



LAKE TAHOE UNIFIED SCHOOL DISTRICT SAFE ROUTES TO SCHOOL MASTER PLAN

TAHOE METROPOLITAN PLANNING ORGANIZATION
TAHOE REGIONAL PLANNING AGENCY



July 2015

PLAN APPROVAL

The following entities have approved and adopted the Lake Tahoe Unified School District Safe Routes to School Master Plan:

Lake Tahoe Unified School District:



Name

SUPERINTENDENT, LTUSD

Title

11/17/15

Date

City of South Lake Tahoe

Name

Title

Date

El Dorado County

Name

Title

Date

LAKE TAHOE UNIFIED SCHOOL DISTRICT SAFE ROUTES TO SCHOOL MASTER PLAN

A COLLABORATIVE EFFORT:

The City of South Lake Tahoe

The City of South Lake Tahoe Police Department

El Dorado County

Lake Tahoe Unified School District

Lake Tahoe Sustainability Collaborative: Community Mobility
Workgroup

South Shore Transportation Management Association

And the South Lake Tahoe Community at large

Funded in part by the TRPA/TMPO On Our Way Grant Program

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SECTION 1: INTRODUCTION

Lake Tahoe Unified School District (LTUSD), in partnership with the City of South Lake Tahoe, El Dorado County, the Tahoe Regional Planning Agency / Tahoe Metropolitan Planning Organization (TRPA/TMPO), and the Community Mobility Work Group of the Lake Tahoe Sustainability Collaborative, has embarked on an effort to improve the health and safety of its students by encouraging active transportation through outreach and development of a Safe Routes to School (SRTS) Master Plan. The partners are pleased to present this Plan. Implementation is designed to create, educate, and encourage safer, convenient, and more accessible walking and biking opportunities for the schools and other facilities of the LTUSD. It will also benefit the broader South Lake Tahoe community.

GOALS

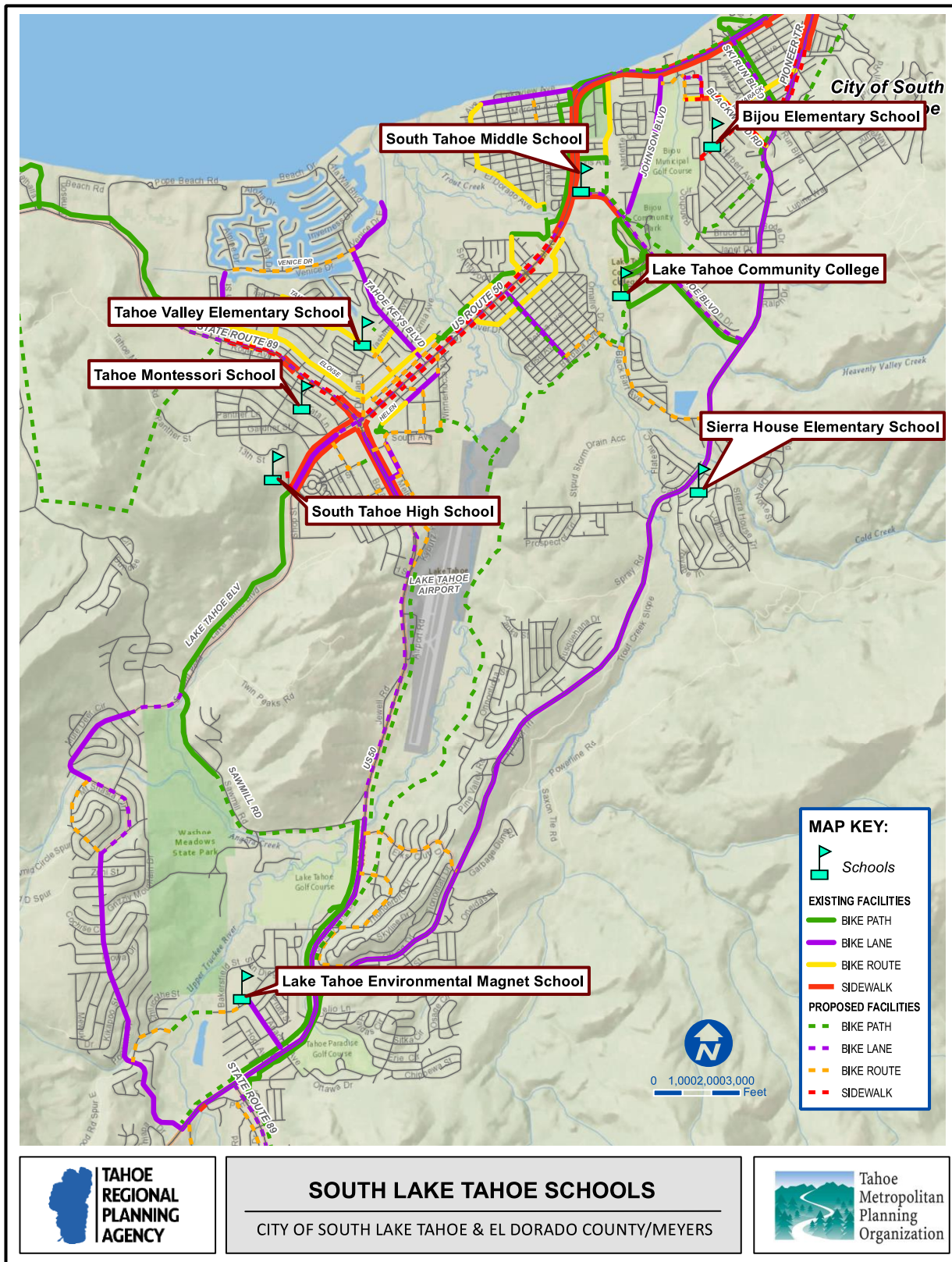
1. To increase safety for students and their families to walk and bike to school.
2. To increase the number of students and families walking and biking to school.
3. To improve the health of our students and families by encouraging physical activity.
4. To protect and preserve our fragile environment by reducing vehicle miles traveled (VMT).

All of these benefits combine to increase the quality of life of our students, families, and community. In South Lake Tahoe, there are currently many barriers to walking or biking to school. Schools within the district lack basic infrastructure, including sidewalks and bike facilities. Families are unsure about how to safely navigate and share the road with cars, pedestrian and bicyclists. The snowy and icy conditions often found from November to March, and sometimes extending to May, make South Lake Tahoe a particularly vulnerable place to encourage walking and biking during much of the school year. However, this Plan's recommended improvements will make significant strides in making active transportation a safer and more convenient choice.

SCOPE

The Plan identifies infrastructure and non-infrastructure recommendations for the six schools located within the LTUSD. This District is located primarily in the City of South Lake Tahoe, with one school located in the Meyers area of unincorporated El Dorado County. The schools include: Bijou Community School, Lake Tahoe Environmental Science Magnet School, Sierra House Elementary School, Tahoe Valley Elementary School, South Tahoe Middle School, South Tahoe High School, and Mt. Tallac Continuation High School. See Map #1, Lake Tahoe Unified School District Schools.

MAP 1 – LAKE TAHOE UNIFIED SCHOOL DISTRICT SCHOOLS



TRPA MAP DISCLAIMER: This map was developed and produced by the TRPA GIS department. It is provided for reference only and is not intended to show map scale accuracy or all inclusive map features.

*Existing and proposed infrastructure layers are from the December 2014 Technical Amendment to the 2010 Bike & Pedestrian Plan.

The Plan includes a summary of community and stakeholder identified challenges for each school, and recommended solutions. Through extensive outreach, the challenges and opportunities for improvement were verified by agency stakeholders, local advocacy groups, community advisory associations, and the school district: students, parents, teachers and administrative staff.

In developing this Plan, we have followed the standard national SRTS format. This format is based on a “5E” approach:

- Engineering: to make physical improvements to the routes that students use to walk or bicycle to school. Design guidance will be located in the 2015 Complete Street Design, Implementation & Maintenance Resource Guide as part of the Active Transportation Plan.
- Education: to teach students and families safe walking and bicycling behavior, to teach parents safe driving habits, and to emphasize health and environmental benefits
- Encouragement: to promote walking and bicycling to school to increase mode-share
- Enforcement: to ensure that laws of the road are followed, as well as safe pick-up and drop-off practices
- Evaluation: to track the Plan to assess its success and to modify it accordingly. Monitoring will include user counts, and collision tracking.



SECTION 2: BACKGROUND

SOUTH TAHOE ELEMENTARY SCHOOLS



Bijou Community School



Tahoe Valley Elementary School



Sierra House Elementary School



Lake Tahoe Environmental Magnet School

In 2014, the Community Mobility Group, with a vision of creating a SRTS Master Plan, applied for an On Our Way grant from TRPA/TMPO to conduct an active transportation assessment of all the LTUSD schools. The successful application was awarded \$10,000.00 in grant funds and conducted the following activities with assistance from a consultant team from Alta Planning & Design:

- Walking audits and assessments at each elementary school.
- A total of 4 public on-site workshops (one at each elementary school).
- Consolidation and analysis of public feedback.
- Development and prioritization of recommendations for engineering improvements.
- One community-wide public workshop to review the findings and discuss next steps.

Analysis of each school's existing conditions began with a walking audit conducted by Alta Planning & Design and supported by parents, students, community members, and advocates. The groups observed and documented behavior, routes, timing, and discussed their everyday experiences.

Public workshops began with a presentation defining the Safe Routes to School program and why it is important. Workshops also included an overview of infrastructure as well as education and awareness initiatives that can be used to make active transportation safer and more convenient. After each presentation, attendees identified safety concerns at particular locations along common routes to each school and offered their suggestions through interactive map drawing exercises. Each group marked common walking and cycling routes to their school and identified key issues and locations in need of improvement. This information was combined with technical expertise from consultants at Alta Planning & Design which generated the recommendations outlined in Section 3: Engineering.



Cafecitos Community Meeting

1 Bijou Community School

1.1 Community Comments

Location	Comment	Response/Next Steps
Blackwood Road at Herbert Avenue	Route entrance? Needs high visibility crosswalk, school signage.	City can consider crossing enhancements and wayfinding signage at this location.
Blackwood Road at Spruce Avenue	Fog line, too narrow	Noted.
General	Annual parent/visitor pass for back access?	This is possible but may require more administration than the school can support.
Herbert Avenue	Turn around enough for cars?	This area is recommended for walking and bicycling access. Because the roadway ends at the school with no exit, we do not recommend Hubert Ave be recommended as a vehicular drop off area.
Herbert Avenue	This may be on the City CIP list. Check w/ City. Restripe for bike lanes.	Noted.
Ski Run Boulevard at Tamarack Avenue	Visibility challenge. Crossing signage.	City may consider adding signage alerting motorists to the crossing, and will consider other improvements to increase visibility.
Spruce Avenue at Glenwood Way	Wide intersection. Can we tighten it?	City may consider recommendations to reduce crossing distances and improve bicycle and pedestrian comfort and safety at this location.
Tamarack Avenue extension, SW of Blackwood Road	Public? Easement?	Determine ownership of this segment.

BIJOU COMMUNITY SCHOOL – EXISTING CONDITIONS



Spruce Ave.



Heather Lake Rd.



Crosswalk



Bike Rack in Parking Lot



Crosswalk in Bijou Community School Parking Lot

2 Lake Tahoe Environmental Science Magnet School

2.1 Community Comments

Location	Comment	Response/Next Steps
Highway 50 at Apache Avenue (southern intersection)	Pedestrian refuge island and HAWK or RRFB	Caltrans may be improving this crossing as part of another project. Consideration for enhanced crossing should be included.
Highway 50 at Apache Avenue (southern intersection)	Crosswalk – possibly at corner to increase use.	Caltrans may be improving this crossing as part of another project. Consideration for enhanced crossing should be included.
Highway 50 at Elks Club Drive	Crosswalk or pedestrian underpass.	Given the proximity of wetlands, a pedestrian underpass is likely not feasible at this location. Crossing improvements should be considered in order to give access to the path.
Highway 50 near Pioneer Trail	Class I path on East side is proposed, not existing (from halfway between Apache Avenue and Pioneer Trail, heading north to edge of plan)	Noted.
San Bernardino Avenue west of Bakersfield Street	Fantasy bridge connecting Bernardino's	Noted. Sensitive habitat and other environmental considerations may prohibit any significant improvements in this area.
School frontage	Operations improvements	Noted.

LAKE TAHOE ENVIRONMENTAL SCIENCE MAGNET SCHOOL – EXISTING CONDITIONS



Intersection at Apache & US 50



E San Bernadino Dr.



LTESMS Driveway



Crosswalk on US 50 near LTESMS

3 Sierra House Elementary School

3.1 Community Comments

Location	Comment	Response/Next Steps
From intersection w/ Golden Bear Trail northeast across Marshall Trail, to access school from back	Footpath?	Consideration for a path near this alignment requires parcel boundary data. Acquiring easements or right-of-way for a path may be prohibitive.
Golden Bear Trail	Bus route	Noted.
Pioneer Trail from Golden Bear Trail to Marshall Trail	Too hilly to walk	Noted.
Pioneer Trail at school	Need speed feedback signs	County may consider speed feedback signs at this location, and will consider other locations where these mobile units may also be deployed.

SIERRA HOUSE SCHOOL – EXISTING CONDITIONS



Sierra House Elementary School Parking Lot Pickup



Black Bart Ave & Pioneer Trail Intersection



Crosswalk at Pioneer Trail & Fairmeadow Trail



Cars lined up along Pioneer Trail in the bike lane near Sierra House Elementary at the end of the school day

4 Tahoe Valley Elementary School

4.1 Community Comments

Location	Comment	Alta Response
General	Need more carpooling	Future program recommendation should include program with goal to increase number of families who take the district provided school bus.
General	Need parents, volunteers, staff, especially in the afternoon, outside directing traffic. Need one outside at crosswalks to keep cars out until they should get in.	Noted. Future program recommendation should include the development of a traffic safety program at the school.
School driveway entrance	Improved new signage @ parking hours	Noted.
School driveway entrance	Elevated sidewalk	Noted. City and school district should consider sidewalks though raised sidewalks may prove a maintenance challenge.
School driveway entrance	Need signage to say no parking on BOTH sides. Cones help.	Noted. Recommendation for walking path along drives will result in no parking.
School driveway entrance	Cars should be delayed until buses come & go	Noted.
School driveway exit	Sidewalk	Noted. City and school district should consider sidewalks though raised sidewalks may prove a maintenance challenge.
School driveway exit	Cars drive in the wrong way	Noted. Future programs recommendations should include education and enforcement.
Tahoe Island Drive	Carpool parking	Noted.

TAHOE VALLEY ELEMENTARY SCHOOL – EXISTING CONDITIONS



Tahoe Valley Elementary School Crosswalk



Tahoe Island Dr.



Trail leading to Tahoe Valley Elementary School

SOUTH TAHOE MIDDLE SCHOOL

In collaboration with the Community Mobility Work Group and the City of South Lake Tahoe, the LTUSD applied for and received a \$154,000 On Our Way grant from TRPA/TMPO to conduct analysis and generate recommendations regarding the active transportation conditions in the area surrounding and within the Middle School. This area is not only an important transportation node for the Middle School student population, but also a key area of connectivity within the City of South Lake Tahoe and Lake Tahoe's South Shore. It is a recreation and education hub, with nearby facilities including Lake Tahoe Community College, the South Lake Tahoe Recreation Center, community ball fields, two parks, the Bijou Bike Park, the local Boys and Girls Club, and a business district. The outcome was development of the South Tahoe Middle School Connectivity Plan. The planning process was been led by a Project Development Team (PDT) consisting of representatives from LTUSD, the City of South Lake Tahoe, TRPA/TMPO, the Community Mobility Group, and the South Shore Transportation Management Association (SS/TMA). As part of planning, the PDT also collaborated with the Lake Tahoe Community College, Caltrans, local law enforcement and emergency service providers, and commercial property owners within the Middle School vicinity.



South Tahoe Middle School and Sidewalk Entrance

A consulting team comprised of Design Workshop, Alta Planning & Design and Cardno documented existing conditions by analyzing collision data, multi-modal connections and gaps in linkage, intersection Level of Service, existing bicycle facilities, and current bike and pedestrian facility usage. Analysis was conducted for an area covering four (4) arterial intersections and five (5) collector roads. The consultant team conducted extensive outreach with students, parents and the greater community through walk-about site visits, public workshops, presentations, and surveys. Collected data helped to identify and prioritize projects that would increase safety, usage, and close connectivity gaps. Potential projects to address the challenges were developed and returned to the community for further feedback. The various projects were then evaluated according to specific criteria identified by the PDT and ranked accordingly. The highest-ranking project was selected as the focus of additional design in preparation for construction grant applications. These recommendations can be found in Section 3: Engineering. The complete Middle School Area Connectivity Plan can be found in Appendix B.

MAP 2 – SOUTH TAHOE MIDDLE SCHOOL BICYCLE & PEDESTRIAN TRIP GENERATORS/ATTRACTORS

REGIONAL CONNECTIVITY

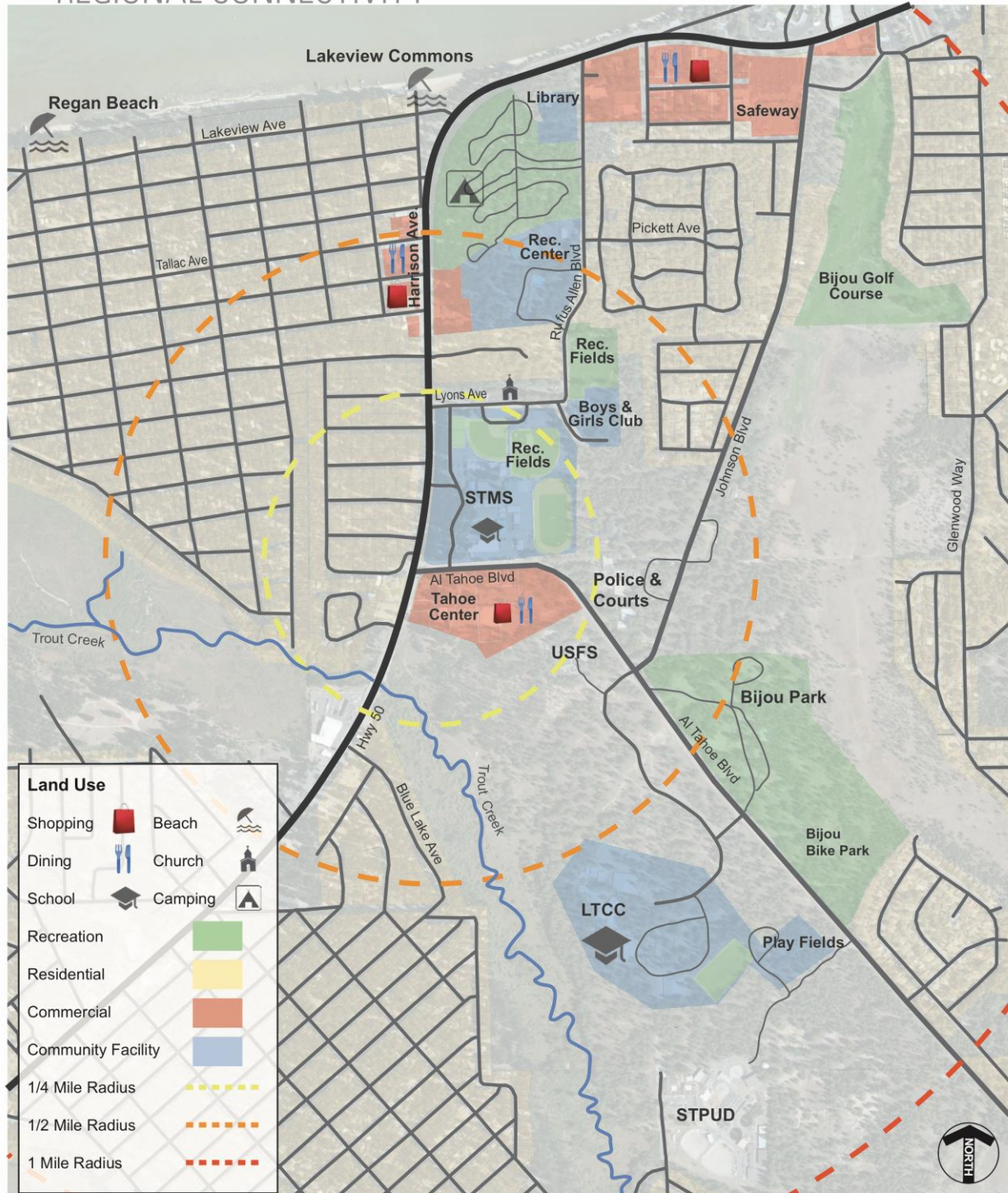
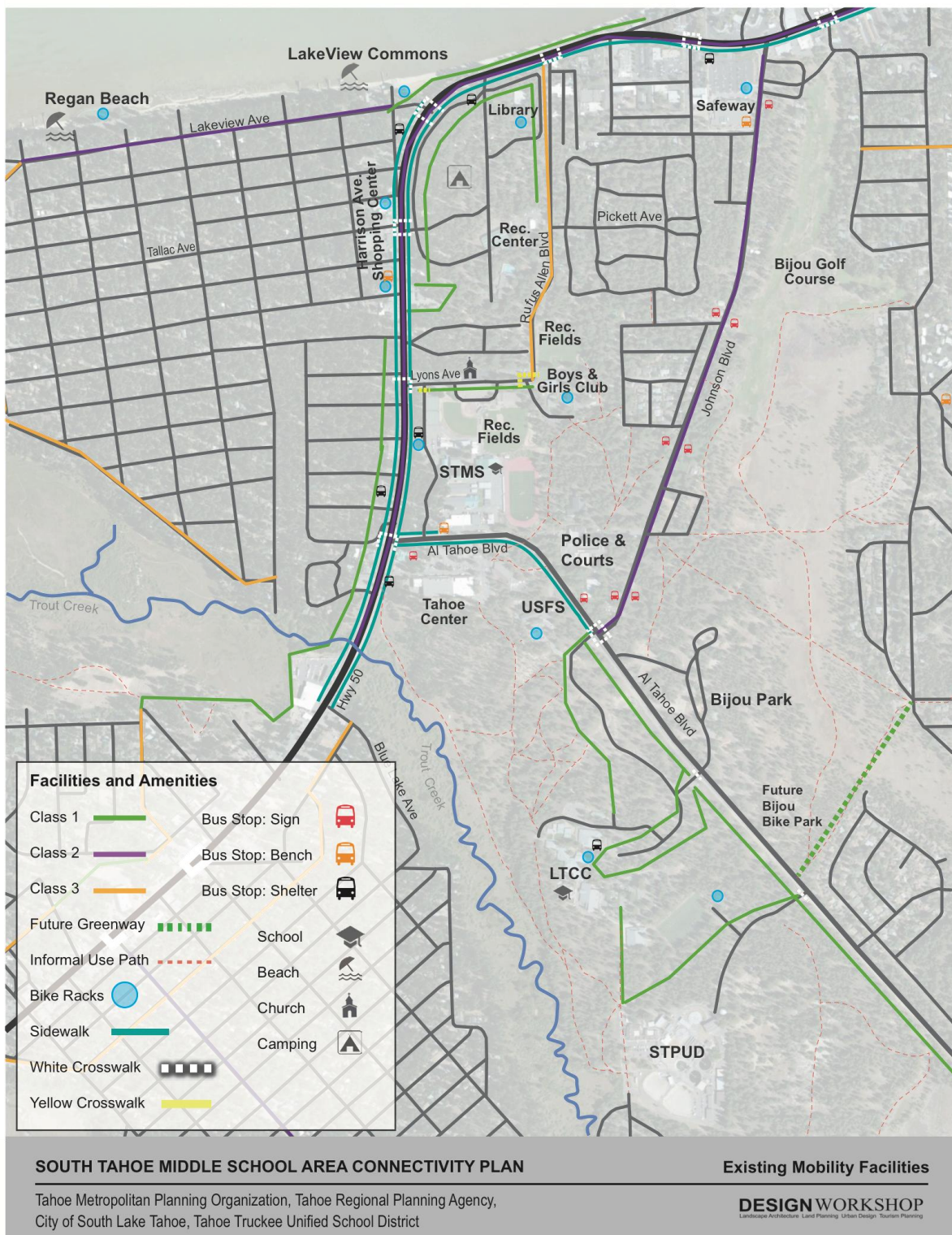


Figure 5: Land Uses and Trip Generators in Immediate Proximity

South Tahoe Middle School Connectivity Plan | 13

MAP 3 – SOUTH TAHOE MIDDLE SCHOOL EXISTING MOBILITY FACILITIES



SOUTH TAHOE HIGH SCHOOL

Before 2014, safe active transportation access to the South Tahoe High School was limited to connections from the Gardner Mountain neighborhood, the area in which the school is located. This area has a documented collision history that includes the death of one student and the injury of several others in 2006. A feasibility report conducted by El Dorado County as part of the *Lake Tahoe Boulevard Enhancement Project* analyzed the collision history, roadway dimensions and lane configurations, average daily traffic volumes, and vehicle speeds throughout the area. The analysis and recommended alternatives supported El Dorado County's ability to apply for and receive a 2011 Safe Routes to School grant to build a segment of the overall active transportation enhancement project, the Lake Tahoe Boulevard Class I Shared Use Path.



South Tahoe High School & Lake Tahoe Blvd Bike Path

Public meetings were held and an agency stakeholder group was established, including the LTUSD District Superintendent, the California Highway Patrol (CHP), and a representative from the El Dorado County Sheriff's Department. These stakeholders helped to identify and design the project to best serve the safety needs of students, families and community members. Out of 1,261 students in 2011, 5 percent were estimated to walk or bike to school. Project implementers hope to see that number increase to 15 percent. During the last two summers, 2014 and 2015, we have seen the implementation

of additional components of the active transportation project and resulting connections as discussed in Chapter 3: Engineering.

The high school is very close to the area within the boundary of the Tahoe Valley Area Plan, approved by the South Lake Tahoe City Council and TRPA Governing Board in 2015. This Area Plan includes a variety of proposed bicycle and pedestrian connections and infrastructure that will further improve safety and mobility options for the high school community.

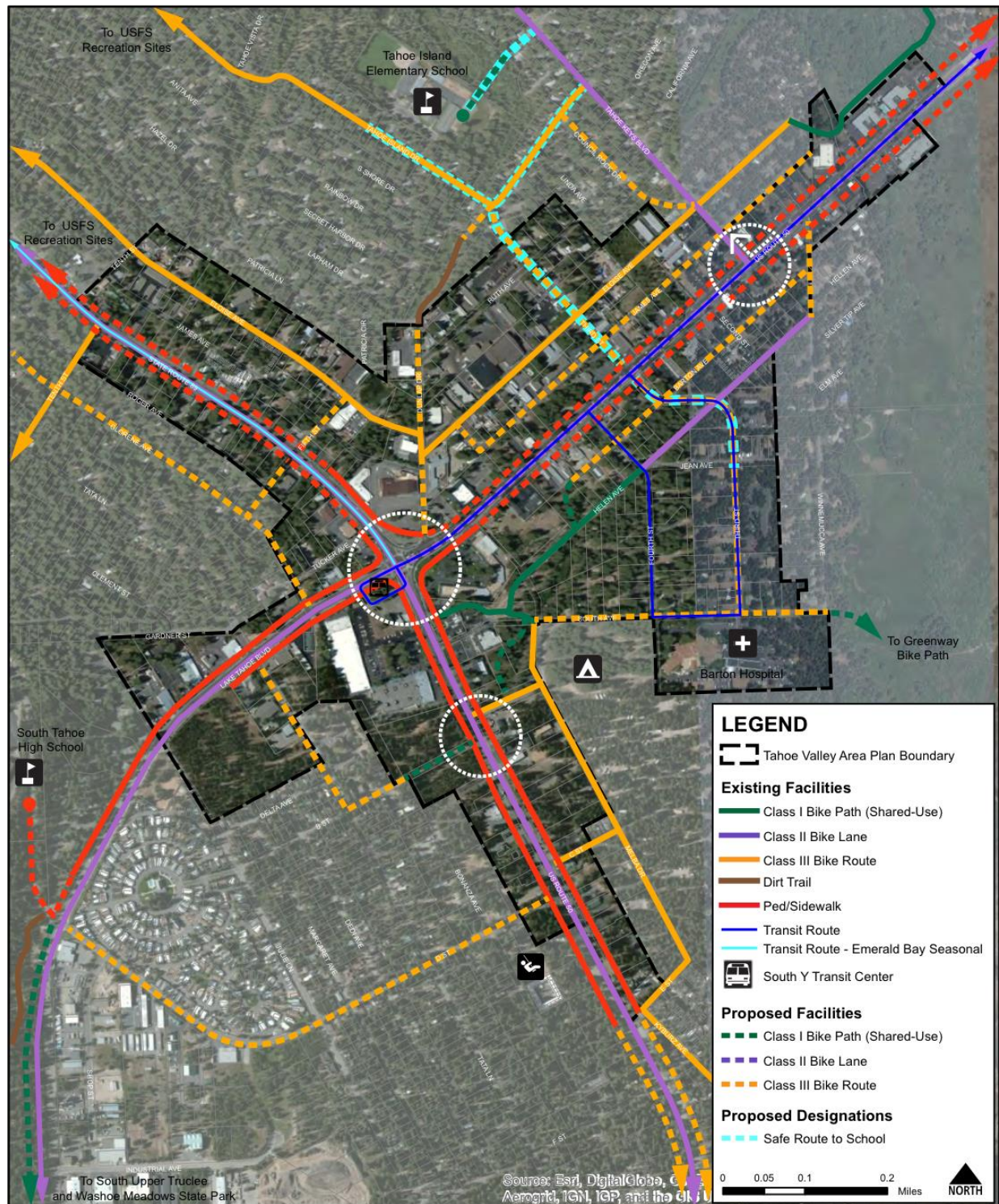


South Tahoe High School



South Tahoe High School Bike Path at Viking Road

MAP 4: TAHOE VALLEY AREA PLAN TRANSPORTATION & CIRCULATION IMPROVEMENTS



City of South Lake Tahoe, CA
Tahoe Valley Area Plan

Figure 12
Transportation and Circulation Improvements
June 4, 2014

SECTION 3: ENGINEERING

SOUTH TAHOE ELEMNTARY SCHOOLS

Based on public comment and consultant expertise, a series of engineering recommendations have been made for each elementary school. The LTUSD, City of South Lake Tahoe, TRPA/TMPO, Caltrans, and the Community Mobility group continue to work together to pursue the implementation of recommended infrastructure projects. Additional studies may be needed to further define some of the recommendations with appropriate detail. These recommendations were generated in 2014 and may not be all encompassing. Since that time, additional needs have been observed and may continue to develop. Some additional recommendations identified include:

Lake Tahoe Environmental Magnet School:

- Add sidewalk or multi-use path on north side of entry way to the school.

Sierra House:

- Develop bus pick-up location in front of Sierra House by removing island.

Tahoe Valley Elementary School:

- Include recommendations for enhanced intersection crossing improvements such as pedestrian activated beacons on Eloise Avenue at Third Street and Tahoe Key's Boulevard. Analysis and recommendations can be found in Appendix B, the 2014 Tahoe Valley Area Plan Bicycle Facility Evaluation.

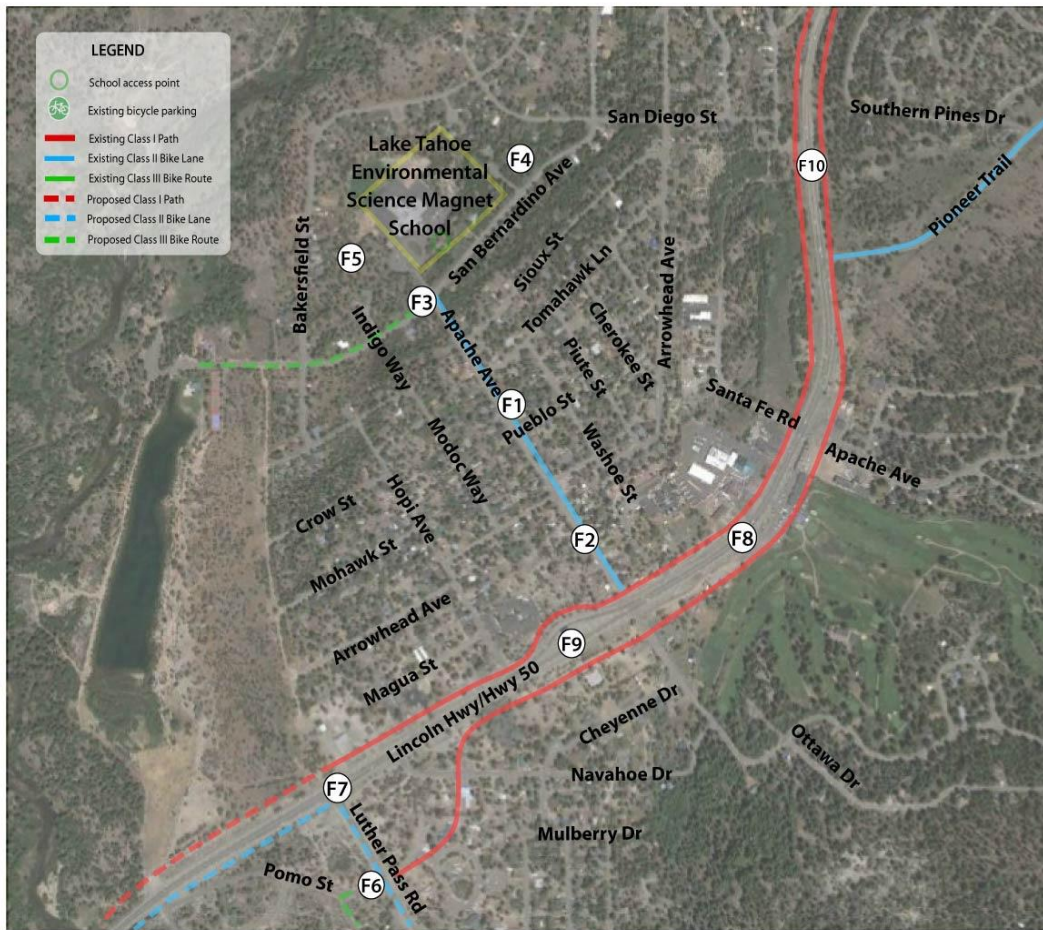
All engineering recommendations are subject to change based on further study, evolving conditions, funding availability, and other factors. The City may choose to implement improvements incrementally as funding and opportunities arise, and it retains the flexibility to construct modified improvements, as may be necessary. All improvements are subject to the approval of the Public Works Department and other appropriate City departments. Some may require approval of the City Council. Any recommended traffic calming and other engineered solutions will have to follow standard City policies and procedures.



Bijou Community School Improvement Plan

- ① **Spruce Ave: Glenwood Way to school parking loop exit**
 - Install sidewalk on north side of street.
 - ② **Spruce Ave: School parking loop exit to Champlain Dr**
 - Install sidewalk on south side of street.
 - ③ **Spruce Ave: School parking loop entrance to Blackwood Rd**
 - Install sidewalk on north side of street.
 - At school grounds west of Heather Lake Rd, install wide sidewalk-at least 8 ft wide.
 - ④ **Spruce Ave at Champlain Dr**
 - Remove existing crosswalk west of parking loop.
 - Install high visibility crosswalk, yield lines and yield to pedestrians paddle on eastern leg.
 - Pave school access path from new crosswalk.
 - Install high visibility crosswalk across parking loop.
 - ⑤ **Spruce Ave between Blackwood Dr and Glenwood Dr**
 - Install school area speed feedback sign on approaches to school.
 - ⑥ **Blackwood Ave between Spruce Ave and Tamarack Ave**
 - Install sidewalk on west side of street.
 - ⑦ **Blackwood Ave at Tamarack Ave**
 - Install yield teeth at existing high visibility crosswalk.
 - Install RRFB.
 - F1 **Footpath between CDC and School**
 - Study the feasibility of paving a path between the two sites.
 - F2 **Blackwood Rd at Spruce Ave**
 - Conduct a stop warrant analysis.
 - Install 25 mph signs on approaches to Spruce Ave.
 - Investigate whether or not the fence on the northwest corner meets City codes.
- Future Projects**
- F3 **Glenwood Way**
 - City has identified this corridor for sidewalk installation.
 - F4 **Champlain Dr**
 - Trim vegetation at southwest corner at Spruce Ave.
 - F5 **Blackwood Rd at Tamarack Ave**
 - Conduct a stop warrant analysis.
 - F6 **Glenwood Way at Spruce Ave**
 - Conduct a stop warrant analysis.
 - F7 **Blackwood Rd: Pioneer Trail to Spruce Ave**
 - Install sidewalk on the west side of the street.
 - Install sidewalk on the west side of the street.
 - F8 **School Bus #18**
 - Change bus #18 arrival ten minutes earlier.

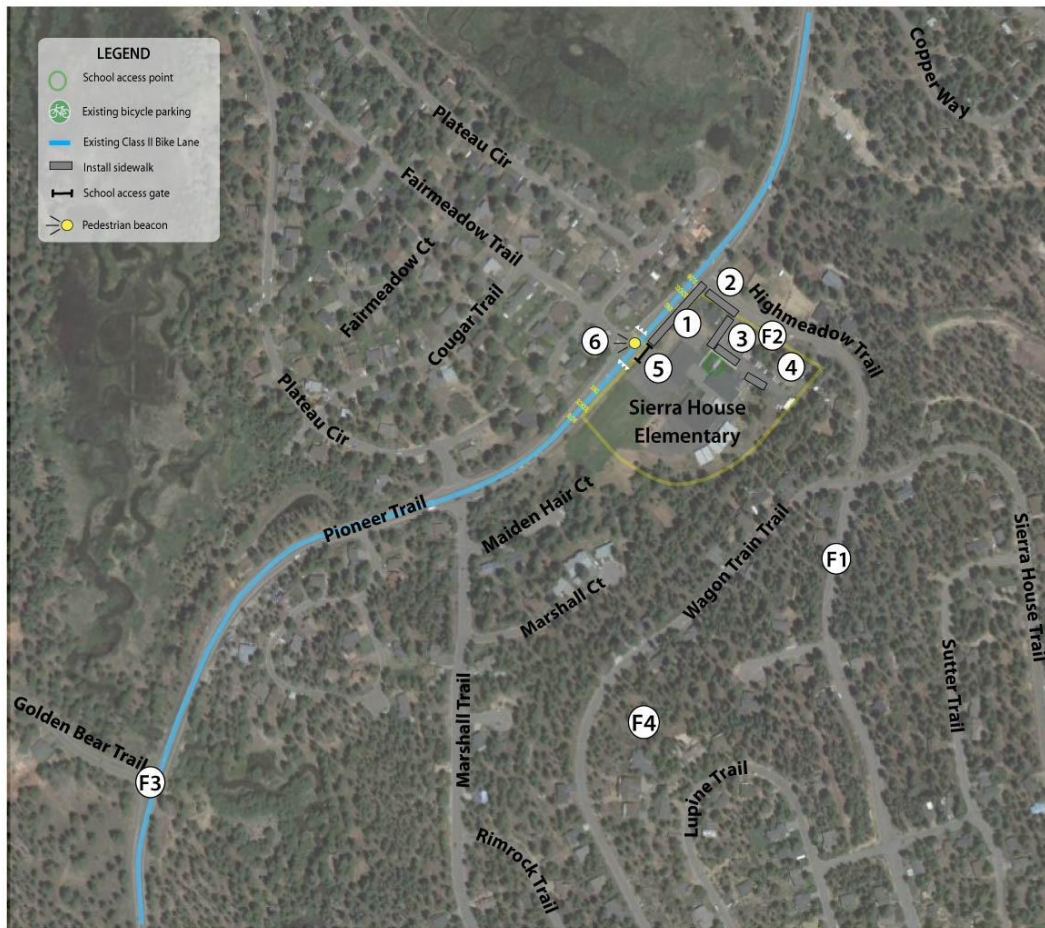




Lake Tahoe Environmental Science Magnet School Improvement Plan

- F1** Apache Ave near Pueblo St
 - Install School Area Feedback signs in both directions.
- F2** Apache Ave between Hwy 50 and school
 - Consider reducing speed limit from 30 mph to 25 mph
- F3** Apache Ave at San Bernardino Ave
 - Restripe all three existing crosswalks as high-visibility yellow.
- F4** Undeveloped parcel east of school driveway
 - Confirm if this is USFS land. If so, begin conversations with USFS about constructing a CL I path.
- F5** Undeveloped parcel west of school driveway
 - Confirm if this is USFS land. If so, begin conversations with USFS about constructing a CL I path around west side of loop.
 - If path is feasible, construct Bike SPA at the end of the path.
- F6** Luther Pass Rd at Pomo St
 - Install high-visibility crosswalk, yield lines and crossing signs.
- F7** Luther Pass Rd at Hwy 50
 - Stripe green bike lane conflict markings through intersection.
- F8** Hwy 50
 - Caltrans has plans to stripe bike lanes along corridor.
- F9** Hwy 50 between Apache Ave and Hopi St
 - Caltrans has plans to stripe a crosswalk.
- F10** Hwy 50 north of Pioneer Trail
 - Caltrans has plans to stripe a crosswalk.





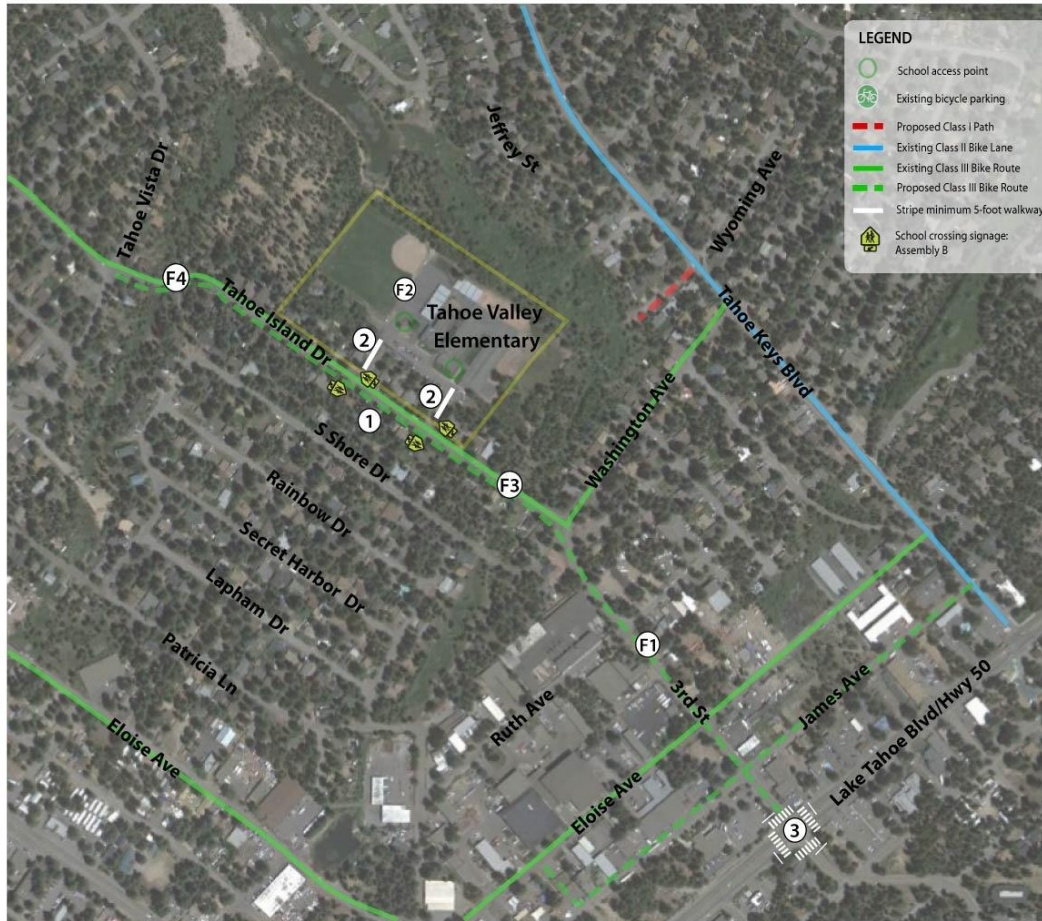
Sierra House Elementary Improvement Plan

- ① **Pioneer Trail from Fairmeadow Trail to High Meadow Trail**
 - Install sidewalk on south side of street.
- ② **High Meadow Trail from Pioneer Trail to campus loop**
 - If public right-of-way is available, install sidewalk on west side of street.
- ③ **School Drive- Public Roadway**
 - Install sidewalk on north side.
 - Installation of sidewalk onto campus may require shifting the drive-public roadway to the south.
- ④ **Campus parking loop**
 - Install sidewalk from end of private residence to existing sidewalk.
 - Install sidewalk from end of existing sidewalk to drive to back of campus.
- ⑤ **School access gate on Pioneer Trail adjacent to existing crosswalk**
 - Install school access gate.
- ⑥ **Pioneer Trail at Fairmeadow Trail**
 - Install yield teeth and school crossing stencils.
 - Install pedestrian beacon.

Future Projects

- F1 **High Meadow Trail**
 - Install school area feedback sign.
 - Refresh school stencil.
- F2 **High Meadow Trail at parking loop exit**
 - Work with County staff to identify visibility improvements.
- F3 **Pioneer Trail at Golden Bear Trail**
 - Work with County staff to identify crossing improvements such as a pedestrian beacon, marked crosswalk and signage.





Tahoe Valley Elementary Improvement Plan

- 1 Tahoe Island Drive school driveways**
- Install Assembly B signs on both approaches to both crosswalks.

- 2 School driveway entrance**
- Stripe a minimum 5-foot walkway along entrance on the south side from street to sidewalk at school.
 - Stripe a minimum 5-foot walkway along exit on north side from end of parking area to street.

- 3 Hwy 50 at 3rd St**
- Restripe existing crosswalks as high-visibility.
 - Stripe advance stop bars.

Future Projects

- F1 3rd St: Hwy 50 to Tahoe Island Dr**
- Work with the City of South Lake Tahoe to determine ROW and install sidewalk.

- F2 Parking lot perimeter north of school**
- Construct a sidewalk extending from existing sidewalk north to end of asphalt.
 - As part of parking lot redesign the school has already initiated, stripe a walkway around parking stalls leading to striped walkway up to driveway exit.

- F3 Tahoe Island Dr: 3rd St to school driveway entrance**
- Restrict parking on the north side of the street during school arrival and dismissal times.
 - Fund a crossing guard at existing uncontrolled crossing at school driveway to facilitate crossing to school.

- F4 Tahoe Island Dr: S curve north of school**
- Work with the City of South Lake Tahoe to determine ROW and environmental issues to providing a dedicated walking area.



SOUTH TAHOE MIDDLE SCHOOL

The South Tahoe Middle School Area Connectivity Plan contains a variety of recommendations and action items to improve safety and usage of active transportation facilities. Recommendations include improvements to three intersections, the addition of shared use paths and bike lanes on various roads, and a reconfiguration of the pick-off and drop-off circulation patterns on school property. Additional improvements to school circulation are currently being implemented or actively under consideration, including relocation of bike racks, providing more morning student drop off locations, providing on site connections to existing sidewalks and formalizing crossing locations with painted crosswalks. The following pages contain the basic engineering recommendations for the middle school area.



US 50 & Lyons Ave. Intersection



South Tahoe Middle School Sidewalk



US 50 & Al Tahoe Blvd Intersection



Lyons Avenue Class 1 Path

AL TAHOE BLVD (US 50 TO JOHNSON) RECOMMENDATIONS

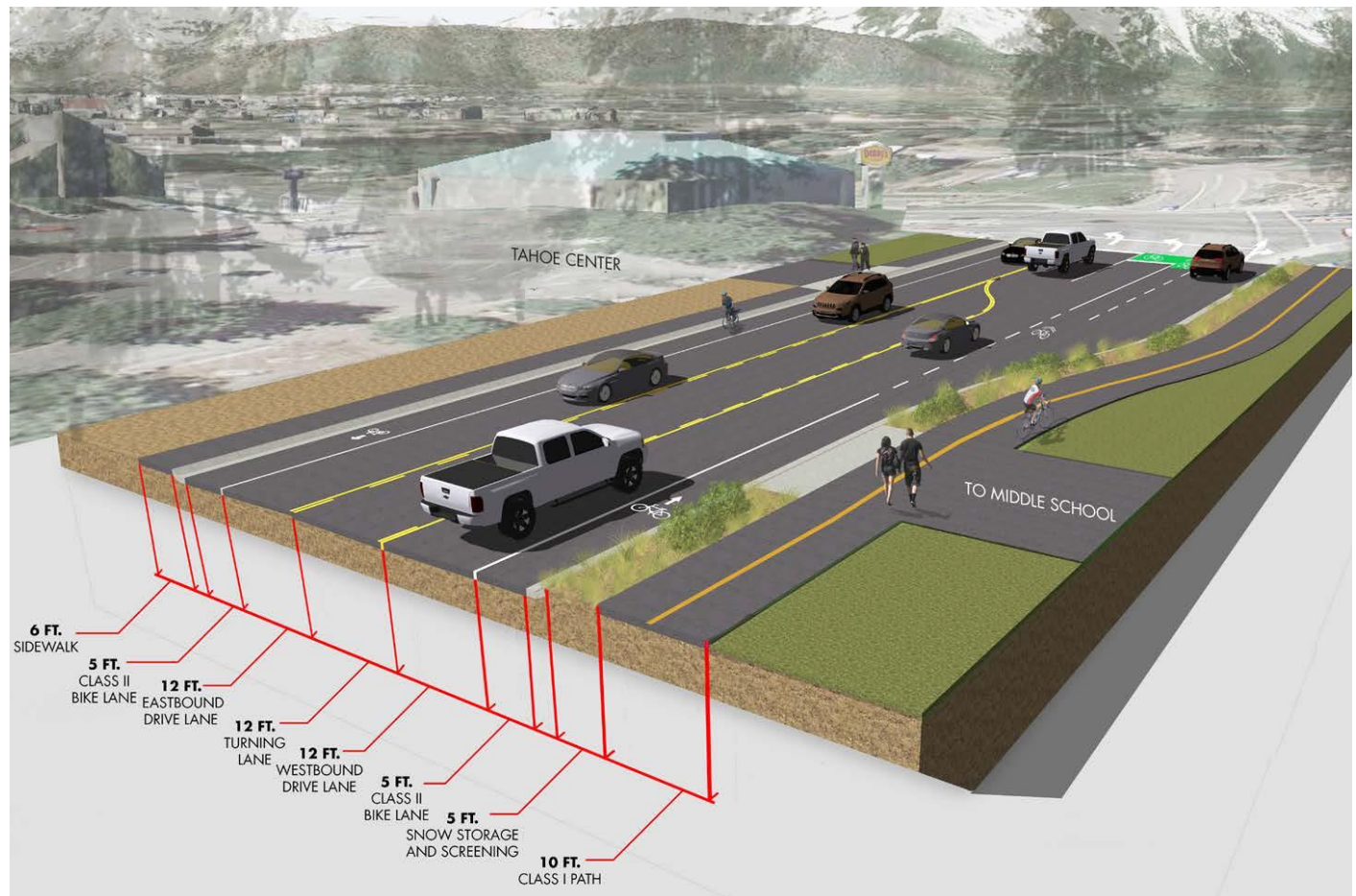
RECOMMENDATIONS: AL TAHOE BOULEVARD

- Narrow and reconfigure road to three lanes
 - Provide (1) 12-foot eastbound travel lane, (1) 12-foot westbound travel lane and (1) 12-foot center turn lane
- Add (2) 5-foot Class II bike lane striping with no parking signs
- Add a 10-foot Class I HMA path on north side with 5-foot bioswale for snow storage/screening
- Improve sidewalk on south side in front of the commercial center
- Add school zone signage
- Add a bus shelter at the existing bus stop
- Remove center bus barn driveway access
- Allow only right-turn in/out at Denny's entrance
- Narrow the two, one-way drive entries or consolidate to one, two-way drive entry and improve parking lot circulation
- Create consistent speed limit



Class I bike path example

RECOMMENDATION FOR AL TAHOE BOULEVARD FROM US 50 TO JOHNSON



Al Tahoe Boulevard mobility recommendations

Lake Tahoe Unified School District Safe Routes to School Master Plan | July 2015

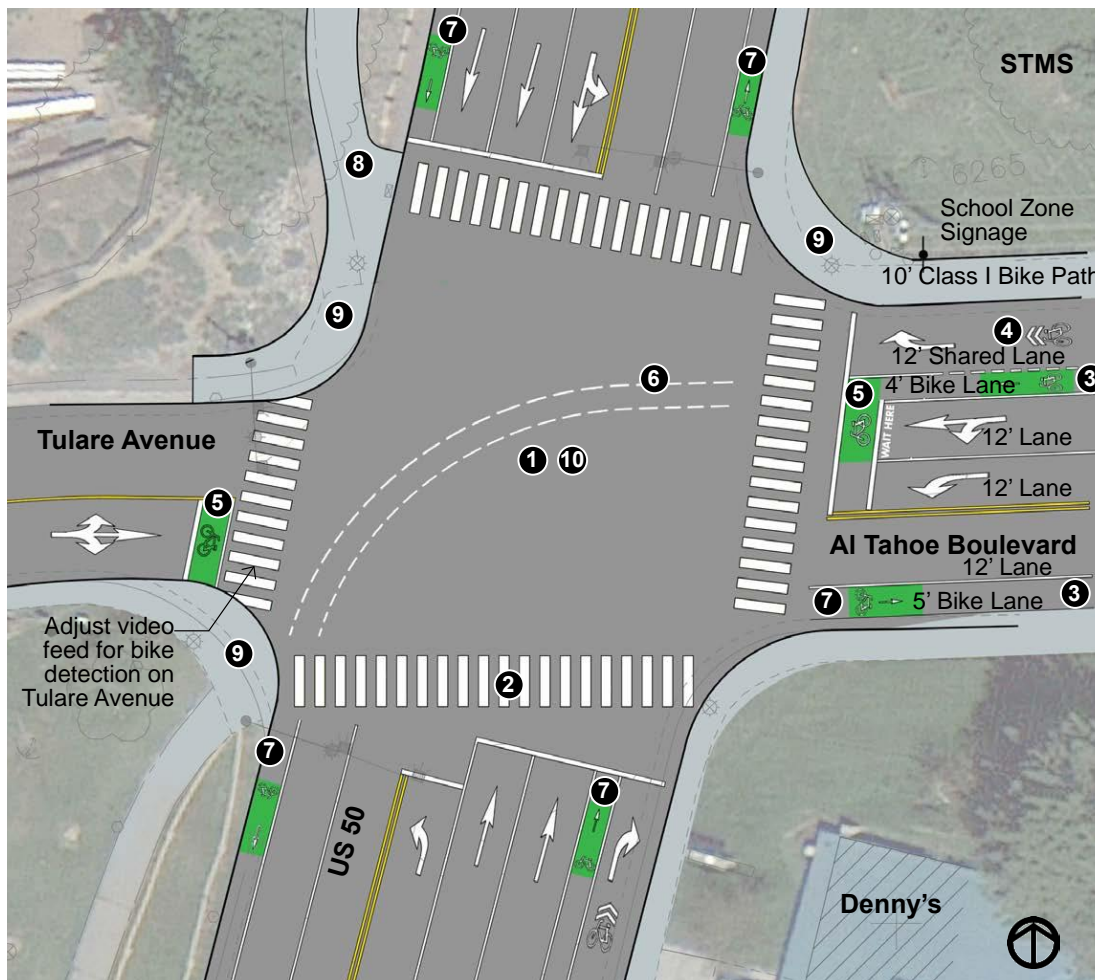
US 50/AL TAHOE INTERSECTION RECOMMENDATIONS

RECOMMENDATIONS: US 50/AL TAHOE INTERSECTION

- 1 • Adjust signal timing (3 feet per second during school arrival and dismissal)
- 2 • Add crosswalk to southern leg of intersection of US 50
- 3 • Add Class II bike lanes on Al Tahoe Boulevard north and south
- 4 • Add bike pocket/mixing zone on Al Tahoe Boulevard leg
- 5 • Provide bike box on Al Tahoe Boulevard and on Tulare Avenue
- 6 • Provide bike intersection markings to direct left turns from Al Tahoe Boulevard
- 7 • Provide green bike lane markings at the intersections
- 8 • Revise existing Class I bike path at northwest corner by laying back slope and combing the path and sidewalk
- 9 • Increase landing zone for bike lane users to cue on the northwest, northeast and southwest corners
- 10 • Add emergency detection equipment at signals to allow for emergency signalization override



Bike box example



US 50/Al Tahoe intersection recommendations

AL TAHOE/JOHNSON INTERSECTION RECOMMENDATIONS

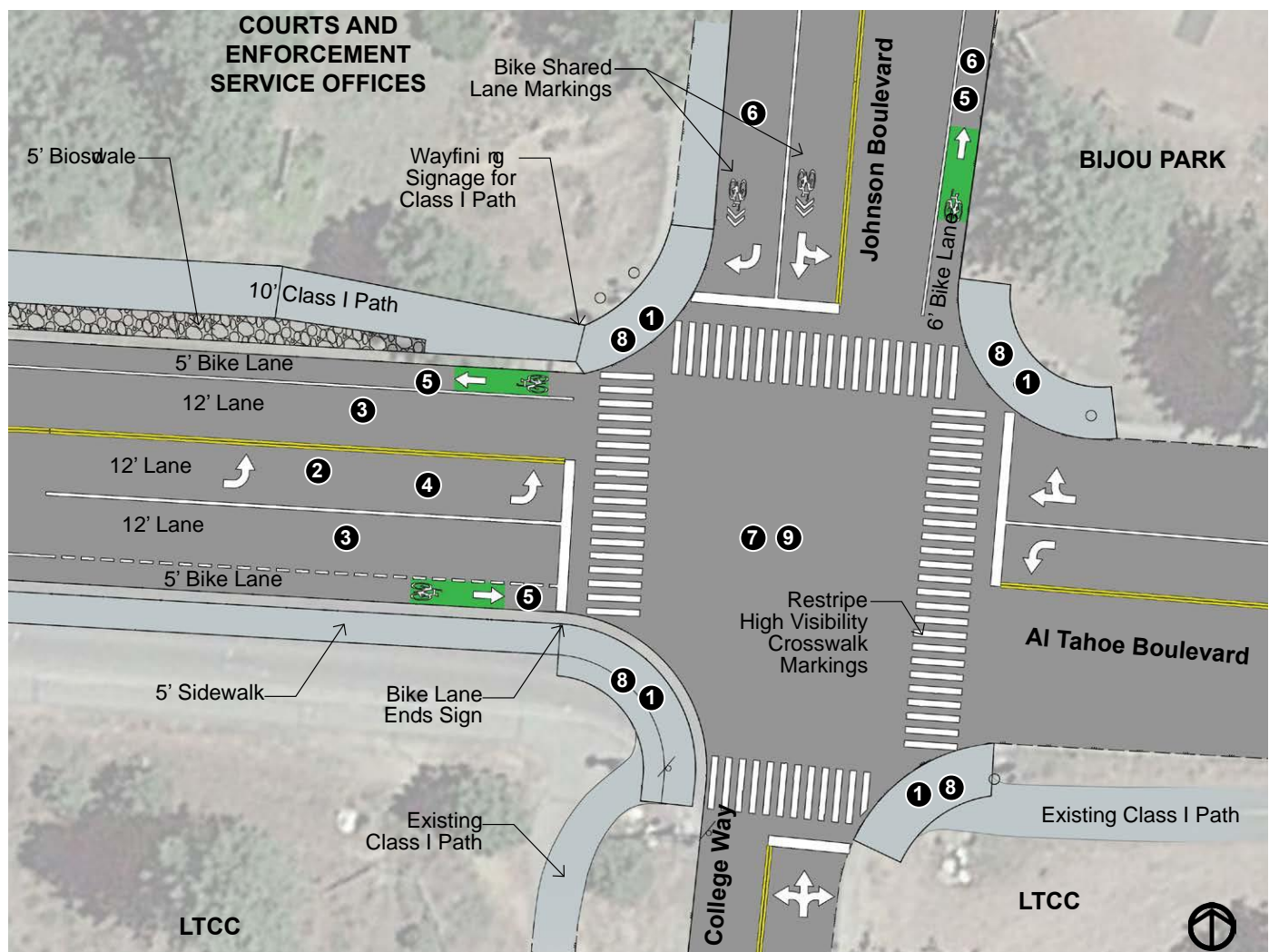
RECOMMENDATIONS: AL TAHOE/JOHNSON INTERSECTION

- 1 • Provide accessible curb ramps at all four legs of the intersection
- 2 • Reconfigure western leg of Al Tahoe Boulevard from five lanes to three lanes
 - 3 • Provide eastbound and westbound travel lanes
 - 4 • Provide a center left turn lane
- 5 • Provide green bike lane markings at the intersections
- 6 • Extend bike lanes to the intersection along Johnson Boulevard
- 7 • Add emergency detection equipment at signals to allow for emergency signalization override
- 8 • Upgrade pedestrian actuated signals
- 9 • Add video detection for bicyclists



Bike lane marking example

NOTE: Intersection improvements should consider recommended improvements for Johnson Boulevard and be adaptive to those future enhancements.

