- Utilizes an existing trail segment for a portion of the route
- Utilizes public right of way for a portion of the route
- Majority of the route is fully separated from the roadway
- Requires only one (1) roadway surface crossing at Commons Beach Road
- Does not require any vehicular circulation changes to Mackinaw Road

Challenges

- Loss of three (3) parking spaces
- Passes through private property

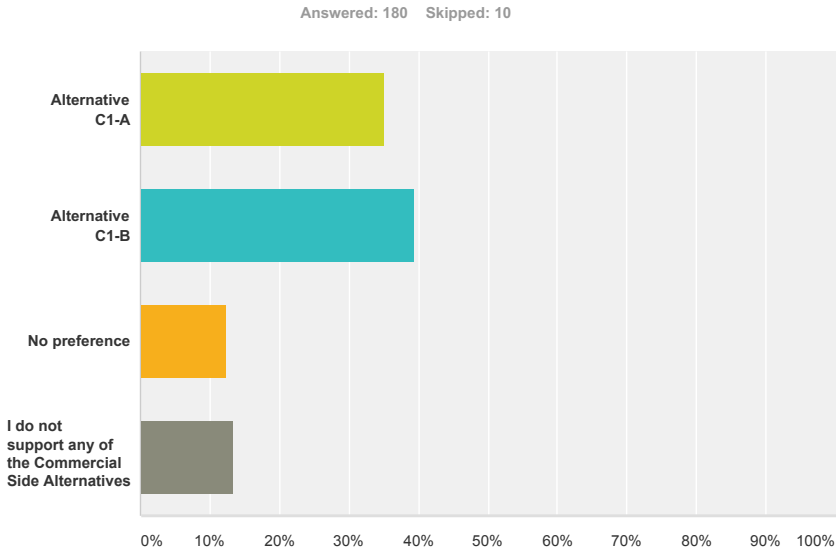
Figure 24: *Alternative C1-B: South Mackinaw Parking Area Route*



Community Preference

Survey respondents were fairly split between their preference for either C1-A and C1-B . 6 percent preferred C1-A (option along Mackinaw Road) while just slightly more respondents (40 percent) preferred C1-B (route utilizing existing pathway and aligned along existing parking lot) . t should be noted that 11 percent of respondents do not support any commercial side alternative .

Of the Commercial Side Route Alternatives for Segment 1 which is your preferred alternative?