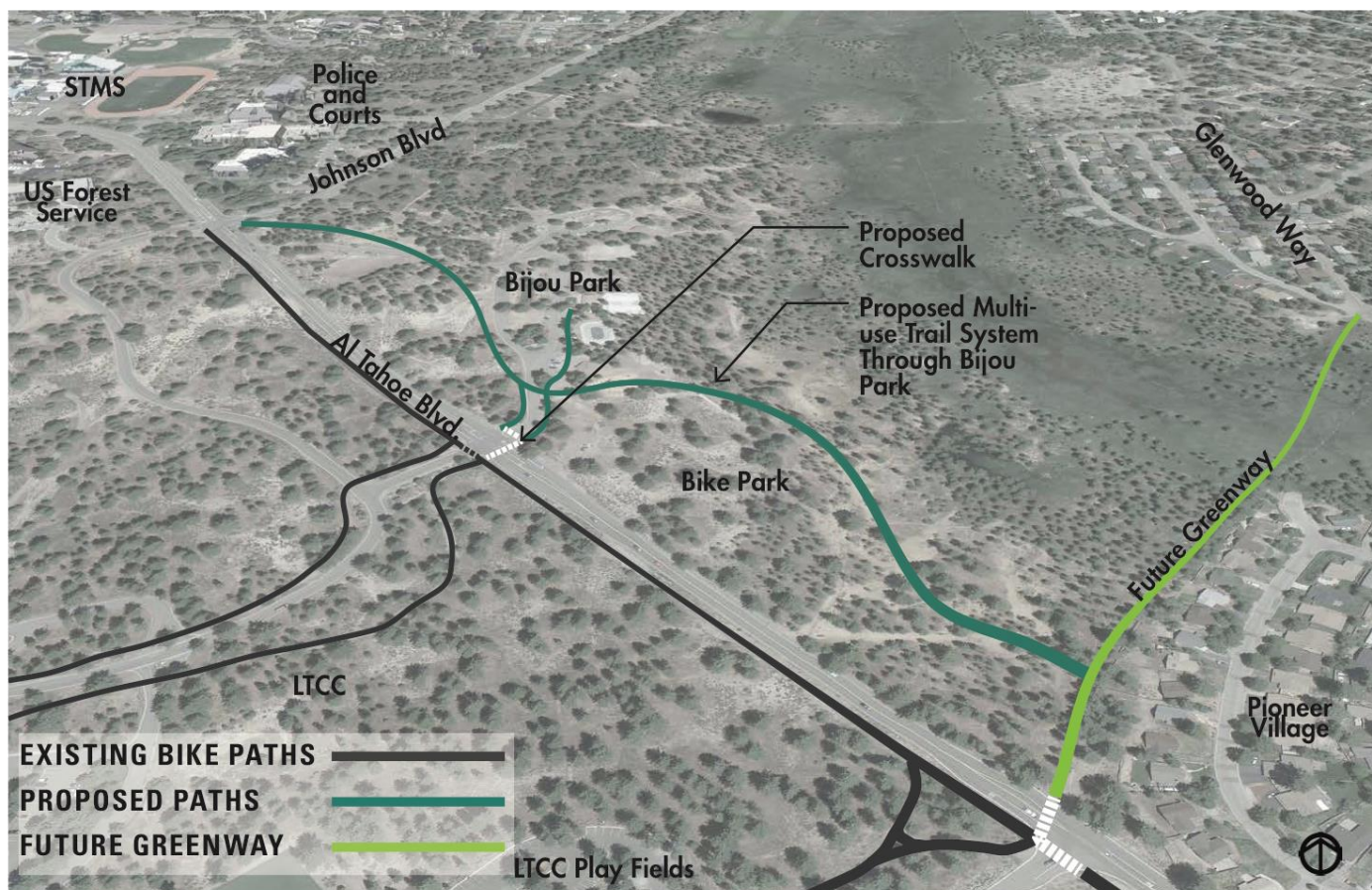


Al Tahoe/Johnson intersection recommendations

AL TAHOE BLVD (JOHNSON THRU BIJOU PARK) RECOMMENDATIONS

RECOMMENDATIONS: AL TAHOE BOULEVARD (JOHNSON BOULEVARD THRU BIJOU PARK)

- Create a multi-use trail connection through Bijou Park
- Provide the trail connection from the Johnson/Al Tahoe intersection southeast to the future Greenway
- Design trail to serve both through bicyclists and pedestrians and park users
- Develop sidewalk connections from Bijou Park facilities to the Bijou Park entry



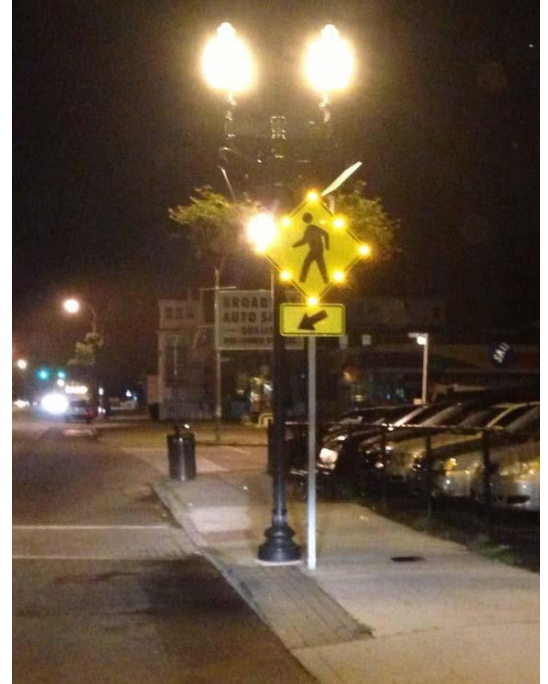
Looking north from Lake Tahoe Community College toward the Bijou Park entry

Lake Tahoe Unified School District Safe Routes to School Master Plan | July 2015

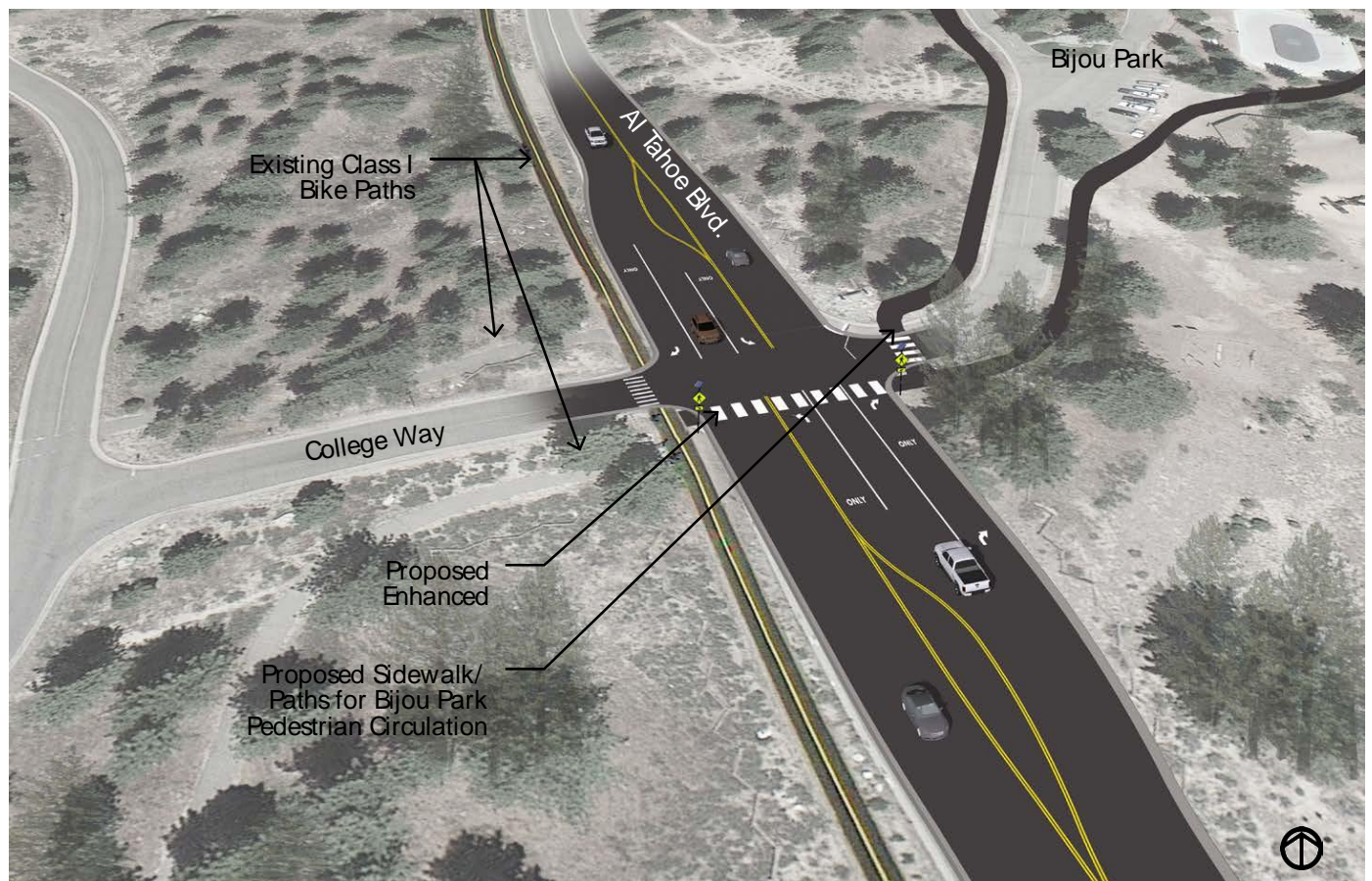
AL TAHOE BLVD (JOHNSON THRU BIJOU PARK) RECOMMENDATIONS

RECOMMENDATIONS: AL TAHOE BOULEVARD/BIJOU PARK INTERSECTION

- Provide an enhanced crosswalk at Bijou Park entry
 - Create a high visibility crosswalk from Bijou Park to the bike path paralleling the south (LTCC) side of Al Tahoe Boulevard
 - Provide a pedestrian actuated crossing sign



Example of a pedestrian actuated crossing sign



Looking north from Lake Tahoe Community College toward the Bijou Park entry

Lake Tahoe Unified School District Safe Routes to School Master Plan | July 2015

JOHNSON BOULEVARD RECOMMENDATIONS

RECOMMENDATIONS: JOHNSON BOULEVARD

- Narrow travel lanes to 11 feet
- Add Class I bike path on east (Bijou Park) side
- Add 7 - 8-foot widened shoulder on west side of roadway to accommodate shoulder parking
- Add 6-foot sidewalk on west side
- Develop intersection improvements at Marlette Circle (bulb-outs, high visibility crosswalk and pedestrian actuated crossing sign)
- Encourage nearby business and agencies to consider opportunities for increasing on-site parking capacity to reduce need for shoulder parking



Example of Class I separated bike path



Aerial diagram of recommended mobility improvements on Johnson Boulevard

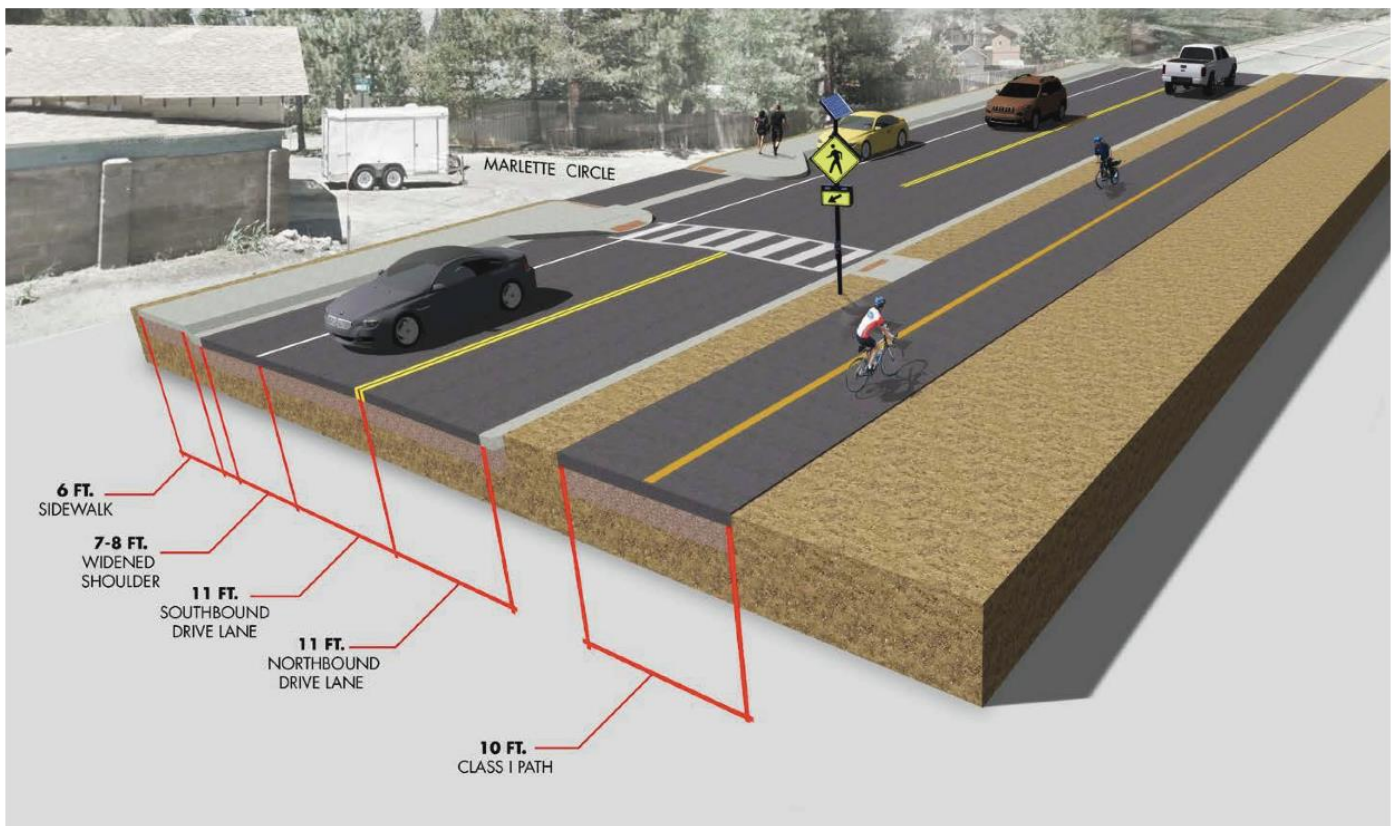


Diagram of recommended mobility improvements on Johnson Boulevard

Lake Tahoe Unified School District Safe Routes to School Master Plan | July 2015

BIJOU MEADOW EAST-WEST CONNECTIVITY RECOMMENDATIONS

RECOMMENDATIONS: BIJOU MEADOW EAST-WEST CONNECTIVITY

- Create a multi-use path connection across Bijou Meadow
- Connect the Bijou Community School and northern Bijou neighborhoods to the South Tahoe Middle School and recreation center community centers area
- Connect the Spruce Avenue/Blackwood Avenue area to Rufus Allen Boulevard
- Create an enhanced pedestrian crossing (signage and striping) at Johnson Boulevard/Marlette Circle

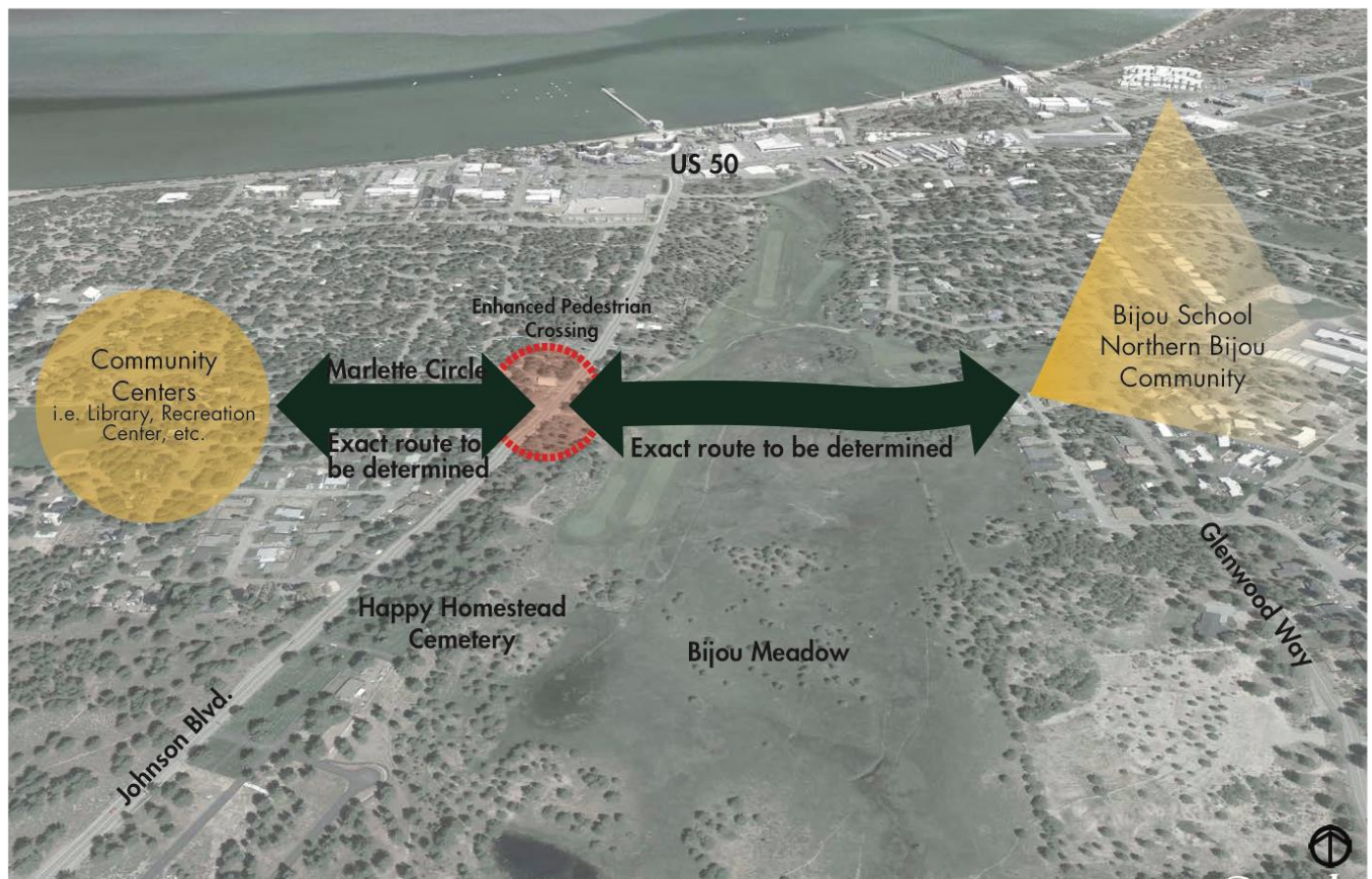


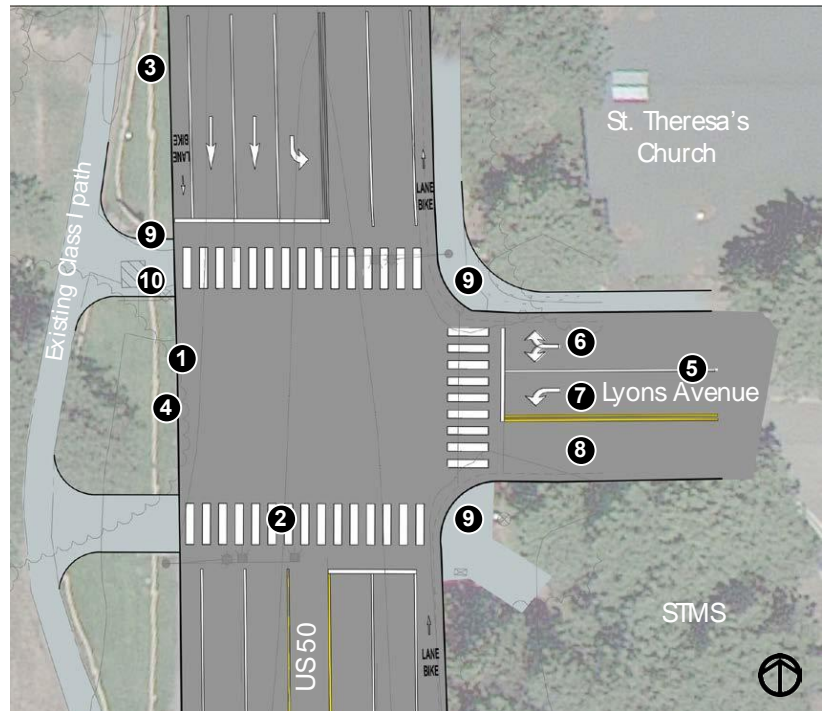
Diagram of east-west connectivity opportunities across Bijou Meadow

Lake Tahoe Unified School District Safe Routes to School Master Plan | July 2015

LYONS/US 50 INTERSECTION RECOMMENDATIONS

RECOMMENDATIONS: LYONS /US 50 INTERSECTION

- ❶ • Create flexible signal phasing that includes a scramble phase during peak school start and end hours
- ❷ • Add a high visibility crossing on south leg
- ❸ • Add school zone signage
- ❹ • Adjust signal timing
- ❺ • Restripe Lyons Avenue for center turn lane/two holding lanes
- ❻ • 14-foot right/left turn lane
- ❼ • 12-foot left only turn lane
- ❽ • 14-foot eastbound lane
- ❾ • Create larger landing area at northeast and northwest corner
- ❿ • Widen crossing with flared ramp for Class I ramp access



Recommendations for Lyons/US 50 Intersection



Example of advance stop bars



Example of flared curb ramp

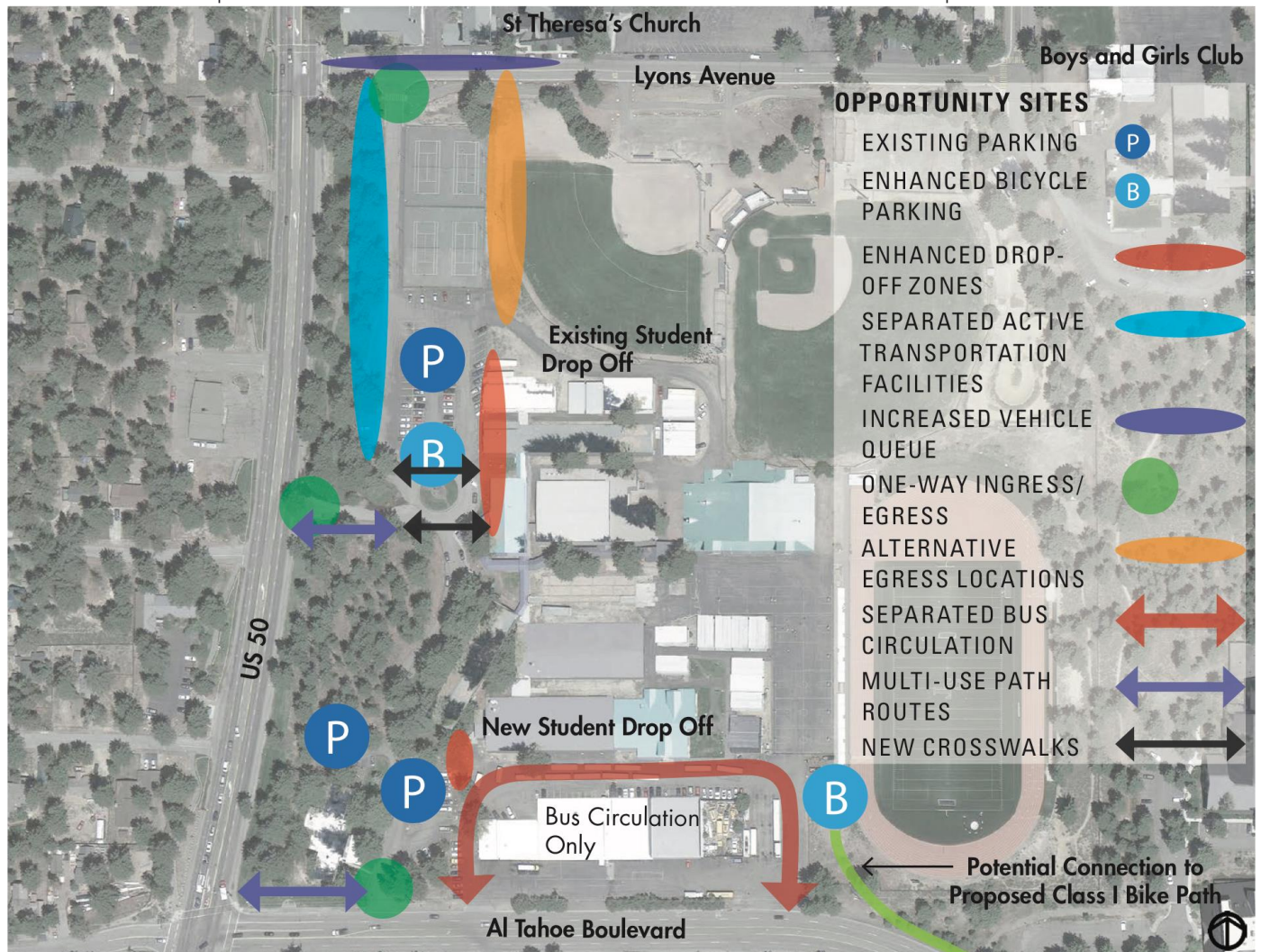


Example of scramble pedestrian crossing in Stateline, Nevada

MIDDLE SCHOOL CIRCULATION RECOMMENDATIONS

RECOMMENDATIONS: SOUTH TAHOE MIDDLE SCHOOL CIRCULATION

- Add multi-use path to school at US 50 entry
- Add multi-use path from US 50 to school entry along north side of Al Tahoe Boulevard
- Add a crosswalk for student to cross from the multi-use path to the school building between the traffic circle and northbound drop-off traffic
- Provide a crosswalk to the front office
- Increase protected, accessible bicycle parking
- Add Class I connection from proposed Class I path along Al Tahoe Boulevard
- Enhance drop-off areas to discourage parents from dropping students off at the Tahoe Center
- Evaluate opportunity sites to modify drop-off and pick-up vehicular circulation to minimize conflicts with bicyclists and pedestrians
 - Provide an additional morning student drop-off location between the bus garage and STMS building/entry fence
 - Create one-way ingress/egress at various locations
 - Create designated active transportation (walking and bicycling) facilities
 - Evaluate opportunity sites to revise egress locations
 - Evaluate opportunity sites to modify and disperse vehicular drop-off areas
 - Increase the available stacking area at Lyons/US 50 intersection
 - Maintain separation between bus circulation areas and vehicular and active transportation facilities

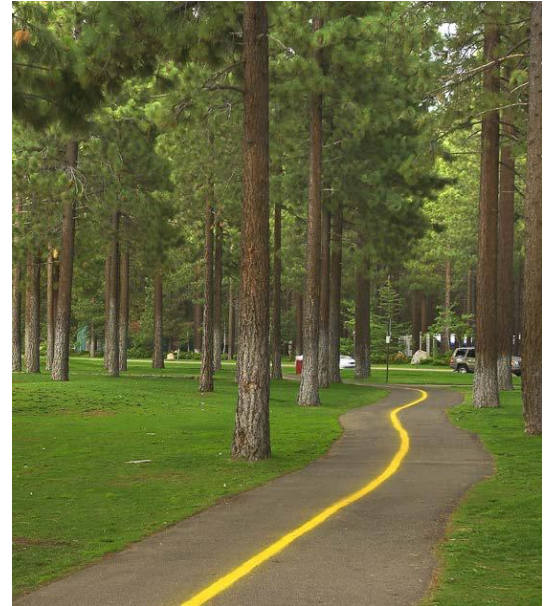


Opportunity sites for active transportation and vehicular circulation at the South Tahoe Middle School

LYONS AVE TO AL TAHOE BLVD NORTH-SOUTH CONNECTIVITY RECOMMENDATIONS

RECOMMENDATIONS: LYONS AVENUE TO AL TAHOE BOULEVARD NORTH-SOUTH CONNECTIVITY

- Develop a Class I bike path connecting the Class I bike path on Lyons Avenue south to the proposed bike path on Al Tahoe Boulevard
- Provide lighting
- Design route to provide opportunity for future ballfield expansion by the Lake Tahoe Unified School District



Bike path example

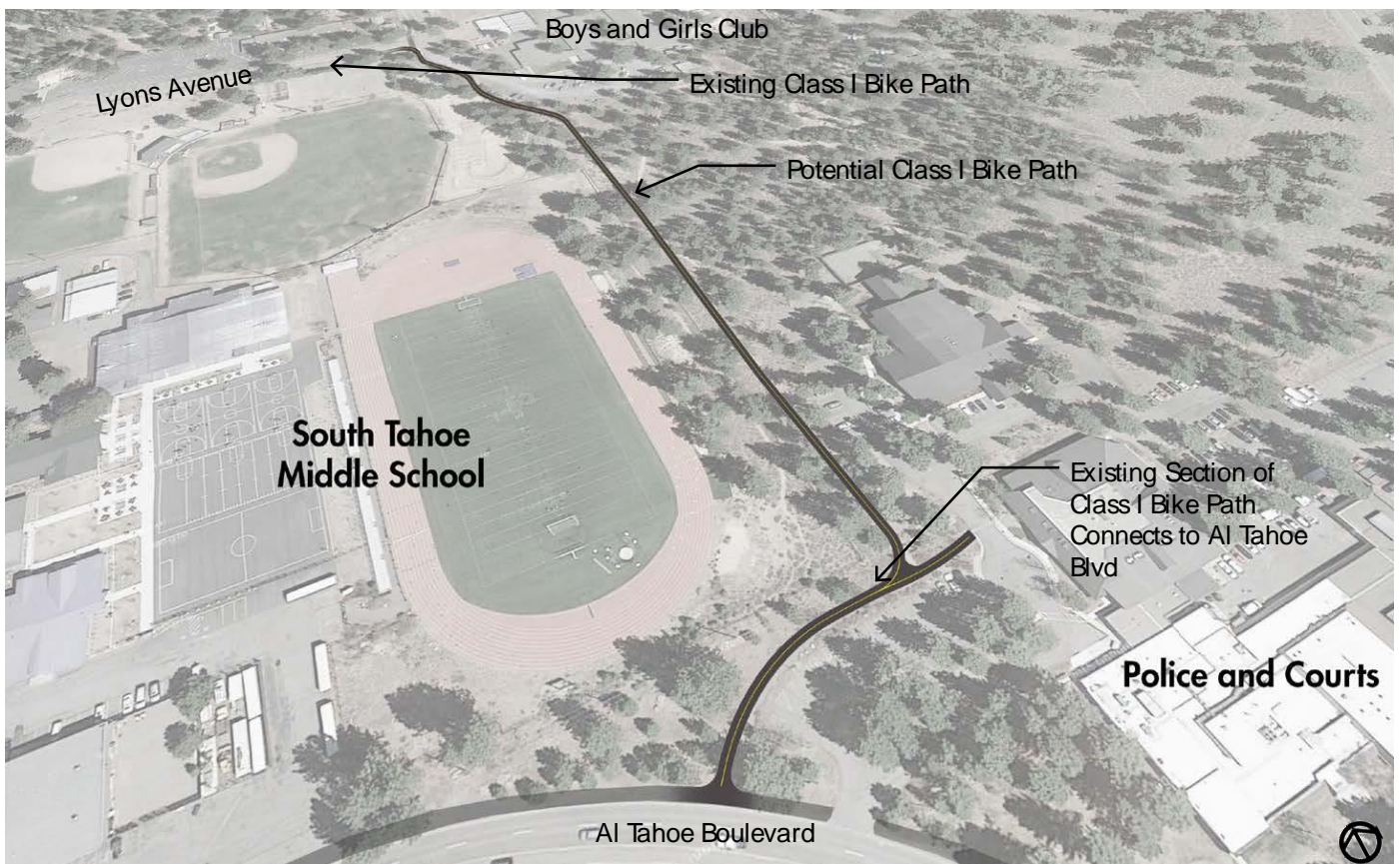


Diagram of north-south connectivity opportunity from Lyons Avenue to Al Tahoe Boulevard east of the Middle School track and field

Lake Tahoe Unified School District Safe Routes to School Master Plan | July 2015

RUFUS ALLEN BOULEVARD RECOMMENDATIONS

RECOMMENDATIONS: RUFUS ALLEN BOULEVARD

- Narrow travel lanes to 11 feet
- Continue Class I path on west side to connect the gap between the Rec Center and Lyons Avenue
- Coordinate improvements with Parks and Recreation Master Plan



Bike path example



Diagram of Rufus Allen Alternative 2 mobility improvements

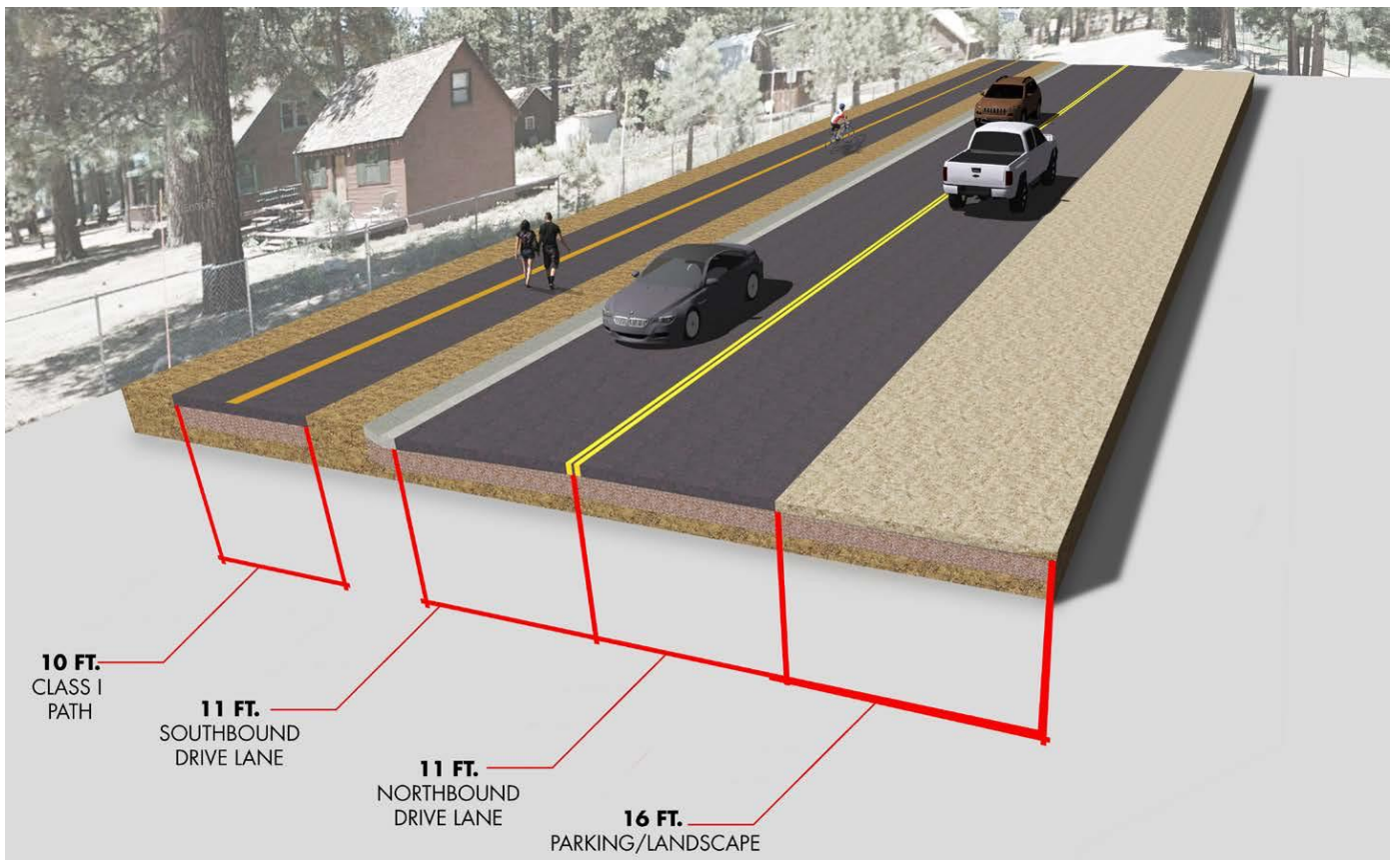


Diagram of Rufus Allen Alternative 2 mobility improvements: Class I bike path and narrowed travel lanes

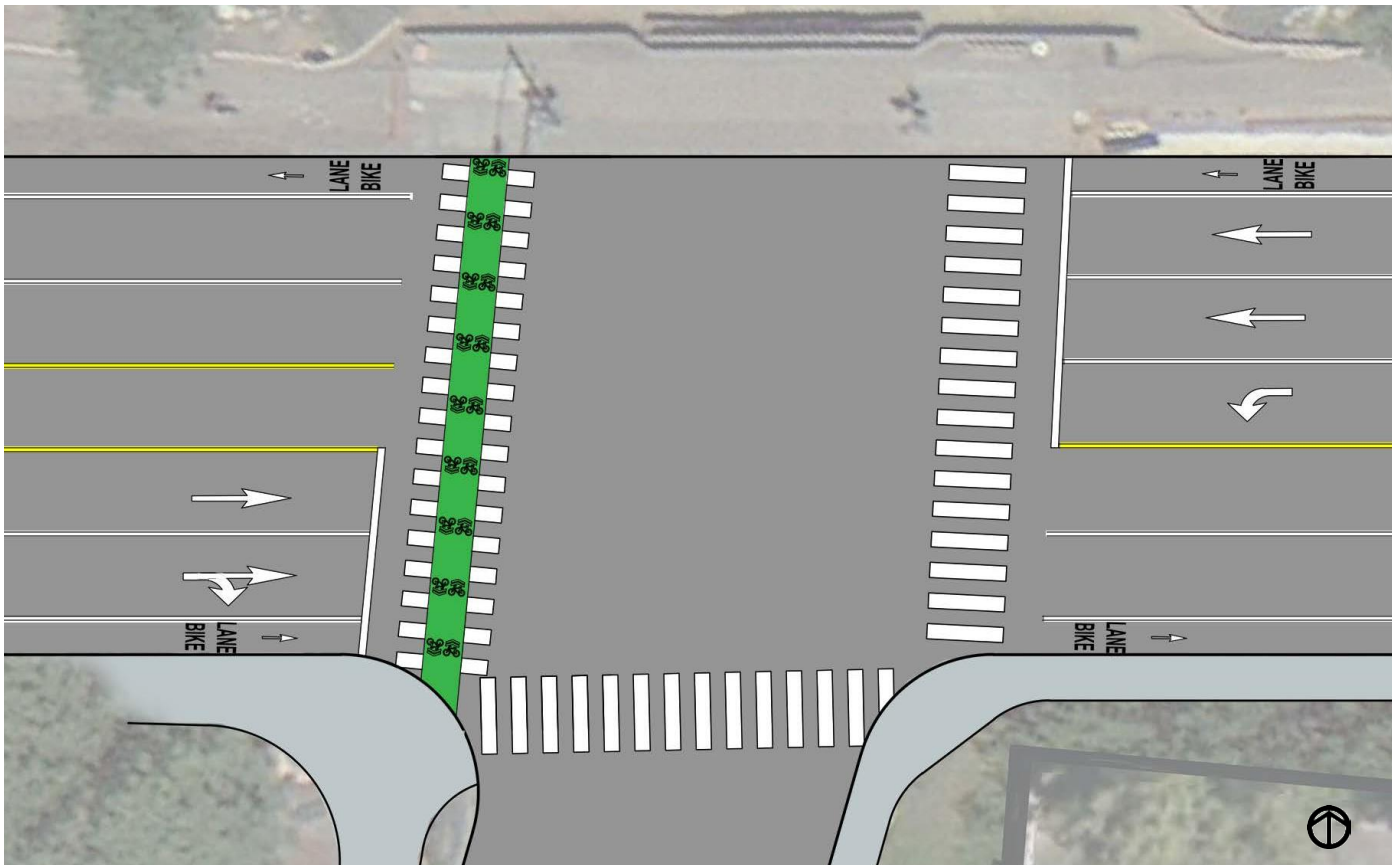
RUFUS ALLEN/US 50 INTERSECTION RECOMMENDATIONS

RECOMMENDATIONS: RUFUS ALLEN/US 50 INTERSECTION

- Widen pedestrian crossings of US 50 to 8 feet
- Provide a green painted crossbike crossing on the western leg of the intersection



Crossbike crossings separate cyclists from pedestrians



Recommended Rufus Allen/US 50 intersection enhancements

TROUT CREEK/US 50 EAST-WEST CONNECTIVITY RECOMMENDATIONS

RECOMMENDATIONS: TROUT CREEK/US 50 EAST-WEST CONNECTIVITY

LONG-TERM VISION PROJECT

- Raise US 50 and create a Class I Bike Path that crosses under US 50 at Trout Creek to connect to the existing Class I Bike Path paralleling the west side of US 50

Considerations

- Existing utilities under US 50 could be several feet below road surface
- Water level of Trout Creek could inhibit the use of bike facilities during wet periods unless the bridge was raised
- East-west Class I Bike Path connection from Trout Creek to Al Tahoe Boulevard should be developed in conjunction with the Trout Creek/US 50 crossing

ALTERNATIVE/SUPPLEMENTAL LONG-TERM VISION

- Develop a Class I Bike Path bridge crossing of Trout Creek on the east side of US 50
- Create an east-west Class I Bike Path connection from Trout Creek to Al Tahoe Boulevard
- Create a Class I Bike Path connection to Blue Lake Road from the new bridge



Bike path coordinated with Rock Creek bridge in Broomfield, Colorado

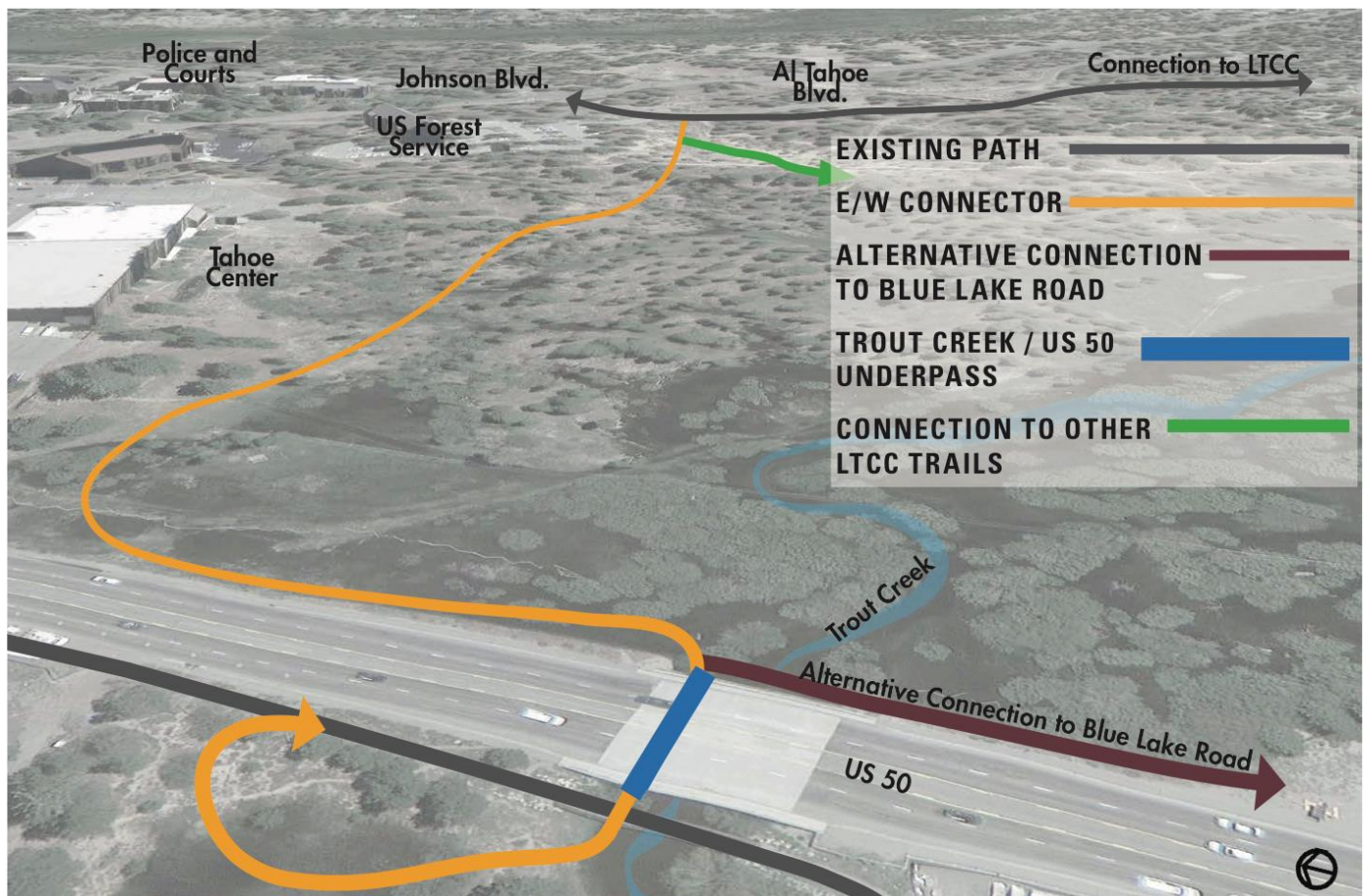


Diagram of east-west connectivity opportunities across US 50 at the Trout Creek bridge

Lake Tahoe Unified School District Safe Routes to School Master Plan | July 2015

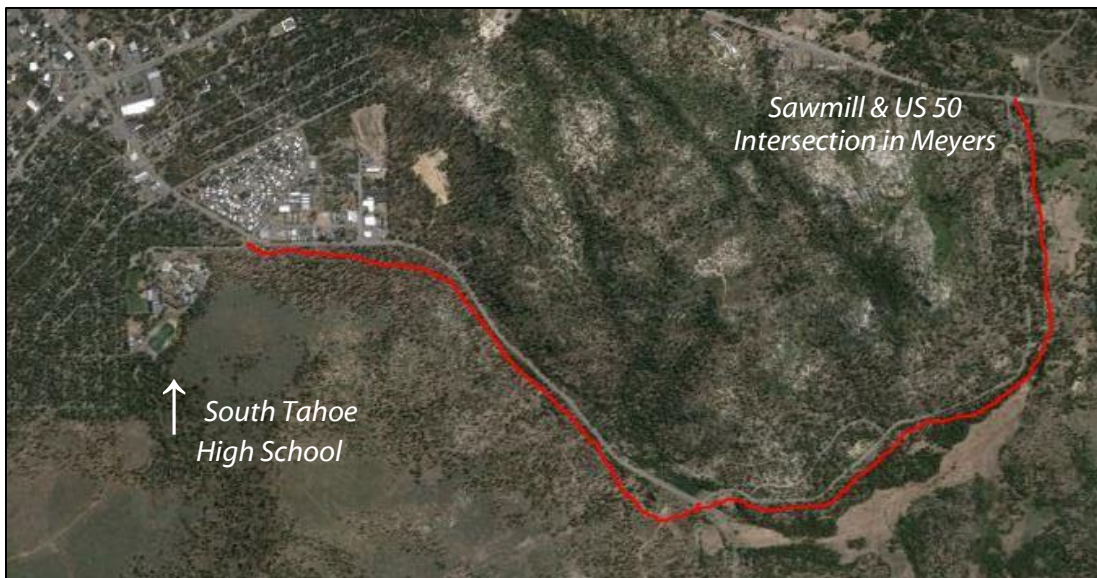
SOUTH TAHOE HIGH SCHOOL

In 2014, El Dorado County, in partnership with the US Forest Service and the City of South Lake Tahoe, constructed a shared-use path called the Lake Tahoe Boulevard Bike Trail. This trail was funded by a 2011 Safe Routes to School grant, as well as with local and regional funds. The trail connects the South Tahoe High School to the existing shared-use path, known as the Sawmill Bike Path that connects the community of Meyers with the City of South Lake Tahoe. The Sawmill Bike Path was completed in September 2015, finally closing the gap between Meyers and the City with a Class 1 trail. The Lake Tahoe Boulevard Bike trail also connects the North Upper Truckee neighborhood via an on street Class II facility, constructed in August 2015.



With the completion of the above projects, the South Tahoe High School is now accessible via active transportation connections to all the students in the Meyers, and North Upper Truckee neighborhoods. As the only high school serving the California side of the South Shore, this non-auto access is an invaluable asset.

Ribbon Cutting Ceremony of the Lake Tahoe Blvd Bike Path



STHS Accessed by the Lake Tahoe Blvd & Sawmill Bike Paths

SECTION 4: EDUCATION & ENCOURAGEMENT

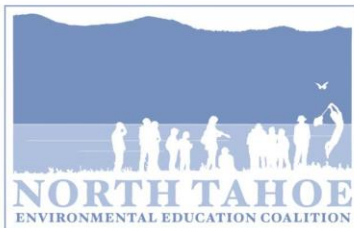
The development and implementation of Awareness and Education programs is a joint effort between many local organizations including LTUSD, TRPA/TMPO, the City of South Lake Tahoe Police Department, Lake Tahoe Community College, the Community Mobility Group, Lake Tahoe Bicycle Coalition, League to Save Lake Tahoe, Tahoe Area Mountain Biking Association (TAMBA), South Tahoe Environmental Education Coalition (STEEC), and North Tahoe Environmental Education Coalition (NTEEC).



Tahoe
Metropolitan
Planning
Organization



**TAHOE
REGIONAL
PLANNING
AGENCY**



"THE KEY TO A HEALTHY COMMUNITY"



**LAKE TAHOE
BICYCLE COALITION**



Some existing programs have been conducted in an ad hoc manner over the last ten years, at events such as bicycle rodeos, and during after-school activities. There are also several supporting programs sponsored by other organizations serving the local student-age population, including the Boys and Girls Club and the Recreation Center summer camp program. During 2015 several pilot projects were organized. These included Bike to School Week and participation in community events that included bicycle rodeos. This Plan makes the recommendation for a comprehensive and consistent Safe Routes to School Education & Encouragement Program that can be annually planned and implemented by a partnership of South Lake Tahoe agencies and volunteers. Activities may be implemented in phases, with some additional pilot (test) projects as organized this year. More information on the results of this year's pilot projects can be found in the 2015 Active Transportation Plan Community Outreach Report.

EXISTING PROGRAMS

As previously mentioned, a variety of programs and activities have been conducted to over the past ten years designed to increase education, awareness, and encourage the use of active transportation modes. These efforts are described below, and should continue as part of the Safe Routes to School Education & Encouragement Program.

After School Bike and Walking Clubs

Bijou Bike Club

At the Bijou Elementary School, there has been an after school bike club for six years. It meets every week of the school year. K-2 participants meet every other Wednesday and 3-5th grade participants meet the opposite Wednesdays. A wide variety of skills are taught and the students take supervised bike rides into the meadow and on surrounding trails and roads. Soon they will be able to use the new Bijou Bike Park located within short biking distance of the school. When the weather is inclement, the group meets inside to learn more about bike safety practices and bike repairs.



Sierra House and Magnet School Pre-school Running Clubs

These two elementary schools have morning running/walking clubs, called the Morning Milers. Participating students come and run/walk as many laps as they can during a specified period of time and earn points as an incentive. The goal is to walk the length of a full marathon (26.2 miles) by the end of the year. Many students have already achieved or exceeded that goal. This program begins in early spring and runs through late fall.

City of South Lake Tahoe Summer Camp and Boys & Girls Club Bike Rodeos

Each summer, the City's Summer Camp program (STAR Camp) is held at the Recreation Center and includes a bike rodeo event. At different times during the course of the summer, various bike skill-building stations are set out and counselors work with the campers to hone their bike skills. Similarly, the local Boys and Girls Club currently offers a Bike Camp as part of their summer program.



RECOMMENDED EDUCATION & ENCOURAGEMENT PROGRAM

By the 2016-2017 school year, it is recommended to have all students in grades K-8 from all district schools participating in at least 2-3 education and encouragement activities each year. Table 1 organizes the program activities by season and responsible partner agencies.

Bicycle Rodeo, Grades K-5

A Bicycle Rodeo consists of multiple stations that students rotate through over the course of a physical education class period. The stations not only educate on bike skills and safety, but also include discussion of the environmental benefits of active transportation and the importance of physical activity. All stations are interactive. Station themes range from checking to ensure your helmet is on properly, how to properly signal your bike turns and other movements, and weaving through an obstacle course of cones. Instruction and teaching materials become more advanced for older grades so students are able to refine their previously learned skills and learn new ones each year.

Pump Track Event, Grades 6-8

This event is similar to a Bicycle Rodeo, however it is designed specifically for Middle School students. In this activity, students learn bicycling skills in a mountain environment. Learning how to ride on dirt paths is important for Tahoe residents, as many of the bike paths used for recreation or just getting around town are dirt paths. The event would take place at the Bijou Bike Park which is a mountain bike park and pump track in South Lake Tahoe. By participating in this event, Middle School students will become more



Slow Bike Race

comfortable with mountain biking skills and have the opportunity to learn more advanced skills in a safe and fun environment. The park is conveniently located within walking/biking distance of the Middle School (and the main Boys and Girls club and Recreation Center), making this an easily assessable field trip or after school option.

Bike/Walk to School Day, Grades K-8

Through parent volunteers, and extensive outreach, students and their families will be challenged to walk or bike to school on a specific day. Volunteers will use Walk and Bike “Buses”, where children can meet at designated spots to be walked or biked to school with adult supervision. Existing school bus stops can be used as meeting points in some cases. The safest routes will be outlined in advance and distributed to students and parents. Over time, a monthly Bike/Walk to School Day should be implemented, weather permitting.

In-Class Education Series, Grades 2, 4, and 6

This recommended education series would take advantage of the opportunity to teach students about bicycle safety and the environmental benefits of alternative transportation in the classroom, keeping students informed and bike-aware during the winter months. The proposed curriculum includes activities specific to Lake Tahoe such as mapping their safe route to school as well as interactive presentations about biking and sustainability. The in-class curriculum provides the instructors the opportunity to go into greater detail about the topics that are brought up in related educational programs such as the bicycle rodeo.

It will allow the students additional time for questions and gain a more a thorough understanding. This classroom-setting series would be taught primarily by parent volunteers, TRPA/TMPO staff, and volunteers from local organizations such as the Community Mobility Group. The series would consist of 45-minute in-class sessions for each classroom of second, fourth, and sixth grades. In second grade, the focus would be more on walking and general street safety, such as street crossing, whereas by fourth and sixth grade, it will be more on specific bike safety and the traffic rules and regulations that govern bike riding in general.



Photo: Ty Polastri

South Lake Tahoe BMX Track
govern bike riding in general.