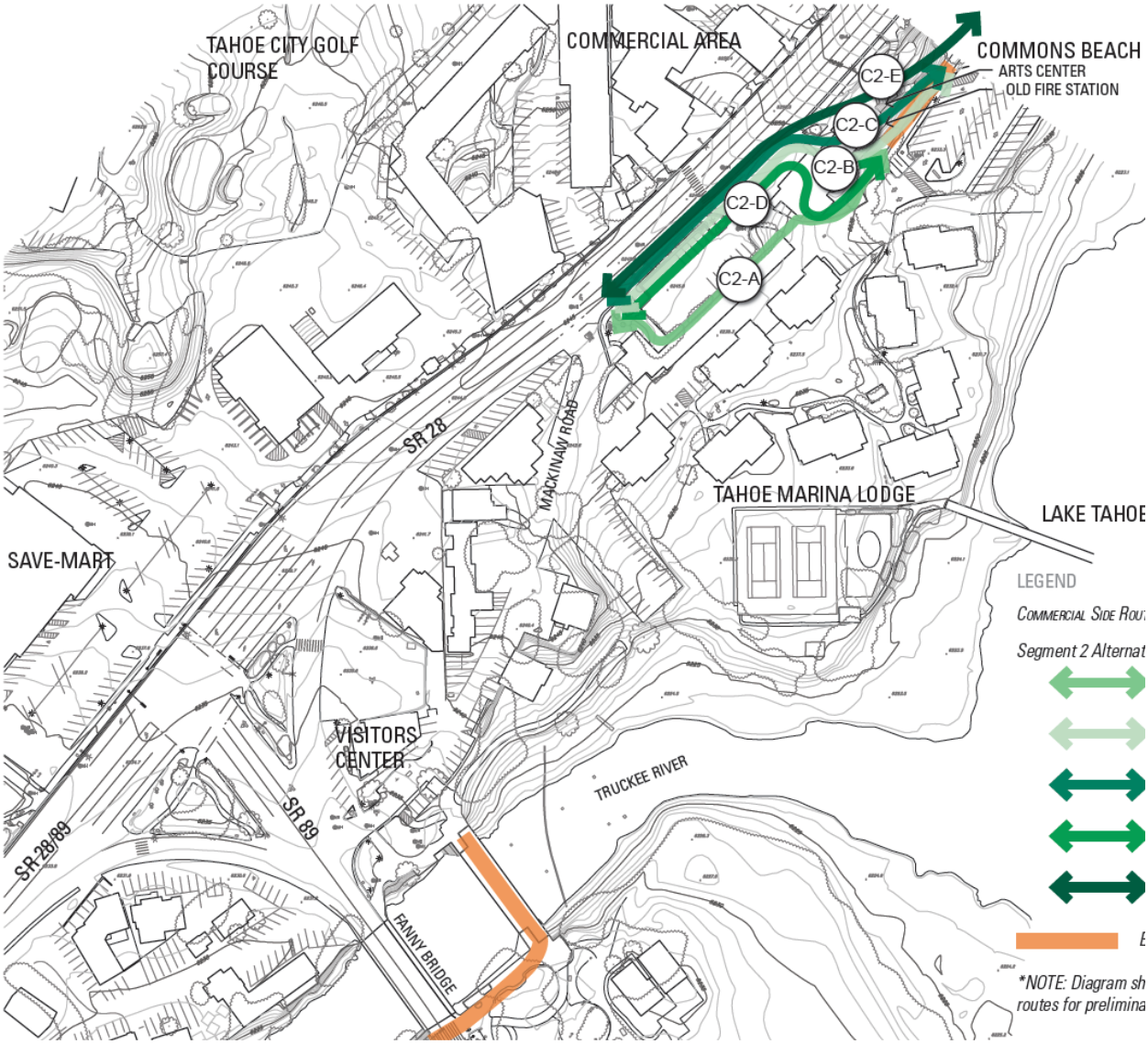
The old fire station and ahoe City Community Center sit at the street level of SR 28. The second set of Commercial Side Alternatives have options which remove or relocate one of both of the buildings in order to provide trail connectivity.

Commercial Side Route: Segment 2

Five alternatives were developed for Segment 2 of the Commercial Side Route (C2-A, C2-B, C2-C, C2-D and C2-E.) The alternatives extend from the SR 89/Mackinaw Road intersection to the existing trail at Commons Beach . A teep grade change exists between the parking lot and the existing trail. The old fire station and the Tahoe City Community Center, home to the North Tahoe Arts organization, front SR 28 and are located on the land between the parking lot and the existing Lakeside Trail .

The primary difference between each of the alternatives involves how they impact (removal or relocation) either one or both of the existing buildings . ecause any of the Segment 2 alternatives could use either of the trail layouts around the county public parking lot, the descriptions and considerations for each of the alternatives only address how the trail is aligned from Commons Beach Drive to the existing Lakeside Trail .

Figure 25: *Commercial Side Route: Segment 2 Alternatives*



Alternative C2-A: Shared Drive Access

- The driveway to Commons Beach is re-graded from 7 percent to 5 percent
- The trail shares the road with the driveway and connects to the existing terminus of the Lakeside Trail
- Symbols and green paint can be used on the driveway to highlight its shared use with trail users

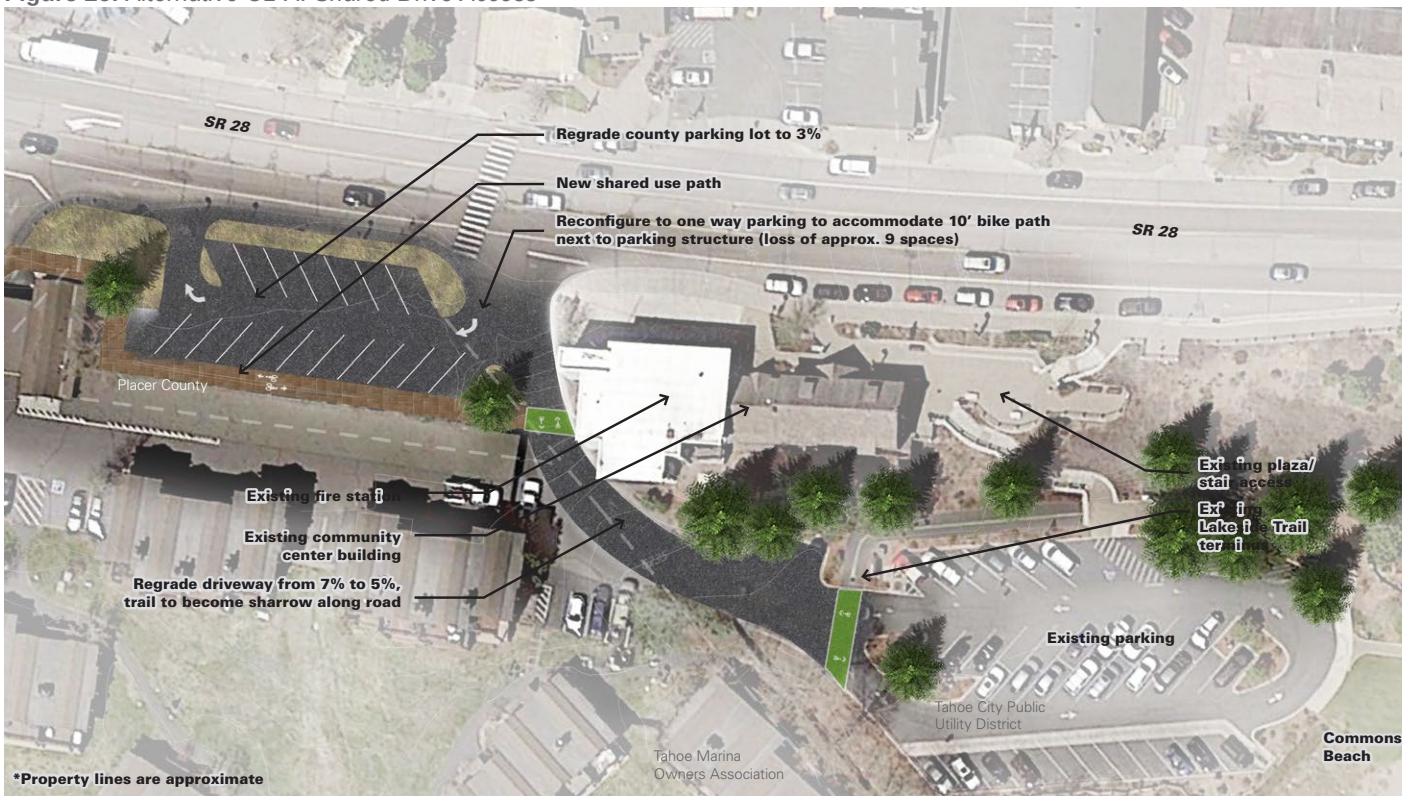
Benefits

- Utilizes public lands and right of way

Challenges

- Requires steepening the slope of the portion of the Commons Beach driveway that connects to SR 28
- Requires good signage and striping to direct users to use the road when the existing trail ends
- Trail users interface with vehicles for a portion of the route
- Site visibility issues around the curve of Commons Beach Drive
- Adds a curb cut/drive access onto SR 28

Figure 26: *Alternative C2-A: Shared Drive Access*



Alternative C2-B: Removal of the Fire Station

- The trail descends at less than 5 percent from Commons Beach Drive to meet with the existing Lakeside Trail at Commons Beach
- The Fire Station is removed (removal and/or re-purposing has been previously studied by Placer County and removal is supported by the community and Placer County)
- Retaining is provided to allow the trail alignment to separate from the parking area

Benefits

- Enhances views from SR 28 to Lake Tahoe with the removal of the old fire station

Challenges

- Requires removal of the Fire Station
- Exposes users to cross traffic
- Reduces other opportunities for use of the site

Figure 27: *Alternative C2-B: Removal of the Fire Station*

Alternative C2-C: Removal of the Fire Station and Relocation of the Tahoe City Community Center Building

- The trail descends at less than 5 percent from Commons Beach Drive to meet with the existing Lakeside Trail at Commons Beach
- The Fire Station is removed (removal and/or re-purposing has been previously studied by Placer County and removal is supported by the community and Placer County)
- The Tahoe City Community Center Building is relocated to another site (which may have less community support than removal of the Fire Station)
- Retaining is provided to allow the trail alignment to separate from the parking area