Walk and Bike Buses, All Grades

Walk and Bike Buses are organized by parent volunteers willing to supervise and lead a small group of students to school along a planned route, either by bicycle or walking. Walk and Bike Buses are especially useful during Walk and Bike to School Week but are encouraged year-round to ensure that the students who are walking or biking to school are doing so safely. A Walk and Bike Bus schedule with designated stops and times has already been organized for the Lake Tahoe Environmental Magnet School and has been used for several years. In June 2015, over 175 students, teachers and parents joined in a Walk and Bike Bus event in which participants biked an estimated average of 3 miles to the school site. Sierra House Elementary School also initiated a similar Walk and Bike Bus route for two different areas of the community and implemented program throughout the entire June 2015 Bike and Walk to School Challenge.

Golden Sneaker Contest, Grades K-5

As the biking and walking to school increases and becomes safer, we anticipate having several walk/bike to school days throughout the year, perhaps once a month. Participation will be tracked by class. Whichever class gets the most participation in that particular month, will receive the Golden Sneaker Trophy. There will be different standards for grades K-2 and 3-5.



TABLE 1: SAFE ROUTES TO SCHOOL EDUCATION & ENCOURAGEMENT PROGRAM

Activity	Grade	Season	Partners
Bicycle Rodeos	K-5	Fall and/or Spring	Physical Education Teachers, CSLT PD, CHP, TRPA/TMPO
Pump Track Event	6-8	Fall and/or Spring	Advocacy Groups, Physical Education Teachers
In-Classroom Education Series	K -8	Winter	Science teachers, TRPA/TMPO, Parent Volunteers
Bike to School Week	K - 5	Spring	Parent Volunteers, TRPA/TMPO, Advocacy Groups
Bike/Walk to School Day	All Grades	Monthly	Parent Volunteers
Walk & Bike Buses	All Grades	Monthly	Parent Volunteers
Golden Sneaker Contest	K-5	Monthly	Home Room Teachers, Advocacy Groups



Bike to School Week 2015

2015 PILOT PROGRAMS

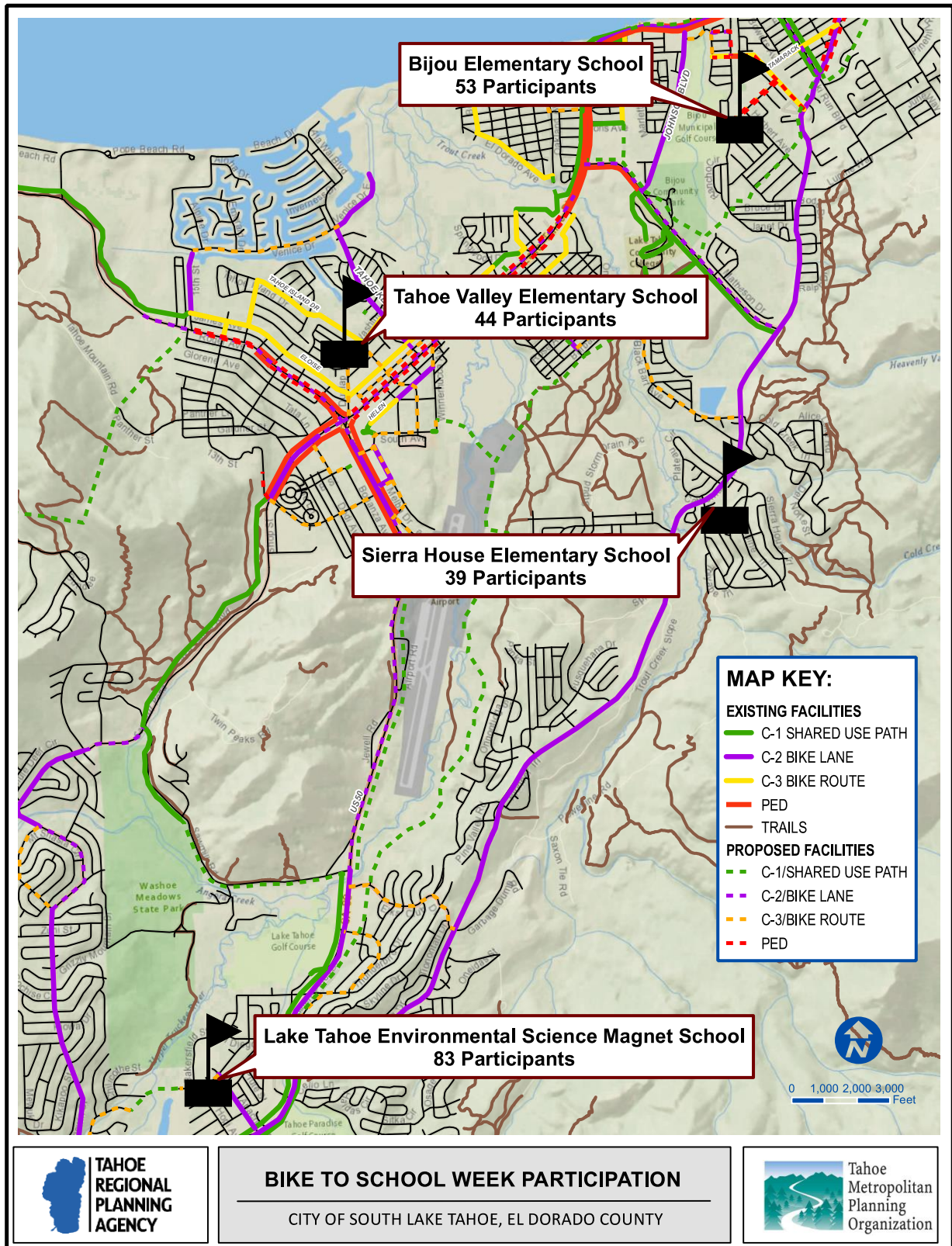
Bike to School Week

Bike to School week promotes active transportation at schools by coordinating group rides, providing route information, and offering recognition for those who participate. During the first week of June of 2015, the Community Mobility Group, in coordination with the Lake Tahoe Unified School District, encouraged South Lake Tahoe elementary school students to walk or ride their bikes to school. All elementary schools within the City of South Lake Tahoe and the town of Meyers participated. Coordinated rides included a series of drop off locations where parents could take students if they were too young to bike alone, didn't have a bike, or lived too far away. Students were escorted to their school from these locations by adult supervisors. Volunteers were stationed at each school to distribute and punch cards for each day a student used active transportation to attend school. At the end of the week, students were given recognition through the award of prizes. A local newspaper, *Lake Tahoe News*, featured an article about the program on June 4th, 2015 titled: "Youngsters Pedal to School in Bike Challenge."



*Lake Tahoe
Environmental
Science Magnet
School Bike to
School Week
2015*

MAP 5 –ELEMENTARY SCHOOL BIKE TO SCHOOL WEEK RESULTS



TRPA MAP DISCLAIMER: This map was developed and produced by the TRPA GIS department. It is provided for reference only and is not intended to show map scale accuracy or all inclusive map features.

Bicycle Rodeos

During Bike to School week, TRPA/TMPO partnered with the Community Mobility Group and the California Highway Patrol to put on a Bicycle Rodeo activity at Lake Tahoe Environmental Science Magnet School on June 4, 2015. The event included students from grades 3, 4, and 5. In total, 175 teachers and students rode their bikes to school that day and once they arrived to the school, students were escorted to three different themed stations: safety, environmental benefits of active transportation, and rules of the road:

- **Station 1: Traffic Jam** – An interactive game teaching students about bicycle safety, health benefits, and rules of the road.
- **Station 2: Slow Bike Race** – The winner is the student who can ride his/her bike as slowly as possible and still stay on, teaching control.
- **Station 3: Carbon Dioxide Tags** – Game that simulates CO₂ trapped in the atmosphere and teaches students the impact humans have on climate change.



Bicycle Rodeo Activities

Following the successful Bicycle Rodeo event at the Magnet School, the Lake Tahoe Bicycle Coalition and TRPA/TMPO conducted a second Bicycle Rodeo at the Lake Tahoe Bike Challenge Cycle Celebration on June 20, 2015. This event included nine stations that provided education for students about bicycle safety and rules of the road:

- Station 1 – Registration
 - 1a – Take the Helmet Fit Test
 - 1b – Bike Fit and Safety Check
- Station 2 – Mounting and Dismounting
- Station 3 – Stop on a Dime
- Station 4 – Changing Direction
- Station 5 – Straight Line Control
- Station 6 – Avoiding Hazards
- Station 7 – Weaving and Maneuvering
- Station 8 – Driveway Exit
- Station 9 – Finish Line

COMMUNITY EVENTS

Cycle Celebration/Kids Zone

The Bike Coalition's Bike to Work Challenge in early June culminates with a large celebration on the final day, called the Cycle Celebration. There are many booths, contests and activities, including awards that recognize community members dedicated to the cause of cycling, bicycle education, and/or the development of bicycling infrastructure. As described previously, the 2015 event included a Kids Zone booth operated by the Community



2015 Cycle Celebration

Mobility group. This booth promoted bike riding, safety and information. Among other activities, the Kids Zone had an on-going jeopardy game for young people with questions on bike-related and environmental awareness issues. It is recommended that this should be an annual activity.

Earth Day

Each year, there is a major community Earth Day event held at Bijou Community Park. There is always a bike section, where bikes can be valet parked which helps to promote biking to the event. Free bike maintenance, repair, and bicycle safety tips are provided. Earth Day 2016 will have the added benefit of the new Bijou Bike Park, a great venue to promote more hands on learning and skill building.

Volunteering at the Bijou Bike Park

There will be numerous volunteer days for those who want to help build and manage the Bike Park. The volunteer opportunity is a community led effort by members of the Tahoe Area Mountain Bike Association (TAMBA) and personnel from the City of South Lake Tahoe. The park will be open to the public and free of charge. There will also be numerous bike education events held at that venue.

SECTION 5: ENFORCEMENT

Promoting active transportation through safer and more convenient infrastructure and educating users how to appropriately use infrastructure and obey road rules are important components of safe routes to school planning. However, in order to create lasting culture and behavior change to significantly reduce conflict between motorists, bicyclists, and pedestrians, the active enforcement of roadway regulations is imperative. Emphasis should be on fostering respect and accepting responsibility for the rights of all users of infrastructure facilities, whether trails, roads or other.

Enforcement must work in tandem with education. Programs may be implemented in phases. This partnership is evident in the Education & Encouragement Program where officers from the City of South Lake Tahoe Police Department and California Highway Patrol staff and participate in bicycle rodeo stations. Other enforcement strategies may include:

Phase 1: Educate & Build Rapport

This phase may include having booths at events to educate, give away appropriate safety and educational items, and re-enforce good behavior. Annually (during the first few weeks of school), law enforcement should monitor pick-up and drop-off locations at each school to help educate and enforce good transportation behaviors. In some cases, warnings and tickets may be issued in areas of high safety risk. During these efforts, all modes of transportation should be targeted. Some areas of focus to consider particularly in school zones are:

- Speed control
- Driving under the influence
- Aggressive driving
- School circulation regulations
- Failure to yield at crosswalks
- Three Foot Passing law
- Riding the wrong direction in a bike lane
- Not observing signalization
- Not using arm signalization (for bicyclist)



SLTPD at the Boys & Girls Club Bicycle Rodeo

Phase 2: Increase Enforcement Activity

This phase continues the program of citations, but on a more consistent and aggressive level. Enforcement should focus on serious violations. Media outreach should be included such as articles in newspapers, radio ads and social media networking. Outreach can include information about roadway rights and regulations, as well as updates on how education and enforcement strategies are working.

Phase 3: School Zone Speed Recorder Boxes

As culture and behavior changes, on-going, constant enforcement may not be necessary. One way to maintain enforcement, particularly in school zones, may be through the use of permanent speed recorder boxes.



SLTPD Bike Unit

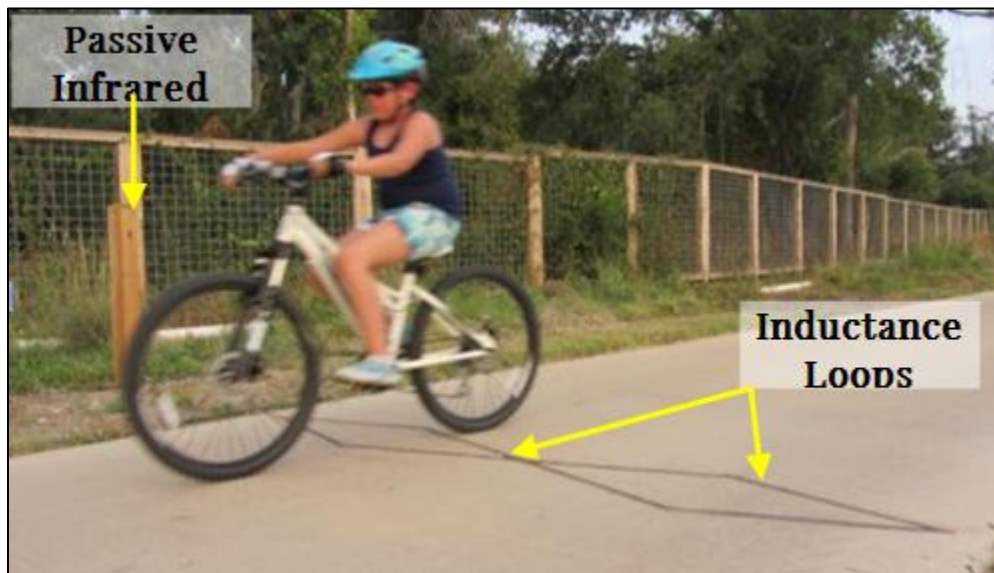
SECTION 6: EVALUATION

A variety of methods have been put in place by TRPA/TMPO to assist local jurisdictions, the school district, and community groups evaluate the effectiveness of their SRTS programs and other active transportation planning efforts. These include the Lake Tahoe Bicycle & Pedestrian Monitoring Protocol, and the annual Active Transportation Plan Implementation Report.

BICYCLE & PEDESTRIAN MONITORING PROTOCOL & IMPLEMENTATION

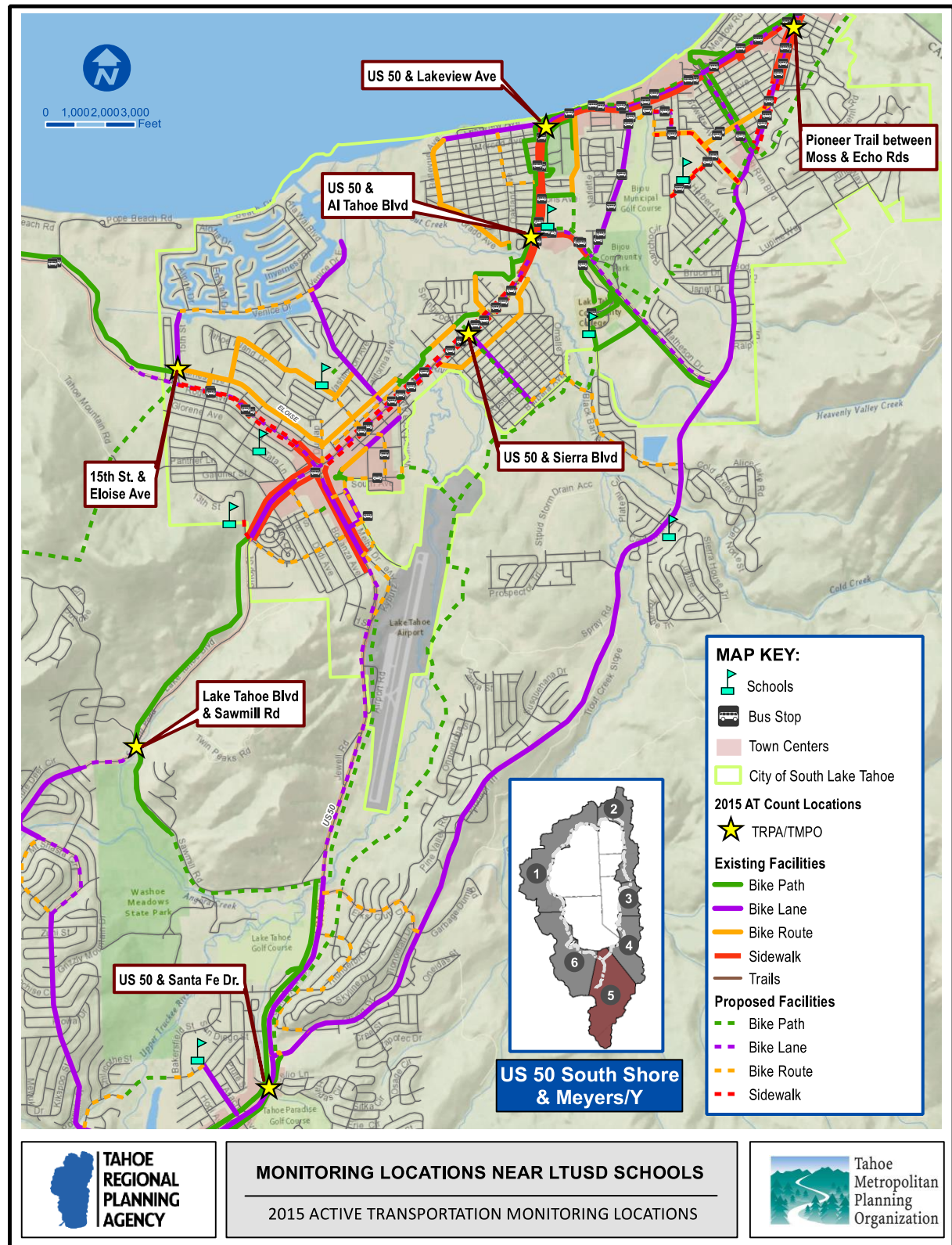
TRPA/TMPO has developed the Lake Tahoe Region Bicycle and Pedestrian Monitoring Protocol to establish a clear and consistent approach to collecting bicycle and pedestrian volume data within the Region. By implementing the Protocol, TRPA/TMPO is building on prior bicycle and pedestrian monitoring programs conducted by a variety of partners throughout the Region. This will help create a coordinated, consistent on-going monitoring program to track changes in bicycle and pedestrian volumes. The data collected as part of this annual program can be used for a variety of purposes including project prioritization, safety analysis, utilization trends, as well as to provide support data for grant applications.

As part of the Protocol, criteria were developed to help determine preferred count locations throughout the Region. In order to increase knowledge of current use by the school community, and provide safer, more convenient connections to schools, one of the criteria is defined by proximity to an existing school location. For 2015, a variety of locations that serve the student population have been selected for monitoring.



Bicycle Monitoring Detection Loops

MAP 6 – MONITORING LOCATIONS NEAR LTUSD SCHOOLS



ACTIVE TRANSPORTATION PLAN IMPLEMENTATION REPORT

Starting in 2016, the TRPA/TMPO will annually report on implementation of the Goals & Policies of the Active Transportation Plan, formerly called the Lake Tahoe Bicycle & Pedestrian Plan. This will include updates on meeting performance measures, project implementation, and outreach activities. The programs and projects in this Plan are part of the greater Active Transportation Plan, and will be addressed in the Active Transportation Plan Implementation Report as part of the overall TRPA/TMPO Annual Report.

LAKE TAHOE REGION BICYCLE AND PEDESTRIAN PLAN

Technical
Amendment
December 2014

2010

SECTION 7: NEXT STEPS

Implementation of the Lake Tahoe Unified School District Safe Routes to School Master Plan will require a strong partnership between multiple agencies and governments, school district staff, local advocacy groups, and community members.

Various actions by each will help advance the recommendations detailed in this Plan. Below are a variety of actions each partner should consider implementing over the next few years to help accomplish the goal of increasing active transportation among students and their families.

ACTIONS

An **SRTS Advisory Committee** should be formed and lead the implementation of this Plan. The Advisory Committee should be comprised of representatives from LTUSD, CSLT, El Dorado County, TRPA/TMPO, and advocacy groups, such as the Community Mobility Group. The Committee will be responsible for coordinating partners, implementing recommendations, and prioritizing projects based on current needs, opportunities, and available funding sources. The Committee will also use evaluation criteria to prioritize project implementation. Criteria will follow a value system that first considers benefits hierarchically, as illustrated in Figure 1.



Figure 1: Project Evaluation Value System

Evaluation criteria may include analysis of the topics below as well as other issues that may be relevant, such as adjacent project construction:

- Direct Connection to School
- Acquisition of Right of Way
- Measure of Safety Enhancement
- Ease of Construction
- Public Input
- Connectivity to Community Needs (Commercial)
- Connectivity to Community Recreation

Caltrans: work cooperatively with the City of South Lake Tahoe to improve active transportation facilities near all schools along the US 50 corridor.

City of South Lake Tahoe City Council: adopt this Plan as the official Safe Routes to School Master Plan for the City and direct staff to prioritize SRTS projects and fund implementation. Once formally directed, **CSLT staff** should integrate STRS projects into the City's Capital Improvement Program (CIP), prioritizing STRS engineering projects as appropriate within the context of the City's CIP and pursue all applicable funding sources for project implementation, working with Caltrans when necessary to improve active transportation and supporting infrastructure along US 50.

Lake Tahoe Unified School District: adopt the this Plan as the official Safe Routes to School Master Plan for the District and direct staff to prioritize SRTS projects, fund implementation, assist with outreach, monitoring, and project participation. Once formally directed, **LTUSD staff** should also work with partners on implementation of the SRTS Education and Encouragement Program.

Law Enforcement agencies: participate in the Education & Encouragement Program by assisting with bicycle rodeos through the use of funding from the Office of Traffic Safety (OTS). Also, help educate the community by participating in community events, enforcing regulations in high safety risk areas, and conducting media outreach campaigns. These agencies can plan and conduct enforcement activities on and/or around school property at the beginning of each school year, and work with the City, Caltrans, and the school district to implement the use of speed recorder boxes.

Local Advocacy Groups: work collaboratively with the City, District Staff, and community members to seek funding opportunities and participate on project development teams (PDT) for engineering projects. **Advocacy groups** should also help organize volunteers, conduct media outreach, and assist/support implementation of and the in all applicable elements of the Education & Encouragement Program.

Tahoe Regional Planning Agency / Tahoe Metropolitan Planning Organization: include this Plan as part of the regional Active Transportation Plan, continue to offer funding opportunities for SRTS engineering projects and programs through the On Our Way Grant Program or another source(s), implement the Lake Tahoe Bicycle & Pedestrian Monitoring Protocol, and annually produce the Active Transportation Plan Implementation Report.

Students, Parents, & Community Members: actively participate in SRTS programs offered by partners. **Students** should increase their use of active transportation modes with the support of their families and friends. **Teachers** should work with parents to implement the Education & Encouragement Program by corresponding with partners and making school class time available and part of their curriculum. **Parents** should work with partners to help implement the Education & Encouragement Program by volunteering, and participating in community events.



APPENDIX A:

SOUTH TAHOE MIDDLE SCHOOL AREA CONNECTIVITY PLAN

SOUTH TAHOE MIDDLE SCHOOL CONNECTIVITY PLAN

LAKE TAHOE UNIFIED SCHOOL DISTRICT
OCTOBER 2015



FUNDED BY AN ON OUR WAY GRANT FROM
THE TAHOE REGIONAL PLANNING AGENCY

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Lake Tahoe Unified School District

Lake Tahoe Sustainability Collaborative, Community Mobility Group

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City of South Lake Tahoe

South Shore Transportation Management Association

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CHAPTER 1: INTRODUCTION

Chapter 1 provides an overview of the Connectivity Plan. It describes the origin of the planning study and project need. In addition to stating the plan's vision, goals and objectives, the chapter summarizes the planning approach.

INTRODUCTION

INTRODUCTION

CONTEXT FOR THIS PLAN

South Tahoe Middle School (STMS) is true to its name, both educationally and geographically. It is located in the mid-town area of the City of South Lake Tahoe (City) and in the center of a haphazard network of formal and informal pedestrian and bicycle trails. The areas of the City and the community-serving facilities at and around the Middle School provide an ideal opportunity to improve mobility infrastructure in a manner that promotes safer walking and biking to and from a variety of destinations. This South Tahoe Middle School Connectivity Plan (Connectivity Plan) represents a significant step forward for the goals of increased student safety and health and enhanced community connectivity.

BACKGROUND

In early 2014, the Tahoe Regional Planning Agency (TRPA), in its role as the Tahoe Metropolitan Planning Organization (TMPO), launched the On Our Way Grant Program. The purpose of the program was “to help Lake Tahoe communities in identifying neighborhood-level transportation and community improvements to meet Region-wide sustainability goals of creating walkable, mixed use centers, encouraging biking, walking, and transit use, supporting economic vitality, and reducing impacts to the environment.” The TRPA/TMPO goal was that products of the On Our Way program would inform the Regional Transportation Plan update, Lake Tahoe Region Bicycle and Pedestrian Plan update, Area Plans and other regional and local plans and would lead to the construction of capital improvements and/or the approval of new policies and programs over the short-term.

The Lake Tahoe Unified School District, in partnership with other agencies and community mobility activists, set an ambitious goal of preparing and submitting two grant applications by the March 14 deadline. Partners included the Community Mobility Work Group of the Lake Tahoe Sustainability Collaborative and the City of South Lake Tahoe. This collaboration paid dividends with the award of two grants: a small grant for \$10,000 to develop a Safe Routes to School Master Plan and a large grant in the amount of \$153,625 for development of the South Tahoe Middle School Connectivity Plan. A key goal of preparing this Connectivity Plan was to identify a high priority project for implementation, prepare schematic drawings, and assemble an application for final design and construction funds to the California Active Transportation (ATP) grants program by the spring of 2015.

THIS PLAN

This Connectivity Plan provides a summary of the study efforts; a description of all the potential projects identified through Middle School, school district, City, agency and community outreach; and a description of the high priority project selected for the ATP grant application. All Connectivity Plan recommendations can be incorporated into an overall Safe Routes to School Master Plan (SRTS) for the Lake Tahoe Unified School District (the Connectivity Plan is an appendix to the School District’s SRTS Master Plan) as well as into the draft update of the regional bicycle and pedestrian plan (Linking Tahoe: Active Transportation Plan for Bicycles, Pedestrians, and Safe Routes to School), updates to the Lake Tahoe Environmental Improvement Program (EIP), and updates to the City of South Lake Tahoe’s Capital Improvement Program (CIP).

PROJECT LOCATION

The study area includes the roadways, trail corridors and intersections around the Middle School. It extends from the southwestern edge of the US 50/Trout Creek bridge crossing east to the future Greenway and north through Bijou Meadow to US 50. It includes the following roadways, intersections and meadow areas:

Roadway Corridors

- Al Tahoe Boulevard
- Johnson Boulevard
- Lyons Avenue
- Rufus Allen Boulevard

Intersections

- US 50/Al Tahoe
- Al Tahoe/Johnson
- Lyons/US 50
- Rufus Allen/US 50

Meadow Areas/Open Space

- Open space east of the STMS track and field
- Bijou Meadow
- Trout Creek/US 50 area

PROJECT NEED

PROJECT NEED

The project area was selected due to its high number of educational and public facilities and the disconnectivity of the active transportation system. A large concentration of community facilities are within walking distance from the Middle School: the Boys and Girls Club, the Recreation Center, the county library, Bijou Park and Bike Park, Lakeview Commons, the county courthouse, the South Lake Tahoe police department and the county Sheriff's department.

Currently, a Class I path parallels the south side of Al Tahoe Boulevard from Pioneer Trail to Johnson Boulevard. The route connects to the Lake Tahoe Community College (LTCC), but it terminates at the Al Tahoe/Johnson intersection and does not connect to either the Middle School or the Class I facility west of US 50. Pedestrians and cyclists continuing west from the bike path's termination at Johnson Boulevard either use a damaged sidewalk that turns into a dirt path, enter the roadway and use the narrow shoulder or cross to the north and use a narrow dirt trail.

At the US 50/Al Tahoe intersection only three of the four intersection legs provide a marked crosswalk across the five-lane roadways. Cyclists and pedestrians can arrive to the intersection via a Class I bike path on the west side of US 50 but cannot cross the southern leg of US 50 to access the shopping center, post office, community

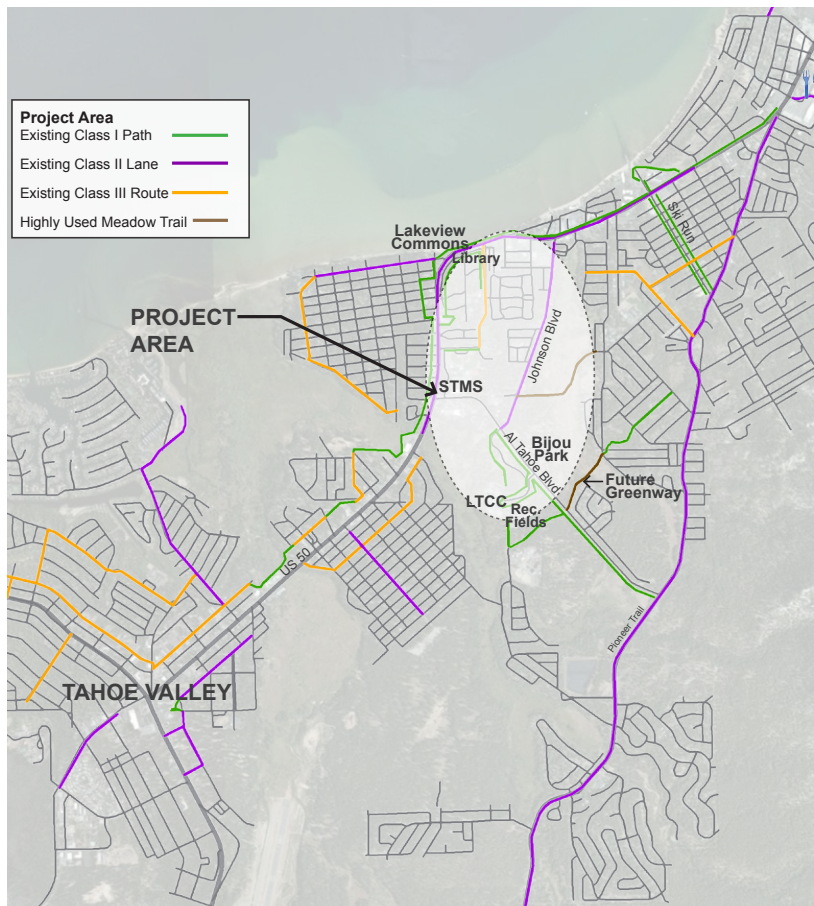


Figure 1: Project Study Area



Youths crossing Al Tahoe at a mid-block location instead of crossing at the intersection crosswalk



Lack of active-transportation facilities



Cyclist riding in dirt path against traffic along Al Tahoe Boulevard headed toward Johnson Boulevard

VISION

college or the Class I path continuing east along Al Tahoe Boulevard from the Johnson Boulevard intersection to Pioneer Trail. Rather, active transportation users wishing to cross from the southwest corner to the southeast corner must cross the intersection three times to reach their destination. This intersection, and the Lyons/US 50 intersection are both used by students walking and biking to and from school.

Connectivity gaps and safety concerns for active transportation users also exist along other road corridors. The Class I path on Rufus Allen Boulevard ends at the City's Cooperation Yard and does not reach the Boys and Girls Club. Speeding is an issue on Johnson Boulevard and on Al Tahoe Boulevard. No pedestrian facilities are provided on Johnson Boulevard and the roadway's Class II bike lanes end before the Al Tahoe Boulevard intersection and the Class I facility along Al Tahoe Boulevard from Johnson Boulevard to Pioneer Trail.

The City is investing in new recreation improvements at Bijou Park and LTCC recently passed a \$55M bond measure to enhance college facilities. These improvements will likely increase the need to provide safe active transportation facilities for residents and visitors to reach the project area's destinations.

VISION

The Connectivity Plan aims to enhance the overall active transportation network in the City of South Lake Tahoe with an emphasis on providing those routes which may directly benefit safe access to schools in order to provide students improved active transportation routes to and from school, after school activities and nearby recreational opportunities. The design and implementation of high priority active transportation facilities will safely connect students, and the greater community, to the South Tahoe Middle School and its recreation facilities, the City of South Lake Tahoe Recreation Center and Gym, the City of South Lake Tahoe Bijou Park and Bike Park, the South Tahoe Greenway Shared Use Trail and the Lake Tahoe Community College.

GOALS + OBJECTIVES

- Increase the safety and convenience of pedestrians and cyclists.
- Provide improvements to the existing bicycle and pedestrian network in and around the Middle School, community college and City civic and recreation facilities.
- Evaluate traffic and roadway configurations and their ability to support enhanced active transportation networks such as pedestrian and bicycling facilities.
- Coordinate alignments with potential future recreation improvements at the Middle School.
- Identify economically feasible alternatives.
- Identify opportunities to increase the safety of students walking and biking to and from school and after-school destinations in order to increase the number of walkers and cyclists.



Existing Class I bike path that currently ends at Johnson Boulevard



Bike lane along Johnson Boulevard ends before the intersection with Al Tahoe Boulevard



Bike path along Lyons Avenue north of the Middle School

PROCESS + METHODOLOGY

- Evaluate grade-separated crossings where appropriate to reduce the conflicts between active transportation users and vehicles.
- Reduce the exposure of pedestrians and cyclists to vehicles.
- Capture existing pedestrian and cyclist use data.
- Develop schematic design level drawings of a high priority project.
- Assemble a 2015 California Active Transportation Program (ATP) grant submission.
- Identify anticipated costs, funding opportunities and potential partnerships.
- Identify short term and long term implementation opportunities.
- Improve school pick up and drop off circulation and conditions for all users.

PROCESS + METHODOLOGY

The planning process included six primary phases:

- Existing conditions assessment
 - Traffic counts and turning movements
 - Pedestrian and cyclist counts
 - Mapping
 - Field reconnaissance/walking audits
- Alternatives formulation
- Alternatives analysis and prioritization
- Recommendations development
- Schematic plan development of the high priority project
- Grant application for the high priority project

Community Engagement

Public outreach was incorporated into every phase of the planning process. The Connectivity Plan stems from the Safe Routes to School Study and Community Outreach conducted in 2014. Public workshops and broad community surveys provided forums for public input during the site assessment and alternatives formulation as well as during the alternatives analysis. In addition to local agency involvement, community groups and organizations were engaged to provide input and offer insights. Chapter 3 provides a more in-depth summary of the community engagement process and results.



Community participation during the existing conditions assessment and alternatives formulation



Spanish translation of workshop notifications



Community participation in the alternatives workshop

CHAPTER 2: EXISTING CONDITIONS + OPPORTUNITIES

Chapter 2 documents the existing land uses and transportation facilities within and around the South Tahoe Middle School. This includes the land uses, active transportation trip generators, street network, bicycle facilities, pedestrian facilities, and other elements that affect walking and cycling and the ability to develop improved facilities. The analysis of the existing conditions reveals gaps in the active transportation network and highlights areas with potential for mobility improvement. The connectivity opportunities are grouped by sub-area and organized according to the type of facility improvement (e.g., intersection and linear.)

REGIONAL CONNECTIVITY

REGIONAL CONNECTIVITY

Two significant regional trail systems could be connected via project area bicycle infrastructure improvements. First, phase 1a of the South Tahoe Greenway Shared Use Trail (Greenway) was constructed in 2015 from Glenwood Way to Herbert Avenue. Future phases are planned to connect Van Sickle Bi-State Park in Stateline, Nevada, through South Lake Tahoe to Meyers, California to the south. The Greenway will connect to the existing Class I facility along the southwestern portion of Al Tahoe from Pioneer Trail to Johnson Boulevard.

Second, a Class I facility runs west and north of US 50 from Stateline, Nevada, through South Lake Tahoe to El Dorado County and the recreation destinations in the Camp Richardson area. The majority of the Class I system is complete and the remaining section from Lakeview Commons to Ski Run Boulevard is scheduled for completion in the upcoming years.

The Project Area is central to both regional networks. The lack of a Class I facility along Al Tahoe Boulevard from Johnson Boulevard to US 50 is a significant missing link between the two networks.

Similarly, the lack of Class II facilities on Al Tahoe separates the regional Class II network along Pioneer Trail and the regional Class II network on US 50.

DESTINATIONS SERVED BY THE PROJECT AREA

The Project Area presents a significant opportunity to improve bike and pedestrian connectivity to important community facilities by closing active transportation network gaps around the Middle School. The centralized location means that almost all of the commercial, office, housing and civic destinations within the City boundaries are within a three-mile biking distance of the project area (see Figure 3 and Table 1).

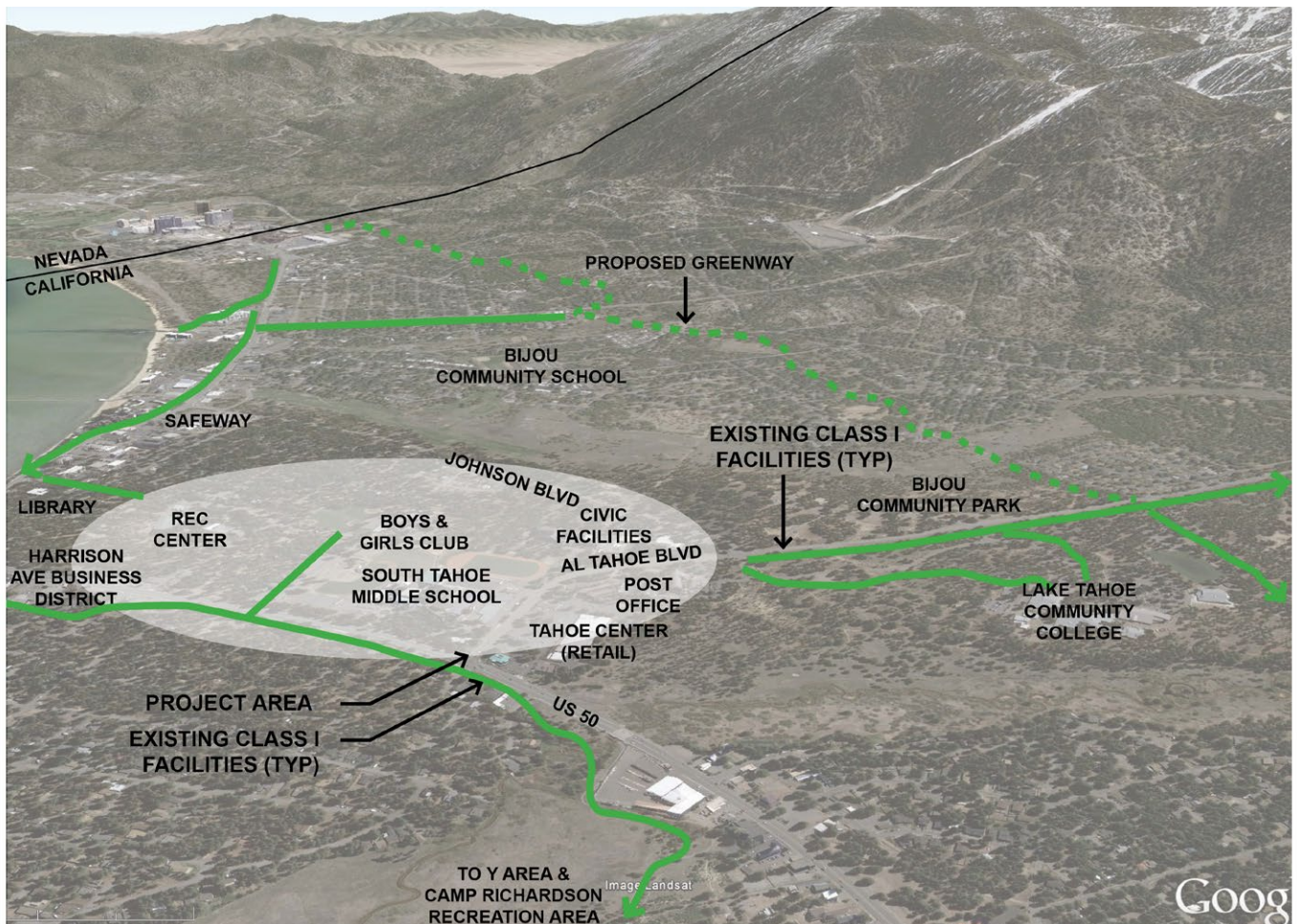


Figure 2: Relationship to Regional Trail Systems

REGIONAL CONNECTIVITY

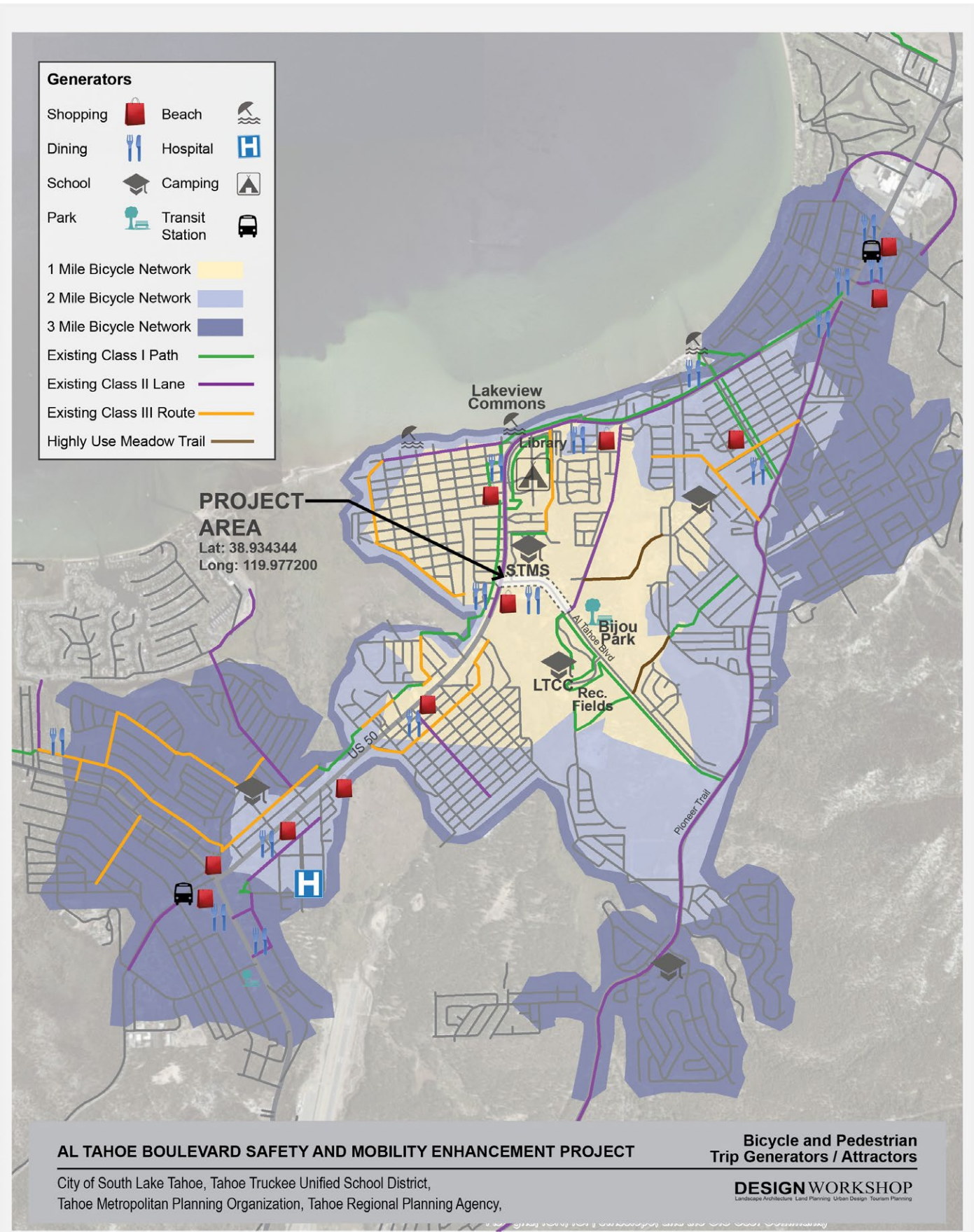


Figure 3: Relationship to Community Destinations

REGIONAL CONNECTIVITY

Table 1: Destinations Served by the Project Area

CATEGORY	DESTINATIONS WITHIN IMMEDIATE PROJECT AREA	DESTINATIONS WITHIN ONE-MILE ¹	DESTINATIONS WITHIN TWO-MILES ¹	DESTINATIONS WITHIN THREE-MILES ¹
Neighborhoods (population served)	Al Tahoe	Pioneer Village	Bijou ^{1,2}	Stateline ²
	Total pop. 1,870	Bijou ²	Sierra Tract ² (all)	Heavenly Valley ²
		Sierra Tract ² (part)	Highland Woods ² (all)	Tahoe Island Park (all)
		Highland Woods ² (part)	Y Area ² (part)	Tahoe Island Drive
		Total pop. 2,478	Tahoe Island Park (part)	Gardner Mountain
			Black Bart ¹	Tahoe Valley
			Total pop. 7,797	Y Area ² (all)
				Montgomery Estates
				Total pop. 8,223
Educational and Medical Institutions	South Tahoe Middle School		Bijou Elementary School	Sierra House Elementary School
	Lake Tahoe Community College		Tahoe Valley Elementary School	Barton Hospital and Medical Facilities
	Boys and Girls Club			
Civic and Transit Facilities	Post Office	County Library	County Assessor's Office	City Offices
	County Superior Court		DMV	South Y Transit Center
	SLT Police Department			Explore Tahoe – Stateline Transit Center
	Sheriff's Office			
	Blue Ridge School Juvenile Facility			
	County Veteran's Services			
Community, Recreational & Visitor Facilities	Future Greenway/Class I Regional Trail System Facility	El Dorado Beach and Lakeview Commons	Regan Beach	Bonanza Park
		Bijou Golf Course	Timber Cove Marina	Ski Run Marina
	City of SLT Class I Regional Trail System Facility	Senior Center		Camp Richardson/Valhalla Class I Regional Trail System Facility
	Community Playfields			Van Sickle Bi-State Park
	Little League Fields			
	Campground by the Lake			
	Recreation Center & Ice Rink			
	Bijou Park			

REGIONAL CONNECTIVITY

CATEGORY	DESTINATIONS WITHIN IMMEDIATE PROJECT AREA	DESTINATIONS WITHIN ONE-MILE ¹	DESTINATIONS WITHIN TWO-MILES ¹	DESTINATIONS WITHIN THREE-MILES ¹
Commercial/ Employment Centers	Tahoe Center Shopping Center	Harrison Avenue Business District	Ski Run Blvd. Business District	South Y Business District
		Safeway Shopping Center	3rd Street/Tahoe Keys Business District	Heavenly Village Commercial Core
		Swiss Chalet Shopping Center	Grocery Outlet	Raley's Shopping Center (Stateline & Y locations)
				Pioneer Trail Business District

¹Based on a GIS network analysis of Class I, II and III facilities, low-volume roads, and two commonly-used user trails.

²Includes high density/affordable housing.

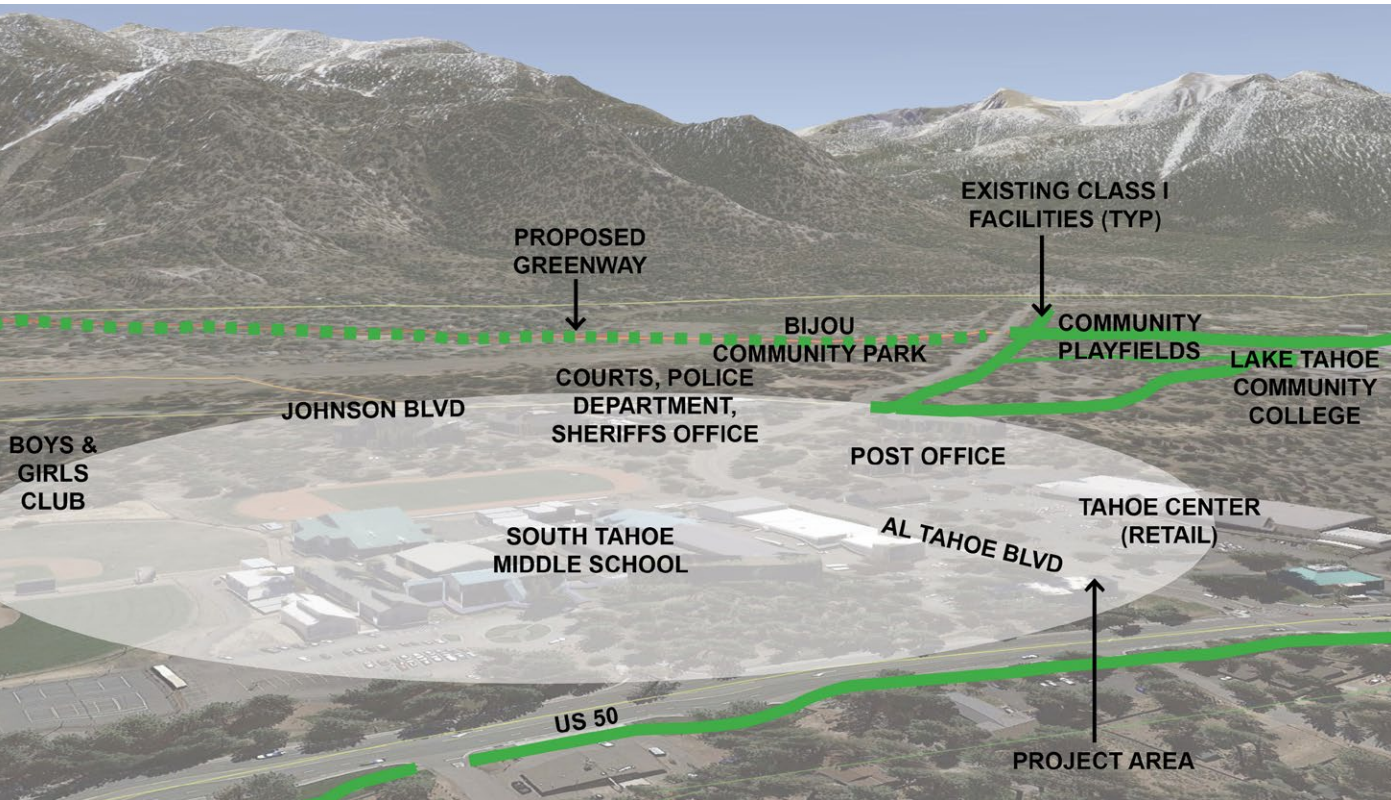


Figure 4: Destinations within the Immediate Project Area

REGIONAL CONNECTIVITY

Significant recreation, civic and educational facilities are located within the project area:

- Middle School and Surrounding Ball Fields
- Boys and Girls Club
- Bijou Park and Bike Park
- Lake Tahoe Community College
- Recreation Center
- County Library
- South Lake Tahoe Police Department (SLTPD)
- El Dorado County Sheriff's Office (EDSO)
- County Courthouse
- US Post Office

The Tahoe Center, a commercial center with a drug store, shopping, dining, banks and post office is accessed from Al Tahoe Boulevard. The Harrison Avenue Business District lies immediately to the west of the project area and offers dining and shopping.



The Harrison Avenue Business District provides dining and shopping opportunities



The Tahoe Center offers shopping, dining and a community post office

REGIONAL CONNECTIVITY

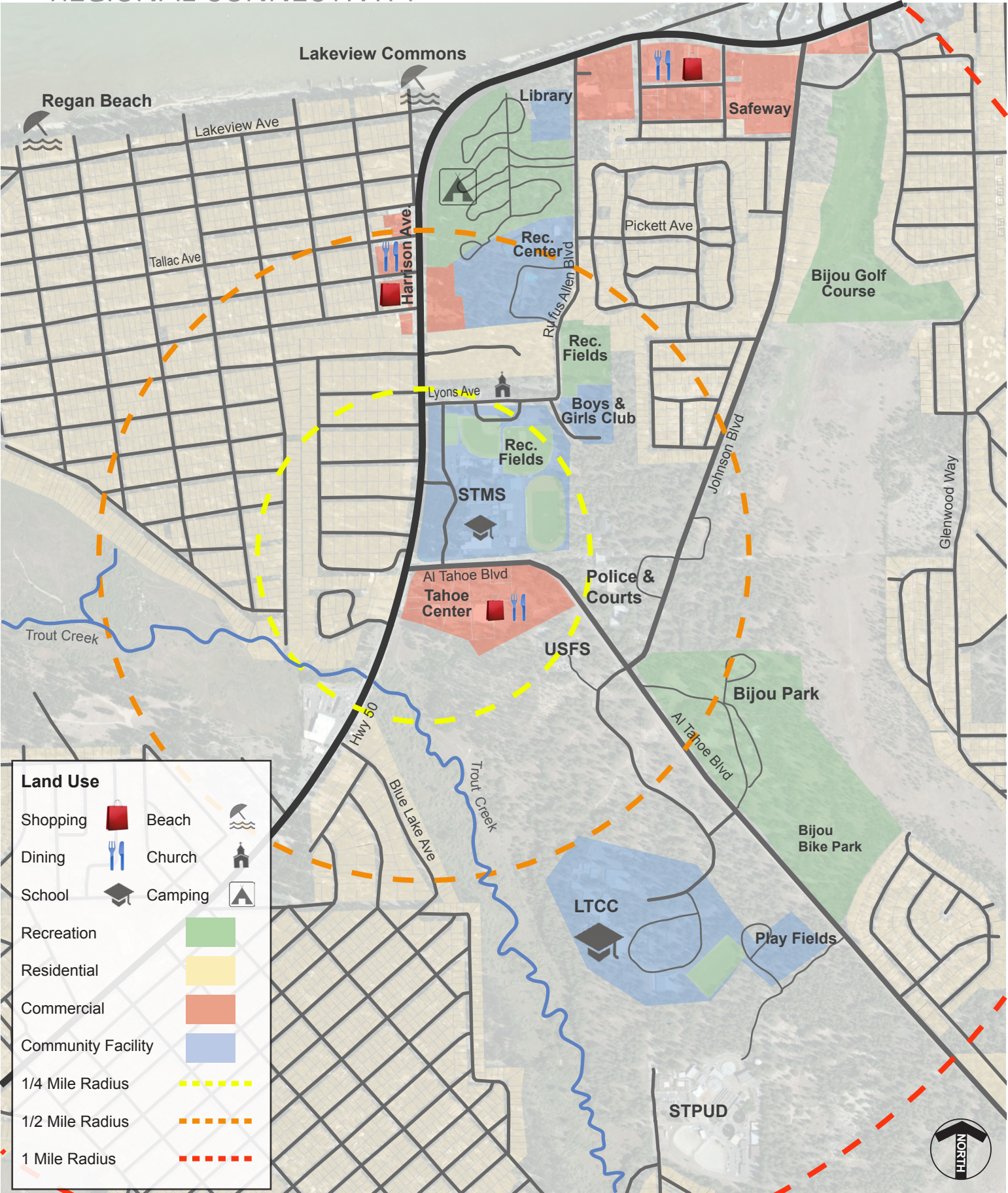


Figure 5: Land Uses and Trip Generators in Immediate Proximity

OWNERSHIP

OWNERSHIP

The majority of lands within the project area are publicly-owned, reducing the need for expensive easements and acquisitions. Privately-owned parcels include the lands associated with the following developments:

- Tahoe Center
- St. Theresa's Church
- Residential developments (Bijou 2 neighborhood)

Publicly-owned lands include the following entities and areas:

- City of South Tahoe: Bijou Park, Bike Park, Bijou Golf Course, police department facilities, recreation center and the cooperation yard
- Lake Tahoe Community College: College facilities and surrounding property and trails
- El Dorado County: County courthouse, Sheriff's department, juvenile center, Campground by the Lake, county library and Lakeview Commons
- Lake Tahoe Unified School District: South Tahoe Middle School facilities and surrounding recreation fields
- Happy Homestead Cemetery (owned and operated by the Happy Homestead Cemetery District, a special district whose board members are appointed by the El Dorado County Board of Supervisors)
- State/California Tahoe Conservancy: Former Highway 50 freeway right of way transferred from Caltrans to the Conservancy and is the location for segments of South Tahoe Greenway Shared Use Trail; and the Upper Truckee River and Marsh Restoration Area
- US Forest Service: Offices of the Lake Tahoe Basin Management Unit
- South Tahoe Public Utilities District: Wastewater treatment facilities
- Caltrans: US 50 right of way



LTUSD owns the school properties, including the surrounding ball fields



The City owns the lands associated with Bijou Park, the Bike Park and Bijou Golf Course

OWNERSHIP

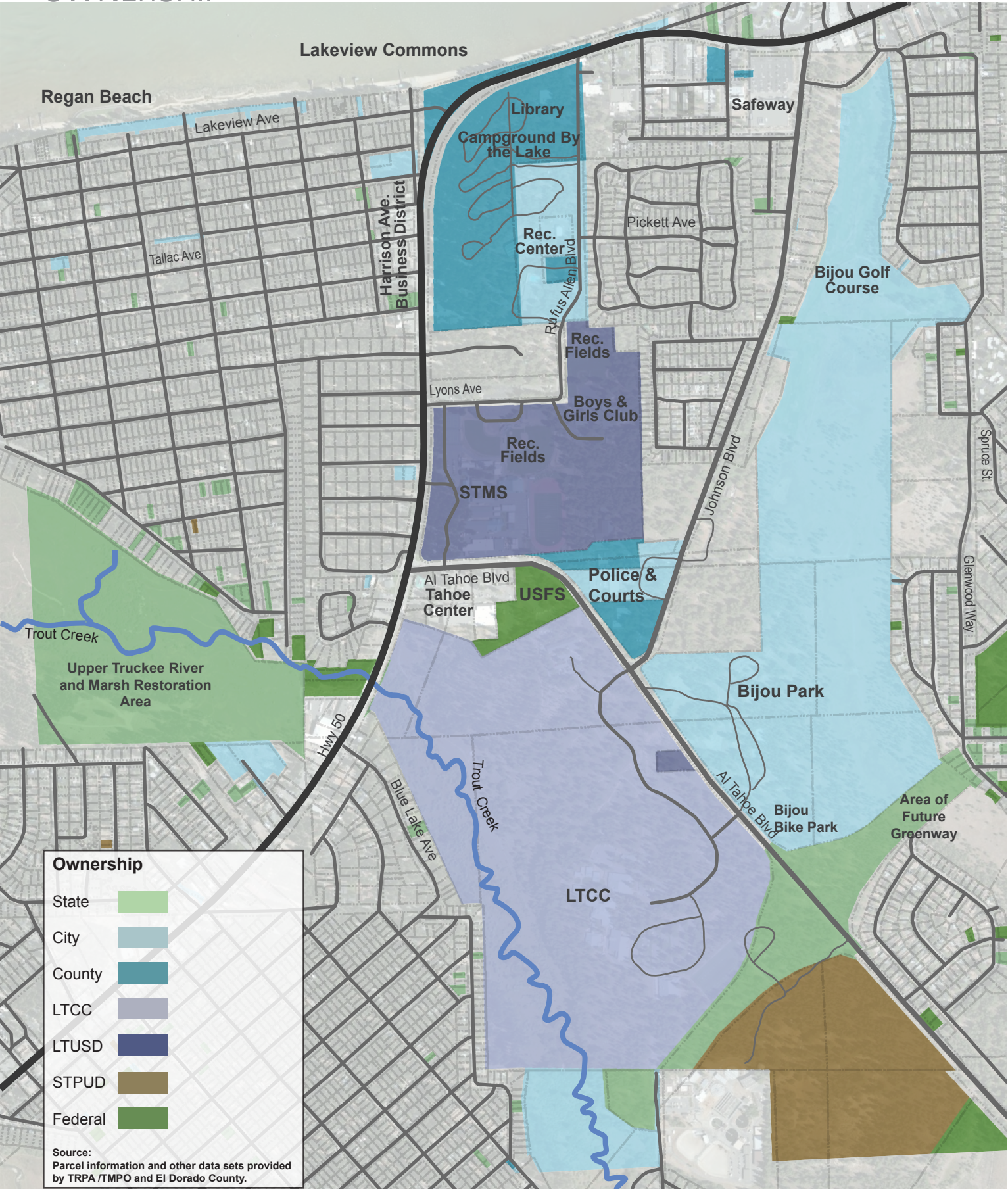


Figure 6: Ownership

NEIGHBORHOODS + DEMOGRAPHICS

NEIGHBORHOODS AND DEMOGRAPHICS

Six census tracts are located within a three mile radius of the project area as shown in Table 2 and Figure 7, placing 95 percent (Table 3) of the City's residents within biking distance of the Middle School.

Although tourism marketing presents an idyllic image of South Lake Tahoe, 2010 Census data reveals the majority of the population's income is over 32 percent below the state median income (Table 2). Over 67 percent are employed in the service industry which fluctuates with weather and seasons. Centrally-located, the project area serves over 98 percent of the City's Hispanic citizens and 95 percent of its overall residents, including other diverse groups such as Asians (5.5 percent of the overall population and includes the City's Filipino residents.)

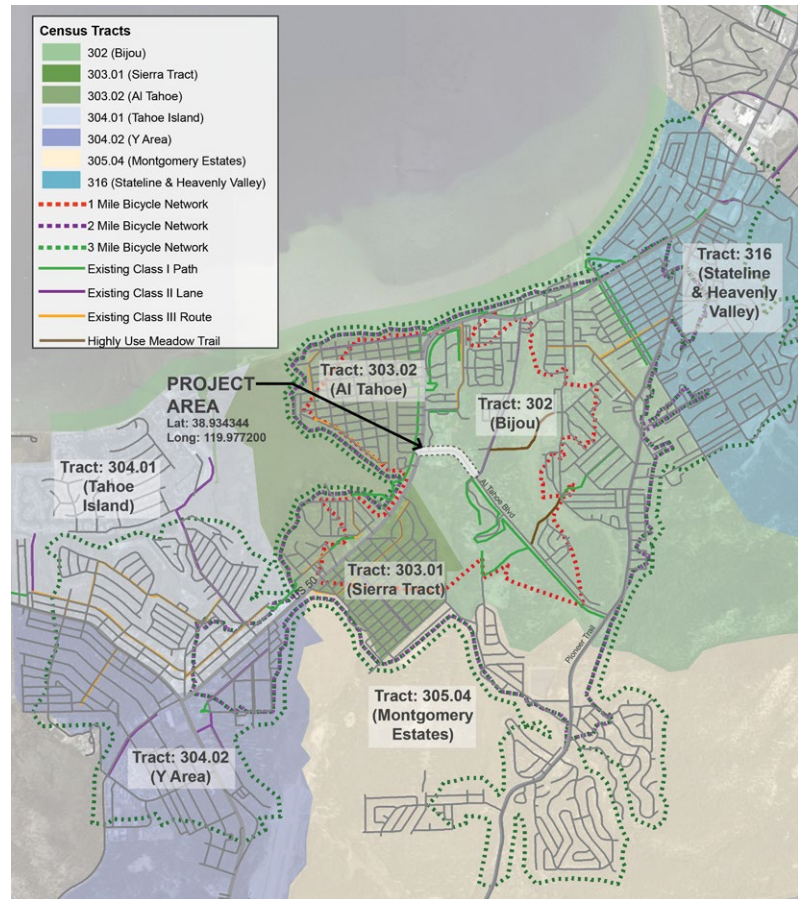


Figure 7: Census Tracts Located within a Three Mile Radius of the Project Area

Table 2: Median Household Income and Population by Census Tract

	POPULATION	HHMII	PERCENT BELOW THE STATE HHMI OF \$61,094
City of South Lake Tahoe	21,448	\$41,004	32.8%
Census Tracts Within a 3-Mile Cycling Service Area of Project			
Census Tract 302: Bijou	4,772	\$45,532	25%
Census Tract 303.01: Sierra Tract	2,469	\$35,398	42%
Census Tract 303.02 :Al Tahoe	2,867	\$33,310	45%
Census Tract 304.01: Tahoe Island	3,489	\$55,926	8%
Census Tract 304.02: Y Area	3,626	\$39,539	35%
Census Tract 316: Stateline & Heavenly Valley	4,126	\$35,506	42%

NEIGHBORHOODS + DEMOGRAPHICS

Active transportation improvements in the project area will directly benefit a recognized disadvantaged community, one in which many people use bicycles for daily transportation. Safety and mobility benefits will include facilities that reduce wrong-way travel, provide new Class I bike path infrastructure (as preferred in community surveys conducted in this area), and connectivity to important community and commercial facilities, including the Middle School, Boys and Girls Club, Lake Tahoe Community College, Bijou Community Park and the new Bijou Bike Park, post office, and the City and El Dorado County civic center. Public facilities at the civic center include the County Courthouse and emergency services.

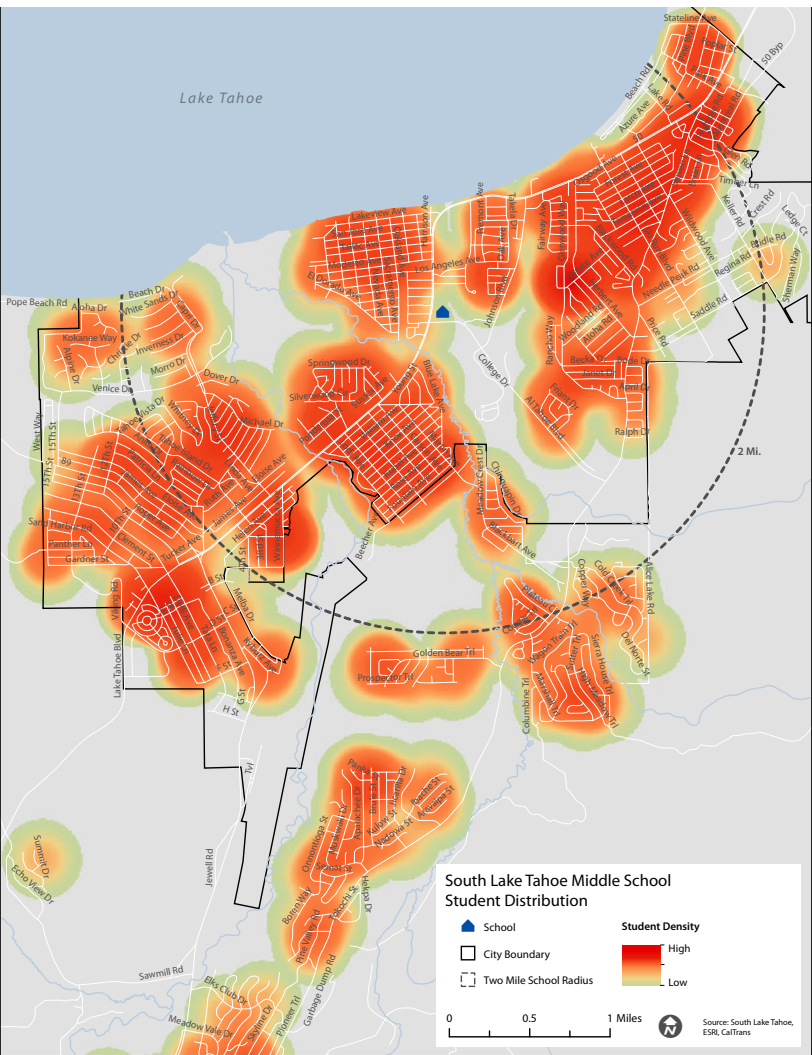


Figure 8: Heat Map of 2014 South Tahoe Middle School Student Distribution

Table 3: Census Data of Areas within Three Miles of the Project Area

	POPULATION	HISPANIC POPULATION	POPULATION OF NON-FAMILY HOUSEHOLDS	HHMI ²	PERCENTAGE BELOW STATE HHMI OF \$61,094
One-Mile Network	4,348	1,168	1,368	\$36,491	40%
Two-Mile Network	7,797	3,407	1,878	\$42,325	31%
Three-Mile Network	8,223	1,975	2,311	\$39,585	35%
TOTAL POPULATION SERVED (21,448 total City and 6,665 total Hispanic population)	20,368	6,550	5,557		
Per U.S. Census Bureau, Census 2010 Summary File 1. ESRI forecasts for 2014 and 2019. ESRI converted Census 2000 data into 2010 geography.					
¹ A small percentage of Black, American Indian, Asian and Pacific Islanders also live within the City.					
² Household Median Income					

EXISTING TRANSPORTATION CONDITIONS

EXISTING TRANSPORTATION CONDITIONS

Transportation conditions include both vehicular, transit, pedestrian and bicycle facilities. There are a variety of transportation features in the project area. Some facilitate active transportation movement and others inhibit walking and biking.

Vehicular and transit facilities are reviewed based on the following:

- Speed limits
- Number of travel lanes and traffic volumes
- Intersections and levels of service
- Transit routes and stops

The discussion regarding existing active transportation facilities includes the following:

- Pedestrian facilities and amenities
- Bicycle facilities and amenities
- Pedestrian and bicycle user counts

EXISTING ROADWAY SPEED LIMITS

Speed limits vary greatly throughout the project area. A 2010 National Association of City Transportation Officials (NACTO) study found that the risk of pedestrian fatality in a collision increases between 3.5 and 5.5 times as traffic speeds increase from 30 mph to 40 mph. The study also found that although the risk of pedestrian fatality is lower at 30 mph, approximately half of pedestrian fatalities occur at or below that speed. Therefore, it is important to be aware of the vulnerability of pedestrians and the need to provide designated active transportation facilities for both higher and lower speed roadways.

US 50 (Lake Tahoe Boulevard):

- 40 mph
- School zone signage does not exist

AI Tahoe Boulevard

- 25 mph eastbound
- 35 mph westbound from Johnson Boulevard to approximately 700 feet west of Johnson Boulevard, where it changes to 25 mph
- 40 mph east of Johnson Boulevard
- School zone signage does not exist

Johnson Boulevard

- 35 mph

College Way

- 25 mph

Lyons Avenue

- 25 mph: 15 mph when children are present
- School zone signage exists

Rufus Allen Boulevard

- 25 mph: 15 mph when children are present



School zone signage along Lyons Avenue north of the Middle School

EXISTING TRANSPORTATION CONDITIONS

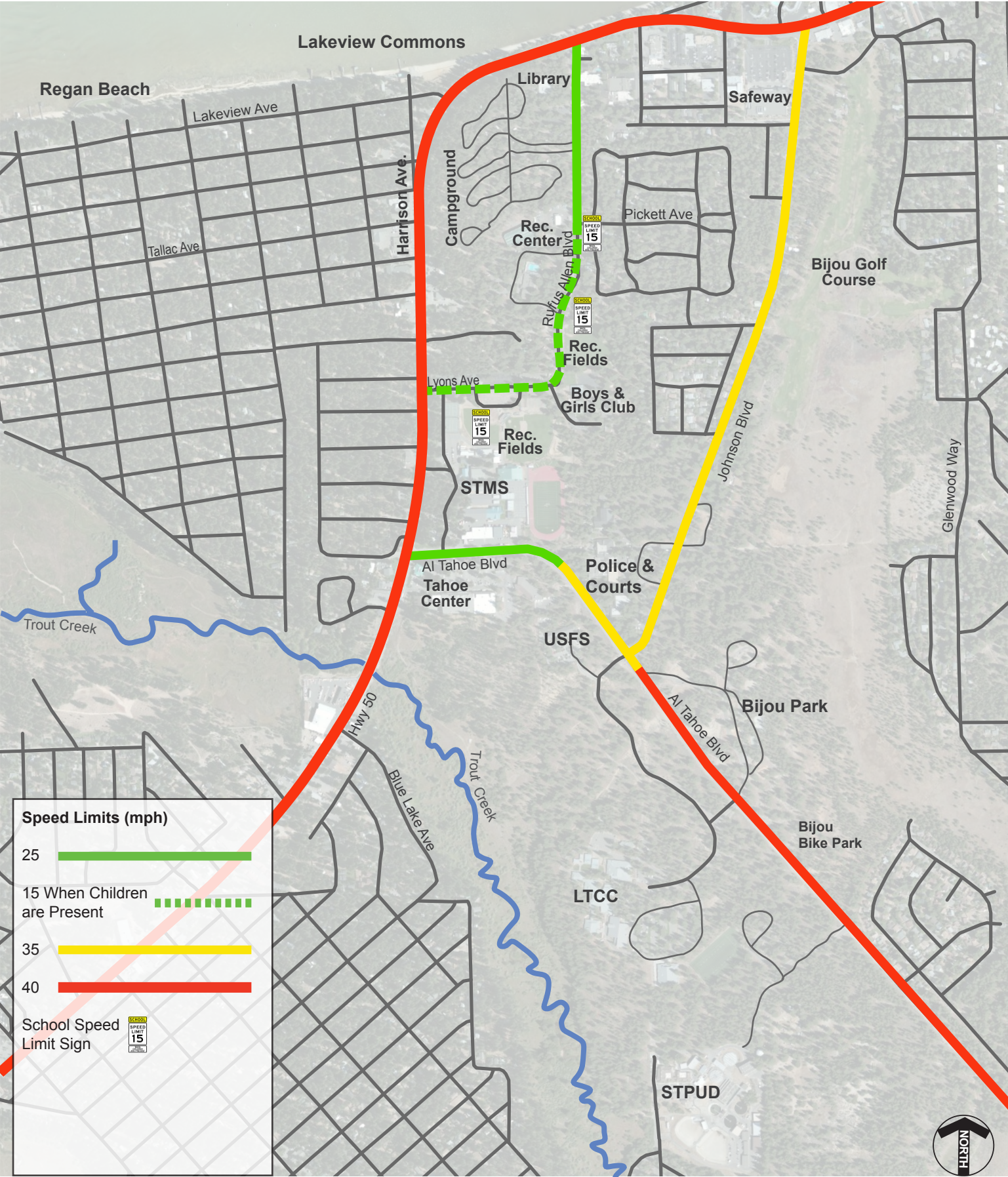


Figure 9: Existing Roadway Speed Limits

EXISTING TRANSPORTATION CONDITIONS

NUMBER OF TRAVEL LANES + TRAFFIC VOLUMES

Aside from US 50, the majority of other roadways in the project area are two-lane roadways. The exception is Al Tahoe Boulevard which transitions from a two-lane configuration east of Johnson Boulevard to a five-lane configuration west of the Johnson intersection. Travel lane widths vary from 16 feet to 12 feet. These conditions provide the opportunity to evaluate both lane widths and the number of travel lanes in consideration with the roadway's transportation function and traffic volumes.

US 50 (Lake Tahoe Boulevard):

- Four-lane undivided principal arterial with a two-way left turn lane and bicycle lanes that generally runs north-south within the study area
- Per Caltrans historical daily traffic counts, the Annual Average Daily Traffic (AADT) on this roadway was approximately 33,000 vehicles per day (vpd) in 2013, with peak month AADT increasing to approximately 37,500 vpd (37,600 AADT south of Al Tahoe, 33,450 AADT at the Middle School entry and 32,400 AADT north of Lyons Avenue)
- The Middle School has an entrance on US 50 located halfway between Al Tahoe Boulevard and Lyons Avenue

Al Tahoe Boulevard

- Four-lane undivided arterial with a two-way left turn lane (total of five lanes) from US 50 to Johnson Boulevard
- At Johnson Boulevard, Al Tahoe Boulevard transitions from the five-lane cross-section to a two-lane cross-section
- Buses access the Middle School via Al Tahoe Boulevard and the bus yard adjacent the school
- For purposes of this study, Al Tahoe Boulevard was considered as running east-west within the entire study area
- 12,400 AADT near the US 50 intersection, 10,500 eastern near Johnson Boulevard and 7,500 east of Johnson Boulevard



Two-lane configuration of Al Tahoe Boulevard east of the Johnson Boulevard intersection



Five-lane configuration of Al Tahoe Boulevard west of the Johnson Boulevard intersection

EXISTING TRANSPORTATION CONDITIONS

Johnson Boulevard

- Two-lane collector roadway with bicycle lanes and generally runs north-south
- The Middle School has a driveway located approximately 145 feet (centerline to centerline) east of the roadway's signalized intersection with US 50
- There is 80-90 feet of westbound queuing space at the signal before the school entrance is blocked

College Avenue

- Two-lane local roadway

Lyons Avenue

- Two-lane collector roadway

Rufus Allen Boulevard

- Two-lane collector roadway

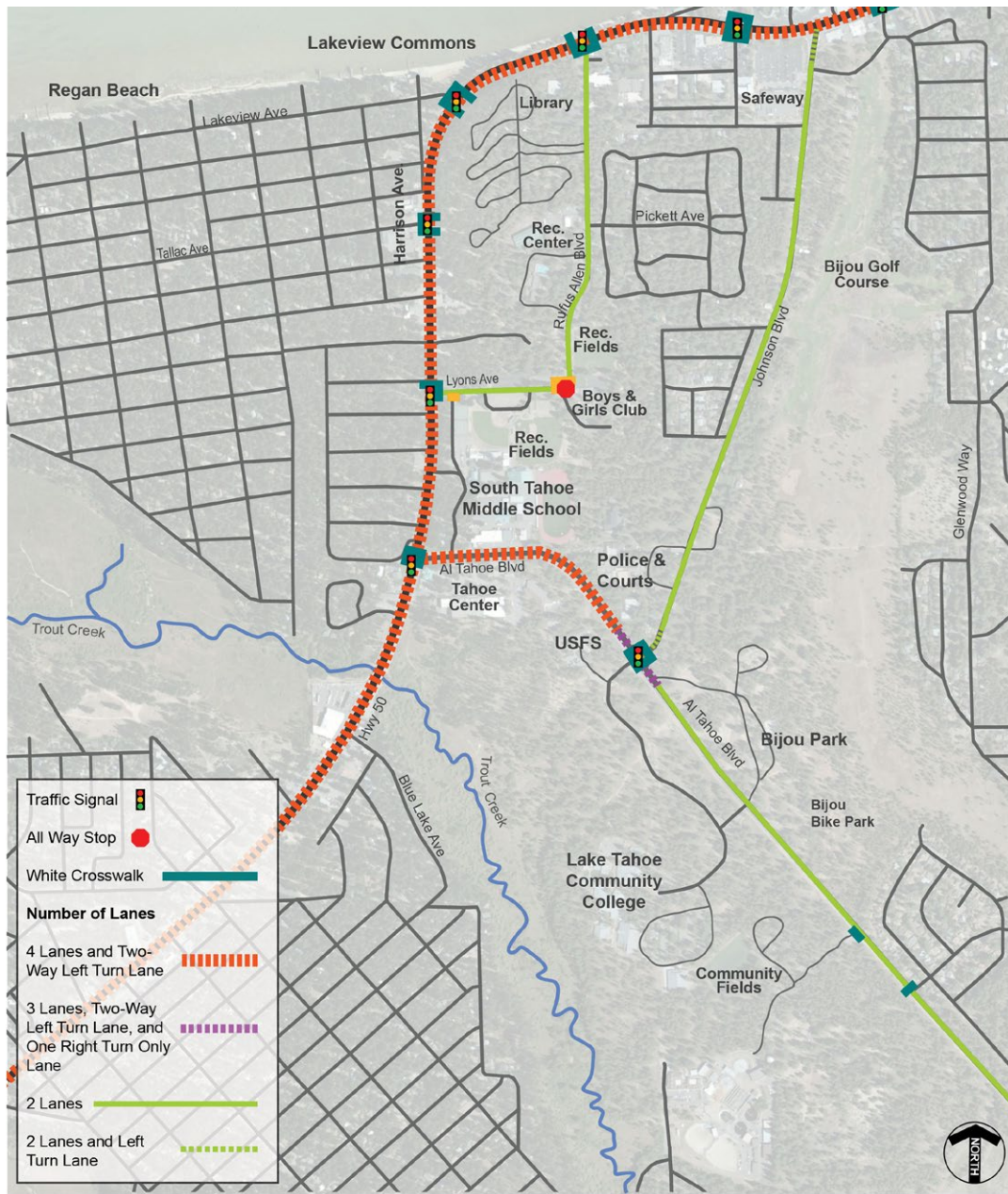


Figure 10: Intersections and Number of Travel Lanes

EXISTING TRANSPORTATION CONDITIONS

EXISTING TRAFFIC COUNTS

LSC Transportation Consultants (LSC) conducted turning movement vehicle counts at the study intersections on November 6, 2014. Typically, the daily volume used for designing roadways is the 30th highest hour of the year, which for this study was assumed to be approximately the 90th percentile of the available monthly traffic provided by Caltrans Performance Measurement System (PeMS.) It was found that based on 2013 data, the design daily volume was 42 percent higher than the daily volume in November.

Therefore, all counts were seasonally adjusted and increased by 42 percent. Daily traffic volumes were estimated using the peak hour volumes and a k-factor of 0.10, which was also calculated using PeMS information. K-factor is the ratio of peak hour traffic to Annual Average Daily traffic. A lower k-factor means traffic is spread more evenly throughout the day, whereas a higher k-factor represents high peak hour traffic relative to daily traffic. Count data and seasonal adjustments can be found in the *South Tahoe Middle School Connectivity Plan Traffic Analysis*. The existing peak hour traffic volumes for each of these intersections are shown in Figure 11.



Traffic volumes within the project area are highest along US 50



Johnson Boulevard is a two-lane roadway with a three-lane intersection at Al Tahoe Boulevard

EXISTING TRANSPORTATION CONDITIONS

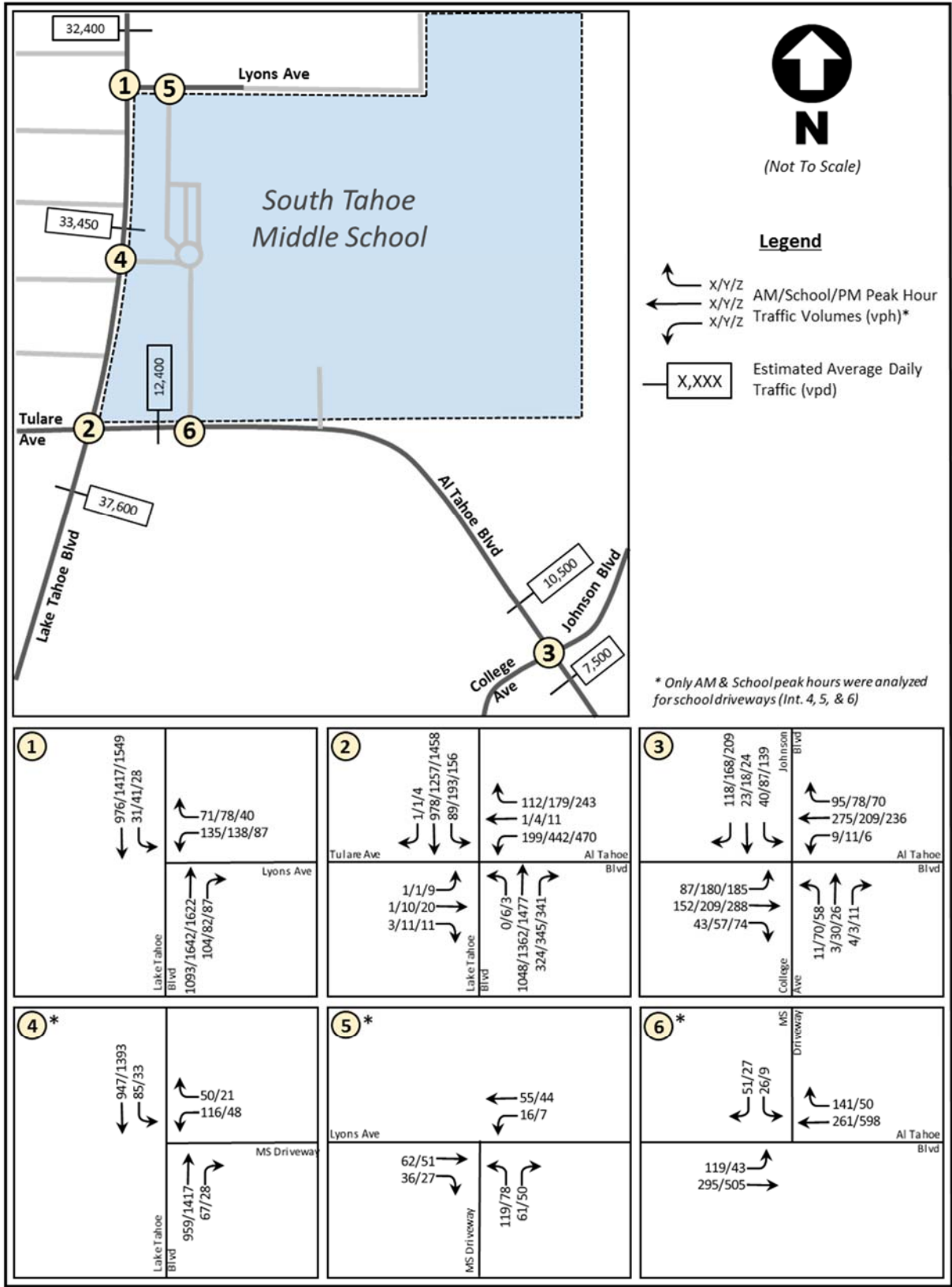


Figure 11: Existing Peak Hour Traffic Volumes (with Adjustments)

EXISTING TRANSPORTATION CONDITIONS

EXISTING INTERSECTIONS + LEVEL OF SERVICE

Under the existing conditions, all study intersections operate at an overall intersection level of service (LOS) C or better. All minor approaches at the two signalized US 50 intersections operate at LOS E and F. The Middle School's entrance on US 50 also operates at a LOS F during the morning peak hour. In addition, the westbound left turn from Al Tahoe Boulevard onto College Way does not operate at acceptable levels during the morning and afternoon school peak hours. However, the poor level of service for the westbound left movement is due to the signal phase gapping out and progressing to service another phase due to low vehicle demand. This can be remedied by providing protected-permitted phasing for the left turn movements instead of the protected-only phasing it currently has.

The 900-foot segment of Al Tahoe Boulevard immediately east of US 50 has four driveways on the north (Middle School) side that provide access to the bus barn. The five driveways on the south (Tahoe Center) side of the road access a retail center and post office.

Middle School Side Driveways

Right-turns and left-turns into driveway "A" (see Figure 13) accessing the Middle School drop-off area are almost equal during the school morning drop-off. The morning right- and left-turns are almost double the number of turning movements that occur during afternoon pick-up. Driveway "C" (the center bus barn access) has minimal turning movements during both drop-off and pick-up time periods.

Tahoe Center Side Driveways

Along the south side of Al Tahoe Boulevard, four drives access the Tahoe Center retail area and one drive accesses the US Postal Service facility. The easternmost driveway "E" is located only 140 feet from the US 50/Al Tahoe intersection and driveways "F" and "G" are wide enough for two-way entry/exits although the parking area is striped for one-way vehicular circulation.

Consideration of driveway consolidation and/or width reduction along Al Tahoe Boulevard was evaluated as part of the alternatives to reduce exposure of bicyclists and pedestrians to turning vehicles.

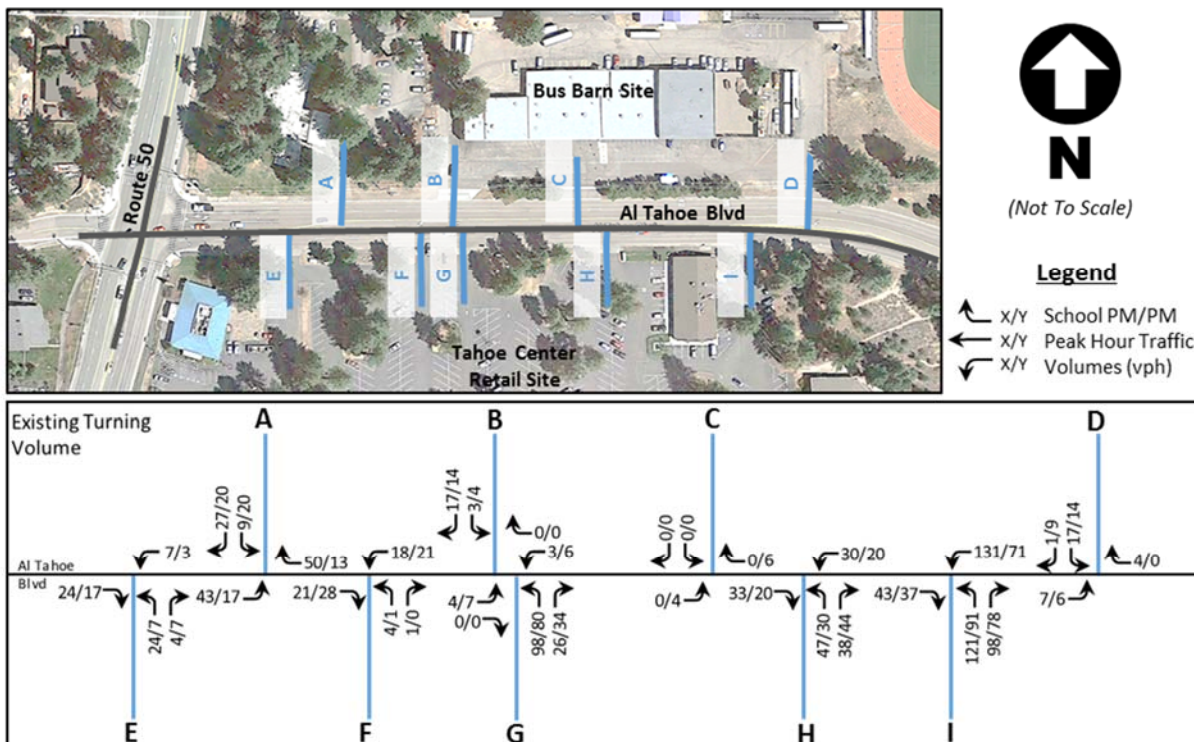


Figure 12: Existing Turning Volumes along Al Tahoe Boulevard

EXISTING TRANSPORTATION CONDITIONS

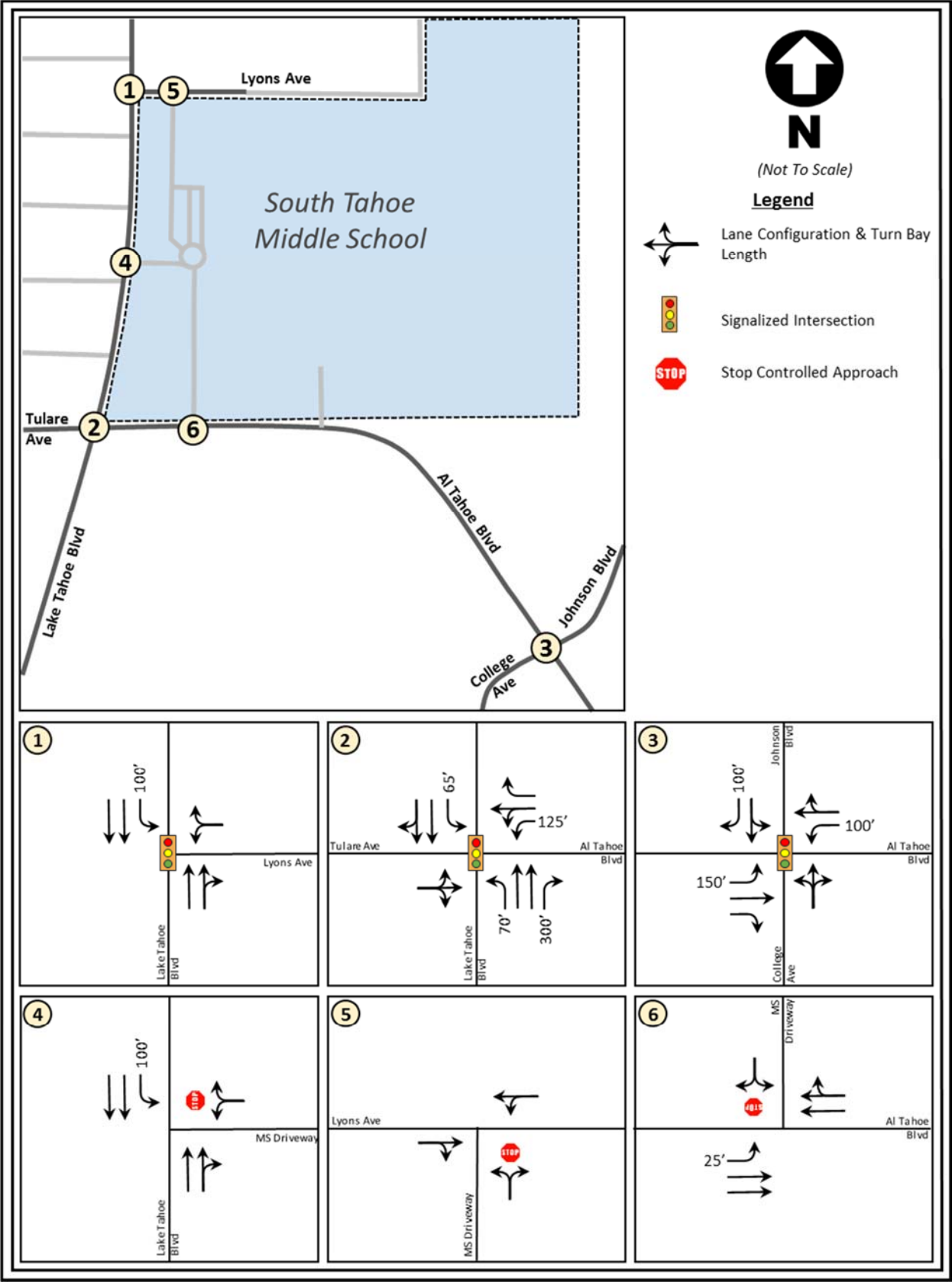


Figure 13: Existing Lane Configurations and Traffic Control

EXISTING TRANSPORTATION CONDITIONS

EXISTING TRANSIT ROUTES + STOPS

BlueGo provides local fixed-route bus service within the project area. Two routes service the area year round. The mainline route along US 50 connects from the transit center at the Y to the transit center at Kingsbury Grade. The second route also begins at the Y, but it circulates through the neighborhood and college areas via Al Tahoe Boulevard, Johnson Boulevard, Glenwood Way, Spruce Avenue, Tamarack Avenue and Pioneer Trail. The secondary route also has an additional late night service route. It does not service the community college on Sundays and holidays.

In South Lake Tahoe bus stop facilities may include just a sign, a sign with a bench or a transit shelter. Locations with only a sign are not shown on the BlueGo schedule as a regular stop, but buses will pick-up/drop-off at those locations if a rider is present. The Tahoe Transportation District (TTD) oversees the BlueGo operations and is in the process of upgrading scheduled bus stops to include shelters. The TTD's protocol includes constructing a transit shelter when bus stops are improved with active transportation access, such as a sidewalk or shared use path. Active transportation enhancements along Al Tahoe Boulevard would therefore trigger the installation of a transit shelter at the bus stop along the roadway.



A bus stop with a bench just south of the Middle School along Al Tahoe Boulevard – active transportation improvements such as sidewalks or shared use path facilities next to the bus stop would trigger the addition of a transit shelter at the bus stop

EXISTING TRANSPORTATION CONDITIONS

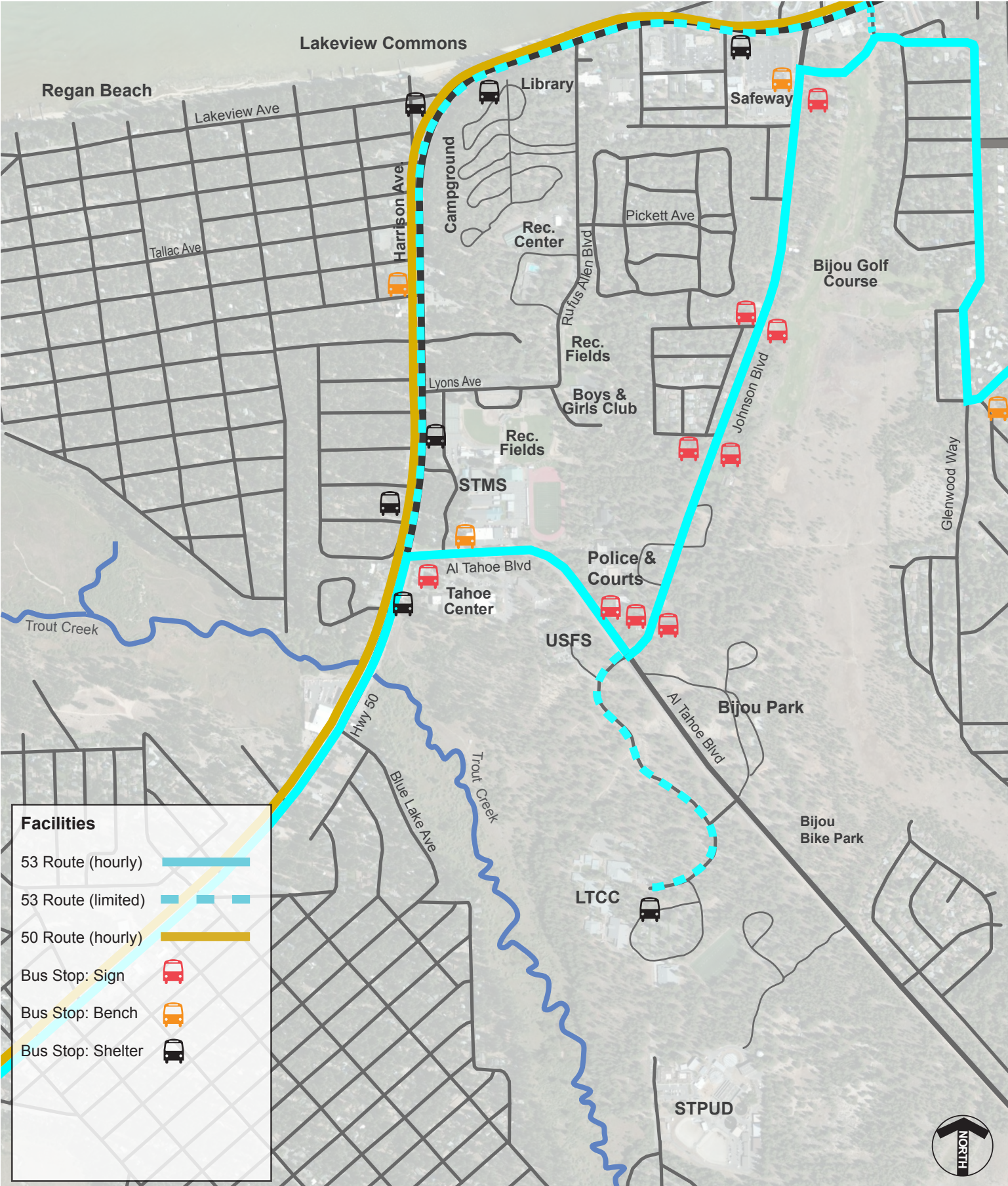


Figure 14: Existing Transit Routes and Stops

EXISTING TRANSPORTATION CONDITIONS

EXISTING PEDESTRIAN FACILITIES + AMENITIES

Sidewalks, crosswalks and curb ramps are primarily found along US 50. New sidewalks, signals and curb ramps have been installed along US 50 in recent years as Caltrans has been completing stormwater quality treatment projects.

A damaged and aging sidewalk also exists on the south side of Al Tahoe Boulevard and a sidewalk on Rufus Allen Boulevard extends from Lyons Avenue north to Pickett Avenue. A series of dirt paths have been formed along roadways in locations where no sidewalk exists.

Crosswalks are provided at signalized intersections, but along US 50 only two or three legs of the intersection are marked in an effort to prioritize traffic movement along US 50. This creates delays for pedestrians and increases their exposure to vehicles. The US 50/Al Tahoe intersection has high visibility crosswalks and curb ramps for the western, northern and eastern legs. The southern leg is not marked.

Lyons Avenue has high visibility crosswalks and curb ramps for the northern and eastern legs. The southern leg is not marked and crossing is prohibited. The Al Tahoe/Johnson intersection has high visibility markings but no curb ramps.



Crosswalks and curb ramps at the US 50/Al Tahoe intersection on three of the four legs



Lack of curb ramps at the Al Tahoe/Johnson intersection

EXISTING TRANSPORTATION CONDITIONS



Figure 15: Existing Pedestrian Facilities and Amenities

EXISTING TRANSPORTATION CONDITIONS

EXISTING BICYCLE FACILITIES + AMENITIES

As previously mentioned, a series of Class I and Class II facilities exist in the project area. These facilities are primarily along US 50, a portion of Al Tahoe Boulevard and Lyons Avenue. A planned regional Class I facility (the Greenway) is located to the southeast of the project area and will serve to connect the project area to surrounding neighborhoods and the greater community and region.

Gaps in the Class I facilities exist on Al Tahoe Boulevard between US 50 and Johnson Boulevard and on Rufus Allen Boulevard between Lyons Avenue and Pickett Avenue. Gaps in the Class II facilities also exist on Al Tahoe Boulevard between US 50 and Pioneer Trail to the east.

A series of informal use trails provide connectivity for a number of users. These use trails are mostly seen within the Bijou Meadow area, Trout Creek area and just east of the Middle School between Lyons Avenue and Al Tahoe Boulevard. Study of the trails indicates the routes community members use to connect from the surrounding neighborhoods to the project area and recreation facilities.

Bike racks are commonly found at civic, educational and recreational destinations. Commercial areas vary with the provision of bike racks. No racks exist at the Tahoe Center, but bike racks are available at the Harrison Avenue Business District.



Class I bike path parallels the west side of US 50 and connects to a regional trail system to the county



Cyclist using a dirt path along Al Tahoe Boulevard

EXISTING TRANSPORTATION CONDITIONS

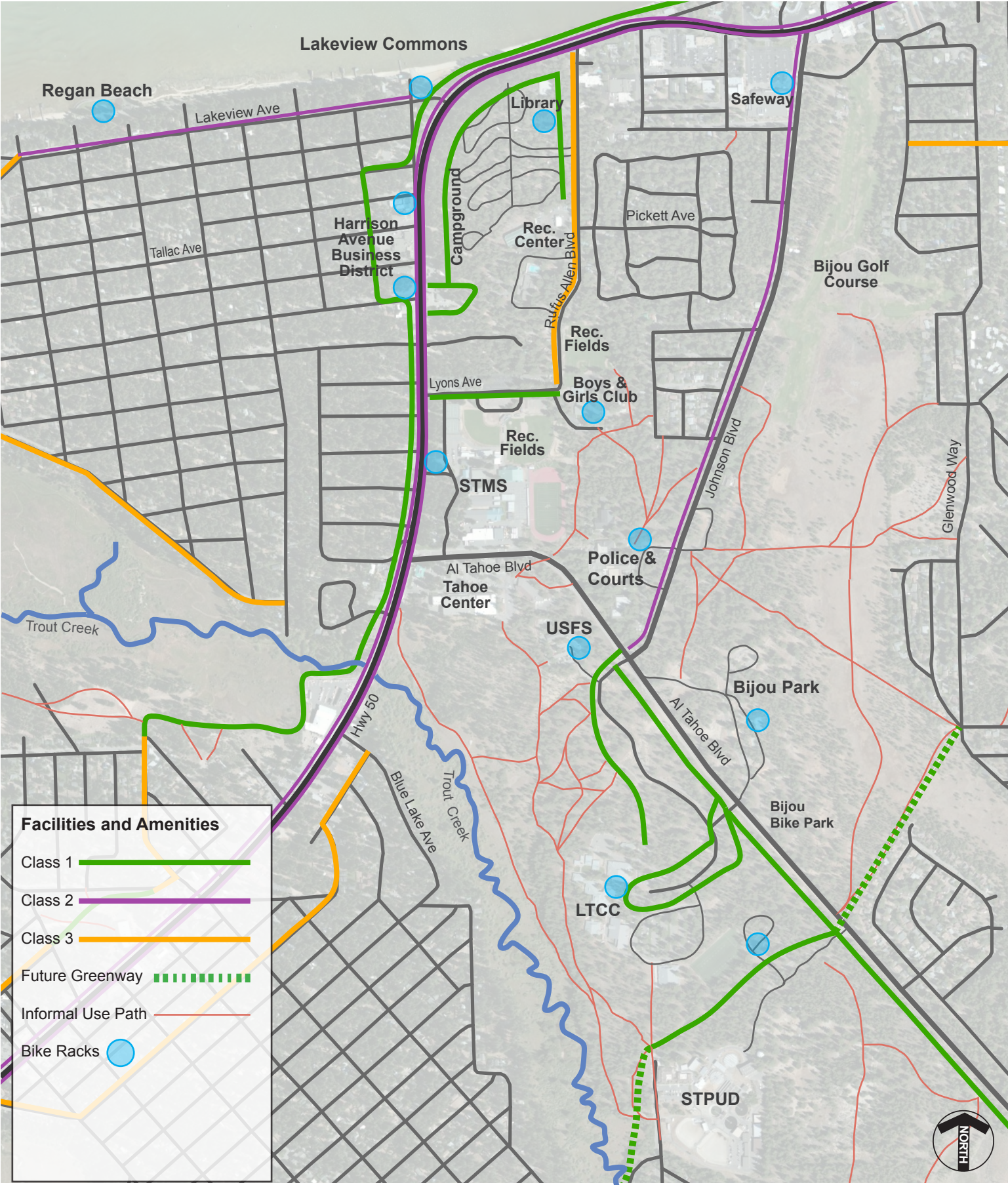


Figure 16: Existing Bicycle Facilities and Amenities

EXISTING TRANSPORTATION CONDITIONS

EXISTING PEDESTRIAN + BICYCLE COUNTS

VOLUNTEER COUNTS

Volunteer groups manually conducted informal bicycle and pedestrian counts during three time periods on October 2 and 4, 2014. The counts were conducted at seven intersections during the following time periods: school drop-off (7:00-9:00 AM), afternoon pick-up (1:30-2:30 PM) and evening peak traffic (4:00-6:00 PM.) Counts showed an increase in activity during the afternoon and evening time periods, a reflection of the time of year the counts were conducted.

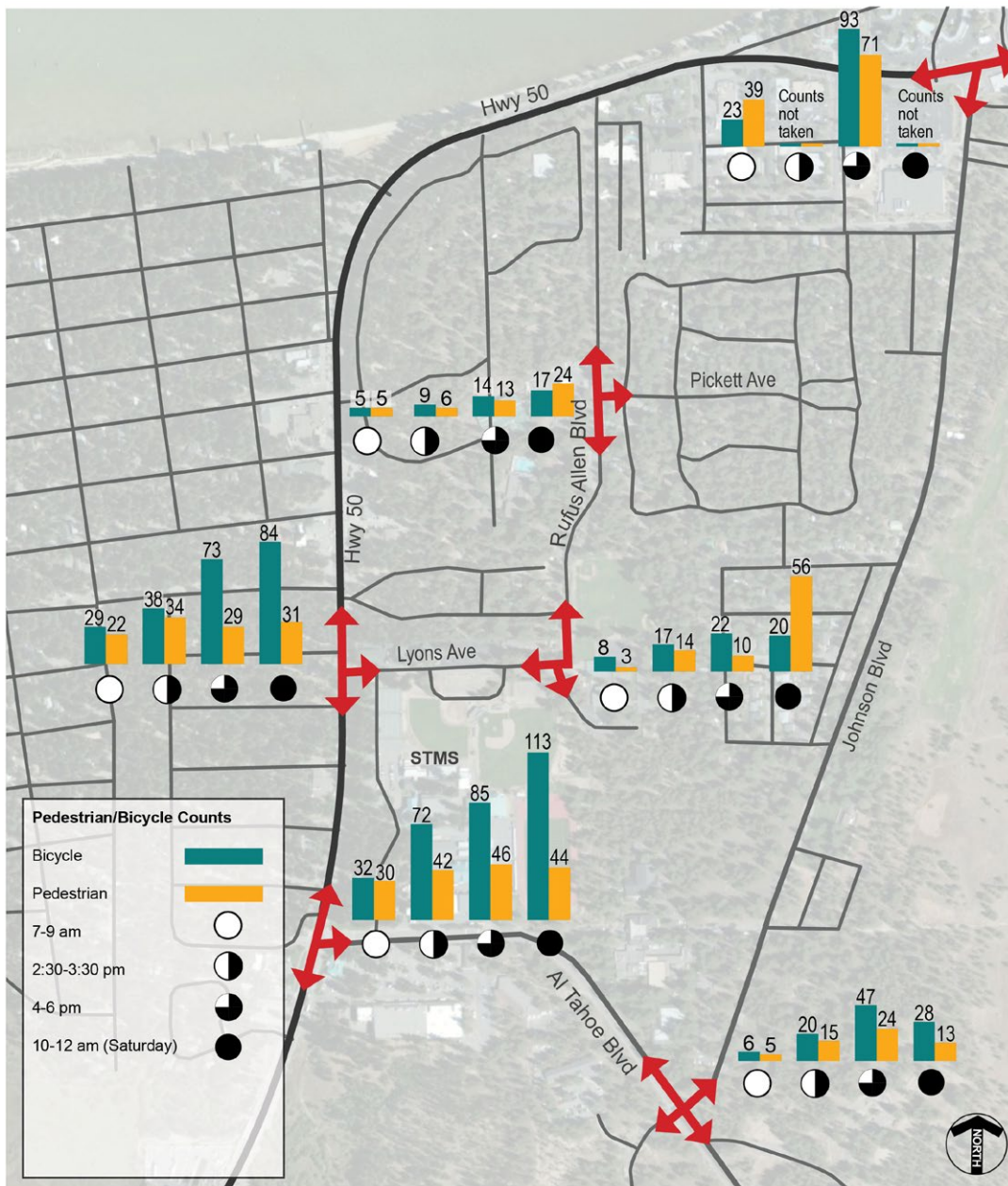


Figure 17: Volunteer Pedestrian and Bicycle Counts October 2 and October 4, 2014

EXISTING TRANSPORTATION CONDITIONS

TRAFFIC ENGINEER COUNTS

LSC manually collected bicycle and pedestrian count data within the project area November 2014. Because they were conducted in the off-season, counts were adjusted based on seasonal data from similar communities.

Table 4: Existing Estimated Average Corridor Bicyclists/Pedestrians Along Al Tahoe Boulevard

EXISTING	WEEKDAY ¹	MONTHLY ²	ANNUAL ²
Bicycle	150	2,200	26,000
Pedestrian	190	2,700	33,000
Total	340	4,900	59,000

¹ Based on peak period manual turning movement counts at Al Tahoe/ US-50 and Al Tahoe/Johnson intersections, Thursday, November 6, 2014 (6:00-9:00am, 1:00-3:30pm, 4:00-7:00pm). Counts were adjusted to estimate average weekday bicycle and pedestrian volumes.

² Monthly and annual counts extrapolated from weekday counts using average monthly counts from Boulder, CO; Carmel, IN; and Indianapolis, IN (similar socio-demographic information and population density and had relevant bicycle and pedestrian data).

A more detailed breakdown of trip purpose was estimated by applying National Household Travel Survey (2009) derived ratios to existing count data. Depicted in Figures 18 and 19, this analysis shows the majority of bicycle and pedestrian trips are for social/recreational purposes with shopping and work comprising the next highest reasons.

Annually, an estimated 59,000 cycling/walking trips occurs along Al Tahoe Boulevard without any dedicated bicycle facilities or continuous sidewalk. Charts listing the LSC adjusted bicycle and pedestrian count data can be found in the *South Tahoe Middle School Connectivity Plan Traffic Analysis*.

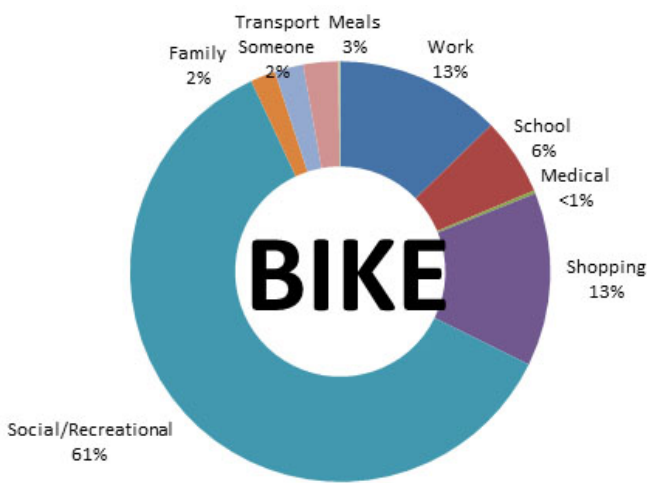


Figure 18: Purpose of Existing Study Area Bicycle Trips

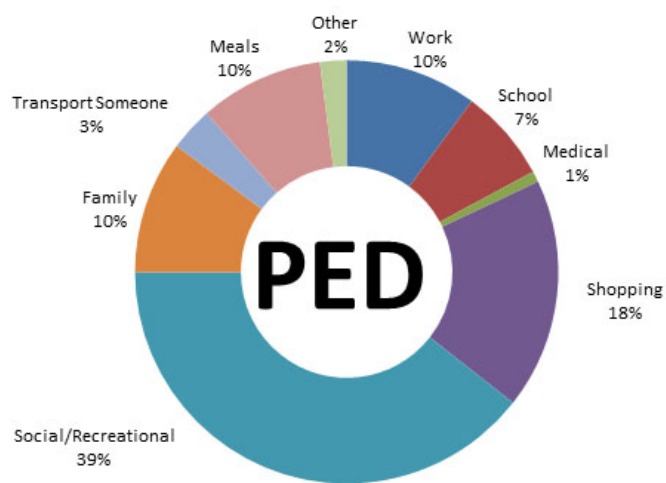


Figure 19: Purpose of Existing Study Area Pedestrian Trips

ACCIDENT HISTORY 2008-2013

ACCIDENT HISTORY 2008-2013

California Statewide Integrated Traffic Reporting System (SWITRS) data for 2008-2013 reports nine pedestrian and bicycle collisions within the immediate project area and 27 within a one-mile radius of the Middle School (Table 6 and Figure 20.) After active transportation network enhancements, trips may be diverted from those more dangerous routes to the project area facilities.

Under-reporting of collisions involving non-motorized users occurs in the City and has been discussed between local bicycle advocacy groups and law enforcement. Subsequently, law enforcement is currently implementing more comprehensive recording procedures.

TRPA/TMPO sought to collect qualitative crash data that can supplement recorded police data over the four year period of 2010 – 2014 (the 2015 Community Outreach Report will be released November 2015.) Table 5 summarizes crash data recorded from SWITRS, the Nevada Crash Database and the ATP survey between 2010 and 2014. In some cases data from 2014 may not be complete. Survey respondents were asked whether or not they had experienced a bicycle or pedestrian related crash between 2010 and 2014. In total, 22 respondents noted they had experienced a crash between those years, of which 14 were unreported. These results support the reasoning that additional, unreported collisions likely occurred within the project area. Specifically, of the respondents who indicated being in a non-reported collision, two incidents had occurred directly within the project area.