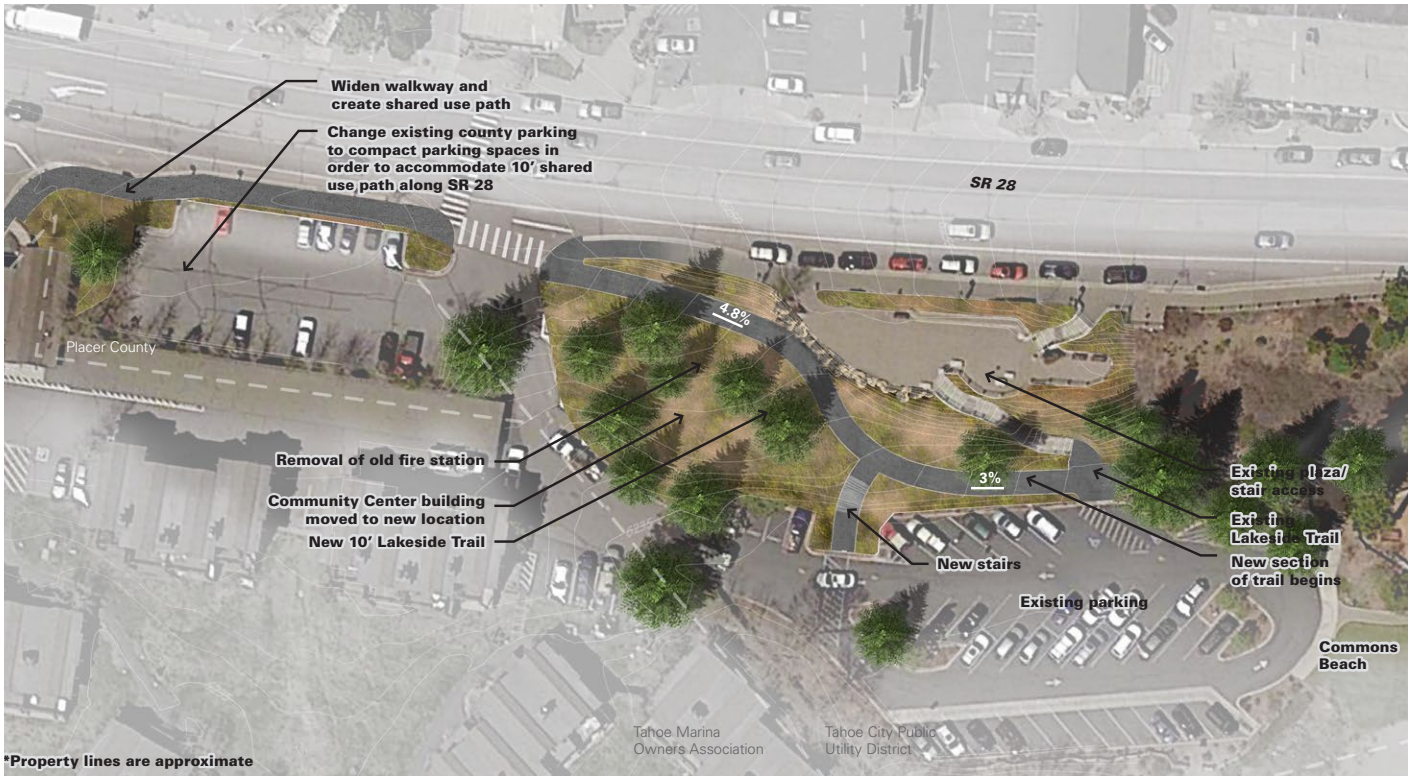
Benefits

- Enhances views and creates a new view corridor from SR 28 to Lake Tahoe (creates a more significant view corridor to Lake Tahoe from SR 28 than Alternative C2-B)

Challenges

- Requires removal of the Fire Station and relocation of the Tahoe City Community Center Building
- Relocation of the Tahoe City Community Center Building may not be supported by current users
- Reduces other opportunities for use of the site (the area for potential development is limited and constrains the opportunity for a flexible use/rental area at the street level and concession facility at the beach level)

Figure 28: *Alternative C2-C: Removal of the Fire Station and Relocation of the Tahoe City Community Center Building*



Alternative C2-D: Switchback with New Opportunity Site

- The trail switchbacks at less than 5 percent from Commons Beach Drive to meet with the existing Lakeside Trail at Commons Beach
- The Fire Station is removed (removal and/or re-purposing has been previously studied by Placer County and removal is supported by the community and Placer County)
- The Tahoe City Community Center Building is relocated to another site
- An opportunity site is available for a flexible use/rental area at the street level and concession facility at the Lake level

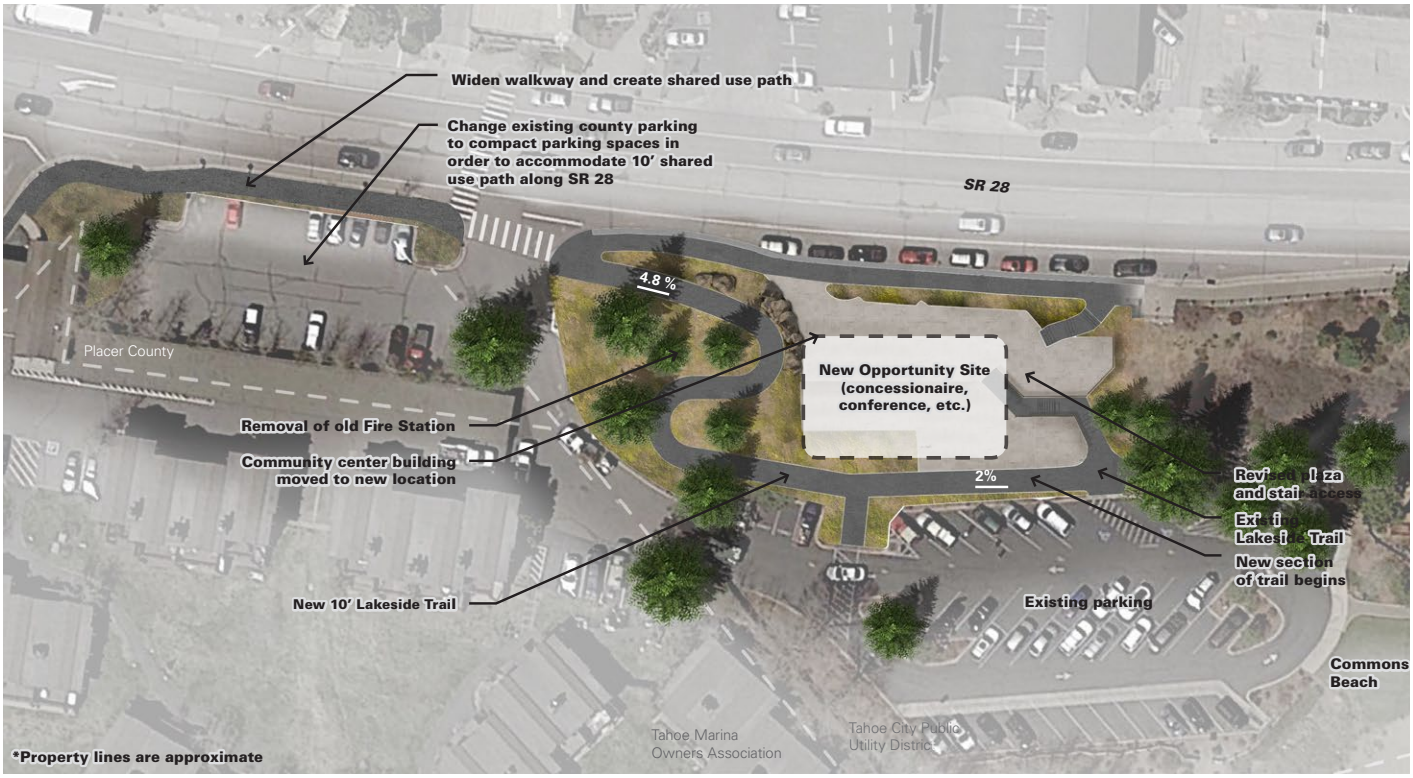
Benefits

- Enhances views and creates a new view corridor from SR 28 to Lake Tahoe (creates a more significant view corridor to Lake Tahoe from SR 28 than Alternative C2-B)
- Provides an economic development opportunity for Tahoe City

Challenges

- Requires removal of the Fire Station and relocation of the Tahoe City Community Center Building
- Relocation of the Tahoe City Community Center Building may not be supported by current users
- Trail requires a switchback to meet grade requirements

Figure 29: *Alternative C2-D: Switchback with New Opportunity Site*



Alternative C2-E: New Opportunity Site

- The trail descends at less than 5 percent from Commons Beach Drive to meet with the existing Lakeside Trail at Commons Beach; significant retaining is required near Commons Beach
- The Fire Station is removed (removal and/or re-purposing has been previously studied by Placer County and removal is supported by the community and Placer County)
- The Tahoe City Community Center Building is relocated to another site
- A large opportunity site is available for a flexible use/rental area or concession facility all at the Lake level