Table 5: Regional Active Transportation Crash Data

REGIONAL ACTIVE TRANSPORTATION CRASH DATA						
Reported By	2010	2011	2012	2013	2014	Total Collisions
SWITRS	17	16	23	19	18	93
Nevada Highway Patrol	1	3	4	4	0	12
TRPA/TMPO Active Transportation Plan Survey	Collected for consolidated 4 year period, indicates only non-reported collisions					14
Total Collisions	25	21	27	31	21	119

Sources: SWITRS, NHP, 2015 Active Transportation Plan Survey

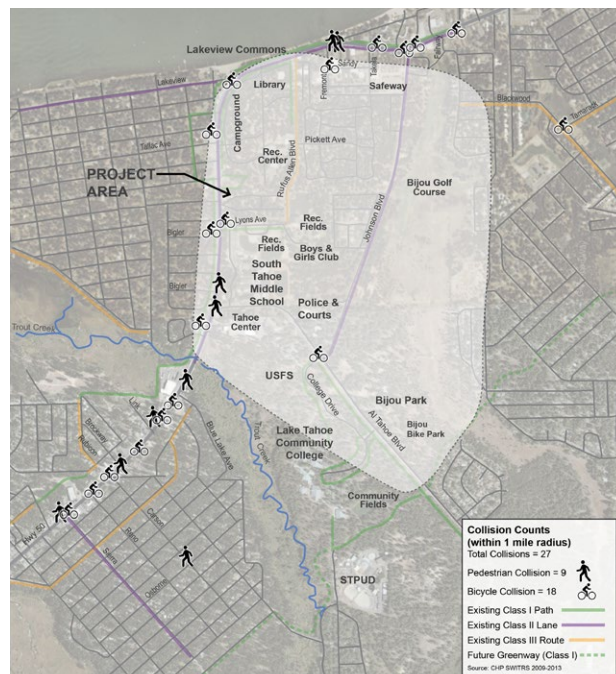


Figure 20: Accident History 2008-2013

ACCIDENT HISTORY 2008-2013

Table 6: Project Area Non-Motorized Collisions

PRIMARY ROAD	SEC. ROAD	FEET FROM INT.	DIR. FROM INT.	DATE	TIME	PCF CATEGORY	PED. ACTION	PED. INJURED	BIC. INJURED
1AI Tahoe	College Dr.	150		1/2009	2:05				
PM	Bike hit bus			1					
AI Tahoe	US-50	1	S	7/2010	9:44 AM	Ped ROW	Crossing in crosswalk	1	
US-50	AI Tahoe	302	E	2/2009	5:37 PM	Improper passing			1
US-50	Bigler	18	W	6/2009	6:13 PM	Ped violation	Crossing not in crosswalk	1	
US-50	Blue Lake	204	W	7/2010	8:30 AM	Wrong side of road			1
US-50	Blue Lake	198	E	2/2008	2:16 AM	DUI	Not in road	1	
US-50	Brockway	400	E	8/2008	1:03 PM	Wrong side of road			1
US-50	Brockway	57	E	3/2010	10:19 PM	Other than driver	Crossing not in crosswalk	1	
US-50	Fairway	150	E	8/2010	1:51 PM	Improper turning			1
US-50	Johnson	0	E	8/2011	5:46 PM	-			1
US-50	Johnson	0	-	7/2012	2:54 PM	Unsafe speed			1
US-50	Link	232	E	10/2011	12:00 PM	Improper turning	Crossing not in crosswalk	1	
US-50	Lyons	0	-	6/2009	7:04 PM	Traffic signals/sign			1
US-50	Lyons	0	-	5/2012	2:05 PM	Traffic signals/sign			1
US-50	Reno	0	-	9/2010	2:14 PM	Auto ROW			1
US-50	Sierra	0	-	7/2010	1:47 PM	-			1
US-50	Sierra	3	W	10/2009	4:43 PM	Other hazardous violation	Crossing in crosswalk	1	
US-50	Takela	144	E	1/2012	3:19 PM	Other hazardous violation			1
US-50	Takela	500	W	9/2011	6:27 AM	Ped violation	Crossing not in crosswalk	1	
US-50	Tallac	100	E	6/2012	12:31 PM	Improper passing			1
US-50	Blue Lake	528	W	7/2010	12:59 PM	Unsafe lane change			1
US-50	Lakeview	0	-	10/2011	11:30 AM	Unsafe speed			1
Blackwood	Tamarack	0	-	6/2012	11:47 AM	-			1
Carson	Osborne	75	N	9/2009	11:45 PM	Unsafe speed	In road/ shoulder	1	
Rubicon	US-50	0	-	9/2008	5:05 PM	Auto ROW			1
Sandy	Fremont	99	E	8/2008	4:08 PM	Auto ROW			1

¹Per 4/24/2015 Conversation with Officer Jeff Gartner of CHP, bicyclist ran into a bus and fled scene.

SWITRS information from 2009-2013

PCF: Primary Collision Factor

CONNECTIVITY OPPORTUNITIES

CONNECTIVITY OPPORTUNITIES

The planning process evaluated the existing transportation infrastructure and surrounding context to identify a series of mobility challenges and opportunities.

Challenges generally included:

- Active transportation network gaps
- Exposure of pedestrians and cyclists to vehicles
- Intersections that prioritize vehicular movement
- Speeding
- Circulation and drop-off/pick-up concerns at the Middle School

Opportunities generally included:

- Narrowing travel lanes to provide additional active transportation facilities within the roadway footprint and to slow traffic
- Roadway reconfigurations to incorporate active transportation facilities within the roadway footprint and to slow traffic
- Completing active transportation network gaps
- Formalizing significant use trails to enhance connectivity to residential areas
- Adding crosswalks
- Adjusting signal timing
- Incorporating striping, green paint and bike boxes to highlight the position of cyclists in the roadway and to enhance their turning movements
- Identifying long term vision opportunities to minimize vehicle/active transportation user conflicts

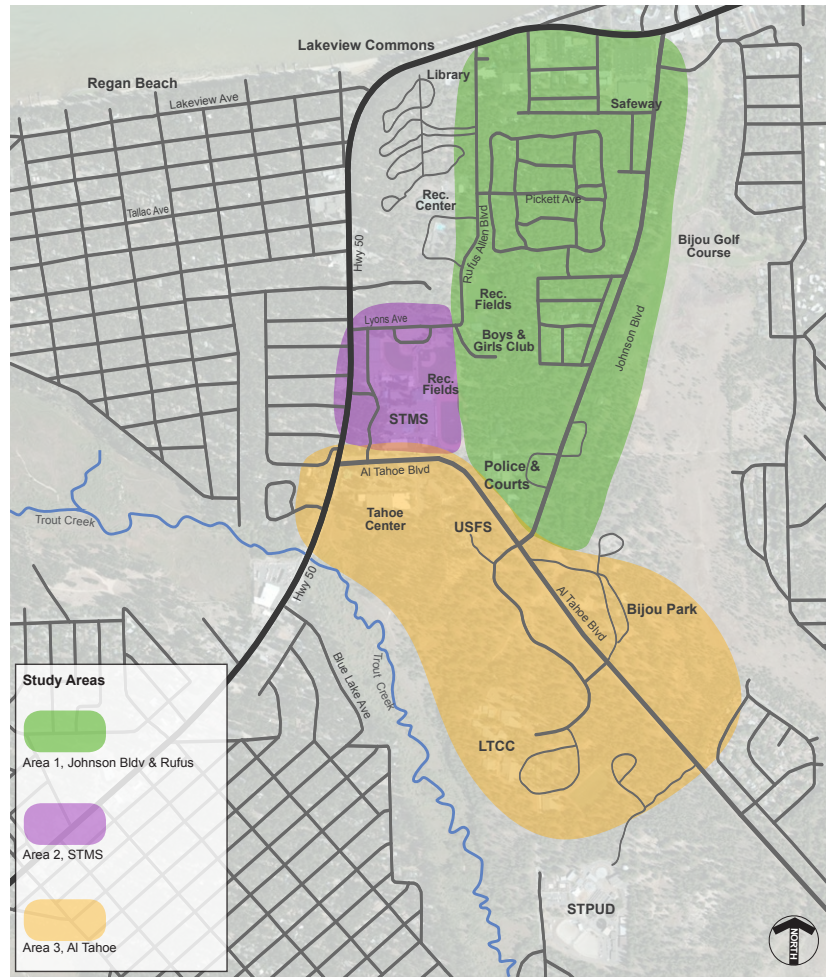


Figure 21: Study Areas

STUDY AREAS AND MOBILITY OPPORTUNITIES

The project area was subdivided into three study areas in order to organize the alternatives and present them to stakeholders and the public. Locations included the Johnson Boulevard and Rufus Allen Boulevard area, the Middle School area and the Al Tahoe Boulevard area. Potential mobility enhancements for each of the study areas are shown in Figure 22. Opportunities exist for intersection improvements and for linear facility improvements and connections as shown in the diagram. Further description of the alternatives developed for each of the mobility opportunity sites and the final recommendations for each site is presented in Chapter 5. A Class I bike path was considered along the northeast side of Al Tahoe Boulevard from Johnson Boulevard to the Greenway. Although the route was supported by bicycle advocates, it duplicated the existing facility south of Al Tahoe Boulevard. Alternatively, connectivity improvements along that segment of Al Tahoe Boulevard were proposed to include the development of internal circulation enhancements within Bijou Park which would subsequently link Johnson Boulevard to the Greenway.

CONNECTIVITY OPPORTUNITIES

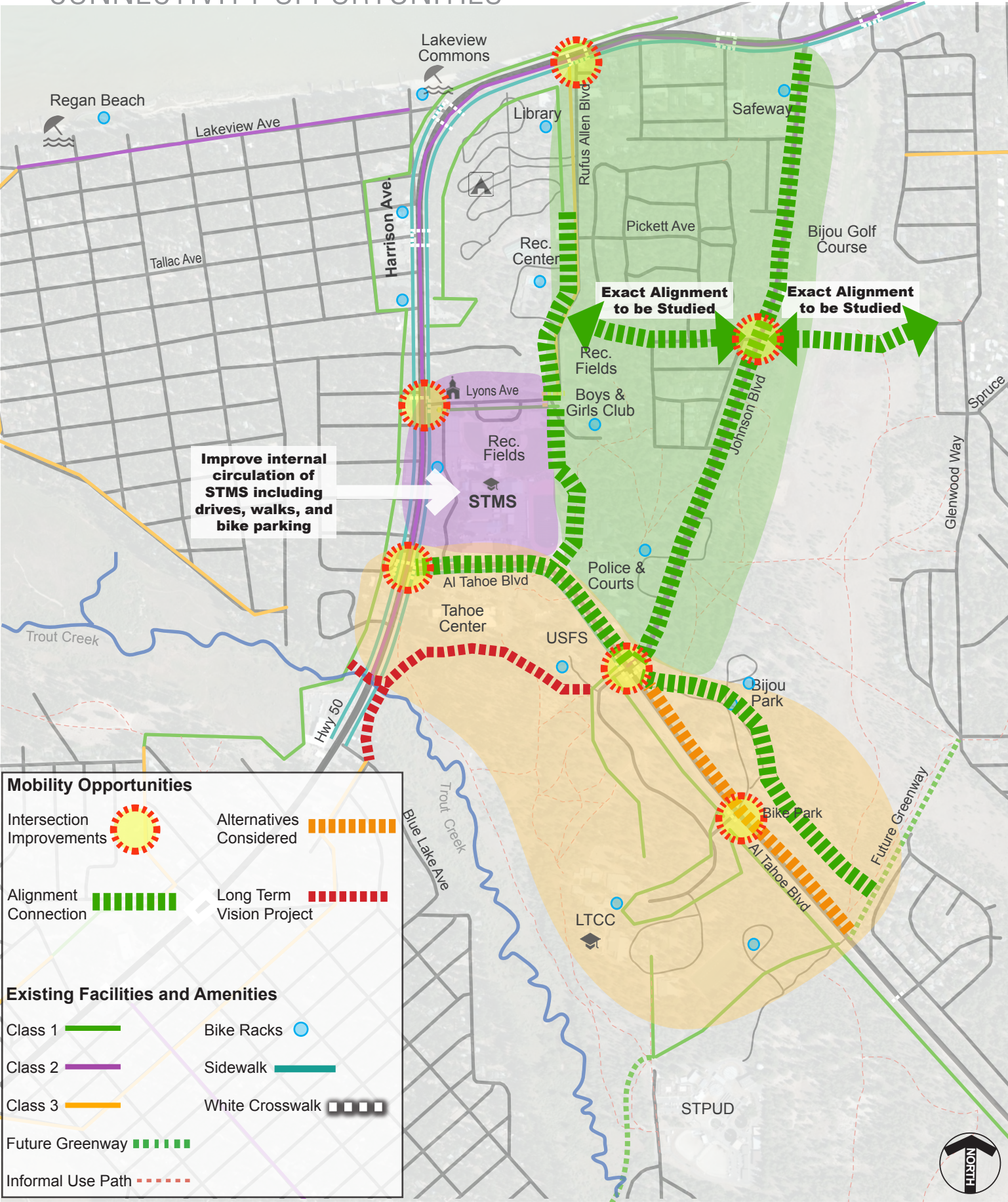


Figure 22: Diagram of Mobility Opportunity Sites

CHAPTER 3: COMMUNITY OUTREACH

Chapter 3 describes the community based public participation process that shaped and informed the development of alternatives and project recommendations.

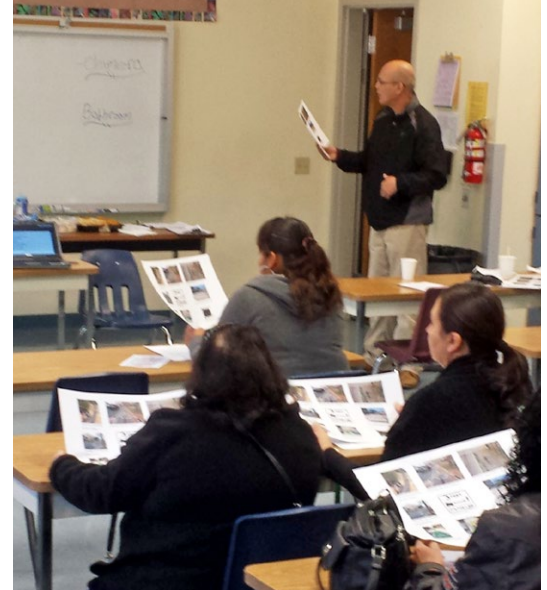
OVERVIEW

OVERVIEW

The Connectivity Plan effort originated from community outreach associated with a prior safe routes to school study. LTUSD, in partnership with the Mobility Group and the City, initially identified the need for the Connectivity Plan effort through the Safe Routes to School Study and Community Outreach, conducted April 2014, funded by the TRPA/TMPO On Our Way Grant Program.

Those early efforts continued throughout development of the Connectivity Plan. The public participation process engaged public and government stakeholders as part of an effort to gain feedback and invite collaboration. Both public and agency stakeholders shaped the alternatives and determined project priorities. Table 6 identifies the stakeholder groups engaged through the process.

Outreach was geared towards engaging the Hispanic community by attending weekly morning Cafecitos (local Hispanic parent teacher association (PTA)) meetings at Tahoe Valley Elementary, Sierra House Elementary and the Middle School. Children were welcomed at the meetings and translators assisted in presentations and feedback. Flyers and surveys were translated into Spanish.



Outreach efforts were conducted during Cafecitos meetings to gain more input from the Hispanic community

Table 7: Stakeholder Involvement

PUBLIC STAKEHOLDERS	GOVERNMENTAL STAKEHOLDERS (TECHNICAL ADVISORY COMMITTEE/TAC)	DECISION-MAKING TEAM (PROJECT DELIVERY TEAM (PDT))
Inform and Consult to Gain Feedback: Event Type: One-on-one meetings and group meetings	Consult and Involve in the Outcome: Event Type: Individual and group stakeholder meetings	Involve, Collaborate and Empower to Partner in Outcomes and Identify/ Formulate Solutions: Event Type: Team meetings
Community members (residents, targeted and vulnerable users)	Barton Hospital	City of South Lake Tahoe
Elected officials	Caltrans	Lake Tahoe Unified School District
Hispanic parent groups (Cafecitos)	California Tahoe Conservancy	Tahoe Regional Planning Agency/Tahoe Metropolitan Planning Organization
Middle School staff	California Highway Patrol	Tahoe Transportation District
Middle School students	City of South Lake Tahoe Bicycle Advisory Committee	Community Mobility Group
Lake Tahoe Bicycle Coalition	City of South Lake Tahoe Fire Department	
Property owners of Tahoe Retail Center	City of South Lake Tahoe Police Department	
South Shore Transportation Management Association	City of South Lake Tahoe Recreation and Parks Commission	
	El Dorado County Law Enforcement	
	Tahoe Regional Planning Agency/ Tahoe Metropolitan Planning Organization	
	Tahoe Transportation District	
	US Forest Service	

OVERVIEW

Highlights of the event types and outreach methods are summarized in Table 7. Table 8 presents the number of meetings conducted with the different stakeholders. As shown in Table 6, the PDT was comprised of representatives from implementing agencies and the Mobility Group. They met often to review and provide direction, organize the outreach and make final decisions about the high priority project.

Table 8: Outreach Methods, Accessibility and Facilitation Tools for Meetings/Events

EVENT/MEETING TYPE (NUMBER)	OUTREACH METHODS									ACCESSIBILITY			FACILITATION TOOLS	
	Newspaper	Flyers ¹	E-Mail Blasts ²	Student Handouts	Facebook	Community Events Calendars	Agency Websites	Project Websites ³	Personal Invitations	Held During Regular Meeting Time	Accessible Via Transit	Spanish Translation	Questionnaires/ Surveys	Keypad Polling
Walkabout (2)	√	√	√	√	√	√	√	√	√	√	√			
Public Workshops (2)	√	√	√	√	√	√	√	√	√	√	√		√	√
Community Surveys (2)	√	√	√	√	√		√	√				√	√	
Student Survey (1)		√	√	√								√	√	
Cafecitos Meetings/Surveys (6)									√	√	√	√	√	√
One-on-one Meetings/														
Phone Calls (12)									√	√				
Updates to Community Groups (9)			√			√			√	√	√			
Updates to Recreation Commission and Joint Powers of Authority (4)						√			√	√	√			
¹ Posted at local businesses, post offices, recreation centers and Community College.														
² Through community groups, LTUSD, the City, TRPA/TMPO, and TTD email lists.														
³ http://sustainabilitycollaborative.org/how-we-work/community-mobility-cm/stms-connectivity/														

Table 9: Meeting/Event Types, Number and Attendance

	ATTENDANCE/SURVEY RESPONDENTS	NUMBER OF MEETINGS/ EVENTS
PDT/TAC Walkabout	12	1
Public Walkabout & Debrief	13	1
Public Workshop 1	20	1
Community Survey 1	292	1
Student Survey	474	1
Cafecitos Survey 1 (at 3 separate meetings)	30	3
Public Workshop 2	19	1
Community Survey 2	144	1
Cafecitos Survey 2 (at 3 separate meetings)	19	3
One-on-one Meetings/Phone Discussions	1-2 each meeting	12
Community Group Meetings	6-10 each meeting	13
PDT Meetings	5-6 each meeting	12
Agency/TAC Stakeholder Meetings	6-10 each meeting	2

PROCESS + OUTCOMES

PROCESS AND OUTCOMES

In addition to PDT and stakeholder meetings, the primary outreach events and activities included the following:

- Stakeholder Walkabout
- Student, Parent + Teacher Walkabout
- Student Survey
- Public Workshop One
 - Face-to-face Meeting
 - Keypad Polling
 - Map Exercise
 - On-line Outreach
 - Community Survey
 - Disadvantaged Community Outreach
 - Cafecitos Meetings (Translated Keypad Polling)
 - Translated On-line Surveys
- Public Workshop Two
 - Face-to-face Meeting
 - Survey Cards
 - On-line Outreach
 - Community Survey
 - Disadvantaged Community Outreach
 - Cafecitos Meetings (Translated Survey Cards)
 - Translated On-line Surveys

WALKABOUTS

A preliminary walkabout was conducted with agency and community group stakeholders at the project onset. During Middle School drop-off time, a “walkabout” or “walking audit” was conducted with parents October 16, 2015. A survey and follow-up discussion was conducted immediately afterward with attendees and the LTUSD superintendent and principal. Concerns included street crossings and traffic speed creating fear for students and parents. During the walking audit, observers noted high traffic speeds within the school drop-off area and students crossing Al Tahoe Boulevard outside the controlled US-50/Al Tahoe crosswalk.

South Tahoe Middle School Connectivity Plan Public Workshop Questionnaire/Comment Card

November 19, 2014; 5:30pm – 7:30pm

Name & Email: Charles Nelson / charles@ksc.edu

1. Out of the options shown today for Al Tahoe Blvd. from US 50 to Johnson Boulevard, which is your most preferred?

☐ AT 1: No road diet with sharrows

☒ AT 2: 4-lane road diet with Class II bike lanes (2 w/b, 1 E/B, 2 w/b)

☐ AT 3: 3-lane road diet with Class I path

Comments:

2. Out of the options shown today for Johnson Blvd. which is your most preferred?

☒ JL 1: Widen Class II bike lanes (+ buffer eat)

☐ JL 2: Class I path

Comments:

Need separate path route on both sides (all options) + enforce "no

3. Out of the options shown today for Rufus Allen Blvd. which is your most preferred?

☐ RA 1: Class II bike lanes

☒ RA 2: Class I path + bike lane on east side (or both sides)

Comments:

Need separate path route on both sides (all options)

4. Out of the options shown today for the Al Tahoe/US 50 intersection which is your most preferred?

☐ AT/US 50 Baseline

☒ AT/US 50 Enhanced

Comments:

Bike bus should in right-most left-turn lane

5. Out of the options shown today for Lyons/US 50 which is your most preferred?

☐ LY/US 50 Baseline

☒ LY/US 50 Enhanced

Comments:

3. Rank your top three priority projects for bike and pedestrian improvements? (label 1-3)

☐ Lyons Avenue recommendations

☐ Middle School circulation recommendations

☒ Al Tahoe Blvd. from US 50 to Johnson Avenue

(your preferred option (AT 1, AT 2, or AT 3) as selected above)

☐ Johnson Blvd. (your preferred option (JB 1 or JB 2) option as selected above)

☐ Rufus Allen Blvd. (your preferred option (RA 1 or RA 2) as selected above)

☐ Al Tahoe Blvd. from Johnson Blvd. to the future Greenway recommendations

E/W Connector through Bijou Meadow to Rufus Allen

☒ E/W Connector behind USFS & UPS and Crossing

US 50 at Trout Creek recommendations

☒ Al Tahoe/US 50 Intersection (your preferred option (AT/US 50 Baseline or AT/US 50 Enhanced) as selected above)

☐ Lyons/US 50 Intersection (your preferred option (LY/US 50 Baseline or LY/US 50 Enhanced) as selected above)

☐ Rufus Allen/US 50 Intersection recommendations

Please continue on the back.

Survey cards used during the second public workshop.

PROCESS + OUTCOMES

STUDENT SURVEY

A student survey was conducted at the Middle School during home room time period October 16, 2015. Students described challenges inhibiting biking and walking to and from school (Figure 23.) Safety concerns included crosswalks, traffic speed, cars and lack of facilities.

WORKSHOPS AND ON-LINE SURVEYS

Two public meetings were conducted and follow-up community surveys were distributed through e-mail databases, social media and news articles. The public meetings were conducted at the Middle School and follow-up meetings were held at the Cafecitos meetings to increase outreach to the Hispanic community.

SHAPING THE OUTCOMES

The 2014/2015 study of the project area's connectivity identified 12 locations with active-transportation improvement opportunities. These areas and their corresponding alternatives were evaluated and ranked both by the community and by the Project Delivery Team (PDT). Almost 33 percent of respondents identified Al Tahoe Boulevard as their priority corridor for improvements (Figure 24) and an overwhelming majority (66 percent) of respondents ranked a Class I bike path along Al Tahoe Boulevard as their preferred project to move forward as an ATP grant application for environmental documentation, design and implementation (Figure 25.)

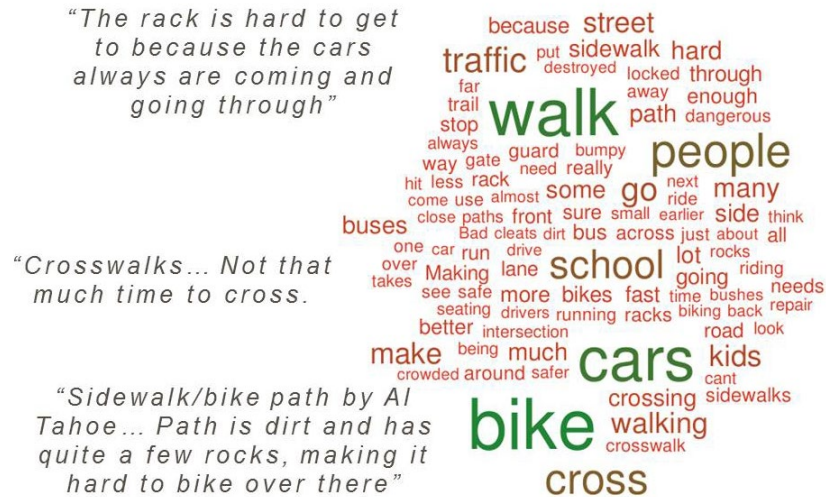


Figure 23: Wordle – Student Survey of Area Active-Transportation Barriers

What is your number one priority project and why is it most important to you?

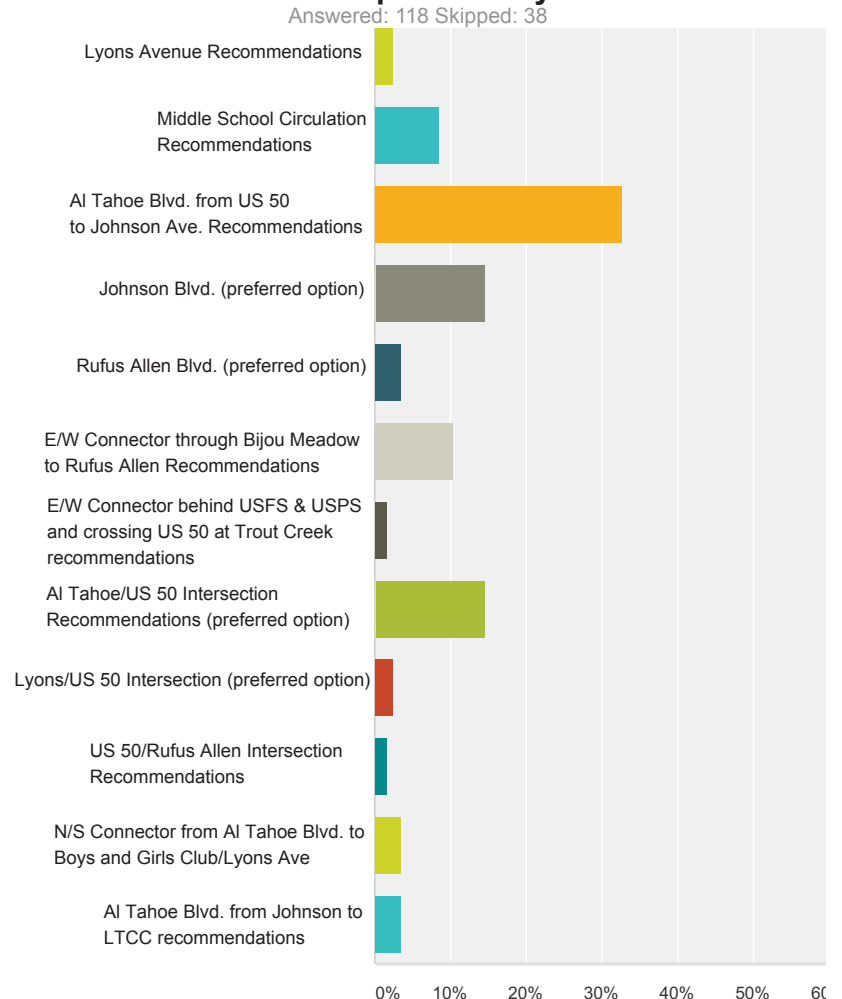


Figure 24: 2014/2015 Middle School Connectivity Plan Survey Results – Priority Project Corridor

PROCESS + OUTCOMES

Stakeholder and public feedback guided the project vision, alternatives and prioritization. Feedback revealed current and potential users, mode types, common social paths, barriers to connectivity and safety concerns. Community input emphasized reduced vehicular speeds along Al Tahoe Boulevard to enable comfortable riding/walking, a desire for Class I facilities and intersection enhancements and support for reduced travel lane widths.

Governmental stakeholders felt the mobility network along Al Tahoe Boulevard needed to accommodate all users and requested Class II bike lanes on both sides of Al Tahoe. The Al Tahoe Boulevard project recommendations and schematic design package were modified to include both Class I and Class II facilities to meet the ATP goal of “providing a spectrum of projects to benefit many types of active transportation users”.

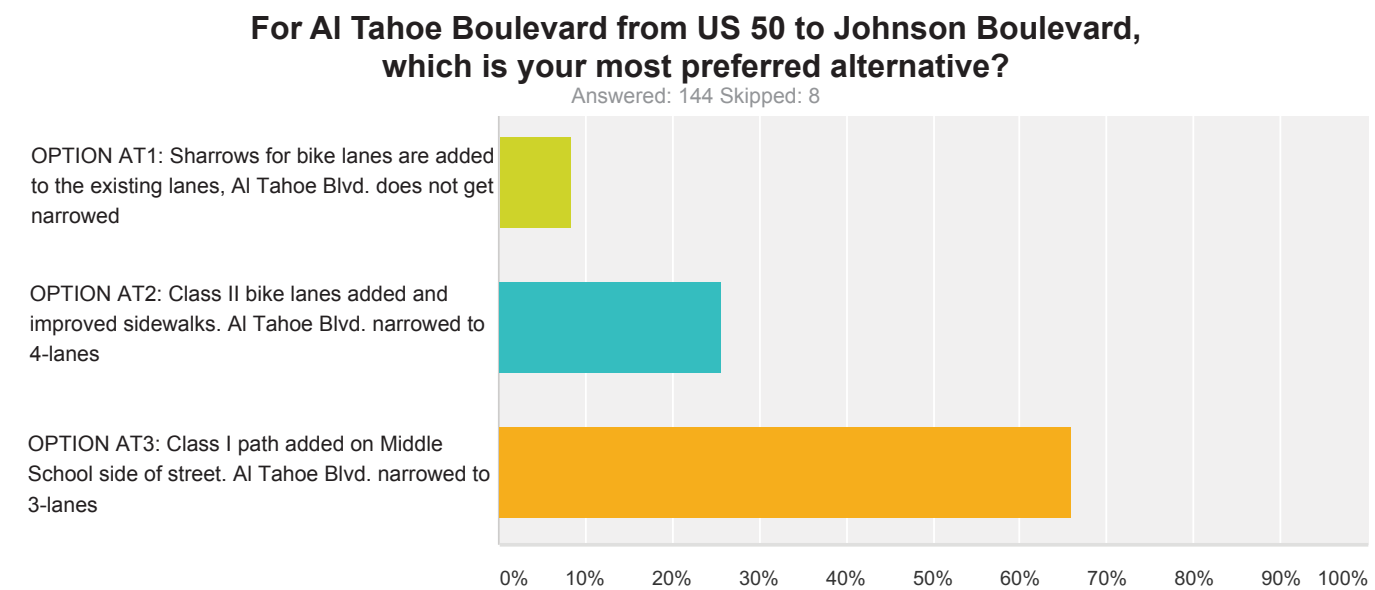


Figure 25: 2014/2015 Middle School Connectivity Plan Survey Results – Preferred Alternative

CHAPTER 4: ALTERNATIVES ANALYSIS

A range of alternatives were developed to enhance active transportation facilities throughout the study area. Those alternatives are described in greater detail in Chapter 5 along with the final recommendations. Chapter 4 summarizes the analysis process used to evaluate the alternatives and select a high priority project to move forward through grant funding and further design and implementation.

ALTERNATIVES ANALYSIS

ALTERNATIVES ANALYSIS

The PDT (see page 40) reviewed and evaluated the alternatives described in Chapter 5 based on the criterion listed below. Except for “Traffic,” the elements were primarily selected in consideration of California’s Active Transportation System (ATP) grant program and were scored in accordance with the 2015 ATP point system.

ANALYSIS CRITERION

The criterion used to evaluate the various alternatives can be grouped into the following categories:

CRITERION

- Project Feasibility (weighted multiplier of 3)
- Plan Consistency (weighted multiplier of 3)
- Safety (weighted multiplier of 5.4)
- Increased Walking/Biking (weighted multiplier of 1)
- Community Outreach (weighted multiplier of 1.25)
- Impacts to Traffic (weighted multiplier of 1)

The PDT utilized quantitative data wherever possible to rank each alternative on a scale from 0 to 3 utilizing the above criterion. A higher ranking score indicated a preferred alternative. Following is a summary of the criterion and the ranking categories:

PROJECT FEASIBILITY (status of ROW clearance & Environmental Clearance required for ATP)

Feasibility – ROW

Can the improvements be completed within the existing ROW (3 points) or will they require land acquisition and ROW adjustments (0 points)? Yes or no.

- Based on whether improvements require ROW or acquisition:
 - » 3: Project does not require ROW or acquisition
 - » 0: Project requires ROW acquisition

Feasibility - Environmental Documentation Required

What is the level of environmental documentation anticipated?

- Based on the type of environmental document/mitigation anticipated:
 - » 3: Project does not have significant environmental impacts (Neg. Dec.)
 - » 1: Project has environmental impacts that can be easily mitigated (MND)
 - » 0: Project has environmental impacts that can be mitigated (EIS/EIR mitigation)

PLAN CONSISTENCY (ATP screening criteria for project eligibility)

Is the project listed in the 2010 Regional Bicycle & Pedestrian Plan or Regional Transportation Plan (2035 Mobility Plan)

- Based on whether the project is included in the regional plans and listed as a Tier 1 project in the RTP:
 - » 3: Project listed in the 2010 Regional Bicycle & Pedestrian Plan & the RTP and listed as a Tier 1 project in the RTP
 - » 1.5: Project listed in either the 2010 Regional Bicycle & Pedestrian Plan & the RTP
 - » 0: Project not listed in either the 2010 Regional Bicycle & Pedestrian Plan or the RTP

ALTERNATIVES ANALYSIS

SAFETY (worth 26% of overall ATP score)

Safety

Does the Alternative improve safety for pedestrians and bicyclists?

- Based on SWITRS collision data 2008-2012:
 - » 3: Project is located in an area of 5 or more vehicular incidents caused by unsafe speeds or one or more incidents involving a pedestrian or a bicyclist
 - » 2: Project is located in an area of 3 or more vehicular incidents caused by unsafe speeds
 - » 1: Project is located in an area of 1 or more vehicular incidents caused by unsafe speeds
 - » 0: No incidents occurred in area of treatment

INCREASED WALKING & BIKING (worth 22% of overall ATP score)

Potential for Increased Walking

Will there be increased pedestrian use from the alternative's improvements?

- Based on the provision of a pedestrian facility:
 - » 3: Project provides a pedestrian facility where there is none
 - » 1.5: Project improves existing pedestrian facility
 - » 0: Project does not include pedestrian improvements

Potential for Increased Biking

Will there be increased bicycle use from the alternative's improvements?

- Based on the provision of a bicycle facility:
 - » 3: Project provides a bikeway facility where there is none
 - » 1.5: Project improves existing bikeway facility
 - » 0: Project does not include bikeway improvements

Range of Bicycle Users

Does the bicycle facility serve a broad range of users?

- Based on the type of bicycle facility and how comfortable its use is to a range of users:
 - » 3: Project provides a Class I path, and/or intersection improvements specific for bikes
 - » 2: Project provides a Class II bike lane
 - » 1: Project provides a Class III bike route, and or baseline intersection improvements
 - » 0: Project does not provide any bicycle facility

ALTERNATIVES ANALYSIS

Connectivity to Area Destinations (from ATP list)

Does the project create or improve walking and/or bicycling route connections to one or more of the following destinations?

- Based on how many destinations the project provides connectivity to within ½-mile walking/biking distance of the project area, with a focus on school connectivity to neighborhoods:
 - School or School Facility
 - » STMS: 1 point
 - » LTCC: .5 points
 - Recreation Centers (Recreation Center, Bijou Park, Sports Fields, Lakeview Commons) (.2 points each)
 - Employment Center (Tahoe Center, Harrison Avenue Business District) (.1 points each)
 - Neighborhoods
 - » Al Tahoe: .5 point (34% rec/vac, 24% Hispanic, 2075 pop)
 - » Sierra Tract: .5 points (21% rec/vac, 28% Hispanic, 2010 pop)
 - » Pioneer Village: .1 points (28% rec/vac, 32% Hispanic, pop 170)
 - » Bijou: 1 point (25% rec/vac, 54% Hispanic, total pop. 3214)
 - » Bijou Pines: .1 points (40% rec/vac, 21% Hispanic, 873 pop)
 - » 3: Project connects to 3 or more destinations or connects to both a neighborhood and a school or school facility
 - » 2: Project connects to 2 area destinations
 - » 1: Project connects to 1 area destinations
 - » 0: Project does not connect to any destinations

Gap Closure or Barrier Removal

Does the project remove a barrier to mobility and/or close a gap in the non-motorized facility or connect to an existing or planned regional non-motorized facility (connects from the City to the County) to provide better overall regional bike and ped connectivity?

- Based on how the project removes a barrier or closes a gap or connects to an existing or planned regional non-motorized facility:
 - » 3: Project closes a gap or removes a barrier through one of the following methods:
 - Connects two existing non-motorized facilities of the same type or better (e.g. Class I facility connecting to a Class I facility, a Class II facility connecting to a Class II facility, or a sidewalk to a sidewalk)
 - Connects to an existing or planned regional non-motorized facility (e.g. connects to the Class I facility west of US 50 or to the planned Greenway)
 - Project reduces the number of intersection legs a pedestrian/bicyclist must cross to connect two non-motorized facilities
 - » 1.5: Project closes a gap or removes a barrier by connecting two existing or planned non-motorized facilities of the same type with a non-motorized facility of a different type (e.g. connecting two Class I facilities with a Class II facility)
 - » 0: Project does not close a gap between two existing non-motorized facilities

COMMUNITY OUTREACH (worth 13% of overall ATP score)

Public Feedback Regarding Specific Alternatives

How did the public rank the project alternative?

- Based on the percentage of public support the alternative received:
 - » 3: Project scored 50% or above on surveys: alternative selection (or did not have an alternative)
 - » 2: Project scored between 30%-49% on surveys: alternative selection
 - » 1: Project scored between 10%-29% on surveys: alternative selection
 - » 0: Project scored below 10% on surveys: alternative selection

OUTCOMES

Public Feedback Regarding Priorities

How did the public prioritize the project corridor?

- Based on the priority ranking the project corridor received:
 - » 3: Project scored 30% or above on surveys: priorities selection
 - » 2: Project scored between 15%-29% on surveys: priorities selection
 - » 1: Project scored between 5%-14% on surveys: priorities selection
 - » 0: Project scored below 5% on surveys: priorities selection

TRAFFIC

How does the project affect traffic movement?

- Based on the impact to LOS:
 - » 3: Project does not change LOS
 - » 2: Project changes LOS one letter grade down but is still above F
 - » 1: Project changes LOS more than one letter grade down but is still above F
 - » 0: Project changes LOS to F

OUTCOMES

The final ratings are illustrated in the Alternatives Analysis Evaluation Matrix shown in Table 9. The AI Tahoe/Johnson intersection was not evaluated as part of the matrix since its recommendations resulted from the selection of preferred alternatives along AI Tahoe Boulevard and Johnson Boulevard.

The AI Tahoe Boulevard Class I bike path with associated road configuration ranked over 17 percent higher than the next highest project – a clear priority for connectivity enhancements in the AI Tahoe Boulevard area. Intersection improvements for US 50/AI Tahoe and AI Tahoe/Johnson were also included in the high priority project due to their connection to the AI Tahoe Boulevard recommendations. More detailed engineering and design will determine the final project details and will provide refined analysis of the project’s impacts and costs.

Overall Prioritization

The analysis criteria focused on ATP funding, but many other considerations were incorporated. The PDT evaluated the list of recommended projects based on the outcome of the alternatives analysis and prioritized them into three broad categories: high, medium and low. Those categories and the total score of the recommended improvements from the alternatives analysis are provided below. Note that the broad categorization of priorities considers more factors than just the final score of the alternatives analysis.

High Priority

- AI Tahoe Boulevard (US 50 to Johnson) Class I bike path, Class II bike lanes and intersection improvements
 - AI Tahoe Blvd – Class I Bike Path: 56.9
 - US 50/AI Tahoe Intersection – Enhanced Improvements: 45.45
- Lyons/US 50 Intersection – Enhanced Improvements: 43.05
- Johnson Blvd – Class I Bike Path: 44.75
- AI Tahoe Blvd from Johnson thru Bijou Park: 38.45
- Bijou Park/AI Tahoe Intersection: 33.95

Medium Priority

- Bijou Meadow East-West Connectivity Multi-use Path: 26
- South Tahoe Middle School Circulation Improvements: 28.8
- Lyons Ave to AI Tahoe Blvd N/S Connector – Class I Path: 33.25
- Rufus Allen Blvd – Class I Bike Path: 41.15
- Rufus Allen/US 50 Intersection – Widen Crosswalk: 33.25

Low Priority

- Trout Creek/US 50 E/W Connectivity – Underpass: 37.65

OUTCOMES

Table 10: Alternatives Analysis Evaluation Matrix

CATEGORY	US 50/AL TAHOE INTERSECTION ALT 1: BASELINE IMPROVEMENTS	US 50/AL TAHOE INTERSECTION ALT 2: ENHANCED IMPROVEMENTS
PROJECT FEASIBILITY (status of ROW clearance & Environmental Clearance required for ATP) (18 possible points in matrix)		
Feasibility - ROW	0	0
	Pot. ROW to widen ped landing areas	Pot. ROW to widen ped landing areas
Feasibility - Environmental Documentation	3	3
	Neg. Dec.	Neg. Dec.
Subtotal	3	3
PLAN CONSISTENCY (screening criteria for project eligibility) (9 possible points in matrix)		
Plan Consistency	0	0
	Not listed	Not listed
SAFETY (worth 26% of overall ATP score) (16.2 possible points in matrix)		
Safety	3	3
	4 collisions (1 involving a ped (hit in crosswalk))	4 collisions (1 involving a ped (hit in crosswalk))
INCREASED WALKING & BIKING (worth 22% of overall ATP score) (15 potential points in matrix)		
Potential for Increased Walking	1.5	1.5
	Project improves existing facility	Project improves existing facility
Potential for Increased Biking	1.5	1.5
	Project improves existing facility	Project improves existing facility
Range of Bicycle Users	1	3
	Project provides baseline intersection improvements	Project provides intersection improvements for cyclists
Connectivity to Area Destinations	2.2	3
	Al Tahoe (.5) & Sierra Tract (.5) neighborhoods and STMS (1) Tahoe Center, Harrison Avenue Business District (.1) (.1) w/in 1/2 mile	Al Tahoe (.5) & Sierra Tract (.5) neighborhoods and STMS (1) Tahoe Center, Harrison Avenue Business District (.1) (.1) w/in 1/2 mile
Gap Closure	3	3
	Improves crossing & connects to Class I path to the County	Improves crossing & connects to Class I path to the County
Subtotal	9.2	12
COMMUNITY OUTREACH (worth 13% of overall ATP score) (7.5 potential points in matrix)		
Public Feedback Regarding Specific Alternative	2	3
	Received 33% of votes	Received 66% of votes
Public Feedback Regarding Priorities	2	2
	Received 15% of votes	Received 15% of votes
Subtotal	4	5
TRAFFIC (not listed in ATP) (3 points in matrix)		
Traffic	2	2
	Project changes overall LOS from C to D in PM	Project changes overall LOS from C to D in PM
TOTAL	41.4	45.45

OUTCOMES

CATEGORY	AL TAHOE BLVD. FROM US 50 TO JOHNSON ALT 1: SHARROWS	AL TAHOE BLVD. FROM US 50 TO JOHNSON ALT 2: FOUR-LANE ROAD W/ CLASS II BIKE LANES	AL TAHOE BLVD. FROM US 50 TO JOHNSON ALT 3: THREE-LANE ROAD W/ CLASS I PATH
PROJECT FEASIBILITY (status of ROW clearance & Environmental Clearance required for ATP) (18 possible points in matrix)			
Feasibility - ROW	3	3	3
	No ROW needed	No ROW needed	No ROW needed
Feasibility - Environmental Doc	3	3	3
	Neg. Dec.	Neg. Dec.	Neg. Dec.
Subtotal	6	6	6
PLAN CONSISTENCY (screening criteria for project eligibility) (9 possible points in matrix)			
Plan Consistency	0	0	3
	Not listed	Not listed	Listed in Bike/Ped Plan and RTP
SAFETY (worth 26% of overall ATP score) (16.2 possible points in matrix)			
Safety	1	1	1
	2 collisions with unsafe speeds(none involving ped/bike)	2 collisions with unsafe speeds(none involving ped/bike)	2 collisions with unsafe speeds(none involving ped/bike)
INCREASED WALKING & BIKING (worth 22% of overall ATP score) (15 potential points in matrix)			
Potential for Increased Walking	1.5	1.5	3
	Project improves existing sidewalk	Project improves existing sidewalk	Project provides Class I facility where no sidewalk exists
Potential for Increased Biking	1.5	3	3
	Project improves bike mobility but does not provide designated facility	Project provides bikeway facility where none exists	Project provides bikeway facility where none exists
Range of Bicycle Users	1	2	3
	Project provides a Class III bike route	Project provides a Class II bike lane	Project provides a Class I bike path
Connectivity to Area Destinations	2.9	2.9	3
	Al Tahoe (.5) & Sierra Tract (.5) neighborhoods, STMS (1) and LTCC (.5), Tahoe Center (.1), Harrison Avenue Business District (.1), Bijou Park (.2) within 1/2 mile route	Al Tahoe (.5) & Sierra Tract (.5) neighborhoods, STMS (1) and LTCC (.5), Tahoe Center (.1), Harrison Avenue Business District (.1), Bijou Park (.2) within 1/2 mile route	Al Tahoe (.5) & Sierra Tract (.5) neighborhoods, STMS (1) and LTCC (.5), Tahoe Center (.1), Harrison Avenue Business District (.1), Bijou Park (.2) within 1/2 mile route
Gap Closure	0	1.5	3
	Does not connect existing Class I facilities with a Class II or Class I facility	Connects existing Class I facilities with a Class II facility	Connects existing Class I facilities with a Class I facility
Subtotal	6.9	10.9	15
COMMUNITY OUTREACH (worth 13% of overall ATP score) (7.5 potential points in matrix)			
Public Feedback Regarding Specific Alternative	0	1	3
	Received 8% of votes	Received 25% of votes	Received 65% of votes
Public Feedback Regarding Priorities	3	3	3
	Received 33% of votes	Received 33% of votes	Received 33% of votes
Subtotal	3	4	6
TRAFFIC (not listed in ATP) (3 points in matrix)			
Traffic	3	2	2
	Project does not change overall LOS	Project changes overall LOS from C to D in PM	Project changes overall LOS from C to D in PM
TOTAL	37.05	41.3	56.9

OUTCOMES

CATEGORY	JOHNSON BLVD. ALT 1: BIKE LANES AND SIDEWALK	JOHNSON BLVD. ALT 2: CLASS I PATH
PROJECT FEASIBILITY (status of ROW clearance & Environmental Clearance required for ATP) (18 possible points in matrix)		
Feasibility - ROW	3	3
	No ROW needed	No ROW needed
Feasibility - Environmental Documentation	3	3
	Neg. Dec.	Neg. Dec.
Subtotal	6	6
PLAN CONSISTENCY (screening criteria for project eligibility) (9 possible points in matrix)		
Plan Consistency	0	0
	Not listed	Not listed
SAFETY (worth 26% of overall ATP score) (16.2 possible points in matrix)		
Safety	1	1
	3 collisions (1 with unsafe speeds) (none involving ped/bike)	3 collisions (1 with unsafe speeds) (none involving ped/bike)
INCREASED WALKING & BIKING (worth 22% of overall ATP score) (15 potential points in matrix)		
Potential for Increased Walking	3	3
	Project provides sidewalk where none exists	Project provides Class I facility where no sidewalk exists
Potential for Increased Biking	1.5	1.5
	Project improves existing bike facilities	Project improves existing bike facilities
Range of Bicycle Users	2	3
	Project provides a Class II bike lane	Project provides a Class I bike path
Connectivity to Area Destinations	1.6	1.6
	Bijou Pines (.1) neighborhood, STMS (1), LTCC (.5) and Bijou Park (.2) within 1/2 mile route	Bijou Pines (.1) neighborhood, STMS (1), LTCC (.5) and Bijou Park (.2) within 1/2 mile route
Gap Closure	3	3
	Connects existing Class II facilities with a Class II facility	Connects existing Class I facilities with a Class I facility
Subtotal	11.1	12.1
COMMUNITY OUTREACH (worth 13% of overall ATP score) (7.5 potential points in matrix)		
Public Feedback Regarding Specific Alternative	2	3
	Received 36% of votes	Received 63% of votes
Public Feedback Regarding Priorities	2	2
	Received 15% of votes	Received 15% of votes
Subtotal	4	5
TRAFFIC (not listed in ATP) (3 points in matrix)		
Traffic	3	3
	Project does not change overall LOS	Project does not change overall LOS
TOTAL	42.5	44.75

OUTCOMES

CATEGORY	BIJOU MEADOW E/W CONNECTIVITY MULTI-USE PATH	AL TAHOE BLVD. FROM JOHNSON BLVD. THRU BIJOU PARK – PATH
PROJECT FEASIBILITY (status of ROW clearance & Environmental Clearance required for ATP) (18 possible points in matrix)		
Feasibility - ROW	0	3
	Pot. ROW/parcel acquisition for connection	No ROW needed
Feasibility - Environmental Documentation	0	3
	EIR for SEZ impacts and other	Neg. Dec.
Subtotal	0	6
PLAN CONSISTENCY (screening criteria for project eligibility) (9 possible points in matrix)		
Plan Consistency	1.5	1.5
	Listed in the Bike/Ped plan & RTP as another Bijou meadow crossing	Listed in the Bike/Ped Pan and the RTP
SAFETY (worth 26% of overall ATP score) (16.2 possible points in matrix)		
Safety	0	0
	2 collisions along Glenwood (0 to unsafe speeds)	0 collisions
INCREASED WALKING & BIKING (worth 22% of overall ATP score) (15 potential points in matrix)		
Potential for Increased Walking	3	1.5
	Project provides Class I facility where no sidewalk exists	Project improves existing Class I access to Bijou Park
Potential for Increased Biking	3	1.5
	Project provides Class I facility where no bike facilities exist	Project provides additional bike facility in area of existing Class I facility
Range of Bicycle Users	3	3
	Project provides a Class I bike path	Project provides a Class I bike path
Connectivity to Area Destinations	3	1.7
	STMS (1), Bijou (1), Bijou Pines (.1) and Al Tahoe (.5) neighborhoods, Rec Center (.2) & library (.2) within 1/2 mile route	STMS (1), LTCC (.5) and Bijou Park (.2) within 1/2 mile route
Gap Closure	1.5	1.5
	Connects existing Class I facility on Rufus with Class III facilities on Glenwood & Spruce	Connects Class II facility with proposed Greenway, but duplicates existing Class I along LTCC side of Al Tahoe
Subtotal	13.5	9.2
COMMUNITY OUTREACH (worth 13% of overall ATP score) (7.5 potential points in matrix)		
Public Feedback Regarding Specific Alternative	3	3
	No Alternative Presented	No Alternative Presented
Public Feedback Regarding Priorities	1	0
	Received 10% of votes	Received 4% of votes
Subtotal	4	3
TRAFFIC (not listed in ATP) (3 points in matrix)		
Traffic	3	3
	Project does not change overall LOS	Project does not change overall LOS
TOTAL	26	38.45

OUTCOMES

CATEGORY	BIJOU PARK/AL TAHOE INTERSECTION	LYONS/US 50 INTERSECTION BASELINE IMPROVEMENTS	LYONS/US 50 INTERSECTION ENHANCED IMPROVEMENTS
PROJECT FEASIBILITY (status of ROW clearance & Environmental Clearance required for ATP) (18 possible points in matrix)			
Feasibility - ROW	3	0	0
	No ROW needed	Pot. ROW to widen ped landing areas	Pot. ROW to widen ped landing areas
Feasibility - Environmental Documentation	3	3	3
	Neg. Dec.	Neg. Dec.	Neg. Dec.
Subtotal	6	3	3
PLAN CONSISTENCY (screening criteria for project eligibility) (9 possible points in matrix)			
Plan Consistency	0	0	0
	Not listed	Not listed	Not listed
SAFETY (worth 26% of overall ATP score) (16.2 possible points in matrix)			
Safety	0	3	3
	0 collisions	5 collisions (2 involving bike (traffic signal violations by vehicle))	5 collisions (2 involving bike (traffic signal violations by vehicle))
INCREASED WALKING & BIKING (worth 22% of overall ATP score) (15 potential points in matrix)			
Potential for Increased Walking	3	1.5	1.5
	Project provides pedestrian crossing where none exists	Project improves existing facility	Project improves existing facility
Potential for Increased Biking	3	1.5	1.5
	Project provides crossing where none exists	Project improves existing facility	Project improves existing facility
Range of Bicycle Users	1	1	3
	Project provides baseline intersection improvements	Project provides baseline intersection improvements	Project provides intersection improvements for cyclists
Connectivity to Area Destinations	0.7	2.1	2.1
	LTCC (.5) and Bijou Park (.2) within 1/2 mile route	Al Tahoe (.5) and Bijou Pines (.1) neighborhoods, STMS (1) and rec center (.2) and Lakeview Commons (.2) and Harrison Avenue Business District (.1) within 1/2 mile route	Al Tahoe and Bijou Pines neighborhoods, STMS and rec center within 1/2 mile route
Gap Closure	1.5	3	3
	Connects existing Class I near LTCC to Bijou Park	Improves crossing & connects to Class I path to the County	Improves crossing & connects to Class I path to the County
Subtotal	9.2	9.1	11.1
COMMUNITY OUTREACH (worth 13% of overall ATP score) (7.5 potential points in matrix)			
Public Feedback Regarding Specific Alternative	3	2	3
	No Alternative Presented	Received 38% of votes	Received 61% of votes
Public Feedback Regarding Priorities	0	0	0
	Received 4% of votes	Received 3% of votes	Received 3% of votes
Subtotal	3	2	3
TRAFFIC (not listed in ATP) (3 points in matrix)			
Traffic	3	3	3
	Project does not change overall LOS	Project does not change overall LOS	Project does not change overall LOS
TOTAL	33.95	39.8	43.05

OUTCOMES

CATEGORY	RUFUS ALLEN/US 50 INT. – WIDEN CROSSWALK	RUFUS ALLEN BLVD. ALT. 1: CLASS II BIKE LANES	RUFUS ALLEN BLVD. ALT. 2: CLASS I BIKE PATH
PROJECT FEASIBILITY (status of ROW clearance & Environmental Clearance required for ATP) (18 possible points in matrix)			
Feasibility - ROW	3	3	3
	No ROW needed	No ROW needed	No ROW needed
Feasibility - Environmental Documentation	3	3	3
	Neg. Dec.	Neg. Dec.	Neg. Dec.
Subtotal	6	6	6
PLAN CONSISTENCY (screening criteria for project eligibility) (9 possible points in matrix)			
Plan Consistency	0	0	0
	Not listed	Not listed	Not listed
SAFETY (worth 26% of overall ATP score) (16.2 possible points in matrix)			
Safety	0	1	1
	1 collision with unsafe speed (none involving bike/ped)	1 collision with unsafe speed (none involving bike/ped)	1 collision with unsafe speed (none involving bike/ped)
INCREASED WALKING & BIKING (worth 22% of overall ATP score) (15 potential points in matrix)			
Potential for Increased Walking	1.5	1.5	1.5
	Project improves existing facility	Project continues and complete existing sidewalk access	Project improves and completes ped access
Potential for Increased Biking	1.5	3	3
	Project improves existing facility	Project provides bike facility where none exists	Project provides bike facility where none exists
Range of Bicycle Users	3	2	3
	Project provides intersection improvements for cyclists	Project provides a Class II bike lane	Project provides a Class I bike path
Connectivity to Area Destinations	1	2	2
	Rec Center (.2), Bijou Pines (.1) neighborhood, Lakeview commons (.2) recreation center (.2) library (.2) and commercial centers (.1) within 1/2 mile route	Library (.2), Rec center (.2), STMS (1), and Al Tahoe (.5) and Bijou Pines (.1) neighborhoods within 1/2 mile route	Library (.2), Rec center (.2), STMS (1), and Al Tahoe (.5) and Bijou Pines (.1) neighborhoods within 1/2 mile route
Gap Closure	1.5	1.5	1.5
	Improves existing crossing	Connects two existing Class I facilities with a Class II facility	Connects two existing Class I facilities with a Class I facility
Subtotal	8.5	10	11
COMMUNITY OUTREACH (worth 13% of overall ATP score) (7.5 potential points in matrix)			
Public Feedback Regarding Specific Alternative	3	2	3
	No Alternative Presented	Received 35% of votes	Received 65% of votes
Public Feedback Regarding Priorities	0	0	0
	Received 2% of votes	Received 4% of votes	Received 4% of votes
Subtotal	3	2	3
TRAFFIC (not listed in ATP) (3 points in matrix)			
Traffic	3	3	3
	Project does not change overall LOS	Project does not change overall LOS	Project does not change overall LOS
TOTAL	33.25	38.9	41.15

OUTCOMES

CATEGORY	LYONS AVE TO AL TAHOE BLVD N/S CONNECTOR – CLASS I PATH	SOUTH TAHOE MIDDLE SCHOOL CIRCULATION IMPROVEMENTS
PROJECT FEASIBILITY (status of ROW clearance & Environmental Clearance required for ATP) (18 possible points in matrix)		
Feasibility - ROW	0	3
	ROW through STMS parcel	No ROW needed
Feasibility - Environmental Documentation	3	1
	Neg. Dec.	Mit. Neg Dec for traffic impacts
Subtotal	3	4
PLAN CONSISTENCY (screening criteria for project eligibility) (9 possible points in matrix)		
Plan Consistency	1.5	0
	Listed in the Bike/Ped Pan and the RTP	Not listed
SAFETY (worth 26% of overall ATP score) (16.2 possible points in matrix)		
Safety	0	0
	0 collisions	0 collisions
INCREASED WALKING & BIKING (worth 22% of overall ATP score) (15 potential points in matrix)		
Potential for Increased Walking	3	1.5
	Project provides Class I facility where none exists	Project improves pedestrian access through school facility
Potential for Increased Biking	3	3
	Project provides Class I facility where none exists	Project provides Class I facility where none exists
Range of Bicycle Users	3	3
	Project provides a Class I bike path	Project provides a Class I bike path
Connectivity to Area Destinations	2.5	1.8
	STMS (.1), Al Tahoe (.5) & Bijou Pines (.1) neighborhood, LTCC (.5), Bijou Park (.2) and rec center (.2) within 1/2 mile route	STMS (.1), Al Tahoe (.5) & Bijou Pines (.1) neighborhoods, Harrison Avenue Business District (.1) & Tahoe Center (.1) commercial centers within 1/2 mile
Gap Closure	1.5	1.5
	Connects a Class I facility to a sidewalk	Improves the existing facilities
Subtotal	13	10.8
COMMUNITY OUTREACH (worth 13% of overall ATP score) (7.5 potential points in matrix)		
Public Feedback Regarding Specific Alternative	3	3
	No Alternative Presented	No Alternative Presented
Public Feedback Regarding Priorities	0	1
	Received 4% of votes	Received 9% of votes
Subtotal	3	4
TRAFFIC (not listed in ATP) (3 points in matrix)		
Traffic	3	1
	Project does not change overall LOS	Project reduces LOS at school drive on Lyons from overall B to E
TOTAL	33.25	28.8

OUTCOMES

CATEGORY	TROUT CREEK/US 50 E/W CONNECTIVITY – UNDERPASS	TROUT CREEK/US 50 E/W CONNECTIVITY – BRIDGE WITH PATH TO BLUE BLUE
PROJECT FEASIBILITY (status of ROW clearance & Environmental Clearance required for ATP) (18 possible points in matrix)		
Feasibility - ROW	0	0
	Pot ROW through LTCC parcels	Pot ROW through LTCC parcels
Feasibility - Environmental Documentation	0	0
	EIR for SEZ impacts and other	EIR for SEZ impacts and other
Subtotal	0	0
PLAN CONSISTENCY (screening criteria for project eligibility) (9 possible points in matrix)		
Plan Consistency	0	0
	Not listed	Not listed
SAFETY (worth 26% of overall ATP score) (16.2 possible points in matrix)		
Safety	3	3
	(US 50/Al Tahoe intersection) 4 collisions (1 involving a ped hit in crosswalk)	(US 50/Al Tahoe intersection) 4 collisions (1 involving a ped hit in crosswalk)
INCREASED WALKING & BIKING (worth 22% of overall ATP score) (15 potential points in matrix)		
Potential for Increased Walking	3	3
	Project provides Class I facility where none exists	Project provides Class I facility where no facility exists
Potential for Increased Biking	3	3
	Project provides Class I facility where none exists	Project provides Class I facility where no facility exists
Range of Bicycle Users	3	3
	Project provides a Class I bike path	Project provides a Class I bike path
Connectivity to Area Destinations	2.7	2.7
	LTCC (.5), STMS (1), Bijou Park (.2), Al Tahoe (.5) and Sierra Tract (.5) neighborhoods within 1/2 mile route	LTCC (.5), STMS (1), Bijou Park (.2), Al Tahoe (.5) and Sierra Tract (.5) neighborhoods within 1/2 mile route
Gap Closure	3	3
	Connects two existing Class I facilities with a Class I facility	Connects two existing Class I facilities with a Class I facility
Subtotal	14.7	14.7
COMMUNITY OUTREACH (worth 13% of overall ATP score) (7.5 potential points in matrix)		
Public Feedback Regarding Specific Alternative	3	3
	No Alternative presented	No Alternative Presented
Public Feedback Regarding Priorities	0	0
	Received 2% of votes	Received 2% of votes
Subtotal	3	3
TRAFFIC (not listed in ATP) (3 points in matrix)		
Traffic	3	3
	Project does not change overall LOS	Project does not change overall LOS
TOTAL	37.65	37.65

CHAPTER 5: ALTERNATIVES + RECOMMENDATIONS

Chapter 5 presents a summary of the different alternatives developed for each opportunity area, including both linear facilities and intersection enhancements. The existing conditions for each location are described in conjunction the site's mobility challenges and opportunities. The final recommendations are defined and diagrammed to illustrate mobility enhancements. Supporting information regarding project benefits, constraints and opportunities, cost considerations, short and long term implementation steps, funding sources, and implementing and partnering organizations is provided. It should be noted that planning and design/engineering costs are preliminary and based on a percentage of the estimated construction costs.