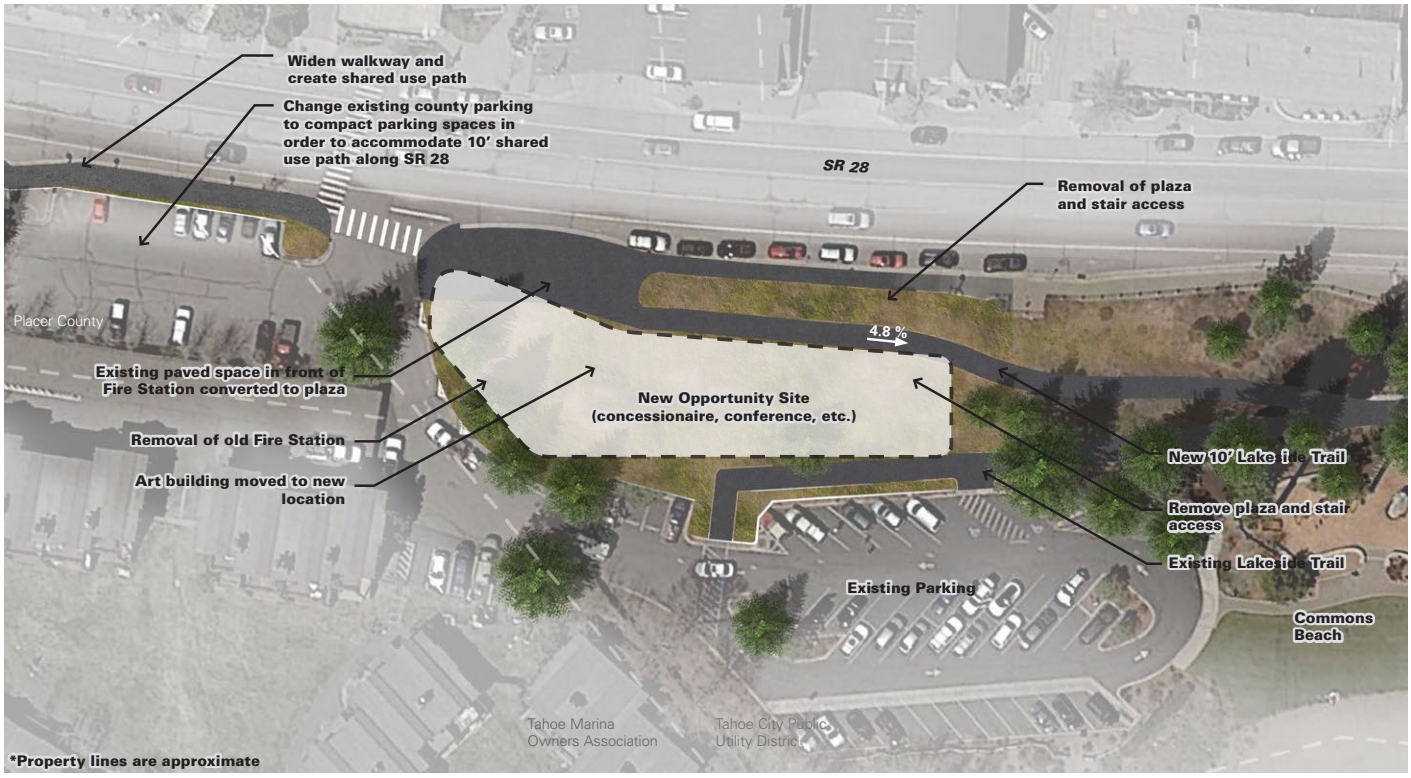
Benefits

- Enhances views and creates a new view corridor from SR 28 to Lake Tahoe (creates a more significant view corridor to Lake Tahoe from SR 28 than Alternative C2-B)
- Provides an economic development opportunity for Tahoe City

Challenges

- Requires removal of the Fire Station and relocation of the Tahoe City Community Center Building
- Relocation of the Tahoe City Community Center Building may not be supported by current users
- Requires significant retaining near Commons Beach which may have visual impacts from Lake Tahoe

Figure 30: *Alternative C2-E: New Opportunity Site*



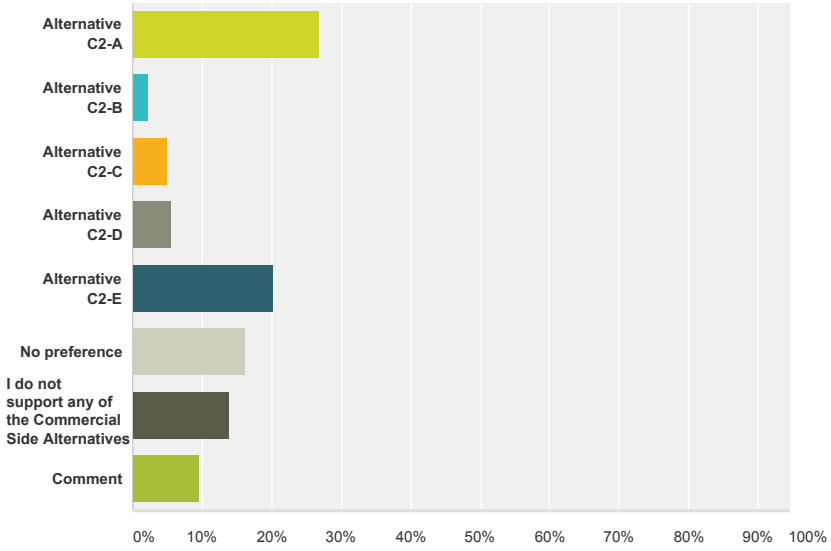
Either of the trail layouts around the county public parking lot could be used within any of the five alternatives.

Community Preference

The top two preferred alternatives were Alternative C2-A which consists of shared road access for the trail route (27 percent) and C2-E which consists of a sloped trail route that requires building demolition (21 percent) . Imost 17 percent of respondents had no preference between the alternatives . t should be noted that 12 percent of respondents did not support any commercial side alternative .

Of the Commercial Side Route Alternatives for Segment 2 which is your preferred alternative?

Answered: 178 Skipped: 12



Recommendation for the Lakeside Trail

Overall, respondents preferred to move the Water Side Route alternatives forward through additional feasibility, planning and funding acquisition efforts. Of the Water Side Route alternatives presented, the preference was for a beach-side option . his report recommends moving forward with more detailed design and assessment to complete the Lakeside Trail with one of the Water Side Route alternatives . t should be noted though, that to advance Lakeside Trail planning, additional funds will be needed as none exist today .

4

NEXT STEPS

Overall Outcomes

The Mobility Plan provides a series of community supported improvements that can enhance the pedestrian and bicycle movement within the downtown area of Tahoe City . verall, stakeholders and community participants strongly supported the following enhancements:

- Enhancing the commercial core with shared parking, pedestrian connectivity, streetscape improvements, public plazas and commercial infill
- Providing trail connectivity between the commercial core parking and the golf course
- Installing a Pedestrian Hybrid Beacon and other enhancements at the Grove Street/SR 28 intersection
- Completing the Lakeside Trail with an alternative alignment that follows the shores of Lake Tahoe

Potential Funding Opportunities

A variety of funding mechanisms and opportunities are available for the recommended projects . elow is a list of potential programs . he list is not all inclusive of every available mechanism, but is intended as a starting point for project proponents as they move the recommendations forward .

- SR 89/Fanny Bridge Community Revitalization Project (Federal Lands Access Program)
- California Active Transportation Program
- Placer County Capital Improvement Funds
- California Recreational Trails Program
- Congestion Mitigation and Air Quality Improvement Program (CMAQ)
- TRPA/TMPO Air Quality Mitigation Fees
- California Tahoe Conservancy Funds
- Highway Safety Improvement Program
- Community Development Block Grant Program
- State Transportation Improvement Program
- In-Lieu Parking Fee Program (refer to the *North Tahoe Parking Study*, March 9, 2015, for additional information)
- Eastern Placer 2% Transient Occupancy Tax (TOT) revenues
- Business Assessment District
- Infrastructure District
- Tourism Business Improvement District

Completing the Lakeside Trail is regularly mentioned by stakeholders and community members as a high priority for the community.

Implementation Opportunities

Tahoe City has a significant opportunity to begin implementing many of the mobility enhancements identified in both the Mobility Plan and the Pedestrian and Bicycle Road Safety Audit (PBRSA) . he SR 89/Fanny Bridge Community Revitalization Project (Community Revitalization Project) is a fully funded project and is at a design and approval stage to allow for implementation of mobility improvements . dditionally, the Placer County Tahoe Basin Area Plan (Area Plan) is being finalized. The completion of the Mobility Plan allows the County to appropriately incorporate the project's findings and recommendations into the final, adopted Area Plan in order to facilitate future implementation.