ALTERNATIVES + RECOMMENDATIONS

ALTERNATIVES AND RECOMMENDATIONS

Evaluation of the alternatives and public feedback clearly indicated a priority need for mobility enhancements along Al Tahoe Boulevard, including the intersections with US 50 and Johnson Boulevard. Additional projects are also recommended to move forward as funding and opportunities arise. The existing conditions, alternatives evaluated and Connectivity Plan recommendations are generally presented according to their geographical proximity to the highest priority project (Al Tahoe Boulevard from US 50 to Johnson Boulevard, including the intersections.)

RECOMMENDED PROJECTS

- Al Tahoe Boulevard (US 50 to Johnson): Road reconfiguration, Class I path and Class II bike lanes
- US 50/Al Tahoe Intersection: Enhanced intersection improvements
- Al Tahoe/Johnson Intersection: Intersection improvements
- Al Tahoe Boulevard (Johnson Boulevard thru Bijou Park): Multi-use path through Bijou Park
- Bijou Park/Al Tahoe intersection improvements
- Johnson Boulevard: Class I path
- Bijou Meadow East-West Connectivity: Multi-use path connection
- Lyons/US 50 Intersection: Enhanced intersection improvements
- South Tahoe Middle School Circulation Improvements
- Lyons Avenue to Al Tahoe Boulevard North-South Connectivity: Class I path
- Rufus Allen Boulevard: Class I path
- Rufus Allen/US 50 Intersection: Intersection improvements
- Trout Creek/US 50 East-West Connectivity: Underpass connection to Class I path west of US 50

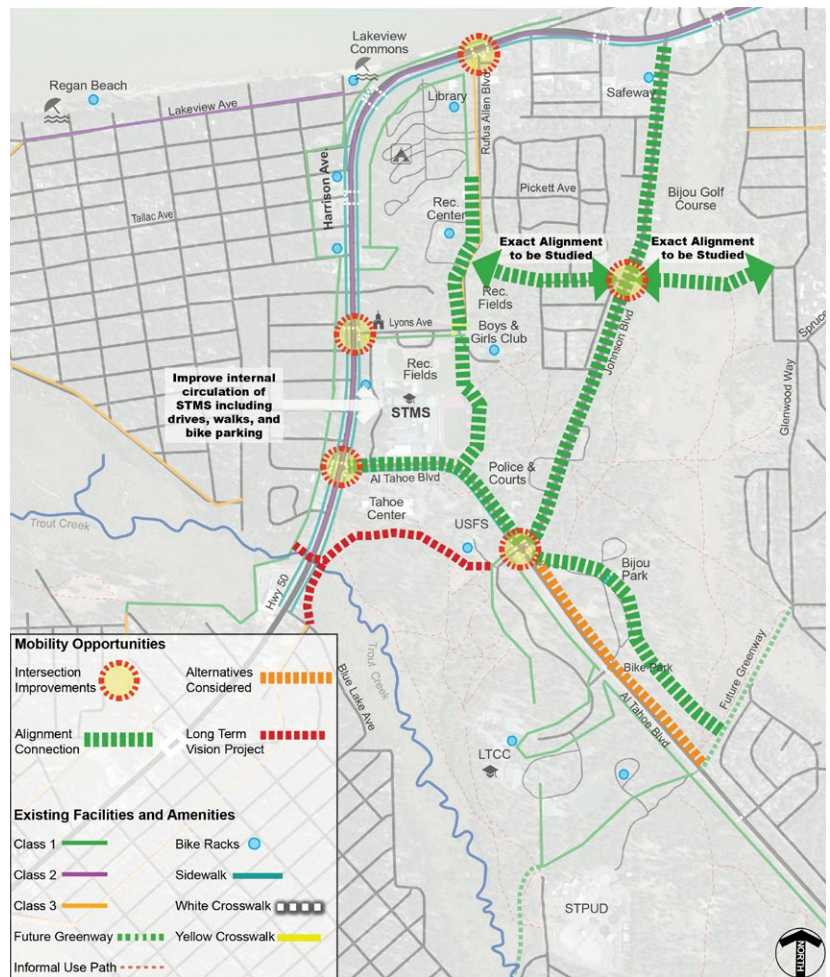


Diagram of mobility opportunity sites

AL TAHOE BLVD (US 50 TO JOHNSON) EXISTING CONDITIONS

AL TAHOE BOULEVARD (US 50 TO JOHNSON)

PROJECT AREA

Al Tahoe Boulevard from US 50 to Johnson Boulevard

EXISTING MOBILITY FEATURES

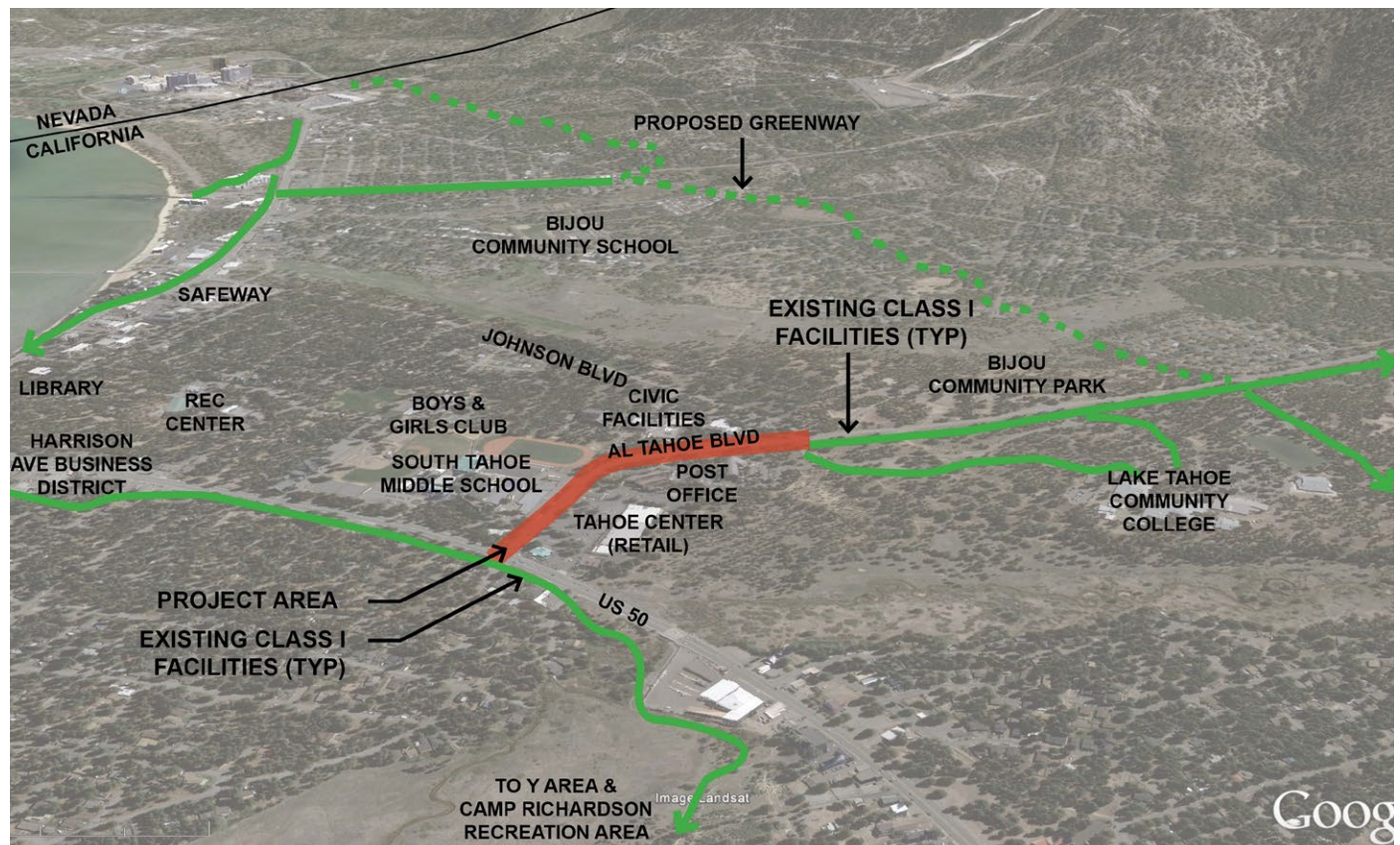
- Damaged and discontinuous sidewalk along the south side of Al Tahoe Boulevard
- No bike lanes or bike facilities
- No pedestrian lighting
- Five-lane roadway (2) eastbound lanes, (2) westbound lanes and (1) center turn lane

KEY ISSUES + OPPORTUNITIES

- Lack of bicycle and pedestrian facilities
- Lack of school zone signage
- Disconnectivity between adjacent Class I facilities
- Speeding
- Proximity to school facilities
- Multiple driveway intersections
- No bus shelter at the transit stop



Five driveways provide access to one shopping center



Disconnectivity of Class I facilities through this section of Al Tahoe Boulevard

AL TAHOE BLVD (US 50 TO JOHNSON) ALTERNATIVES

ALTERNATIVES EVALUATED

ENHANCEMENTS INCLUDED IN ALL ALTERNATIVES (BASELINE ENHANCEMENTS)

- 1 • Add school zone signage
- 2 • Add a bus shelter at the bus stop
- 3 • Remove center bus barn drive
- 4 • Remove or allow only right-turn in/out at Denny's entrance
- 5 • Narrow the two, one-way drive entries or consolidate to one, two-way drive entry and revise parking layout for commercial center
- Create consistent speed limit

BASELINE ENHANCEMENTS



Al Tahoe Boulevard Baseline Enhancements

AL TAHOE BOULEVARD ALTERNATIVE 1

- Create sharrows on eastbound and westbound right travel lanes
- Improve existing sidewalk
- Provide all baseline enhancements

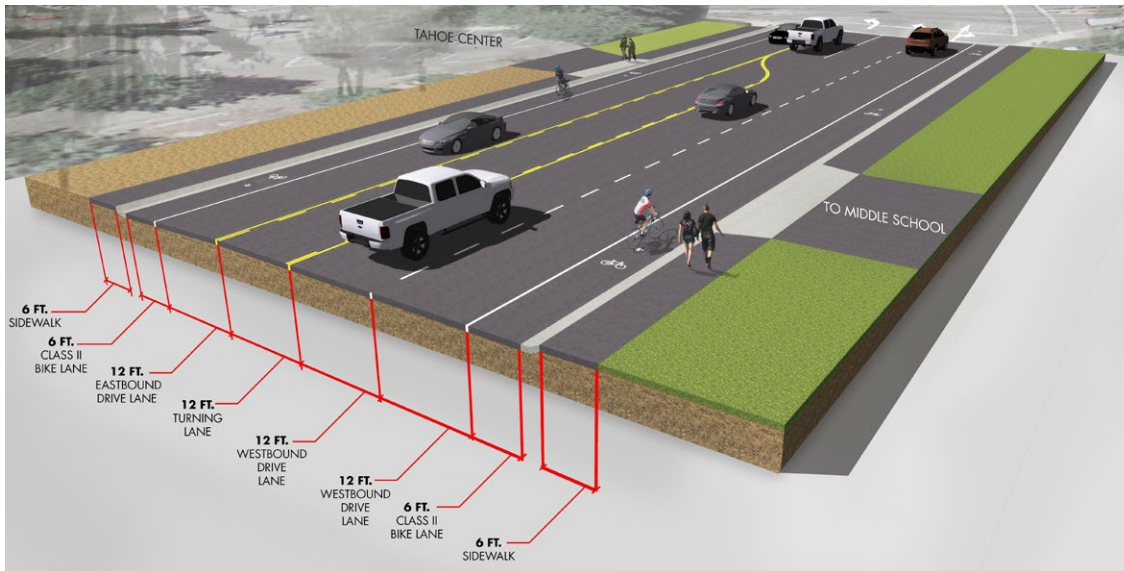


Al Tahoe Boulevard Alternative 1

AL TAHOE BLVD (US 50 TO JOHNSON) ALTERNATIVES

AL TAHOE BOULEVARD ALTERNATIVE 2

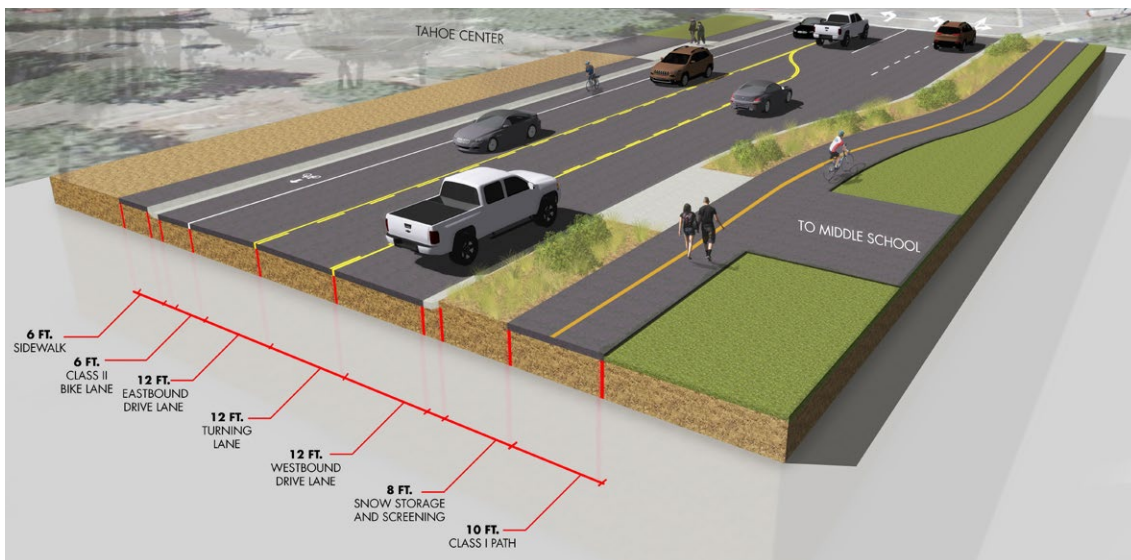
- Reconfigure road to four lanes (remove eastbound travel lane)
 - Provide (1) 12-foot eastbound travel lane, (2) 12-foot westbound travel lanes and (1) 12-foot center turn lane
- Add (2) 6-foot Class II bike lanes
- Improve sidewalks on the south side
- Add a sidewalk on the north side
- Provide all baseline improvements



Al Tahoe Boulevard Alternative 2

AL TAHOE BOULEVARD ALTERNATIVE 3

- Reconfigure road to three lanes
 - Provide (1) 12-foot eastbound travel lane, (1) 12-foot westbound travel lane and (1) 12-foot center turn lane
- Add a 6-foot Class II eastbound bike lane
- Add a 10-foot Class I path on north side with 8-foot landscape buffer for snow storage/screening
- Improve sidewalk on south side in front of the commercial center
- Provide all baseline improvements



Al Tahoe Boulevard Alternative 3

AL TAHOE BLVD (US 50 TO JOHNSON) RECOMMENDATIONS

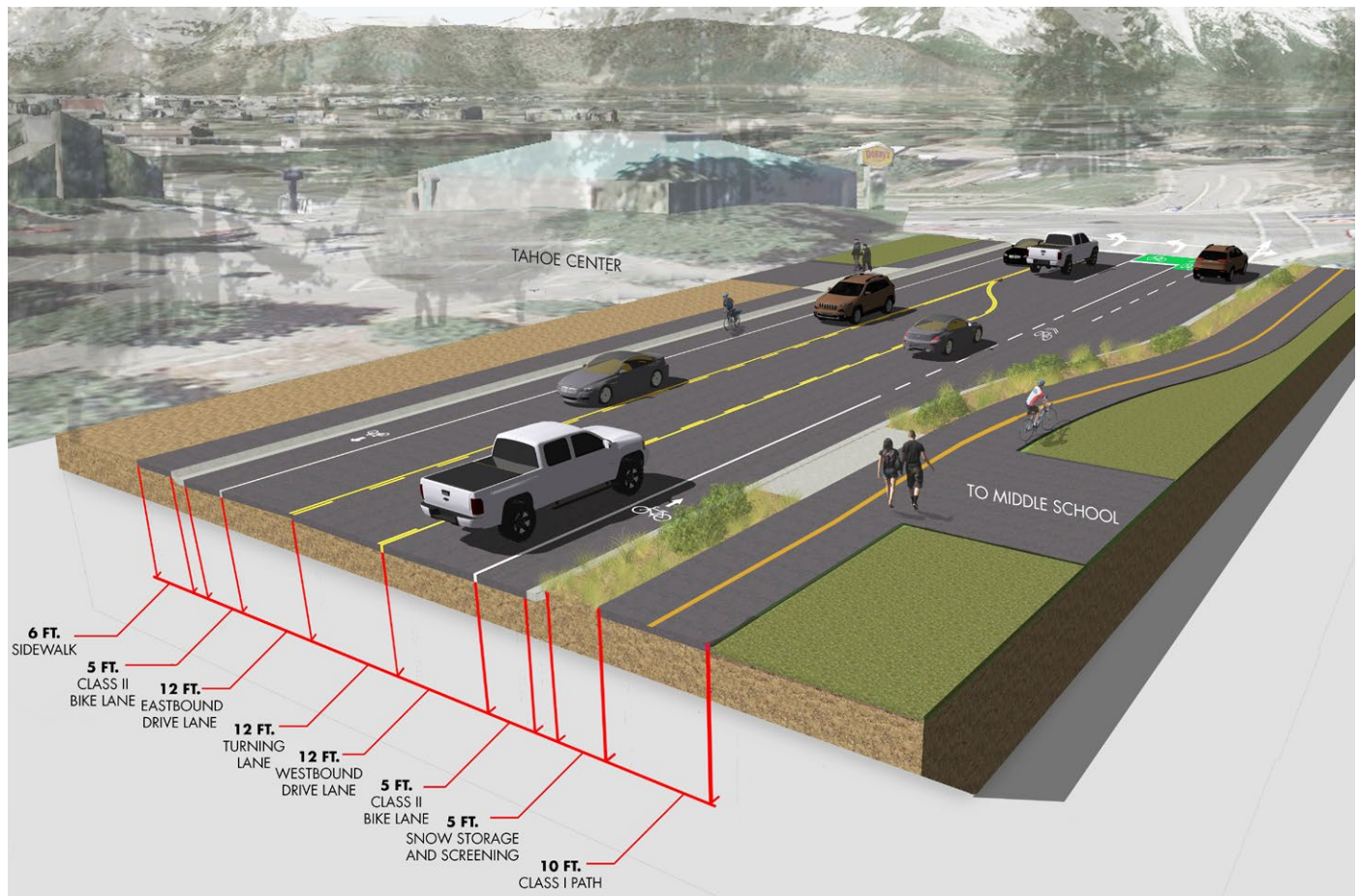
RECOMMENDATIONS: AL TAHOE BOULEVARD

- Narrow and reconfigure road to three lanes
 - Provide (1) 12-foot eastbound travel lane, (1) 12-foot westbound travel lane and (1) 12-foot center turn lane
- Add (2) 5-foot Class II bike lane striping with no parking signs
- Add a 10-foot Class I HMA path on north side with 5-foot bioswale for snow storage/screening
- Improve sidewalk on south side in front of the commercial center
- Add school zone signage
- Add a bus shelter at the existing bus stop
- Remove center bus barn driveway access
- Allow only right-turn in/out at Denny's entrance
- Narrow the two, one-way drive entries or consolidate to one, two-way drive entry and improve parking lot circulation
- Create consistent speed limit



Class I bike path example

RECOMMENDATION FOR AL TAHOE BOULEVARD FROM US 50 TO JOHNSON



Al Tahoe Boulevard mobility recommendations

AL TAHOE BLVD (US 50 TO JOHNSON) RECOMMENDATIONS

PROJECT BENEFITS

Safety

- Reduces vehicle conflicts with active transportation users by reducing access drives
- Separates bike path users from vehicles and road cyclists
- Reduces vehicle speeds
- Increases motorists' awareness of active transportation users and the need to share the roadway
- Reduces crash risk (crossing three lanes versus five)
- Positions users on Al Tahoe's north side for easy Middle School access and the fewest driveway conflicts
- Fills a gap in the Class I bike path network

Public Health

- Improved access for students to and from the Middle School and after-school activities
- Improved access for students to and from the community college
- Increased physical activity (especially for students) to decrease obesity and corresponding blood pressure

Connectivity: Destinations within 1/2-Mile

- STMS
- Boys and Girls Club
- Class I regional facility west of US 50
- Class I facility (existing and planned) along Al Tahoe Boulevard
- Future Class I regional facility (the Greenway)
- Bijou Park and Bike Park
- LTCC
- Community Playfields
- SLTPD, EDSO and county courthouse
- St Theresa's Catholic Church
- Lakeview Commons
- Harrison Avenue Business District
- Tahoe Center

POTENTIAL CONSTRAINTS/OPPORTUNITIES

Ownership

- City of South Lake Tahoe right of way
- Properties to the north are publicly-owned:
 - LTUSD
 - SLTPD
 - El Dorado County

Environmental

- No significant impacts anticipated

Traffic

- Removing a lane in each direction on Al Tahoe Boulevard, creating a three-lane cross-section, will have a minimal impact on vehicle capacity
- The westbound approach to US 50 should remain a three-lane approach for approximately 300 feet upstream of the westbound stop bar so queued vehicles do not block driveways on the north and south sides of Al Tahoe Boulevard
- The center bus barn access drive can be removed without significant impacts
- The one-way access drives to the Tahoe Center can be narrowed or combined to one, two-way access drive without significant traffic impacts
- The westernmost access drive to the Tahoe Center can be restricted to left-in/right-in/right-out movements during peak hours due to westbound queued vehicles at the traffic signal limiting sightlines of exiting southbound vehicles

COST CONSIDERATIONS

- Construction Cost: \$1,500,000
- Non-Construction Cost: \$285,000
- Total Cost: \$1,785,000

IMPLEMENTATION

Short Term

- Reconfigure road to three lanes
 - Provide (1) 12-foot eastbound travel lane, (1) 12-foot westbound travel lane and (1) 12-foot center turn lane
- Add (2) 6-foot Class II bike lanes
- Add a 10-foot Class I path on north side
- Improve sidewalk on south side
- Add school zone signage
- Add a bus shelter at the bus stop
- Remove center bus barn drive
- Allow only right-turn in/out at Denny's entrance
- Narrow the two, one-way drive entries
- Create consistent speed limit

Long Term

- Add lighting

FUNDING OPPORTUNITIES/SOURCES

- California Active Transportation Program

IMPLEMENTING ORGANIZATION

- City of South Lake Tahoe

PARTNERSHIP OPPORTUNITIES

- Caltrans

US 50/AL TAHOE INTERSECTION EXISTING CONDITIONS

US 50/AL TAHOE INTERSECTION

PROJECT AREA

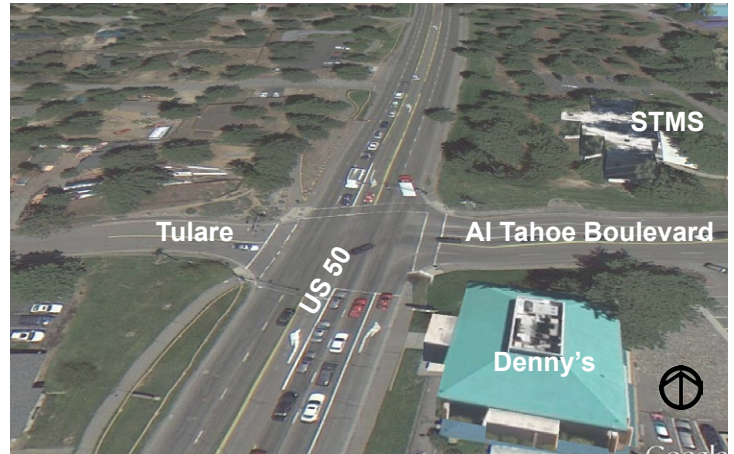
US 50/Al Tahoe Boulevard intersection

EXISTING MOBILITY FEATURES

- Crosswalks are striped for three of the four intersection legs (lacking a crosswalk along the southern US 50 intersection leg)
- Video detection exists for three of the four intersection legs (video detection for Tulare Avenue approach does not detect cyclists)
- High visibility crosswalk markings with advance stop bar
- Accessible curb ramps
- Pedestrian actuated signals
- Intersection lighting

KEY ISSUES + OPPORTUNITIES

- Proximity to school facilities
- Lack of crosswalk along the southern US 50 intersection leg
- Signal timing not adjusted for school children
- Crossing time for pedestrians and bicyclists



Aerial view of US 50/Al Tahoe intersection



Intersection of US 50 and Al Tahoe



Intersection of US 50 and Al Tahoe looking at the northwest corner from the northeast corner



The northeast corner of the US 50 and Al Tahoe intersection



Northwest corner of US 50 and Al Tahoe, looking north on US 50



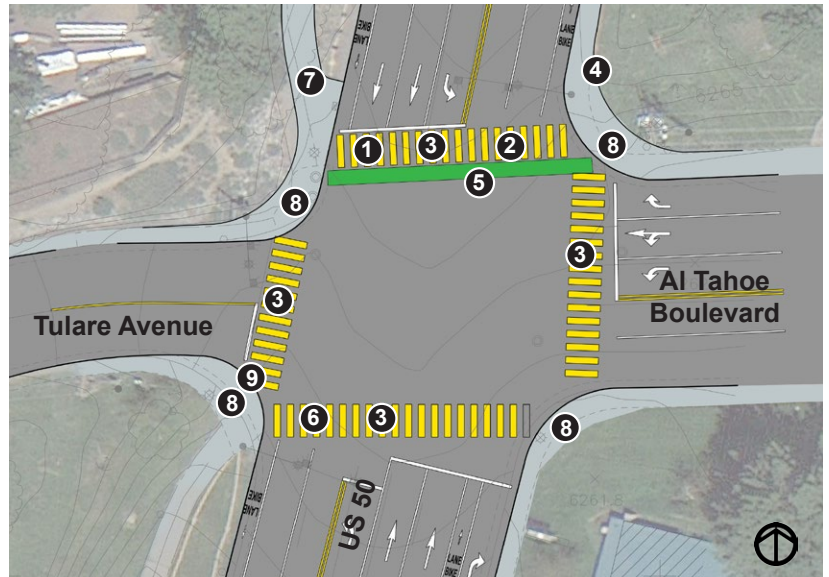
The northeast corner of the US 50 and Al Tahoe intersection looking south towards Denny's

US 50/AL TAHOE INTERSECTION ALTERNATIVES

ALTERNATIVES EVALUATED

US 50/AL TAHOE INTERSECTION BASELINE ALTERNATIVE

- 1 • Provide high visibility crossing improvements
- 2 • Widen crossing at north leg
- 3 • Add school zone yellow striping
- 4 • Add school zone signage
- 5 • Create a bike crossing across US 50
 - Adjust signal timing (ideally 3 feet per second for school arrival and dismissal)
- 6 • Add widened crosswalk to southern leg of intersection
- 7 • Revise existing Class I bike path at northwest corner
 - Lay back slope and combine bike path and sidewalk
- 8 • Increase landing zone for bicyclists to cue
- 9 • Reduce turn radius to slow traffic and provide space for pedestrians and bicyclists



US 50/Al Tahoe Intersection Baseline Alternative



Crossbike example: bike crossing lanes adjacent to the pedestrian crosswalk

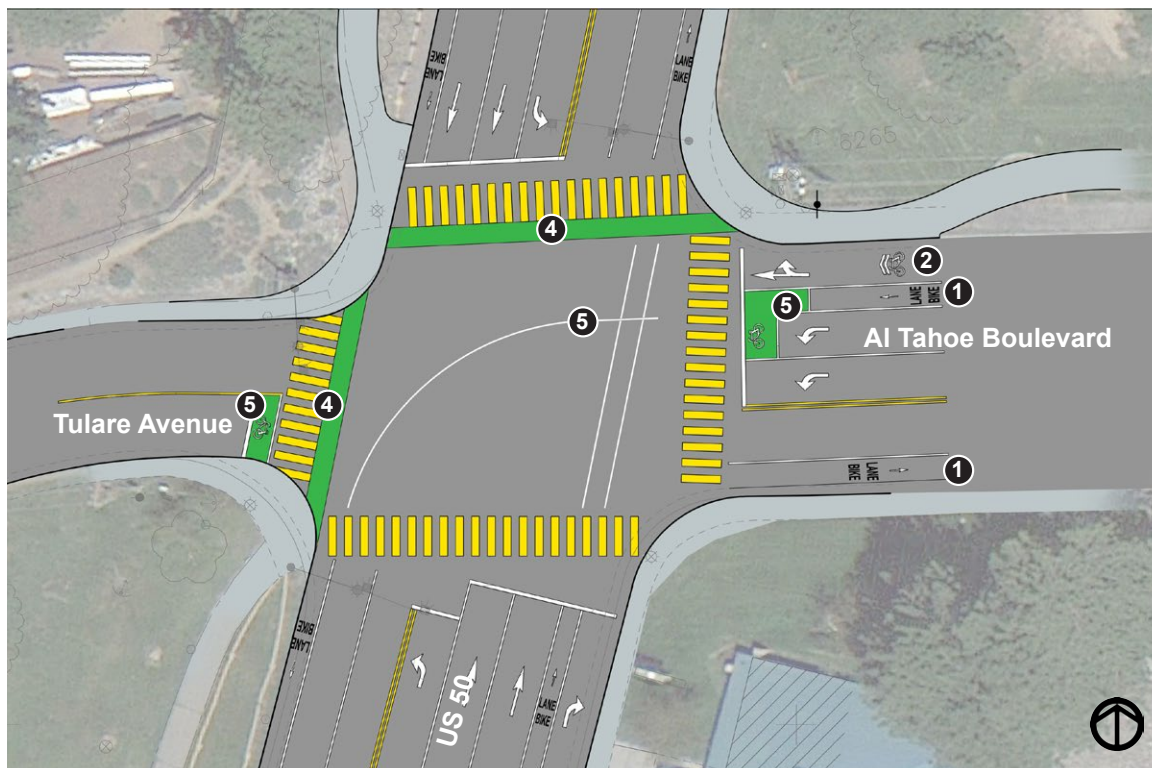


School zone signage example

US 50/AL TAHOE INTERSECTION ALTERNATIVES

US 50/AL TAHOE INTERSECTION ENHANCED ALTERNATIVE

- 1 • Add bike lanes on Al Tahoe Boulevard
- 2 • Add bike pocket/mixing zone
- 3 • Provide bike intersection markings to direct left turns from Al Tahoe to US 50
- 4 • Add bike crossing on US 50 north intersection leg and on Tulare Avenue
- 5 • Provide bike box on Al Tahoe Boulevard and on Tulare Avenue
 - Provide all baseline alternative improvements

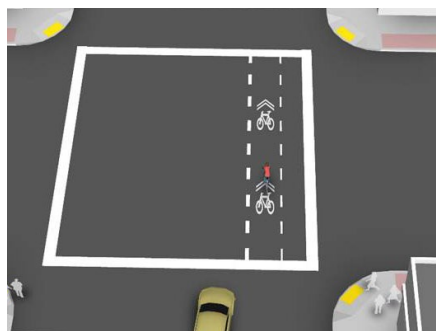


US 50/Al Tahoe intersection Enhanced Alternative diagram

Examples of Improvements



Bike lane to the left of the right turning lane



Bike lane intersection markings example



Bike box example

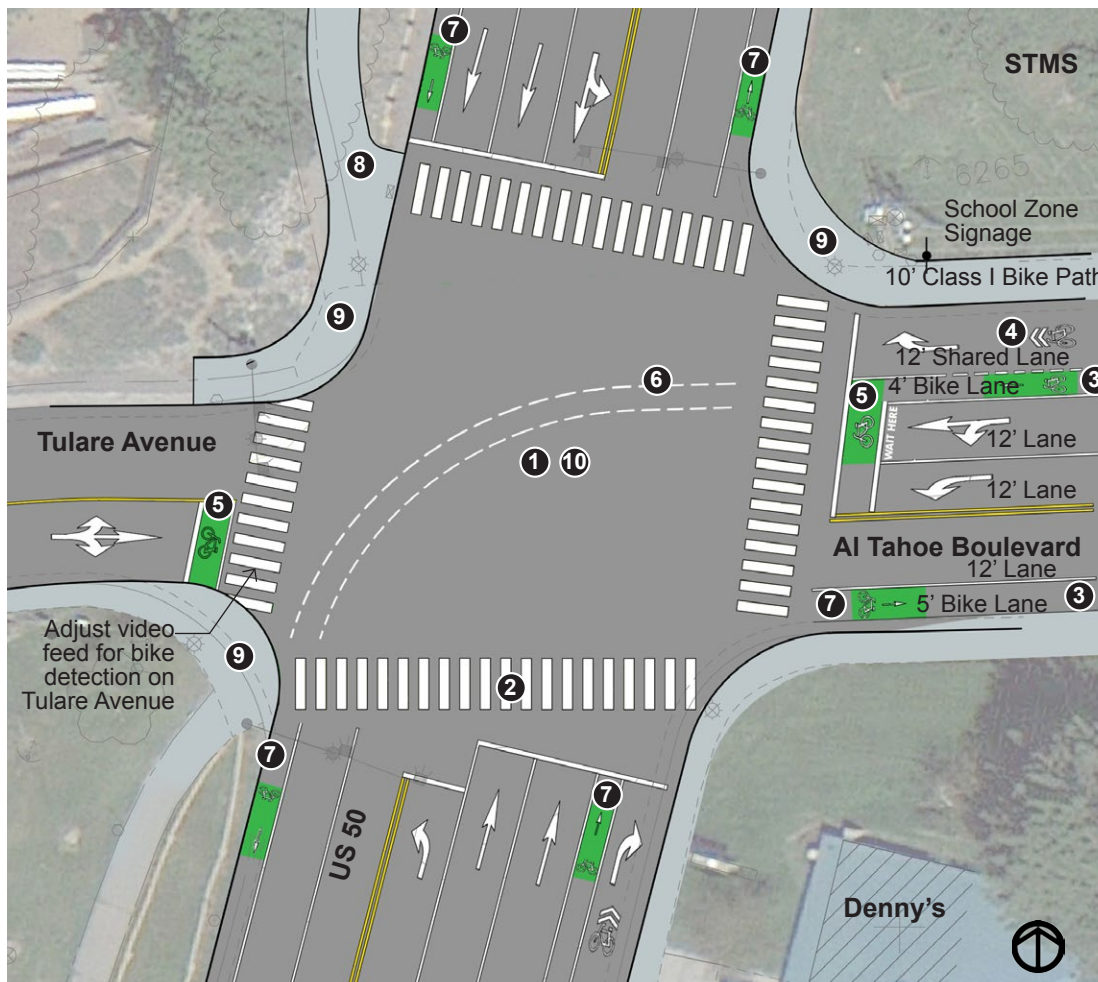
US 50/AL TAHOE INTERSECTION RECOMMENDATIONS

RECOMMENDATIONS: US 50/AL TAHOE INTERSECTION

- 1 • Adjust signal timing (3 feet per second during school arrival and dismissal)
- 2 • Add crosswalk to southern leg of intersection of US 50
- 3 • Add Class II bike lanes on Al Tahoe Boulevard north and south
- 4 • Add bike pocket/mixing zone on Al Tahoe Boulevard leg
- 5 • Provide bike box on Al Tahoe Boulevard and on Tulare Avenue
- 6 • Provide bike intersection markings to direct left turns from Al Tahoe Boulevard
- 7 • Provide green bike lane markings at the intersections
- 8 • Revise existing Class I bike path at northwest corner by laying back slope and combing the path and sidewalk
- 9 • Increase landing zone for bike lane users to cue on the northwest, northeast and southwest corners
- 10 • Add emergency detection equipment at signals to allow for emergency signalization override



Bike box example



US 50/Al Tahoe intersection recommendations

US 50/AL TAHOE INTERSECTION RECOMMENDATIONS

PROJECT BENEFITS

Safety

- Reduces exposure (time (by two minutes) and distance) of pedestrians and bicyclists (especially students) to vehicles
- Reduces illegal mid-block crossing and bicyclists riding against traffic by improving the function of the intersection for active transportation users
- Increased staging areas/landings allow active transportation users to fully move off the highway before making the next crossing movement
- Signal timing optimization allows pedestrians and bicyclists (especially students) to clear the intersection during the signal phase
- Allows bicyclists to have a safe, visible way to get ahead of queuing traffic and depart safely in front of motorists
- Increases motorists' awareness of active transportation users and the need to share the roadway
- Increases bicyclists' recognition of lawful, safe bicyclist behavior
- Emergency signalization override improves emergency response time

Public Health

- Improved access for students to and from the Middle School and after-school activities
- Increased physical activity (especially for students) to decrease obesity and corresponding blood pressure

Connectivity: Destinations within 1/2-Mile

- STMS
- Boys and Girls Club
- Class I regional facility west of US 50
- Class I facility (existing and planned) along Al Tahoe Boulevard
- Future Class I regional facility (the Greenway)
- Bijou Park and Bike Park
- LTCC
- Community Playfields
- SLTPD, EDSO and county courthouse
- St Theresa's Catholic Church
- Lakeview Commons
- Harrison Avenue Business District
- Tahoe Center

POTENTIAL CONSTRAINTS/OPPORTUNITIES

Ownership

- Caltrans right of way

Environmental

- No significant impacts anticipated

Traffic

- Improved capacity for minor vehicle movements (during the additional clearance time for pedestrians to cross the street)
- Delay for US 50 thru movements increases, but the increase is not significant and the intersection remains in the acceptable LOS range

COST CONSIDERATIONS

- Construction Cost: \$180,000
- Non-Construction Cost: \$35,000
- Total Cost: \$215,000

IMPLEMENTATION

SHORT TERM

- Signal timing enhancement
- Intersection markings, bike boxes and green paint at intersection bike lanes
- Widen staging areas
- Add crosswalk to southern leg of intersection
- Add bike lanes on Al Tahoe Boulevard
- Add bike pocket/mixing zone
- Revise existing Class I bike path at northwest corner
- Lay back slope at northwest corner and combine path and sidewalk
- Increase landing zone for bike lane users to cue
- Add emergency detection equipment to allow for emergency signalization override

LONG TERM INVESTMENTS

- N/A (project funded through California Active Transportation Program)

FUNDING OPPORTUNITIES/SOURCES

- California Active Transportation Program

IMPLEMENTING ORGANIZATION

- City of South Lake Tahoe

PARTNERSHIP OPPORTUNITIES

- Caltrans

AL TAHOE/JOHNSON INTERSECTION EXISTING CONDITIONS

AL TAHOE/JOHNSON INTERSECTION

PROJECT AREA

Al Tahoe/Johnson Boulevard intersection

EXISTING RIGHT OF WAY + MOBILITY FEATURES

- High visibility crosswalk markings with advance stop bar
- Accessible curb ramps
- Pedestrian actuated signals
- Intersection lighting

KEY ISSUES + OPPORTUNITIES

- Existing bike lanes terminate prior to intersection on Johnson Boulevard
- Lack of accessible curb ramps



Aerial view of Al Tahoe/Johnson intersection



Project area location of Al Tahoe/Johnson intersection



Northwest corner of Al Tahoe/Johnson intersection looking east



Northwest corner of Al Tahoe/Johnson intersection looking south

AL TAHOE/JOHNSON INTERSECTION RECOMMENDATIONS

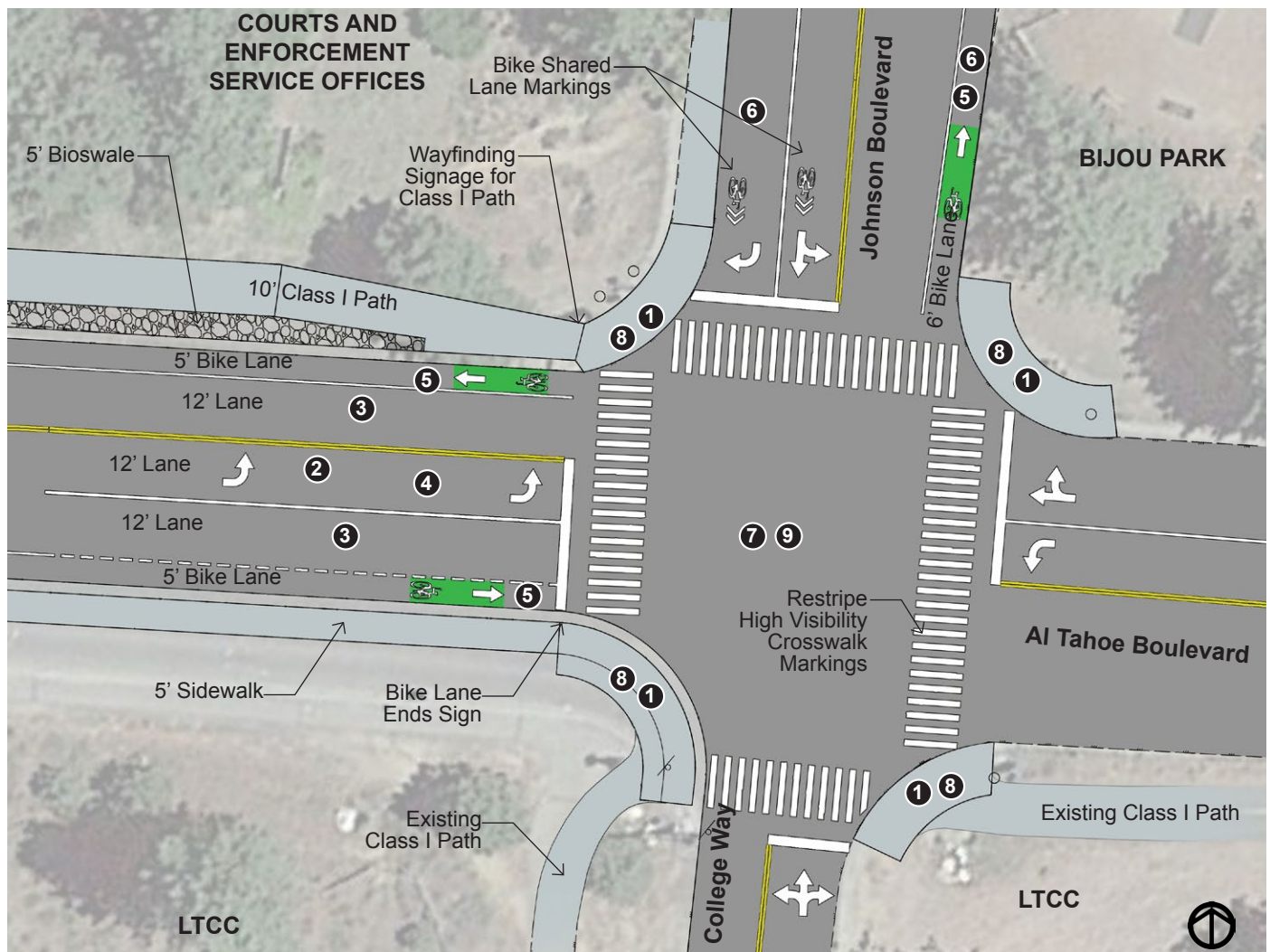
RECOMMENDATIONS: AL TAHOE/JOHNSON INTERSECTION

- 1 • Provide accessible curb ramps at all four legs of the intersection
- 2 • Reconfigure western leg of Al Tahoe Boulevard from five lanes to three lanes
 - 3 • Provide eastbound and westbound travel lanes
 - 4 • Provide a center left turn lane
- 5 • Provide green bike lane markings at the intersections
- 6 • Extend bike lanes to the intersection along Johnson Boulevard
- 7 • Add emergency detection equipment at signals to allow for emergency signalization override
- 8 • Upgrade pedestrian actuated signals
- 9 • Add video detection for bicyclists



Bike lane marking example

NOTE: Intersection improvements should consider recommended improvements for Johnson Boulevard and be adaptive to those future enhancements.



Al Tahoe/Johnson intersection recommendations

AL TAHOE/JOHNSON INTERSECTION RECOMMENDATIONS

PROJECT BENEFITS

Safety

- Reconfigured travel lanes reduces exposure (time and distance) of pedestrians and bicyclists to vehicles
- Reduces illegal mid-block crossing and bicyclists riding against traffic by improving the function of the intersection for active transportation users
- Accessible curb ramps enhance safety for all users
- Signal timing optimization allows pedestrians and bicyclists to clear the intersection during the signal phase
- Increases motorists' awareness of active transportation users and the need to share the roadway
- Increases bicyclists' recognition of lawful, safe bicyclist behavior
- Emergency signalization override improves emergency response time

Public Health

- Improved access for students to and from the Middle School and after-school activities
- Improved access for students to and from the community college
- Increased physical activity (especially for students) to decrease obesity and corresponding blood pressure

Connectivity: Destinations within 1/2-Mile

- STMS
- LTCC
- Class I regional facility west of US 50
- Class I facility along Al Tahoe Boulevard
- Future Class I regional facility (the Greenway)
- Bijou Park and Bike Park
- Community Playfields
- SLTPD, EDSO and county courthouse
- Boys and Girls Club
- Tahoe Center

POTENTIAL CONSTRAINTS/OPPORTUNITIES

Ownership

- City of South Lake Tahoe right of way

Environmental

- No significant impacts anticipated

Traffic

- Recommended vehicle lane reductions remove the eastbound right turn and southbound right turn bays, and has a negligible impact on vehicular traffic

COST CONSIDERATIONS

- Construction Cost: \$190,000
- Non-Construction Cost: \$40,000
- Total Cost: \$230,000

IMPLEMENTATION

Short Term

- Provide accessible curb ramps
- Reconfigure western leg of Al Tahoe Boulevard from five lanes to three lanes
 - Provide eastbound and westbound travel lanes
 - Provide a center left turn lane
- Provide green bike lane markings at the intersections
- Extend bike lanes to the intersection along Johnson Boulevard
- Add emergency detection equipment to allow for emergency signalization override
- Upgrade pedestrian actuated signals
- Add video detection for bicyclists

Long Term

- N/A (project funded through California Active Transportation Program)

FUNDING OPPORTUNITIES/SOURCES

- California Active Transportation Program

IMPLEMENTING ORGANIZATION

- City of South Lake Tahoe

PARTNERSHIP OPPORTUNITIES

- City of South Lake Tahoe Police Department
- Lake Tahoe Community College
- El Dorado County Sheriff's Department

AL TAHOE BLVD (JOHNSON THRU BIJOU PARK) EXISTING CONDITIONS

AL TAHOE BOULEVARD (JOHNSON BOULEVARD TO BIJOU PARK)

PROJECT AREA

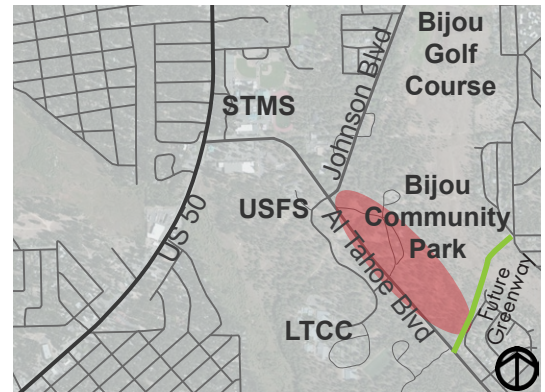
Al Tahoe Boulevard from the Johnson Boulevard intersection thru Bijou Park to the Greenway

EXISTING RIGHT OF WAY + MOBILITY FEATURES

- Two travel lanes
- Class I bike path along southern/western side of Al Tahoe Boulevard
- Planned Class I bike path (the Greenway) at southeastern edge of Bijou Park

KEY ISSUES + OPPORTUNITIES

- No crosswalk connecting mobility facilities from the community college side of Al Tahoe Boulevard to Bijou Park on the north/east side of the roadway
- Lack of sidewalks or bike paths at the Bijou Park entry drive
- Lack of internal sidewalk or bike path connectivity within Bijou Park from Johnson Boulevard to the future Greenway



Project location



Looking south from Bijou Park entry drive to LTCC and College Way



Bijou Park entry drive off Al Tahoe Boulevard looking east

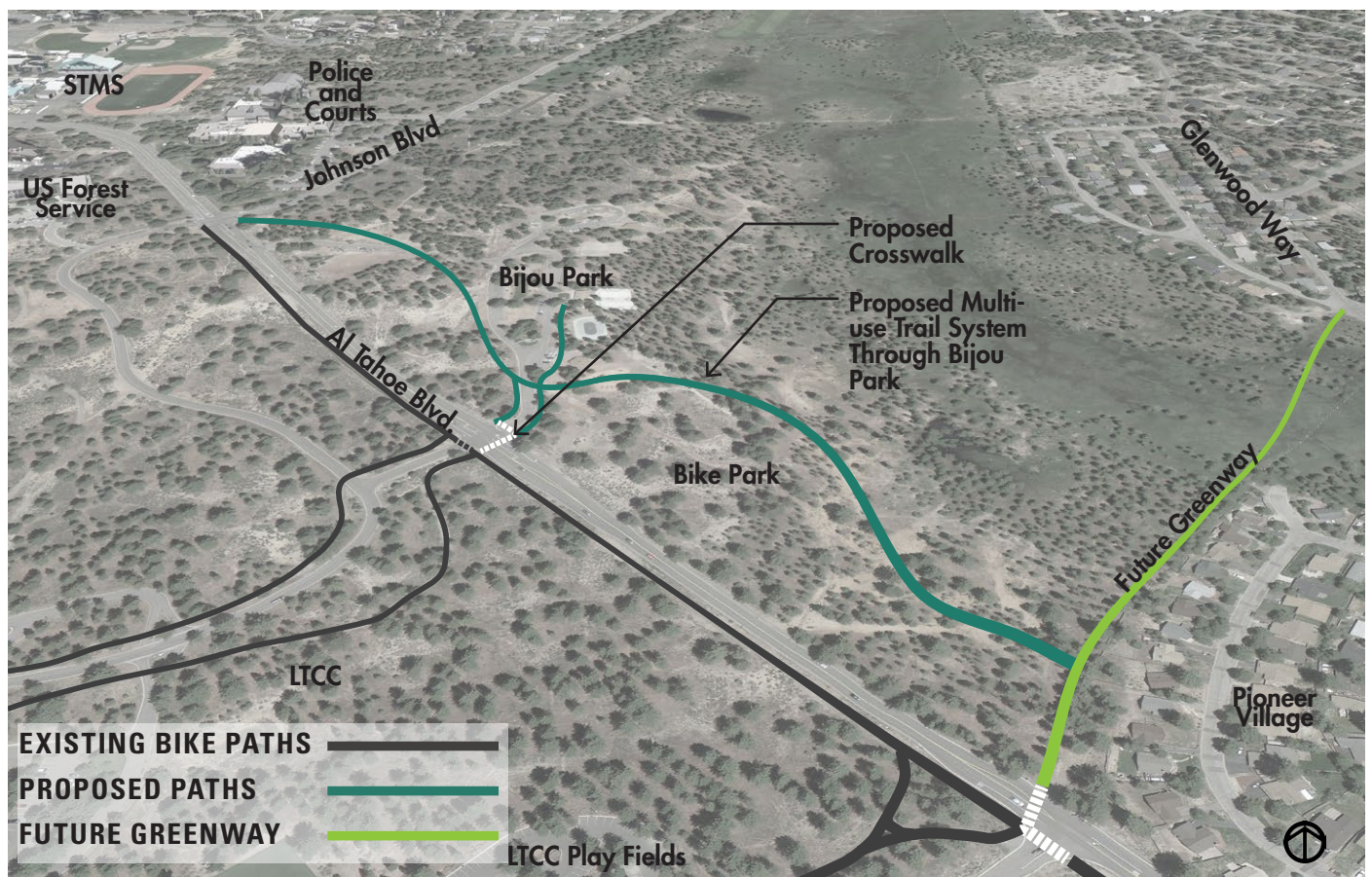


Aerial view of Bijou Park (prior to 2015 construction of the Bike Park)

AL TAHOE BLVD (JOHNSON THRU BIJOU PARK) RECOMMENDATIONS

RECOMMENDATIONS: AL TAHOE BOULEVARD (JOHNSON BOULEVARD THRU BIJOU PARK)

- Create a multi-use trail connection through Bijou Park
- Provide the trail connection from the Johnson/Al Tahoe intersection southeast to the future Greenway
- Design trail to serve both through bicyclists and pedestrians and park users
- Develop sidewalk connections from Bijou Park facilities to the Bijou Park entry

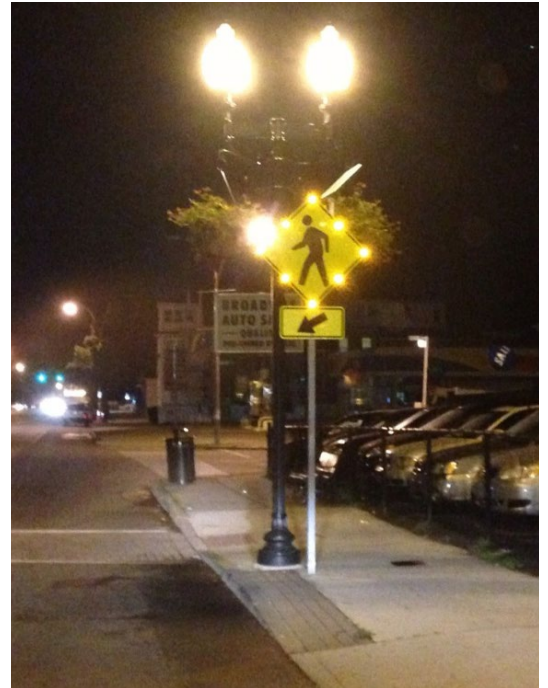


Looking north from Lake Tahoe Community College toward the Bijou Park entry

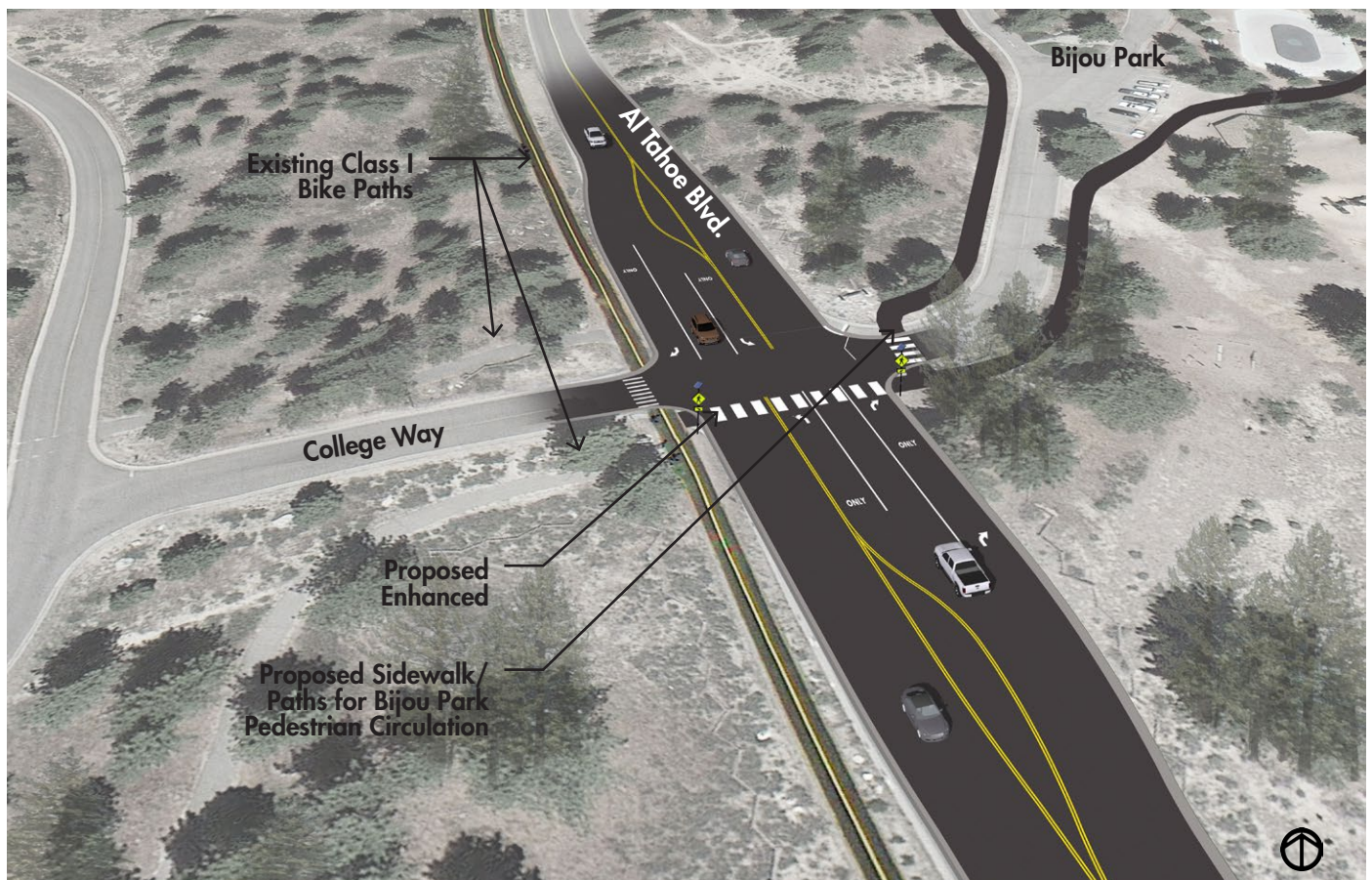
AL TAHOE BLVD (JOHNSON THRU BIJOU PARK) RECOMMENDATIONS

RECOMMENDATIONS: AL TAHOE BOULEVARD/BIJOU PARK INTERSECTION

- Provide an enhanced crosswalk at Bijou Park entry
 - Create a high visibility crosswalk from Bijou Park to the bike path paralleling the south (LTCC) side of Al Tahoe Boulevard
 - Provide a pedestrian actuated crossing sign