Integrated Parking

Through the development of the Area Plan, Placer County has considered the need to revisit parking requirements and strategies within Eastern Placer County and more specifically in Tahoe City and other communities around Lake Tahoe. This planning effort will help set the stage for implementing the integrated parking strategies described in the Mobility Plan, including expanding the Grove Street public parking facility, connecting downtown core businesses with a pedestrian path along the golf course, and eliminating certain driveways to provide for more commercial and public gathering opportunities along Highway 28 . valuating funding and maintenance mechanisms of the parking and public amenity areas can also be considered and established by the County .

Pedestrian Hybrid Beacon and Other Mobility Improvements

The SR 89/Fanny Bridge Community Revitalization Project is a fully funded project that may be able to implement several mobility enhancements described in the Mobility Plan and the PBSRA . he following recommended mobility enhancements are being considered for construction with the project, depending on funding availability and permitting/approvals:

Improve Sidewalk/Multi-use Trail Connectivity for Pedestrians

- Provide sidewalks within the project area
- Provide accessible crossings at logical origins and destinations
- Eliminate pedestrian crossing restrictions within the project area
- Provide defined access (driveways) from Highways 28 and 89 to businesses
- Re-purpose the Highway 89/28 within Caltrans right of way from Fairway Drive to Mackinaw Road to include sidewalk, bike lanes, parking, bump outs, defined access
- Provide a Pedestrian Hybrid Beacon at the Grove Street intersection

Improve Bicycle Connectivity

- Extend SR 28 bike lanes to the West Shore Bike Trail
- Provide wayfinding for bicyclists near Fairway Drive
- Ensure consistent bike lane signing and pavement markings within project area
- Re-stripe pavement markings for the travel lanes, bike lanes and parking spots in the Spring rather than the Fall
- Provide bike lanes on SR 89 in the project area and provide separated paths where the road width narrows in the roundabout

Fairway Drive Intersection and Roadway Segment from Fairway Drive to the "Wye" Intersection

- Provide bump outs to shorten pedestrian crossing distance from multi use trail to Fairway Drive intersection
- Consider bicycle wayfinding signs to direct Class I bike trail users over the existing bridge to the Tahoe Rim Trail (potential bicycle road riders would be directed to SR 89 via the pedestrian crossing)
- Provide sidewalk infrastructure on the south side of the roadway to connect pedestrians to the Wye intersection
- Provide defined access (driveways) to the properties on the south side of SR 89

Highway 28/89 "Wye" Intersection and Fanny Bridge Area

- Provide pedestrian infrastructure at the Wye intersection for all movements
- Provide a PHB on the north end of the Fanny Bridge that is coordinated with the south end treatment
- Replace the Pedestrian Signal at the south end of Fanny Bridge with a PHB at Fanny Bridge and coordinate with a second PHB on the north end of Fanny Bridge

Improve Sight Distance at Pedestrian Crossings

- Consider using the extra width on the existing Fanny Bridge for marked bike lane or add a raised sidewalk on the west side
- Provide curb bump outs at all pedestrian crossings where parking is permitted to improve sight distance at the crosswalks (this also reduces pedestrian crossing distances)
- Paint "red curbs" to indicate "no parking" areas near crosswalks and driveways
- Provide pavement markings for parking spaces (tick)
- Provide street lighting adequate for pedestrian crosswalks

Additional environmental review and/or permitting may be required to install the PHB at Grove Street . owever, the project is relatively inexpensive and other funding and grants sources, such Caltrans' Active Transportation Program, could be available to allow for implementation over the next few years .

Lakeside Trail

Finally, the completing the Lakeside Trail is a high priority for the community . owever, the preferred alternatives either pass through or by private property owners who oppose the development of the trail on the lake side of their development . mplementation of the preferred alternative will require sensitivity to the property owners' concerns as well as additional funding, engineering, legal expertise, continued community and stakeholder outreach, and environmental review and mitigation in order to develop this important community resource . n addition, the County is embarking on a parks master plan development effort beginning in summer 2016, and the results of the Mobility Plan as it relates to the Lakeside Trail will be integrated into the master plan .