Example of a pedestrian actuated crossing sign



Looking north from Lake Tahoe Community College toward the Bijou Park entry

AL TAHOE BLVD (JOHNSON THRU BIJOU PARK) RECOMMENDATIONS

PROJECT BENEFITS

Safety

- Provides separated path facility for Bijou Park users
- Eliminates the need for active transportation users traveling from north and east of Al Tahoe Boulevard to cross Al Tahoe twice in order to reach Bijou Park via a dedicated active transportation facility
- Enhances the active transportation crossing and connectivity between Bijou Park and LTCC

Public Health

- Connectivity to schools, active transportation systems and parks improves physical activity to decrease youth and adult obesity and corresponding blood pressure

Connectivity: Destinations within 1/2-Mile

- LTCC
- SLTPD, EDSO and county courthouse
- Class I facility along Al Tahoe
- Community Playfields
- Future Greenway (Class I regional connection)
- STMS
- Boys and Girls Club

POTENTIAL CONSTRAINTS/OPPORTUNITIES

Ownership

- Land is publicly-owned
 - City of South Lake Tahoe
 - CTC (future Greenway)

Environmental

- High capability lands parallel Al Tahoe Boulevard
- Lower capability lands exist in Bijou Meadow

Traffic

- Potential traffic impacts are minor with the enhanced active transportation crossing at the Bijou Park entry

COST CONSIDERATIONS

Multi-use Path Facilities

- Construction Cost: \$640,000
- Planning Cost: \$415,000
- Total Cost: \$1,055,000

Intersection Facilities

- Construction Cost: \$74,000
- Planning Cost: \$55,000
- Total Cost: \$129,000

IMPLEMENTATION

Short Term

- Develop Bijou Park internal circulation plan
- Develop a decomposed granite path as a multi-use path from Johnson Boulevard to the Bike Park
- Provide wayfinding signage to direct users through Bijou Park
- Provide a pedestrian crossing sign at the Bijou Park entrance

Long Term

- Construct a Class I facility from Johnson Boulevard through Bijou Park to the Greenway
- Construct sidewalks from Bijou Park facilities to the entry
- Construct an enhanced active transportation crossing at the Bijou Park entry

FUNDING OPPORTUNITIES/SOURCES

- City of South Lake Tahoe Capital Improvement Funds (the project is not currently programmed in the adopted City CIP)
- California Active Transportation Program
- California Recreational Trails Program
- Measure R/S

IMPLEMENTING ORGANIZATION

- City of South Lake Tahoe

PARTNERSHIP OPPORTUNITIES

- California Tahoe Conservancy
- Tahoe Area Mountain Biking Association (TAMBA)
- Lake Tahoe Community College
- South Lake Tahoe Recreation Facilities Joint Powers Authority (JPA)

JOHNSON BOULEVARD EXISTING CONDITIONS

JOHNSON BOULEVARD

PROJECT AREA

Johnson Boulevard from US 50 south to Al Tahoe Boulevard

EXISTING RIGHT OF WAY + MOBILITY FEATURES

- Two-lane roadway
- (2) 14-foot travel lanes
- (2) 5-foot Class II bike lanes
- No sidewalks or bike paths

KEY ISSUES + OPPORTUNITIES

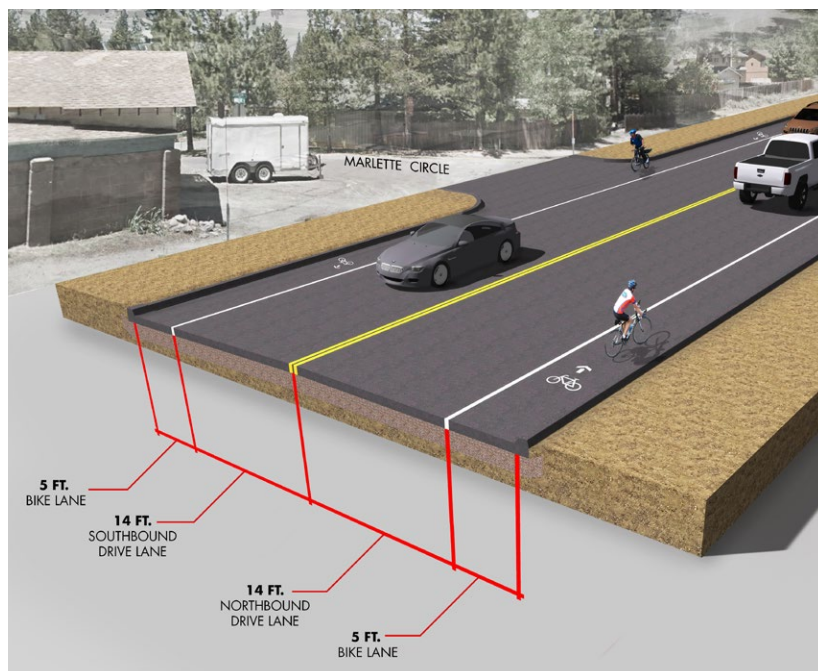
- Bike lanes do not extend to the Al Tahoe/Johnson intersection
- Speeding
- Shoulder parked vehicles – spillover from court parking, funeral parking and beach parking
- Lack of pedestrian facilities



Project location



Johnson Boulevard near US 50 looking north



Existing section of Johnson Boulevard



Intersection of Johnson Boulevard and Marlette Circle looking north



Johnson Boulevard near the Police Station looking north

JOHNSON BOULEVARD ALTERNATIVES

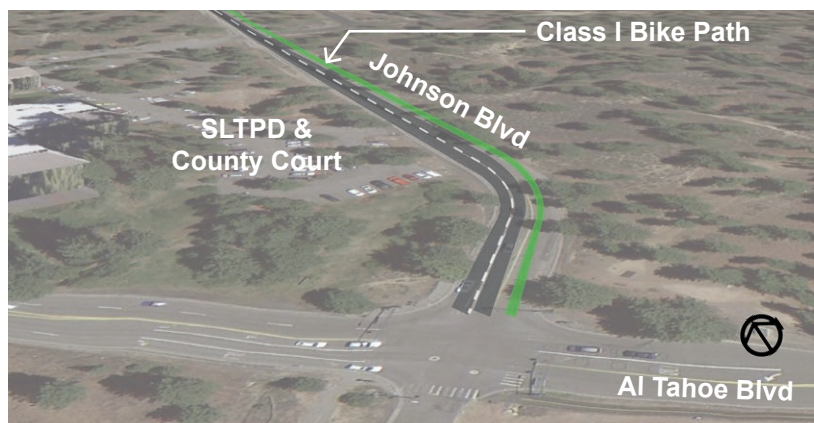
ALTERNATIVES EVALUATED

JOHNSON BLVD. ALTERNATIVE 1

- Reduce travel lanes to 11 feet
- Add a Class I bike path along the east (Bijou Park) side of Johnson Boulevard
- Add high visibility crosswalk and pedestrian actuated crossing sign at Marlette Circle intersection
- Remove bike lanes
- Add lighting



Example of Class I separated bike path



Aerial diagram of Johnson Boulevard Alternative 1 mobility improvements: Class I bike path and narrowed travel lanes

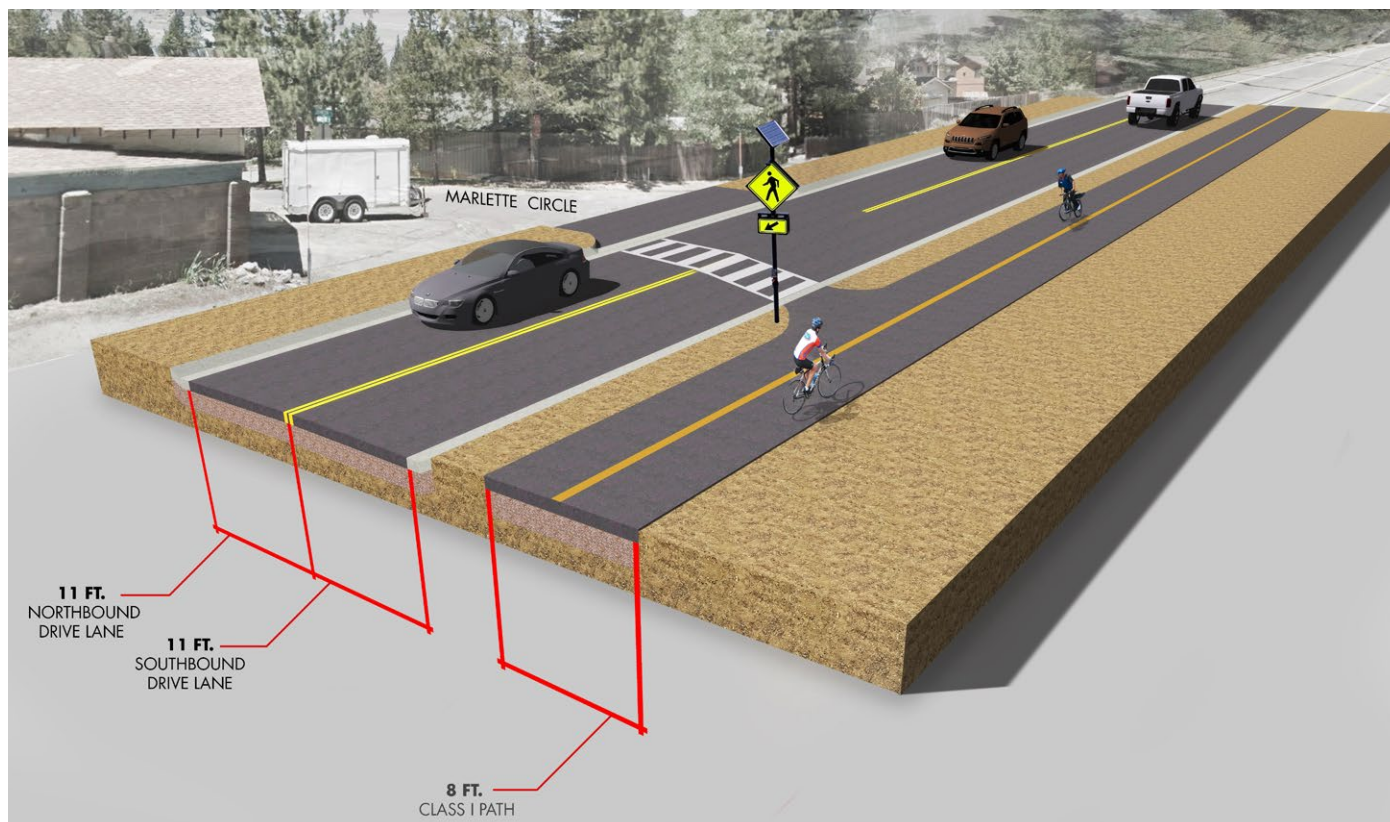


Diagram of Johnson Boulevard Alternative 1 mobility improvements: Class I bike path and narrowed travel lanes

JOHNSON BOULEVARD ALTERNATIVES

JOHNSON BLVD. ALTERNATIVE 2

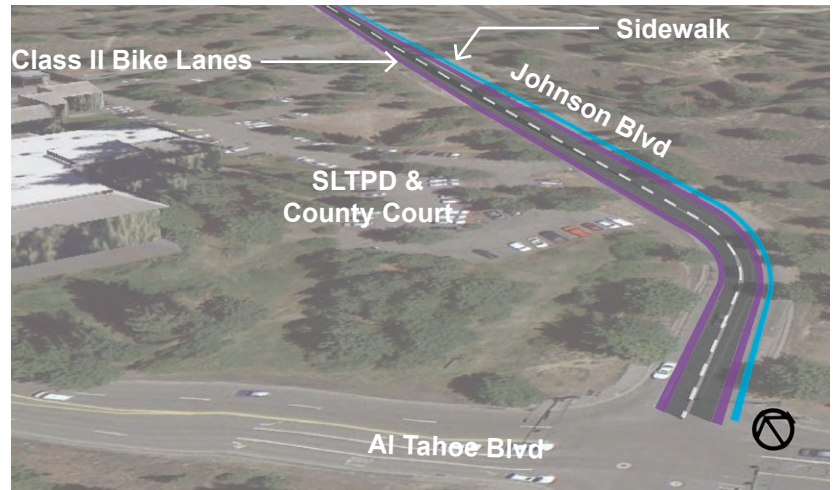
- Reduce travel lanes to 11 feet
- Widen Class II bike lanes to 6 feet
- Add 6-foot sidewalk along east (Bijou Park) side
- Add high visibility crosswalk and pedestrian actuated crossing sign at Marlette Circle intersection
- Add lighting



Bike lane example



Sidewalk example



Aerial diagram of Johnson Boulevard Alternative 2 mobility improvements: Widened Class II bike lanes and sidewalk

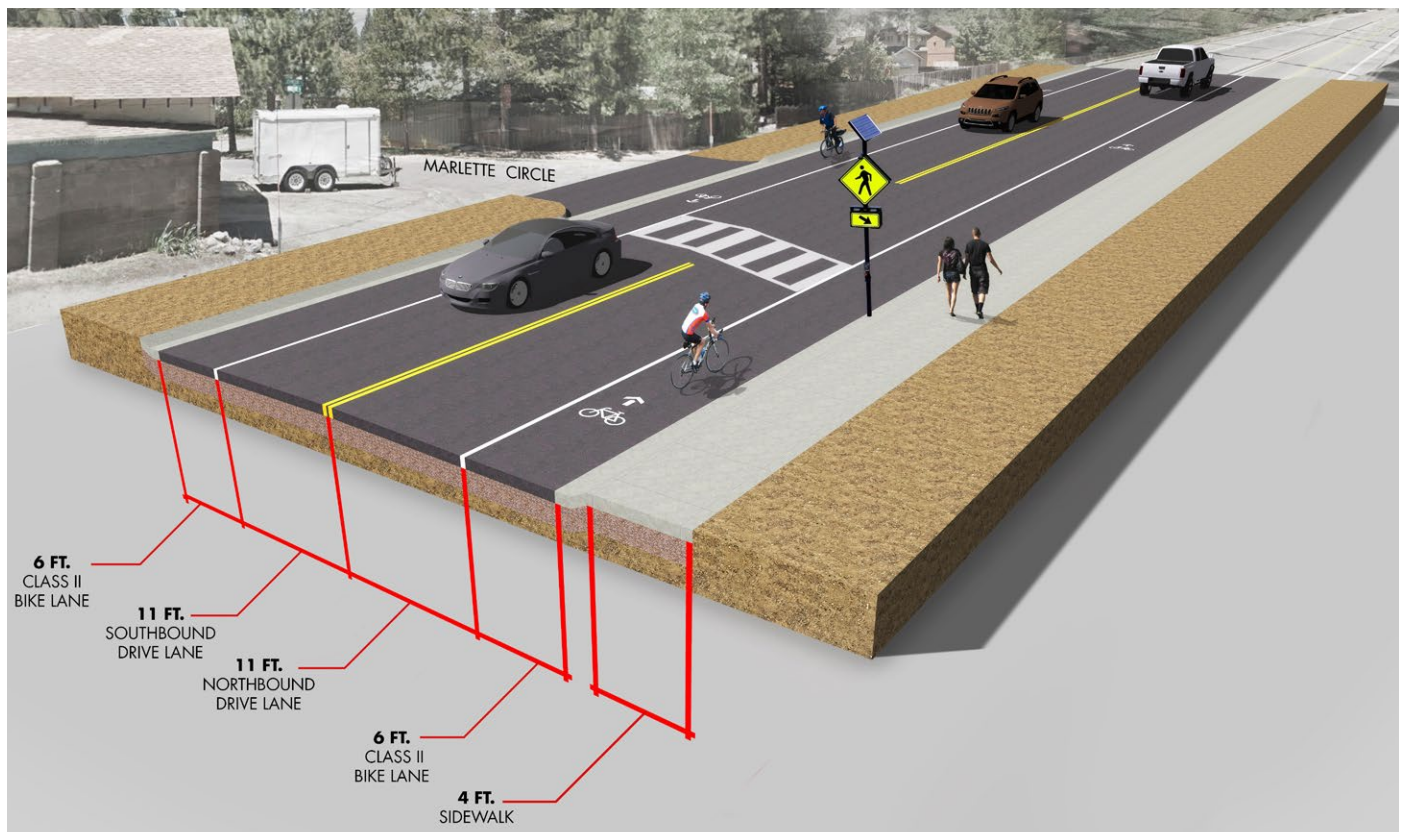


Diagram of Johnson Boulevard Alternative 2 mobility improvements: Widened Class II bike lanes and sidewalk

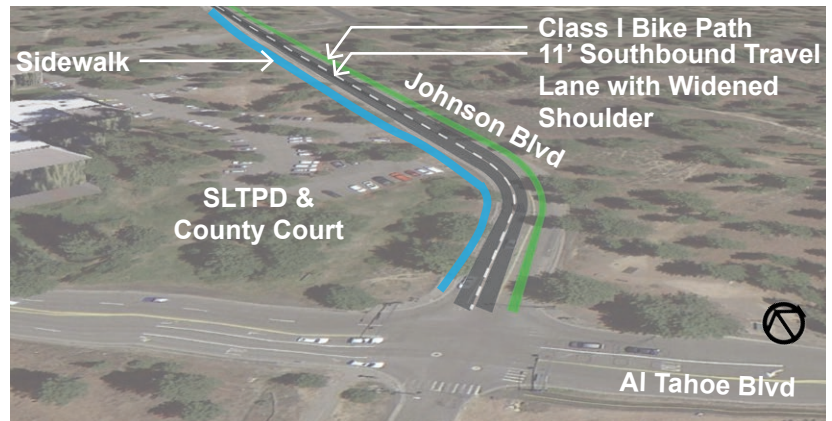
JOHNSON BOULEVARD RECOMMENDATIONS

RECOMMENDATIONS: JOHNSON BOULEVARD

- Narrow travel lanes to 11 feet
- Add Class I bike path on east (Bijou Park) side
- Add 7 - 8-foot widened shoulder on west side of roadway to accommodate shoulder parking
- Add 6-foot sidewalk on west side
- Develop intersection improvements at Marlette Circle (bulb-outs, high visibility crosswalk and pedestrian actuated crossing sign)
- Encourage nearby business and agencies to consider opportunities for increasing on-site parking capacity to reduce need for shoulder parking



Example of Class I separated bike path



Aerial diagram of recommended mobility improvements on Johnson Boulevard

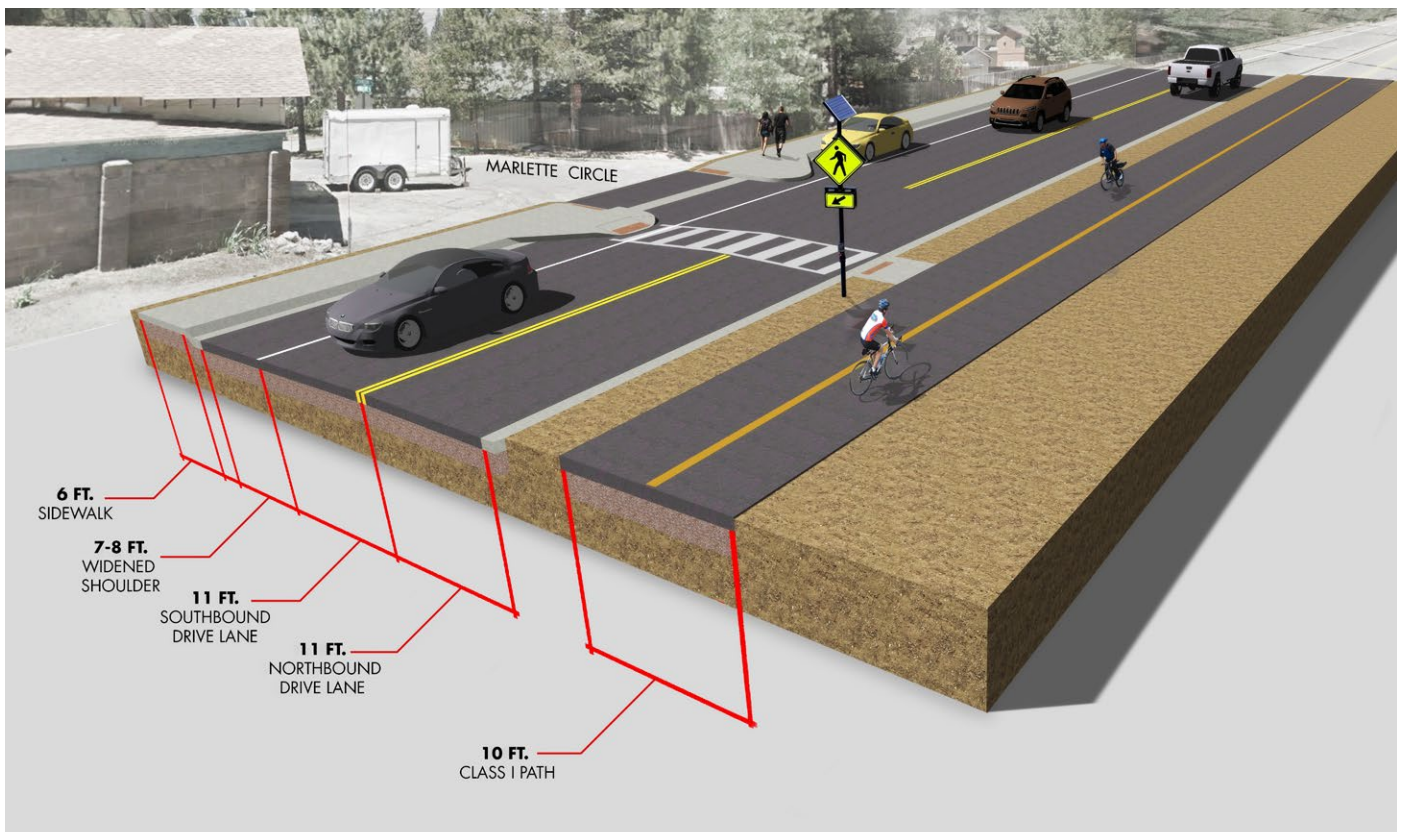


Diagram of recommended mobility improvements on Johnson Boulevard

JOHNSON BOULEVARD RECOMMENDATIONS

PROJECT BENEFITS

Safety

- Provides fully separated path
- Provides enhanced pedestrian crossing for east-west connectivity
- Includes traffic calming measures at Marlette Circle

Public Health

- Improves physical activity to decrease youth and adult obesity and corresponding blood pressure – connects youths and adults to Lakeview Commons, ballfields, the recreation center and track and field at the Middle School

Connectivity: Destinations within 1/2-Mile

- Lakeview Commons
- STMS
- Safeway Shopping Center
- Class I regional facility north of US 50
- Class I facility on Al Tahoe Boulevard
- Community Playfields
- Bijou Park and Bike Park
- LTCC
- Tahoe Center
- Future Class I regional facility (the Greenway)

POTENTIAL CONSTRAINTS/OPPORTUNITIES

Ownership

- Improvements anticipated to fit within existing right of way

Environmental

- No significant impacts anticipated

Traffic

- No significant impacts anticipated

COST CONSIDERATIONS

- Construction Costs: \$2,230,000
- Non-Construction Costs: \$1,060,000
- Total Costs: \$3,290,000

IMPLEMENTATION

Short Term

- Narrow travel lanes
- Widen bike lanes to provide buffered bike lanes
- Work with property owners to expand on-site parking to minimize roadside parking needs

Long Term

- Shift eastern curb
- Create a 10-foot Class I bike path on east side of roadway
- Create a 6-foot sidewalk on the west side of the roadway

FUNDING OPPORTUNITIES/SOURCES

- City of South Lake Tahoe Capital Improvement Funds (the project is not currently programmed in the adopted City CIP)
- California Active Transportation Program
- Highway Safety Improvement Program
- CMAQ
- TRPA/TMPO Air Quality Mitigation Fees
- Measure R/S

IMPLEMENTING ORGANIZATION

- City of South Lake Tahoe

PARTNERSHIP OPPORTUNITIES

- City of South Lake Tahoe Police Department
- Lake Tahoe Community College
- Happy Homestead Cemetery District
- South Lake Tahoe Recreation Facilities Joint Powers Authority (JPA)

BIJOU MEADOW EAST-WEST CONNECTIVITY EXISTING CONDITIONS

BIJOU MEADOW EAST-WEST CONNECTIVITY

PROJECT AREA

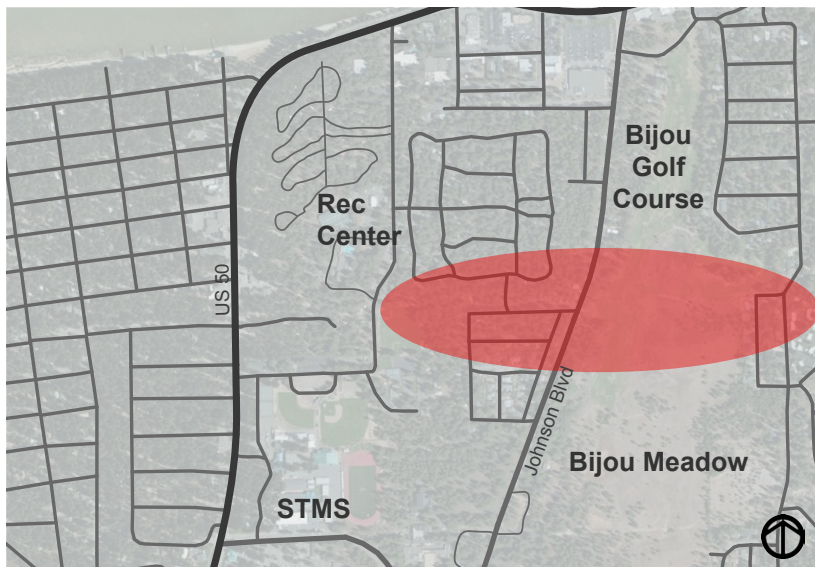
Glenwood Avenue and Spruce Avenue area west to Rufus Allen Boulevard across Bijou Meadow

EXISTING RIGHT OF WAY + MOBILITY FEATURES

- Informal use trails

KEY ISSUES + OPPORTUNITIES

- The Bijou Meadow separates the Bijou neighborhoods and Bijou Community School from the Middle School and community facilities such as the library, Boys and Girls Club and Recreation Center
- Numerous use trails across the meadow indicate a strong desire to cross the meadow to access facilities and destinations
- Private parcels separate Johnson Boulevard from the community centers and active transportation facilities to the west
- No formal pedestrian or bicycle facilities exist



Project location



Looking east across Bijou Meadow near Marlette Circle on Johnson Boulevard



Looking northeast toward US 50 and the Bijou Golf Course near Marlette Circle on Johnson Boulevard



Informal use trail in the Bijou Meadow

BIJOU MEADOW EAST-WEST CONNECTIVITY RECOMMENDATIONS

RECOMMENDATIONS: BIJOU MEADOW EAST-WEST CONNECTIVITY

- Create a multi-use path connection across Bijou Meadow
- Connect the Bijou Community School and northern Bijou neighborhoods to the South Tahoe Middle School and recreation center community centers area
- Connect the Spruce Avenue/Blackwood Avenue area to Rufus Allen Boulevard
- Create an enhanced pedestrian crossing (signage and striping) at Johnson Boulevard/Marlette Circle

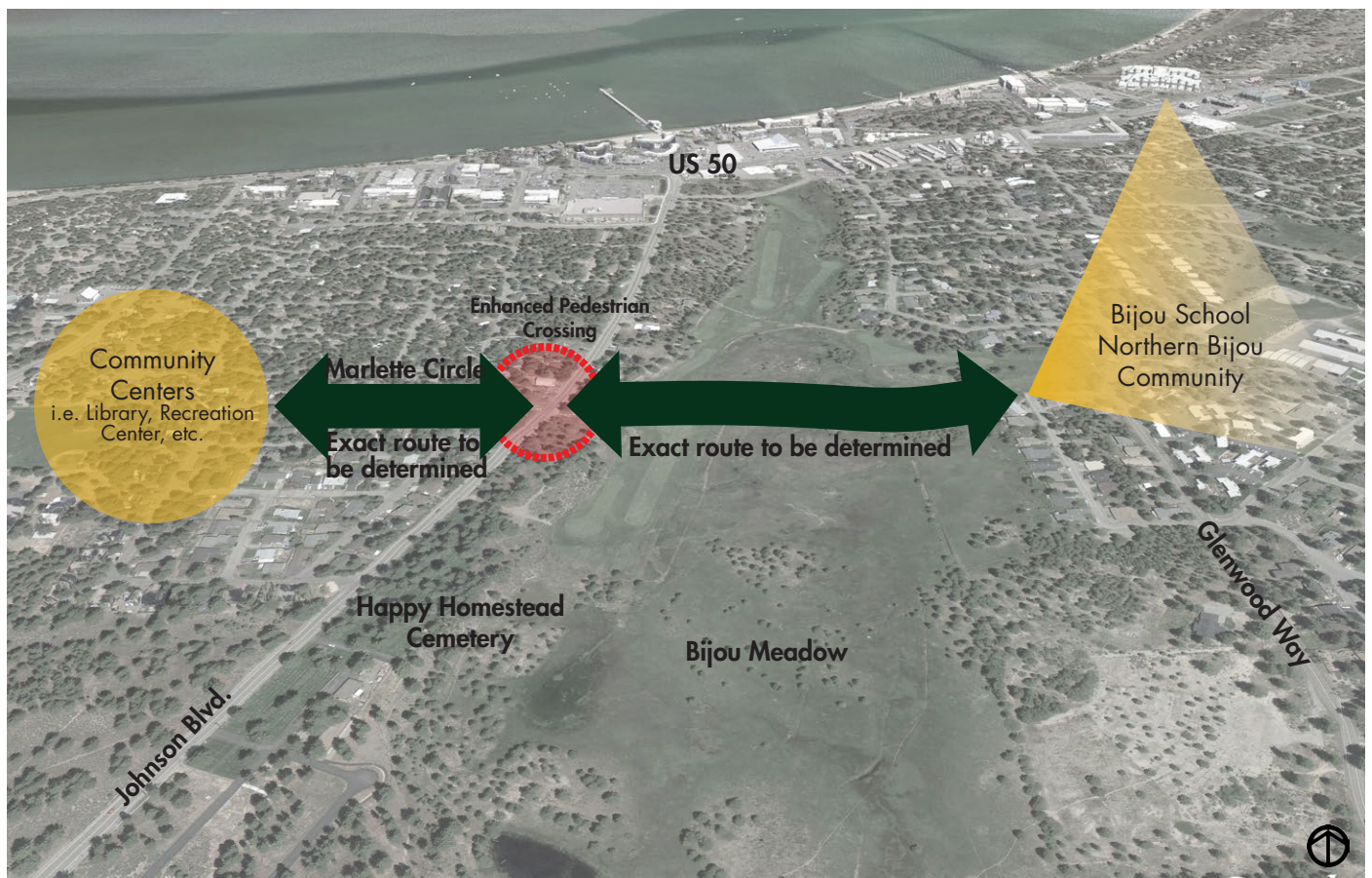


Diagram of east-west connectivity opportunities across Bijou Meadow

BIJOU MEADOW EAST-WEST CONNECTIVITY RECOMMENDATIONS

PROJECT BENEFITS

Safety

- Provides fully separated path alternative to using US 50, the route where a majority of incidents occurs
- Provides fully separated path alternative to using Glenwood Way
- Reduces overall trip by 1.25 miles (when compared to using designated bike routes and bike lanes)
- Provide facility for users with a wide range of skills, including young children

Public Health

- Improves physical activity to decrease youth and adult obesity and corresponding blood pressure – connects youths and adults from neighborhoods to community facilities

Connectivity: Destinations within 1/2-Mile

- Bijou Park and Bike Park
- Boys and Girls Club
- STMS
- Bijou Community School
- SLTPD, EDSO and county courthouse
- County library
- Recreation Center
- Tahoe Center
- Lakeview Commons
- Ballfields
- Safeway Shopping Center
- Lower income neighborhoods and multi-family housing
- Senior housing

POTENTIAL OPPORTUNITIES/CONSTRAINTS

Ownership

- Bijou Meadow is owned by the City
- Bijou Golf Course uses a portion of Bijou Meadow
- Requires easements or acquisition of private properties to make full connection from Glenwood/Spruce area to Rufus Allen Boulevard area

Environmental

- Bijou Meadow is a stream environment zone

Traffic

- Active transportation crossings of Johnson Boulevard and Glenwood Way would need to be studied and enhanced

COST CONSIDERATIONS

- Construction Cost: \$950,000
- Planning Cost: \$570,000
- Total Cost: \$1,520,000

IMPLEMENTATION

Short Term

- Identify trail corridor through Bijou Meadow, publicly-owned land
- Develop a multi-use path through Bijou Meadow
- Provide signage
- Provide signage at Johnson Boulevard and Glenwood Way
- Identify opportunities for easements and acquisition

Long Term

- Acquire easements and acquisitions
- Develop full Class I facility connecting from South Tahoe Middle School across Bijou Meadow to Bijou Community School

FUNDING OPPORTUNITIES/SOURCES

- City of South Lake Tahoe Capital Improvement funds or grant funds (the project is not currently programmed in the adopted City CIP)
- California Tahoe Conservancy funds
- California Recreational Trails Program
- TRPA/TMPO Air Quality Mitigation Fees
- Measure R/S

IMPLEMENTING ORGANIZATION

- City of South Lake Tahoe

PARTNERSHIP OPPORTUNITIES

- California Tahoe Conservancy
- South Lake Tahoe Recreation Facilities Joint Powers Authority (JPA)

LYONS/US 50 INTERSECTION EXISTING CONDITIONS

LYONS/US 50 INTERSECTION

PROJECT AREA

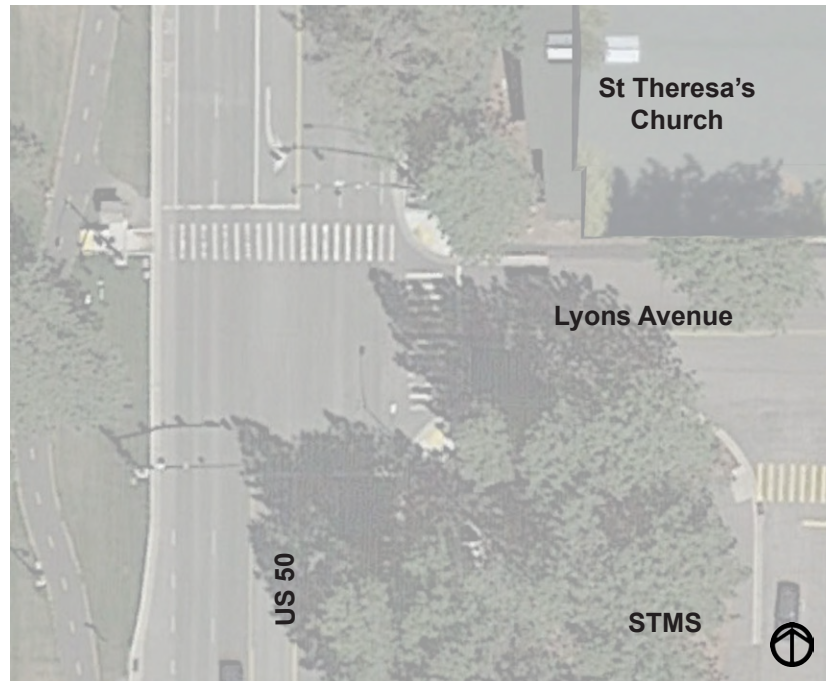
Lyons/US 50 intersection

EXISTING RIGHT OF WAY + MOBILITY FEATURES

- High visibility crosswalk markings with advance stop bar
- Accessible curb ramps on the northeast, northwest and southeast corners
- Pedestrian actuated signals
- Intersection lighting

KEY ISSUES + OPPORTUNITIES

- Northwest curb ramp is not flared
- Traffic backs up along Lyons Avenue during school drop off and pick up
- Students walking and biking to the school from the Al Tahoe neighborhood cross US 50 during the proper signal phase and then cut across Lyons Avenue when they notice a gap in traffic
- Lack of a designated crosswalk on the southern leg of the intersection
- Small staging areas at the intersection corners
- Long waiting time to cross US 50



Intersection of Lyons Avenue and US 50



Project location



Northeast corner of US 50 and Lyons looking west



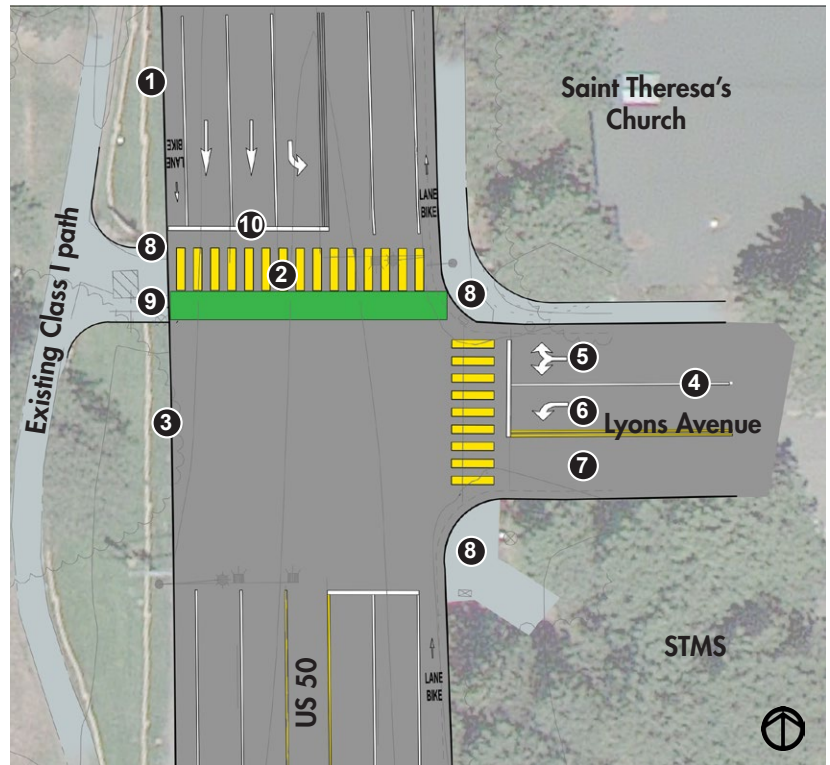
Middle School students cross US 50 at Lyons Avenue on their way to school in the morning

LYONS/US 50 INTERSECTION ALTERNATIVES

ALTERNATIVES EVALUATED

LYONS/US 50 INTERSECTION BASELINE ALTERNATIVE

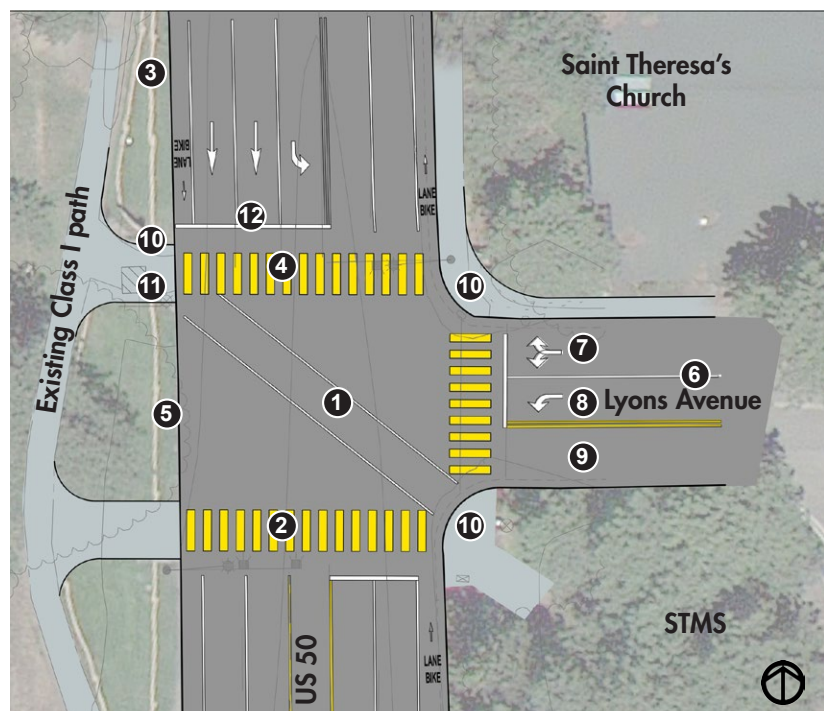
- 1 • Add school zone signage
- 2 • Add school zone yellow striping
- 3 • Adjust signal timing
- 4 • Restripe Lyons Avenue for center turn lane/two holding lanes
- 5 • 14-foot right/left turn lane
- 6 • 12-foot left only turn lane
- 7 • 14-foot eastbound lane
- 8 • Create larger landing area at northeast and northwest corner
- 9 • Widen crossing with flared ramp
- 10 • Add advance stop bars on US 50 southbound intersection leg



Lyons/US 50 intersection Baseline Alternative diagram

LYONS/US 50 INTERSECTION ENHANCED ALTERNATIVE

- 1 • Create an all-way scramble signal phase
- 2 • Add striped crossing on south leg
- 3 • Add school zone signage
- 4 • Add school zone yellow striping
- 5 • Adjust signal timing
- 6 • Restripe Lyons Avenue for center turn lane/two holding lanes
- 7 • 14-foot right/left turn lane
- 8 • 12-foot left only turn lane
- 9 • 14-foot eastbound lane
- 10 • Create larger landing area at northeast and northwest corner
- 11 • Widen crossing with flared ramp
- 12 • Add advance stop bars on US 50 southbound intersection leg

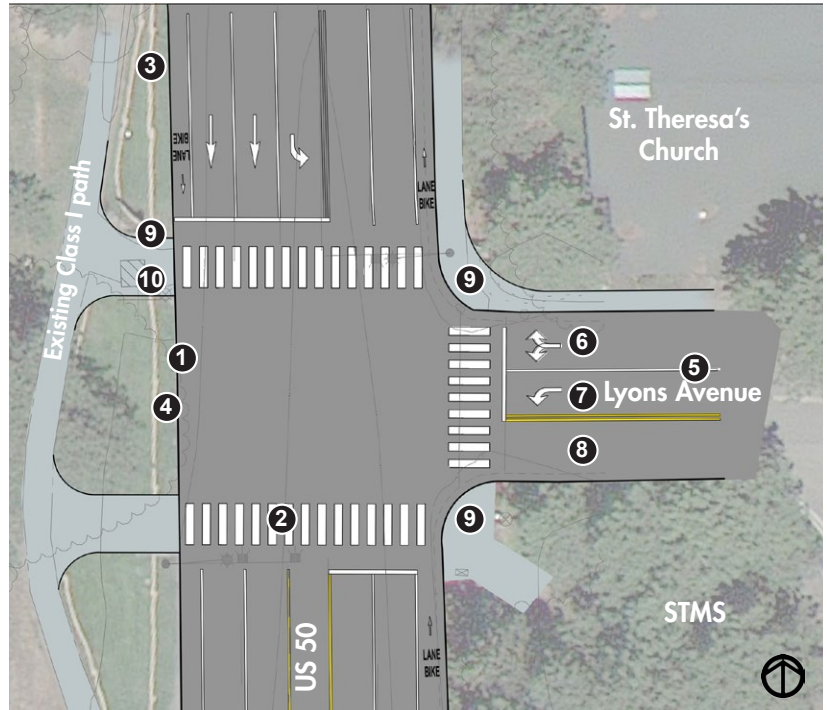


Lyons/US 50 intersection Enhanced Alternative diagram

LYONS/US 50 INTERSECTION RECOMMENDATIONS

RECOMMENDATIONS: LYONS /US 50 INTERSECTION

- 1 • Create flexible signal phasing that includes a scramble phase during peak school start and end hours
- 2 • Add a high visibility crossing on south leg and connect existing Class I to new crosswalk/landing area
- 3 • Add school zone signage
- 4 • Adjust signal timing
- 5 • Restripe Lyons Avenue for center turn lane/two holding lanes
- 6 • 14-foot right/left turn lane
- 7 • 12-foot left only turn lane
- 8 • 14-foot eastbound lane
- 9 • Create larger landing area at northeast and northwest corner
- 10 • Widen crossing with flared ramp for Class I ramp access



Recommendations for Lyons/US 50 Intersection



Example of advance stop bars



Example of flared curb ramp



Example of scramble pedestrian crossing in Stateline, Nevada

LYONS/US 50 INTERSECTION RECOMMENDATIONS

PROJECT BENEFITS

Safety

- Reduces exposure (time and distance) of pedestrians and bicyclists (especially students) to vehicles
- Increased staging areas/landings allow active transportation users to fully move off the highway before making the next crossing movement
- Flared curb ramp enhances maneuverability of bicyclists crossing US 50 westbound from Lyons Avenue
- Signal timing optimization can ensure the westbound queue clears during the school morning and afternoon pick-up/drop-off

Public Health

- Improves physical activity to decrease youth and adult obesity and corresponding blood pressure
- Regional connection improves access to healthy food

Connectivity: Destinations within 1/2-Mile

- Lakeview Commons
- County library
- Recreation Center
- Boys and Girls Club
- STMS
- Harrison Avenue Business District
- Class I regional facility west of US 50
- Ballfields
- St Theresa's Catholic Church

POTENTIAL CONSTRAINTS/OPPORTUNITIES

Ownership

- Caltrans right of way
- Expansion of staging areas may require coordination with the following entities:
 - St Theresa's Church
 - Lake Tahoe Unified School District

Environmental

- No significant impacts anticipated

Traffic

- Addition of a combined right/left turn lane increases capacity and improves the level of service
- Initial traffic analysis showed a scramble phase could be implemented with a negligible impact on vehicle traffic

COST CONSIDERATIONS

- Construction Cost: \$100,000
- Non-Construction Cost: \$95,000
- Total Cost: \$195,000

IMPLEMENTATION

Short Term

- Restripe Lyons Avenue for center turn lane/two holding lanes
 - 14-foot right/left turn lane
 - 12-foot left only turn lane
 - 14-foot eastbound lane
- Optimize signal timing during the school morning and afternoon pick-up/drop-off
- Increase the landing/staging areas near St Theresa's Church and STMS
- Conduct required traffic analysis studies
- Widen northeast landing area and install a flared curb ramp
- Add school zone signage
- Conduct emission reduction findings for application to CMAQ funds

Long Term

- Add a high visibility crossing on the intersection's southern leg
- Create flexible signal phasing that includes a scramble phase during peak hours

FUNDING OPPORTUNITIES/SOURCES

- Highway Safety Improvement Program, including the Systemic Safety Analysis Report Program
- CMAQ
- TRPA/TMPO Air Quality Mitigation Fees

IMPLEMENTING ORGANIZATION

- Caltrans with the City of South Lake Tahoe

PARTNERSHIP OPPORTUNITIES

- Lake Tahoe Unified School District
- St Theresa's Catholic Church

MIDDLE SCHOOL CIRCULATION EXISTING CONDITIONS

SOUTH TAHOE MIDDLE SCHOOL CIRCULATION

PROJECT AREA

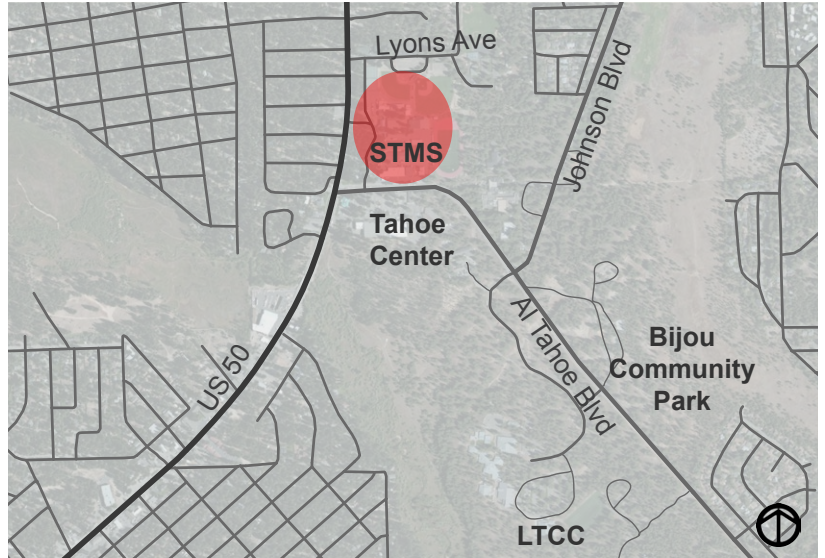
South Tahoe Middle School

EXISTING RIGHT OF WAY + MOBILITY FEATURES

- Bike racks located near the north parking area
- Sidewalk along the north side of the entry drive off US 50
- Central vehicular drop-off area
- Three entry/exit drives (off US 50, off Lyons Avenue and off Al Tahoe Boulevard)

KEY ISSUES + OPPORTUNITIES

- Bicyclists and pedestrians are not separated from motorists
- Morning drop-off creates vehicle queues and Superintendent must direct traffic and requires students to cross pick-up/drop-off traffic, increasing possible conflicts and congestion
- Bike racks are difficult to use to lock bikes
- Bike racks are separated from the school entry
- Parents drop students off at the Tahoe Center south of the school and the students must cross Al Tahoe to reach the school



Project location



Bike racks near north parking area



Area between the ballfields and tennis courts

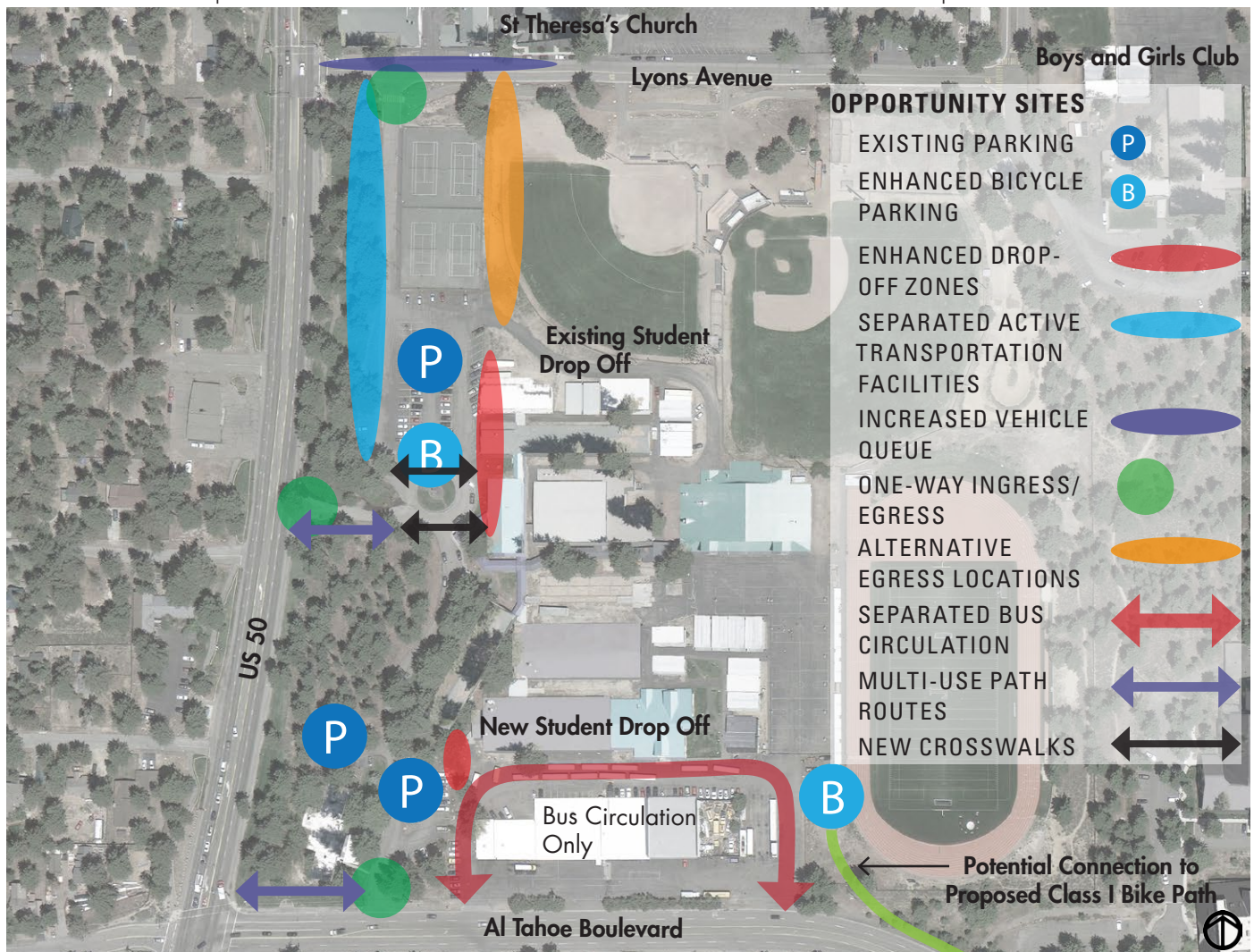


Middle School entry drive off US 50 looking east at the school

MIDDLE SCHOOL CIRCULATION RECOMMENDATIONS

RECOMMENDATIONS: SOUTH TAHOE MIDDLE SCHOOL CIRCULATION

- Add multi-use path to school at US 50 entry
- Add multi-use path from US 50 to school entry along north side of Al Tahoe Boulevard
- Add a crosswalk for student to cross from the multi-use path to the school building between the traffic circle and northbound drop-off traffic
- Provide a crosswalk to the front office
- Increase protected, accessible bicycle parking
- Add Class I connection from proposed Class I path along Al Tahoe Boulevard
- Enhance drop-off areas to discourage parents from dropping students off at the Tahoe Center
- Evaluate opportunity sites to modify drop-off and pick-up vehicular circulation to minimize conflicts with bicyclists and pedestrians
 - Provide an additional morning student drop-off location between the bus garage and STMS building/entry fence
 - Create one-way ingress/egress at various locations
 - Create designated active transportation (walking and bicycling) facilities
 - Evaluate opportunity sites to revise egress locations
 - Evaluate opportunity sites to modify and disperse vehicular drop-off areas
 - Increase the available stacking area at Lyons/US 50 intersection
 - Maintain separation between bus circulation areas and vehicular and active transportation facilities



Opportunity sites for active transportation and vehicular circulation at the South Tahoe Middle School

MIDDLE SCHOOL CIRCULATION RECOMMENDATIONS

PROJECT BENEFITS

Safety

- Provides a designated, separated facility for students walking and bicycling to school
- Maintains separation of bus circulation from student drop-off areas
- Enhances bicycle parking/locking facilities
- Reduces vehicular left-turn movements
- Eliminates illegal left-turns across Al Tahoe Boulevard center turn lane's double, double yellow stripe

Public Health

- Encourages student walking and biking to school to increase physical activity and decrease youth and obesity and corresponding blood pressure

Connectivity: Destinations within 1/2-Mile

- Bijou Park and Bike Park
- Boys and Girls Club
- Surrounding neighborhoods and multi-family housing
- Harrison Avenue Business District
- Tahoe Center
- Lakeview Commons
- Recreation Center
- County library
- SLTPD, EDSO and county courthouse
- Class I facility west of US 50

POTENTIAL CONSTRAINTS/OPPORTUNITIES

Ownership

- Facilities are owned by Lake Tahoe Unified School District

Environmental

- High capability lands

Traffic

- Requires traffic and parking study to evaluate desired turning movements and drop-off recommendations



Example of stacked secure bike area

COST CONSIDERATIONS

- Construction Cost: \$400,000
- Planning Cost: \$240,000
- Total Cost: \$640,000

IMPLEMENTATION

Short Term

- Enhance bike parking facilities
- Restripe parking/drive areas to provide a designated route for bicyclists
- Conduct work session and traffic study to develop final circulation improvements recommendation
- Determine feasibility to relocate the bus barn in order to modify vehicular and active transportation circulation
- Increased bus ridership
- Safe riding education – wear helmets

Long Term

- Construct new/modified drop-off and roadway circulation areas
- Construct separated active transportation facilities

FUNDING OPPORTUNITIES/SOURCES

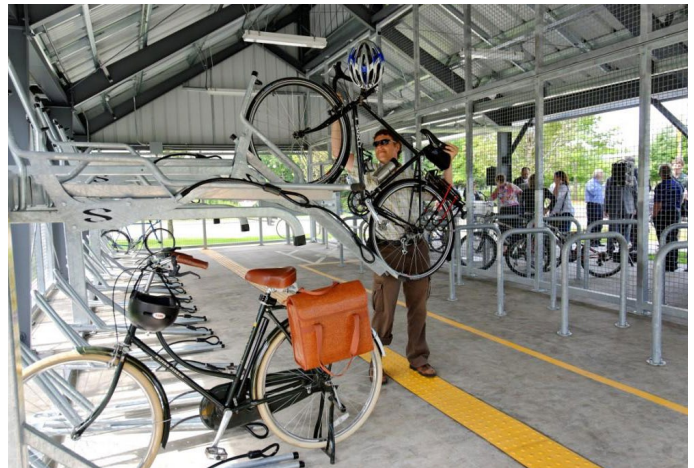
- Lake Tahoe Unified School District Capital Improvement Funds
- California Active Transportation Program, including Safe Routes to School

IMPLEMENTING ORGANIZATION

- Lake Tahoe Unified School District

PARTNERSHIP OPPORTUNITIES

- City of South Lake Tahoe
- Caltrans



Example of covered, secure bike area

LYONS AVE TO AL TAHOE BLVD NORTH-SOUTH CONNECTIVITY EXISTING CONDITION

LYONS AVENUE TO AL TAHOE BOULEVARD NORTH-SOUTH CONNECTIVITY

PROJECT AREA

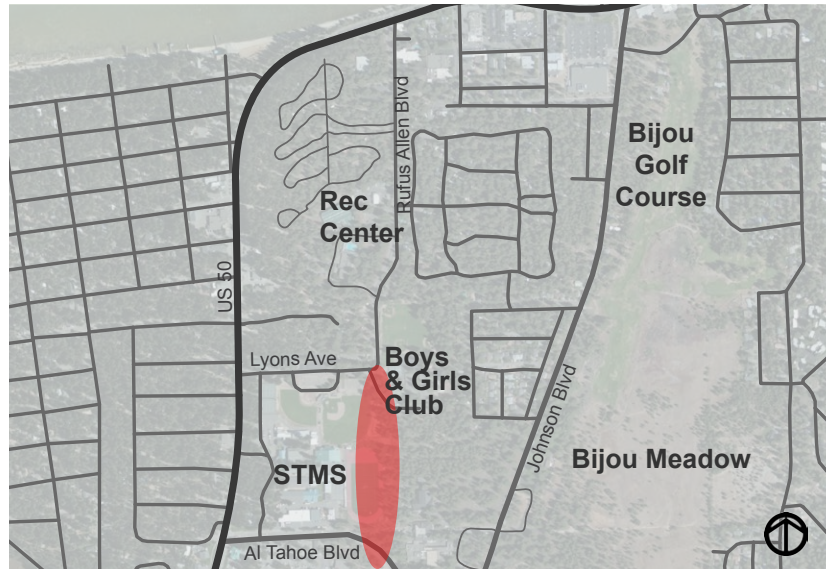
Lyons Avenue near Rufus Allen Boulevard south to Al Tahoe Boulevard, east of the Middle School

EXISTING RIGHT OF WAY + MOBILITY FEATURES

- Informal user trails
- Class I bike path along the south side of Lyons Avenue
- Class I bike path proposed along the north side of Al Tahoe Boulevard

KEY ISSUES + OPPORTUNITIES

- Active transportation users currently use informal trails in the area to reach civic, recreation and educational destinations along Lyons Avenue and Rufus Allen Boulevard to avoid US 50
- Property ownership in the area is primarily public



Project location



An informal use trail shows the level of use in the area



The project area is adjacent to the Middle School's track and field

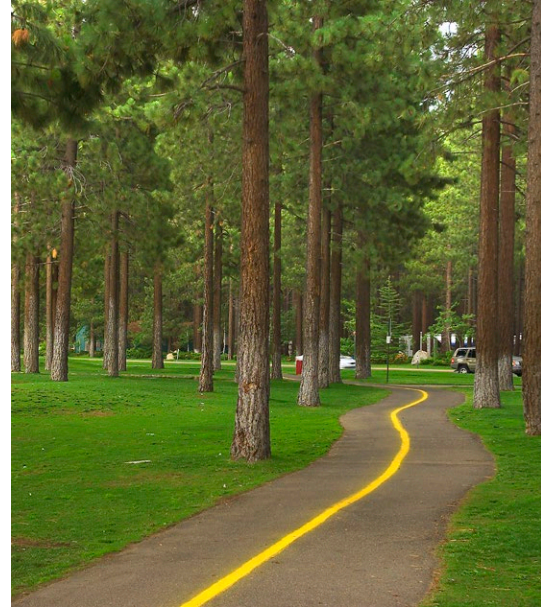


The project area connects to the existing Class I facility along Lyons Avenue

LYONS AVE TO AL TAHOE BLVD NORTH-SOUTH CONNECTIVITY RECOMMENDATIONS

RECOMMENDATIONS: LYONS AVENUE TO AL TAHOE BOULEVARD NORTH-SOUTH CONNECTIVITY

- Develop a Class I bike path connecting the Class I bike path on Lyons Avenue south to the proposed bike path on Al Tahoe Boulevard
- Provide lighting
- Design route to provide opportunity for future ballfield expansion by the Lake Tahoe Unified School District



Bike path example

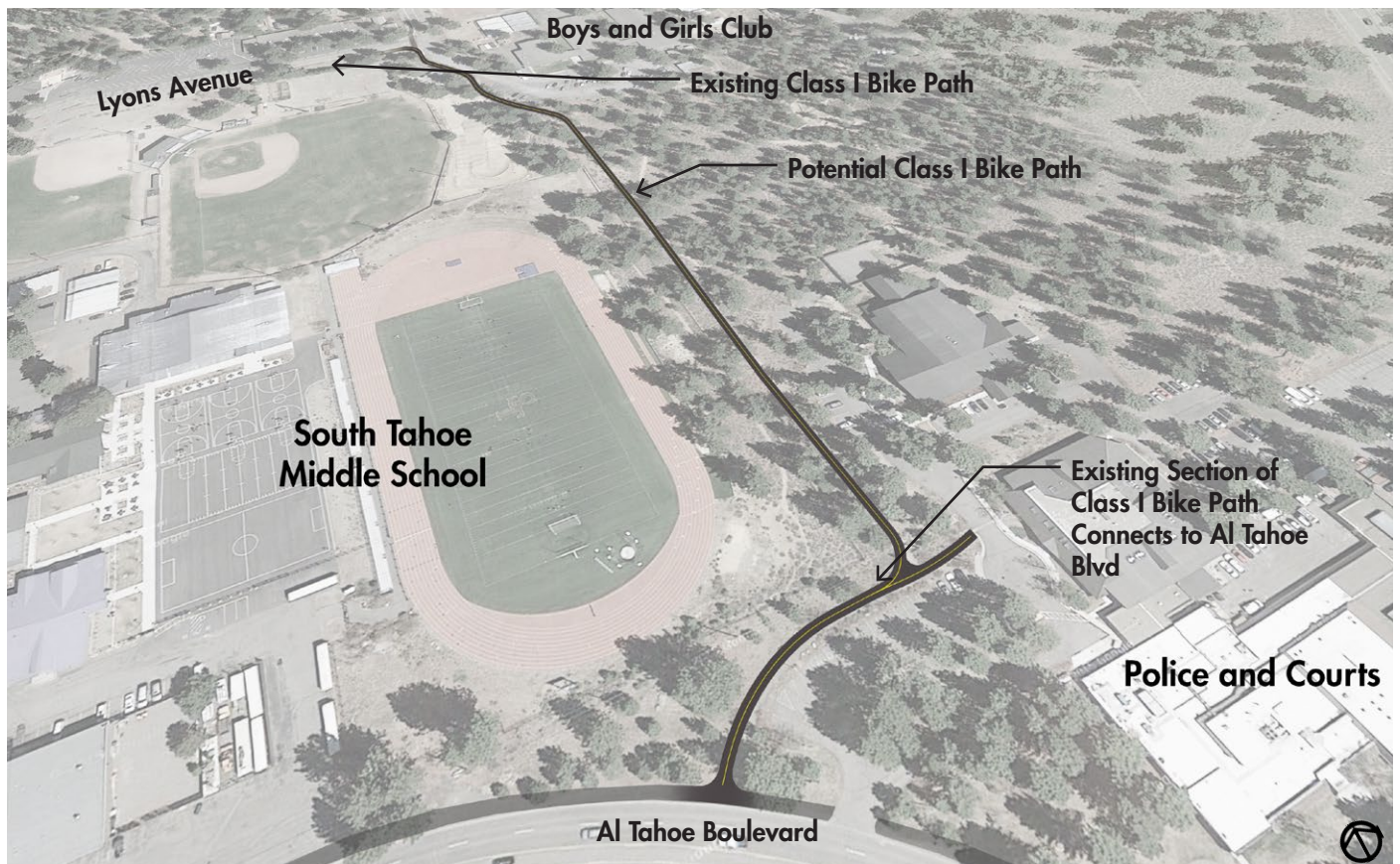


Diagram of north-south connectivity opportunity from Lyons Avenue to Al Tahoe Boulevard east of the Middle School track and field

LYONS AVE TO AL TAHOE BLVD NORTH-SOUTH CONNECTIVITY RECOMMENDATIONS

PROJECT BENEFITS

Safety

- Provides fully separated path alternative to using US 50, the route where a majority of incidents occur
- Provides a facility for users with a wide range of skills, including young children
- Completes a gap between the Class I facility along Al Tahoe Boulevard and the Class I facility along Lyons Avenue

Public Health

- Improves direct access to recreation facilities for children and adults – increasing physical activity to decrease youth and adult obesity and corresponding blood pressure

Connectivity: Destinations within 1/2-Mile

- LTCC
- Bijou Park and Bike Park
- Boys and Girls Club
- STMS
- SLTPD, EDSO and county courthouse
- County library
- Recreation Center
- Tahoe Center
- Lakeview Commons
- St Theresa's Church
- Ballfields

POTENTIAL OPPORTUNITIES/CONSTRAINTS

Ownership

- LTUSD owns the land
- Address concerns by neighboring property owners (e.g., private, County, SLTPD)

Environmental

- High capability lands

Traffic

- Identify connectivity to other trail systems and potential road crossing needs at Al Tahoe Boulevard – site distances need to be confirmed

COST CONSIDERATIONS

- Construction Cost: \$500,000
- Planning Cost: \$115,000
- Total Cost: \$615,000

IMPLEMENTATION

Short Term

- Identify path location
- Signage
- Collaboration with potential partners
- Active transportation education at Boys and Girls Club and LTUSD

Long Term

- Construction of pathway

FUNDING OPPORTUNITIES/SOURCES

- City of South Lake Tahoe Capital Improvement Funds or grant funds (no currently programmed in adopted City CIP)
- California Active Transportation Program, including Safe Routes to School
- Measure R/S

IMPLEMENTING ORGANIZATION

- City of South Lake Tahoe

PARTNERSHIP OPPORTUNITIES

- Boys and Girls Club (through potential private contributions)
- Soroptimist International of South Lake Tahoe (private contributions to benefit women and children)
- Lake Tahoe Unified School District
- City of South Lake Tahoe Police Department
- El Dorado County Sheriff's Department
- South Lake Tahoe Recreation Facilities Joint Powers Authority (JPA)

RUFUS ALLEN BOULEVARD EXISTING CONDITIONS

RUFUS ALLEN BOULEVARD

PROJECT AREA

Rufus Allen Boulevard from US 50 south to Lyons Avenue

EXISTING RIGHT OF WAY + MOBILITY FEATURES

- Two-lane roadway with varied travel lane width
- Informal roadside parking at recreation fields near Lyons Avenue
- 6-foot sidewalk along the west side of the road from Lyons Avenue north to the City cooperation yard
- 8-foot shared use path from the City cooperation yard north to the US 50 intersection

KEY ISSUES + OPPORTUNITIES

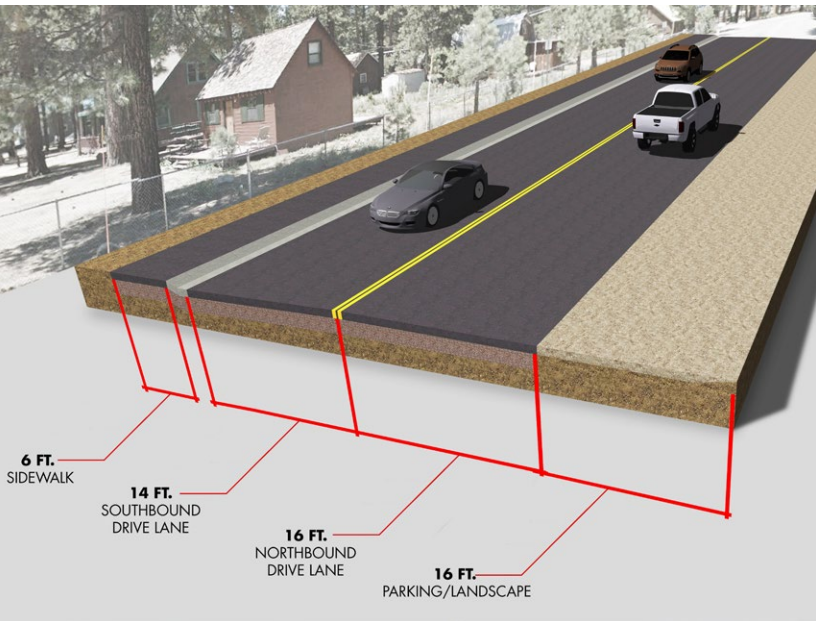
- Lack of continuous shared use path



Project location



Class I path adjacent Rufus Allen near the intersection of US 50, looking north



Existing section of Rufus Allen Boulevard



Rufus Allen looking south to the Recreation Center



Intersection of Rufus Allen and Lyons looking north

RUFUS ALLEN BOULEVARD ALTERNATIVES

ALTERNATIVES EVALUATED

RUFUS ALLEN BLVD. ALTERNATIVE 1

- Narrow travel lanes to 10 feet
- Create Class II bike lanes
- Continue sidewalk on west side to connect the gap between the Rec Center and Lyons Avenue



Bike lane example

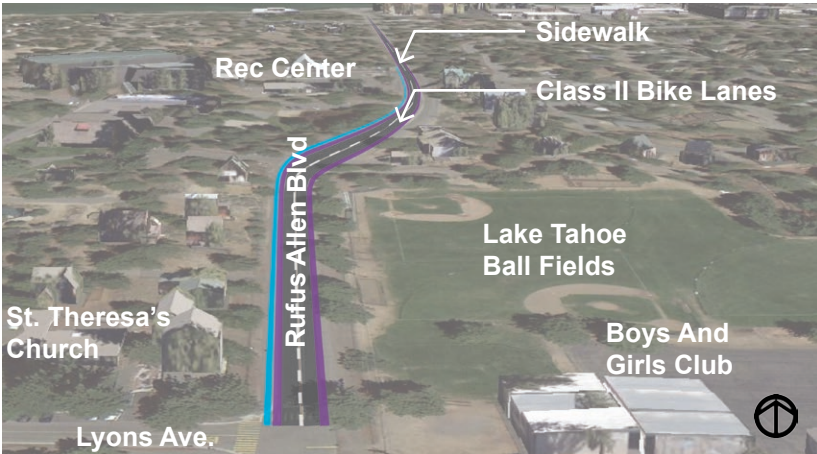


Diagram of Rufus Allen Alternative 1 mobility improvements

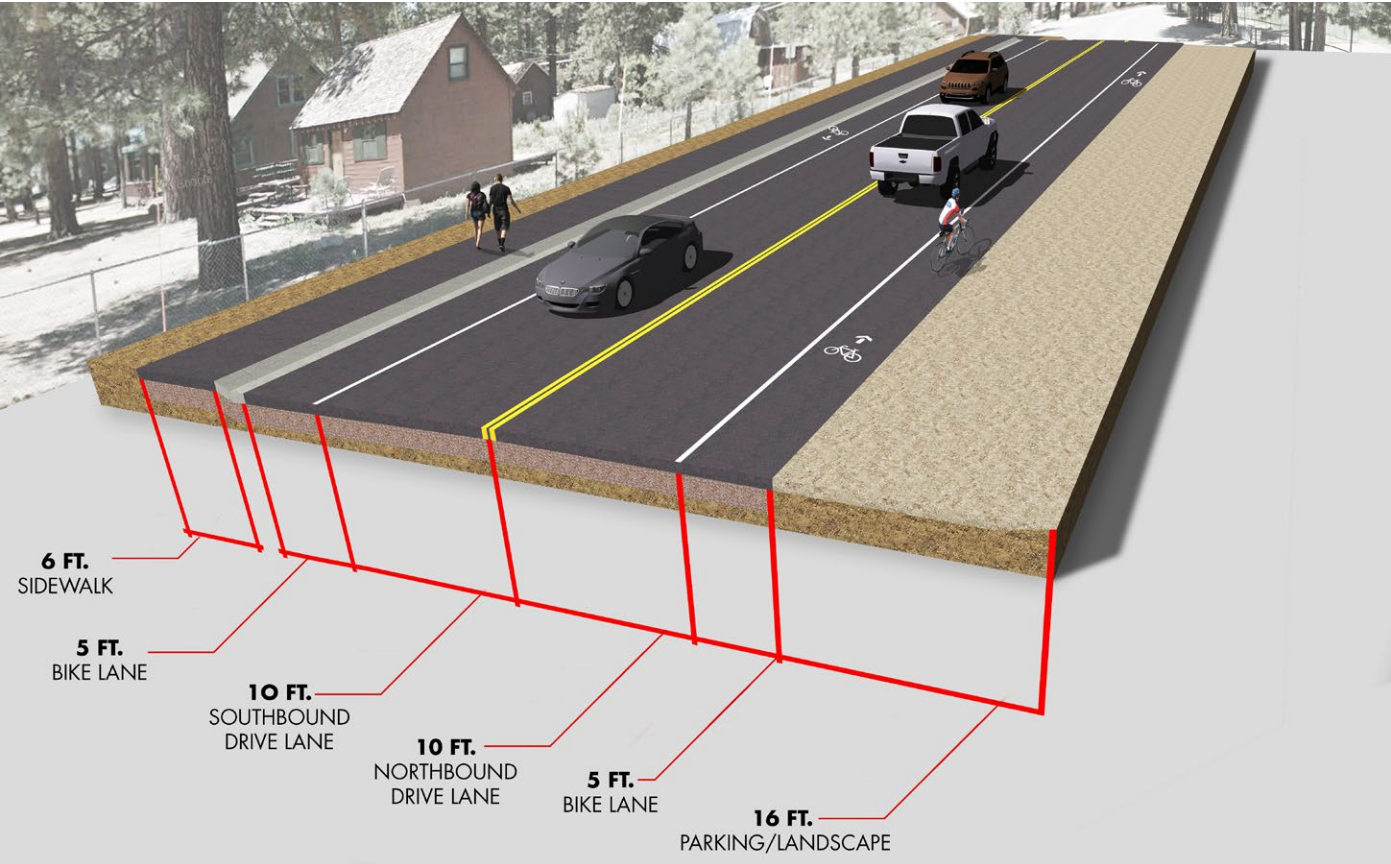


Diagram of Rufus Allen Alternative 1 mobility improvements: Class II bike lanes, sidewalk and narrowed travel lanes

RUFUS ALLEN BOULEVARD ALTERNATIVES

RUFUS ALLEN BLVD. ALTERNATIVE 2

- Narrow travel lanes to 11 feet
- Continue Class I path on west side to connect the gap between the Rec Center and Lyons Avenue
- Coordinate improvements with Parks and Recreation Master Plan



Bike path example



Diagram of Rufus Allen Alternative 2 mobility improvements

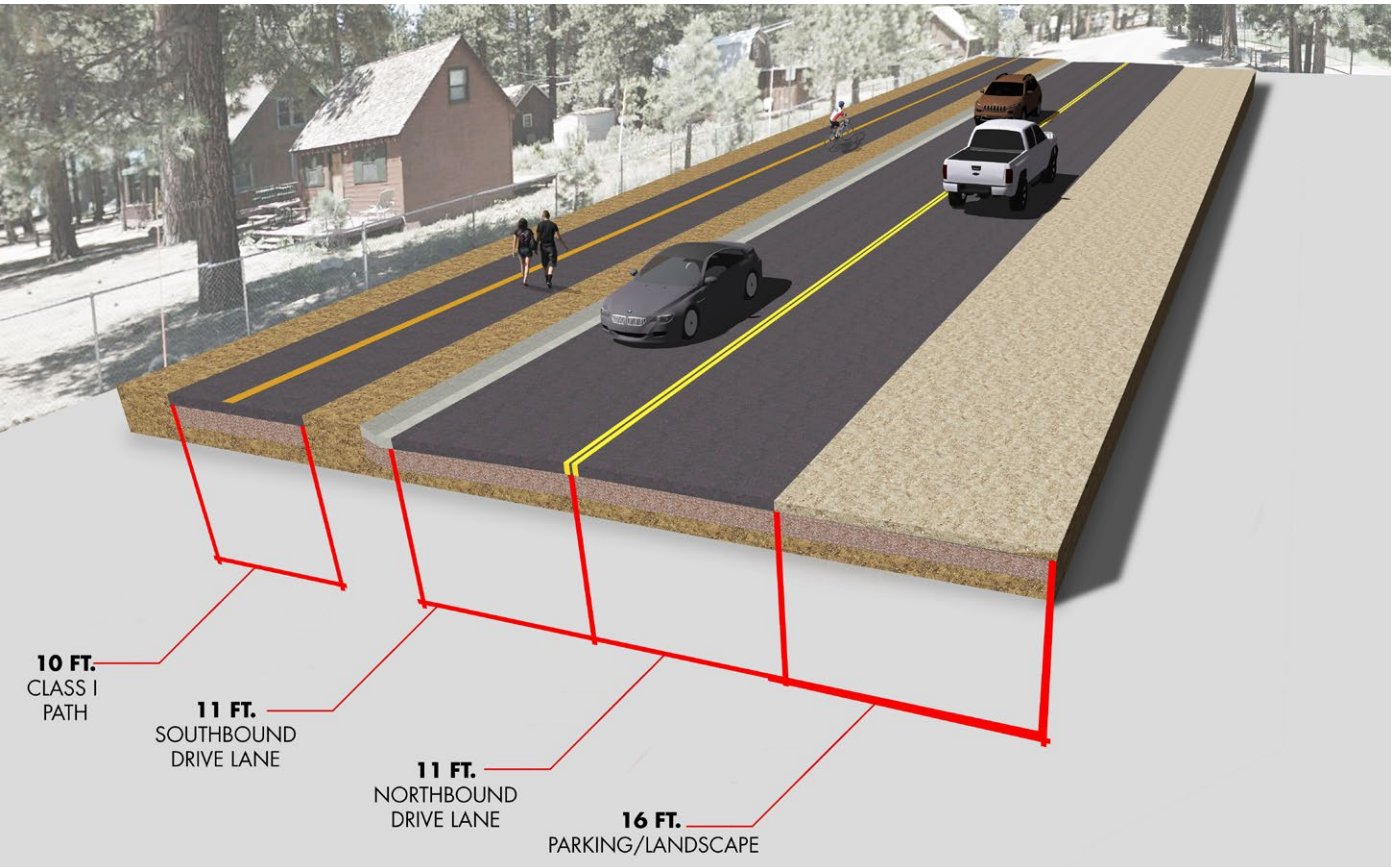


Diagram of Rufus Allen Alternative 2 mobility improvements: Class I bike path and narrowed travel lanes

RUFUS ALLEN BOULEVARD RECOMMENDATIONS

RECOMMENDATIONS: RUFUS ALLEN BOULEVARD

- Narrow travel lanes to 11 feet
- Continue Class I path on west side to connect the gap between the Rec Center and Lyons Avenue
- Coordinate improvements with Parks and Recreation Master Plan



Bike path example

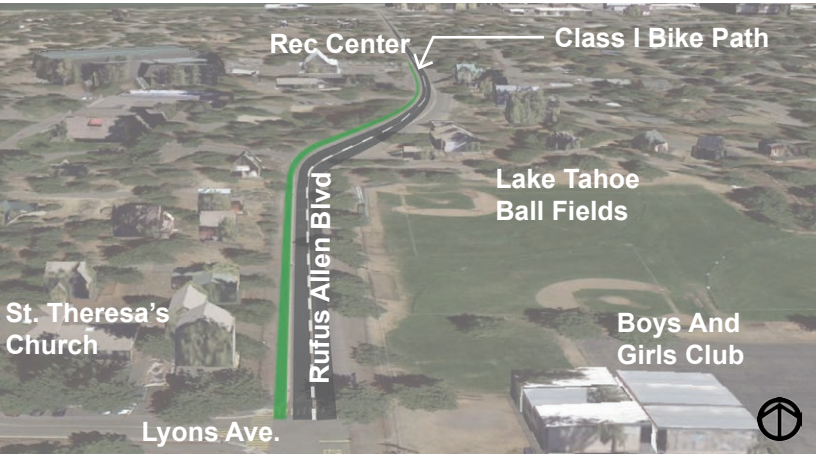


Diagram of Rufus Allen Alternative 2 mobility improvements

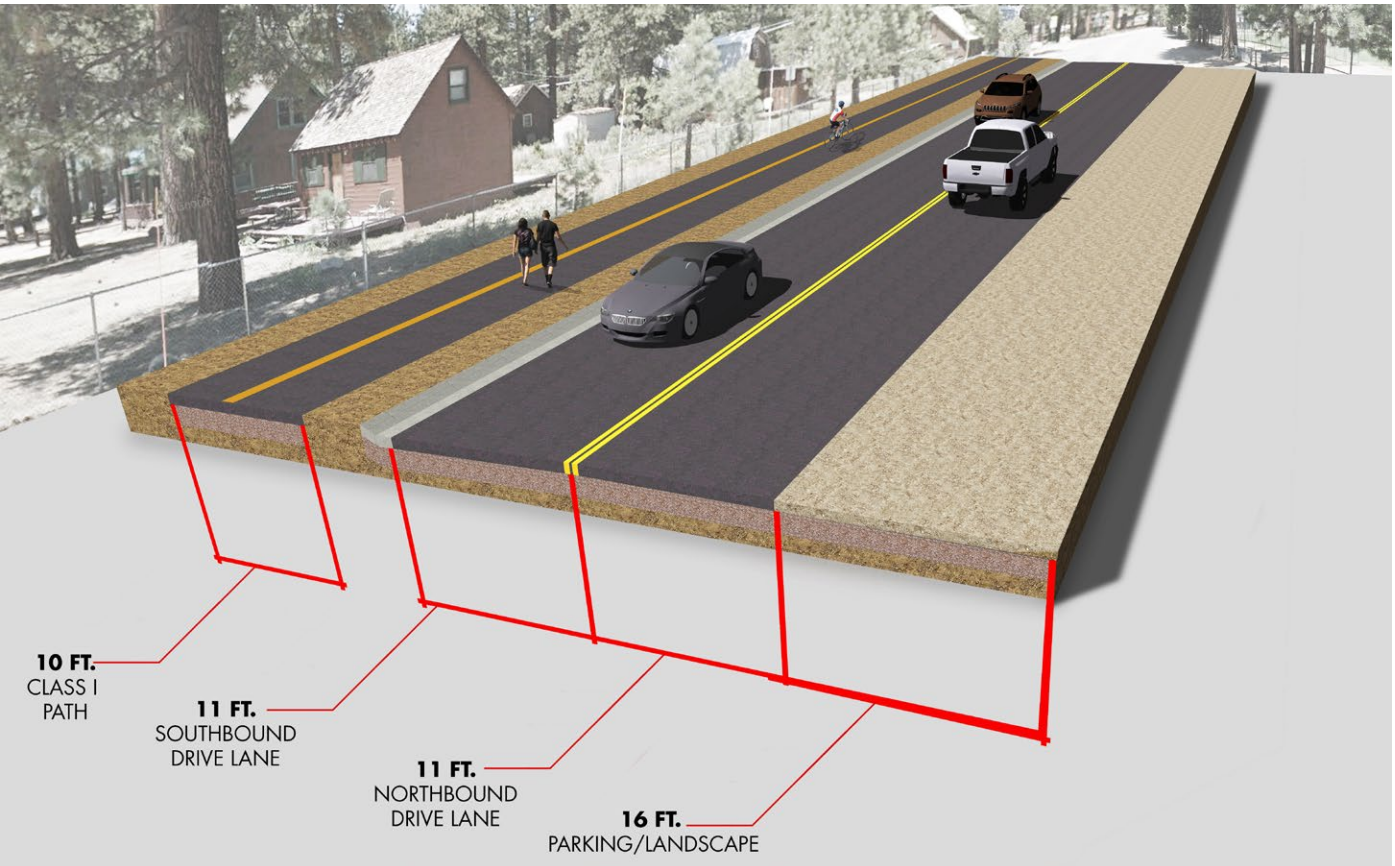


Diagram of Rufus Allen Alternative 2 mobility improvements: Class I bike path and narrowed travel lanes

RUFUS ALLEN BOULEVARD RECOMMENDATIONS

PROJECT BENEFITS

Safety

- Provides fully separated path to complete the existing Class I path that ends at the City's Cooperation Yard
- Organizes roadside parking by the ballfields to separate active transportation users from parking area

Public Health

- Improves physical activity to decrease youth and adult obesity and corresponding blood pressure – connects youths and adults to Lakeview Commons, ballfields, the recreation center and track and field at the Middle School
- Enhances connectivity to the regional Class I facility north of US 50 that will provide a separated path to Stateline, Nevada

Connectivity: Destinations within 1/2-Mile

- Lakeview Commons
- County library
- Recreation Center
- Boys and Girls Club
- STMS
- Harrison Avenue Business District
- Safeway Shopping Center
- Class I regional facility north of US 50
- Class I facility on Lyons Avenue
- Ballfields

POTENTIAL CONSTRAINTS

Ownership

- Improvements anticipated to fit within the existing right of way
- Adjacent ownership to the west includes:
 - Private property owners
 - City of South Lake Tahoe

Environmental

- No major constraints anticipated

Traffic

- No major constraints anticipated
- Roadside parking by the ballfields should be evaluated for relocation or redesign

COST CONSIDERATIONS

- Construction Cost: \$840,000
- Non-Construction Cost: \$530,000
- Total Cost: \$1,370,00

IMPLEMENTATION

Short Term

- Evaluate roadside parking by the ballfields for relocation or redesign to eliminate conflicts with active transportation users
- Reduce travel lane widths and provide bike lanes

Long Term

- Remove bike lanes and relocate western curb to the east
- Replace 6-foot sidewalk with a 10-foot Class I bike path

FUNDING OPPORTUNITIES/SOURCES

- City of South Lake Tahoe Capital Improvement Funds (the project is not currently programmed in the adopted City CIP)
- California Active Transportation Program, including Safe Routes to School
- TRPA/TMPO Air Quality Mitigation Fees
- Measure R/S

IMPLEMENTING ORGANIZATION

- City of South Lake Tahoe

PARTNERSHIP OPPORTUNITIES

- El Dorado County (path would serve county library)
- Lake Tahoe Unified School District
- South Lake Tahoe Recreation Facilities Joint Powers Authority (JPA)

RUFUS ALLEN/US 50 INTERSECTION EXISTING CONDITIONS

RUFUS ALLEN/US 50 BOULEVARD

PROJECT AREA

Rufus Allen/US 50 intersection

EXISTING RIGHT OF WAY + MOBILITY FEATURES

- Signalized intersection
- High visibility crosswalk markings on each leg of the intersection
- Accessible, flared curb cuts
- Video detection
- Pedestrian actuated signals
- Class II bike lanes along US 50
- Sidewalk along southern side of US 50
- Class I bike path along northern side of US 50
- Class III bike route along Rufus Allen Boulevard
- Separated bike path along western side of Rufus Allen Boulevard
- Sidewalk along eastern side of Rufus Allen Boulevard

KEY ISSUES + OPPORTUNITIES

- Potential for high volumes of pedestrians and cyclists due to connectivity to destination recreation area of Lakeview Commons



Project location



Intersection of US 50 and Rufus Allen from southeast corner looking toward southwest corner



Aerial view of intersection



The southwest corner of Rufus Allen/US 50 intersection with crosswalk and path



The southwest corner of Rufus Allen/US 50 intersection looking north across US 50

RUFUS ALLEN/US 50 INTERSECTION RECOMMENDATIONS

RECOMMENDATIONS: RUFUS ALLEN/US 50 INTERSECTION

- Widen pedestrian crossings of US 50 to 8 feet
- Provide a green painted crossbike crossing on the western leg of the intersection



Crossbike crossings separate cyclists from pedestrians



Recommended Rufus Allen/US 50 intersection enhancements

RUFUS ALLEN INTERSECTION RECOMMENDATIONS

PROJECT BENEFITS

Safety

- Provides designated location for bicyclists in the crosswalk
- Reduces conflicts between pedestrians and bicyclists in the crosswalk

Public Health

- Regional connection improves physical activity to decrease youth and adult obesity and corresponding blood pressure
- Regional connection improves access to healthy food

Connectivity: Destinations within 1/2-Mile

- Lakeview Commons
- County library
- Recreation Center
- Boys and Girls Club
- STMS
- Harrison Avenue Business District
- Safeway Shopping Center
- Class I regional facility north of US 50
- Ballfields

POTENTIAL CONSTRAINTS/OPPORTUNITIES

Ownership

- Caltrans right of way

Environmental

- No major constraints anticipated

Traffic

- No major constraints anticipated

COST CONSIDERATIONS

- Construction Cost: \$42,000
- Non-Construction Cost: \$40,000
- Total Cost: \$82,000

IMPLEMENTATION

Short Term

- Widen crosswalk

Long Term

- Incorporate green paint to develop crossbike lane and highlight the location of bicyclists in the crosswalk

FUNDING OPPORTUNITIES/SOURCES

- Highway Safety Improvement Program, including the Systemic Safety Analysis Report Program
- CMAQ
- City of South Lake Tahoe Capital Improvement Funds (not currently programmed in adopted City CIP)
- TRPA/TMPO Air Quality Mitigation Fees

IMPLEMENTING ORGANIZATION

- Caltrans

PARTNERSHIP OPPORTUNITIES

- City of South Lake Tahoe

TROUT CREEK/US 50 EAST-WEST CONNECTIVITY EXISTING CONDITIONS

TROUT CREEK/US 50 CONNECTIVITY

PROJECT AREA

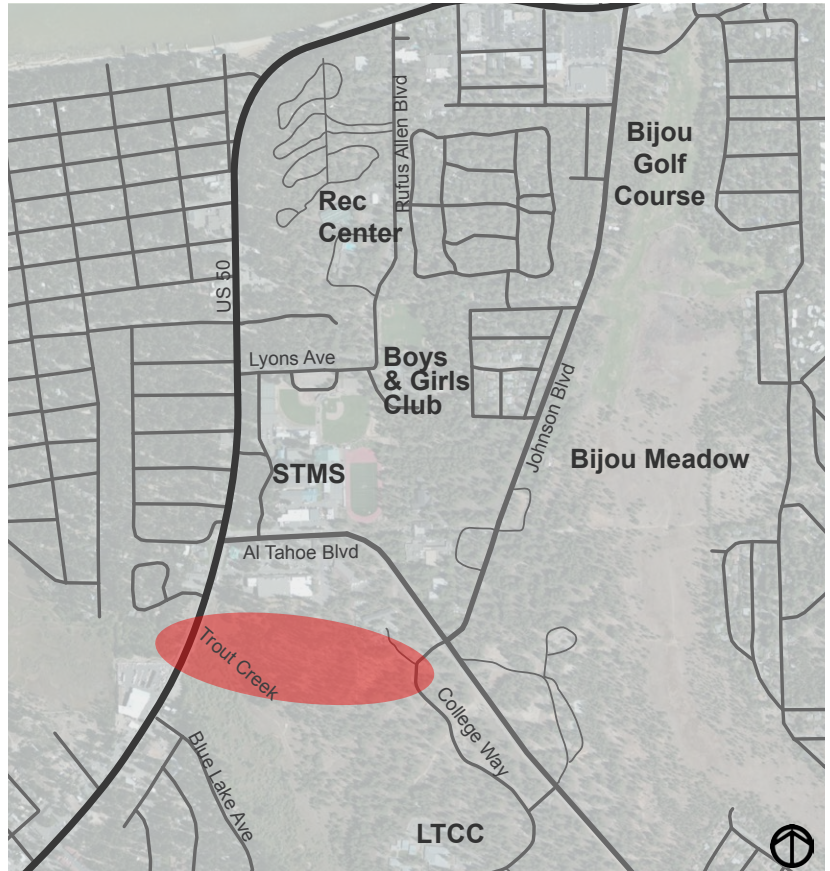
College Way/Al Tahoe Boulevard area west through Trout Creek meadow to US 50

EXISTING RIGHT OF WAY + MOBILITY FEATURES

- Class I bike path west of US 50
- Class I bike path along Al Tahoe Boulevard from Pioneer Trail to College Way
- Class I bike path along College Way
- Informal use trails
- Designated cross country trails around the Lake Tahoe Community College

KEY ISSUES + OPPORTUNITIES

- The US 50/Al Tahoe intersection presents a major barrier to active transportation mobility – anecdotally, it is the second or third busiest intersection in the city and only has crosswalks on three of the four legs
- Active transportation users avoid the US 50/Al Tahoe intersection by riding through parking lots and traveling against traffic on a sidewalk
- The Class I bike path west of US 50 is a highly used regional trail connecting the Camp Richardson recreation area in El Dorado County to a Class I system through South Lake Tahoe that will connect to Stateline, Nevada
- Grade separated crossings can provide greater safety than a signalized intersection



Project location



Cyclists currently cross under the bridge to reach the Class I path west of US 50



Informal trail access under Trout Creek bridge

TROUT CREEK/US 50 EAST-WEST CONNECTIVITY RECOMMENDATIONS

RECOMMENDATIONS: TROUT CREEK/US 50 EAST-WEST CONNECTIVITY

LONG-TERM VISION PROJECT

- Raise US 50 and create a Class I Bike Path that crosses under US 50 at Trout Creek to connect to the existing Class I Bike Path paralleling the west side of US 50

Considerations

- Existing utilities under US 50 could be several feet below road surface
- Water level of Trout Creek could inhibit the use of bike facilities during wet periods unless the bridge was raised
- East-west Class I Bike Path connection from Trout Creek to Al Tahoe Boulevard should be developed in conjunction with the Trout Creek/US 50 crossing

ALTERNATIVE/SUPPLEMENTAL LONG-TERM VISION

- Develop a Class I Bike Path bridge crossing of Trout Creek on the east side of US 50
- Create an east-west Class I Bike Path connection from Trout Creek to Al Tahoe Boulevard
- Create a Class I Bike Path connection to Blue Lake Road from the new bridge



Bike path coordinated with Rock Creek bridge in Broomfield, Colorado

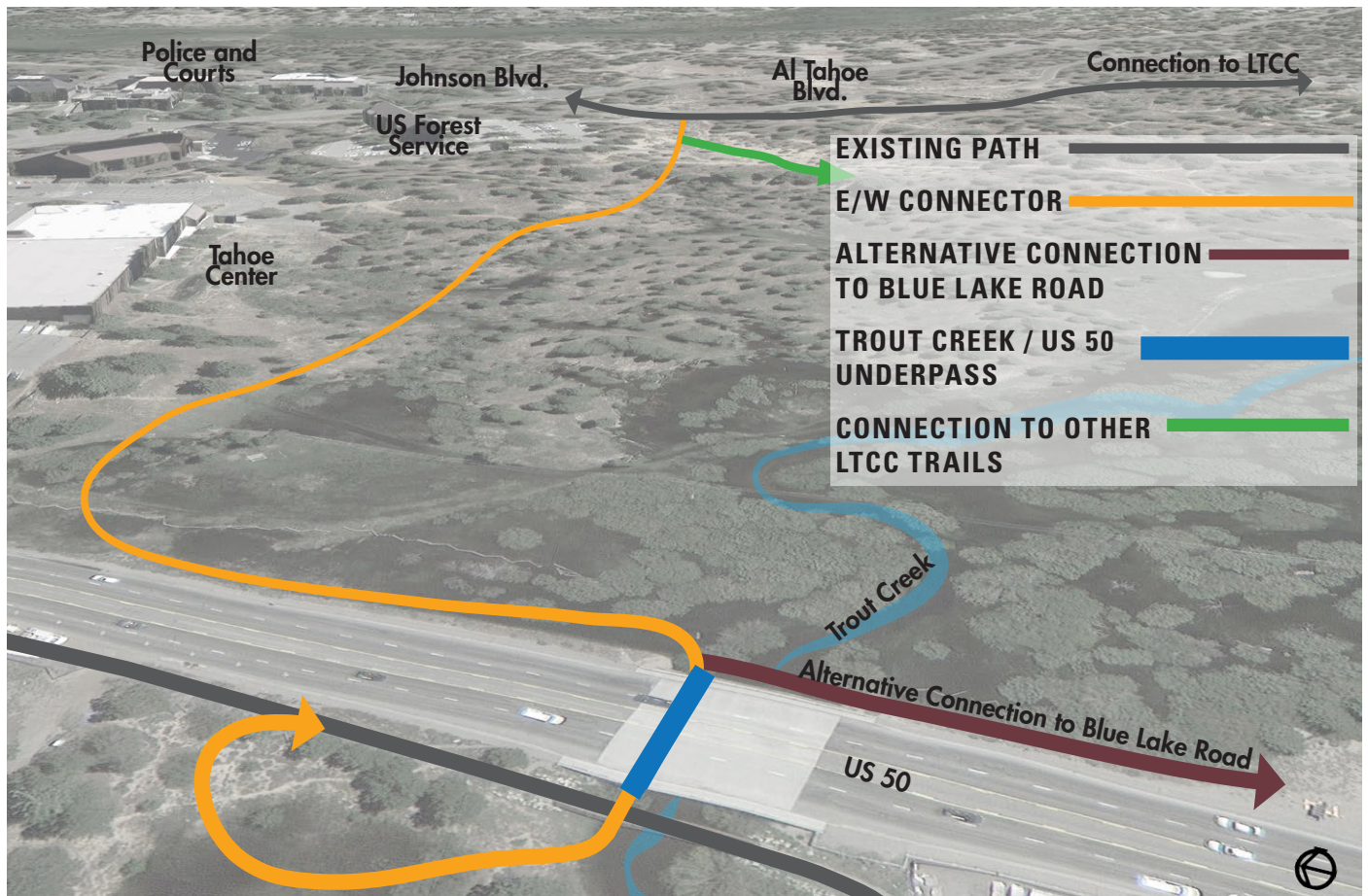


Diagram of east-west connectivity opportunities across US 50 at the Trout Creek bridge

TROUT CREEK/US 50 EAST-WEST CONNECTIVITY RECOMMENDATIONS

PROJECT BENEFITS

Safety

- Provides a fully separated path alternative to using US 50, the route where a majority of incidents occur
- Provides a grade separated crossing of US 50, allowing active transportation users to avoid the US 50/Al Tahoe intersection
- Provides a facility for users with a wide range of skills, including young children
- Completes a gap between the Class I facility along Al Tahoe Boulevard and the regional Class I facility along US 50 that connects to El Dorado County recreation facilities to the west and Stateline, Nevada to the east

Public Health

- Improves direct access to existing and proposed regional Class I facilities without the need to interface with vehicles at a US 50 crossing
- Improves physical activity to decrease youth and adult obesity and corresponding blood pressure
- Improves access to healthy food through regional connectivity
- Improves access to health care facilities through regional connectivity

Connectivity: Destinations within 1/2-Mile

- LTCC
- Bijou Park and Bike Park
- Boys and Girls Club
- STMS
- SLTPD, EDSO and county courthouse
- County library
- Recreation Center
- Tahoe Center
- Lakeview Commons
- St Theresa's Church
- Ballfields

POTENTIAL OPPORTUNITIES/CONSTRAINTS

Ownership

- Alignment runs through publicly-owned lands: LTCC, Caltrans, USFS and CTC

Environmental

- Project area includes SEZs, wetlands, Trout Creek floodway and floodplains
- Willow Flycatcher may be present
- Sensitive vegetation areas and habitat may be present

Traffic

- Provides an off-highway active transportation alternative
- Traffic management during construction will need to be addressed to replace the bridge

COST CONSIDERATIONS

- Construction Cost: \$1,300,000
- Non-Construction Cost: \$1,000,000
- Total Cost: \$2,300,000

IMPLEMENTATION

Short Term

- Evaluate existing bridge structure to identify future replacement need
- Identify utilities in US 50 and approximate depth as part of planned Caltrans projects

Long Term

- Replacement of Trout Creek/US 50 bridge with coordinated active transportation facilities
 - Class I facility underpass
 - Class I facility on east side of new bridge
- Class I trail connections to Al Tahoe Boulevard Class I facility, US 50 Class I facility and Blue Lake Road

FUNDING OPPORTUNITIES/SOURCES

- California Active Transportation Program
- City of South Lake Tahoe Capital Improvement Funds (the project is not currently programmed in the adopted City CIP)
- Measure R/S

IMPLEMENTING ORGANIZATION

- Caltrans
- City of South Lake Tahoe

PARTNERSHIP OPPORTUNITIES

- City of South Lake Tahoe
- Lake Tahoe Community College
- South Lake Tahoe Recreation Facilities Joint Powers Authority (JPA)

CHAPTER 6: OUTCOMES + PLAN CONSISTENCY

CONNECTIVITY PLAN OUTCOMES

CONNECTIVITY PLAN OUTCOMES

The projects recommended as part of the planning process were identified for their ability to significantly enhance active transportation use within the project area and their connectivity to the greater community. Based on the results of the alternatives analysis, mobility enhancement schematic plans were developed for the following locations:

- US 50/Al Tahoe intersection
- Al Tahoe Boulevard from US 50 to Johnson Boulevard
- Al Tahoe/Johnson intersection

In the spring of 2015, a California Active Transportation grant application was prepared for the project. The project was approved for funding through the Active Transportation Program by the California Transportation Commission October 22, 2015.

OVERALL RECOMMENDATIONS

The individual project recommendations and supporting information presented in Chapter 5 revealed a number of consistent connectivity improvements opportunities. These findings, listed below, reflect the need to both complete the City's active transportation network and provide additional amenities to support active transportation use. They are organized according to the facility type and listed by the time frame for potential implementation.

Linear Facilities

Short Term:

- Striping bike lanes
- Adding bike lane green paint at intersections
- Widening bike lanes or creating buffered bike lanes
- Installing bike racks and lockers
- Signage and wayfinding
- Traffic calming through narrowing travel lanes
- Speed enforcement

Long Term:

- Class I bike paths
- Sidewalks
- Lighting

Intersections

Short Term:

- Optimizing signal timing
- Add or adjust bicycle detection systems
- Widening high visibility crosswalks
- Increasing landing zones
- Providing bike boxes and intersection markings

Long Term

- Crosswalks on all intersection legs
- Scramble signal phase where appropriate

IMPLEMENTATION OPPORTUNITIES

Within the City, and more specifically the project area, the City of South Lake Tahoe or Caltrans would likely be the implementing agency for the development of bike and pedestrian infrastructure facilities. Implementing the Connectivity Plan also requires collaboration with regional agencies, LTUSD, LTCC and the private sector.

CONNECTIVITY PLAN OUTCOMES

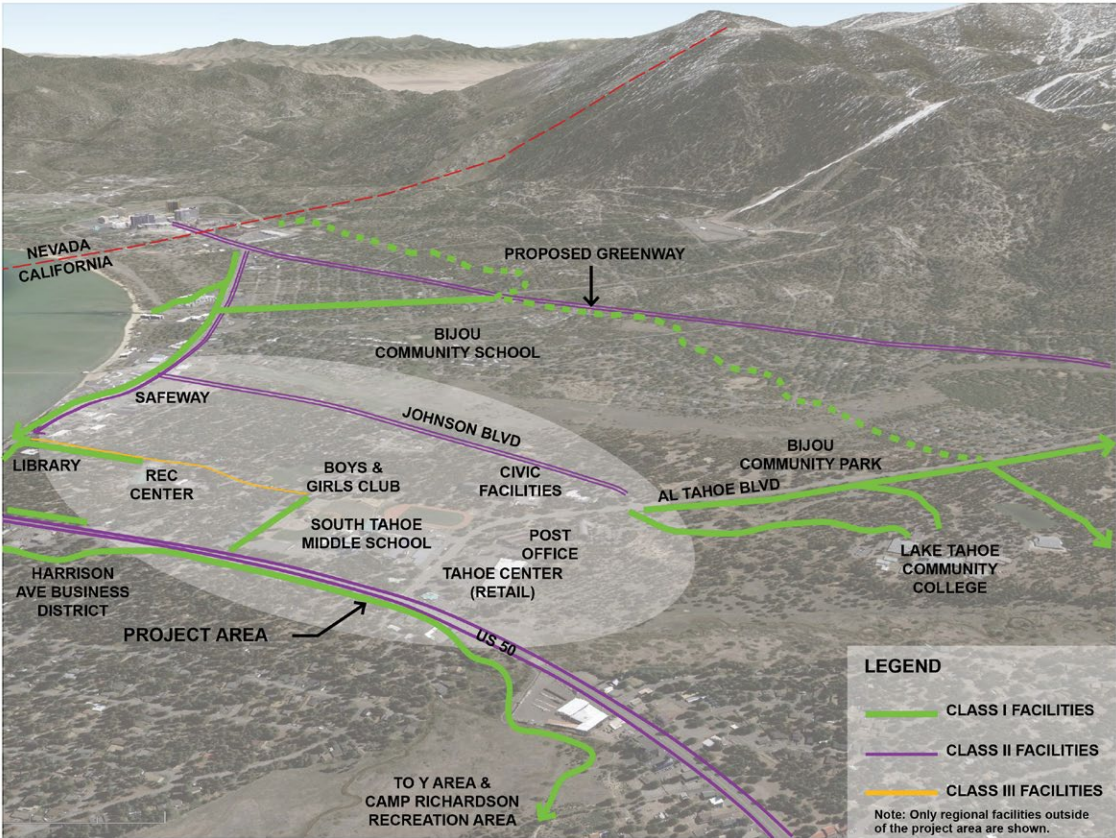


Diagram of existing project area active transportation network showing gaps in the Class I network

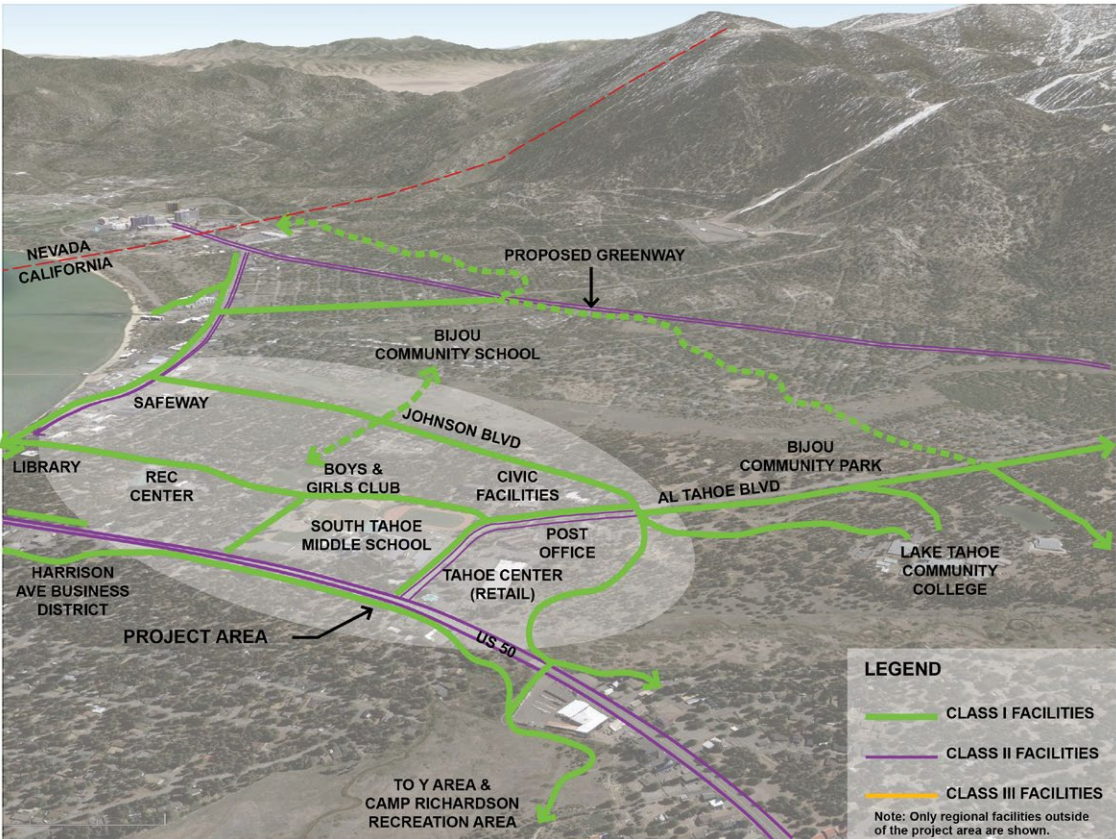


Diagram of recommended connectivity and active transportation system enhancements and their regional connectivity

CONNECTIVITY PLAN OUTCOMES

LTUSD should remain engaged to facilitate improvements on school property while also playing a lead role in the development and implementation of a safe routes to school program that includes education and enforcement. Encouraging and facilitating increased bus use is also important.

LTCC can be engaged to identify mutually-beneficial projects and assist with projects they could help fund.

Private property owners may be engaged to promote the installation of bike racks and lockers. Sidewalks and bike paths could be designed as part of new development, reinvestment in existing properties and utility provider improvement projects. Community groups and community members can also serve as advocates and partners for enhanced active transportation infrastructure.

Potential partners and funding opportunities are included in Chapter 5 as part of the project recommendations' descriptions.

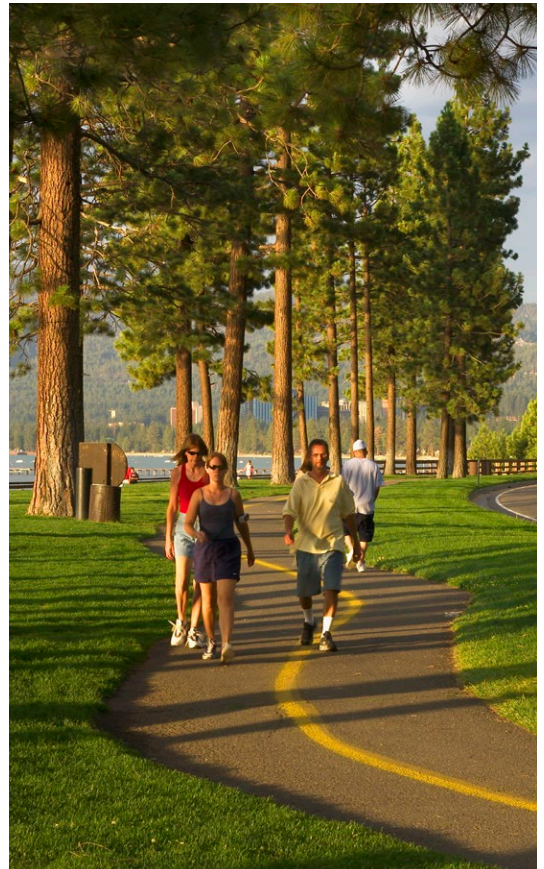
MOVING FORWARD

As the high priority Al Tahoe Boulevard project moves forward, it will be important for the other project recommendations to also gain traction. The project recommendations should be used to inform the update of the regional active transportation plan and the development of LTUSD's Safe Routes to Schools Plan.

The Connectivity Plan's recommended projects should be also be incorporated into updates of the Regional Transportation Plan (RTP), the City's Capital Improvement Program (CIP), the Lake Tahoe Environmental Improvement Program (EIP) and into the new Linking Tahoe: Active Transportation Plan. This integration will be important to support future grant application processes by reinforcing plan consistency.



Enhanced active transportation facilities create safe opportunities for even the youngest riders to cycle



Sections of a Class I bike path network exist in South Lake Tahoe; the Connectivity Plan aims to complete the missing gaps in this central part of town

PLAN CONSISTENCY

RELATIONSHIP TO OTHER PLANS + POLICIES

Other key planning documents for the City and the Region identify active transportation improvements within the study area. Following is a summary of how improvements within the project area align with other plans, policies and recommended projects.

LAKE TAHOE REGION BICYCLE AND PEDESTRIAN PLAN 2010 – TECHNICAL AMENDMENT DEC 2014

The Lake Tahoe Bicycle and Pedestrian Plan (BPP) serves as the Bicycle and Pedestrian element to both the TRPA/TMPO Regional Transportation Plan and the TRPA/TMPO Transportation Plan (part of the TRPA/TMPO Regional Plan). It presents a guide for planning, constructing and maintaining a regional bicycle and pedestrian network and support facilities and programs for the Region.

The BPP is currently undergoing an update (*Linking Tahoe: Active Transportation Plan*) and identifies the following future active transportation improvements within the study area:

- Class I path along Al Tahoe Boulevard from US 50 to Johnson Boulevard
- Class I path connecting the future South Tahoe Greenway Shared Use Trail to Bijou Park
- Class I path connecting Al Tahoe Boulevard to Rufus Allen Boulevard
- Class II bike lanes along Al Tahoe Boulevard

REGIONAL TRANSPORTATION PLAN MOBILITY 2035

The Lake Tahoe Regional Transportation Plan: Mobility 2035 (RTP) was adopted by TRPA/TMPO Governing Boards December 12, 2012 and is part of Lake Tahoe's approved Regional Plan. The RTP identifies the following proposed mobility improvements for the study area:

- Class I path on Al Tahoe Boulevard from US 50 to Johnson Boulevard (Tier 1 Priority Project)
- Class I path connecting the future South Tahoe Greenway Shared Use Trail to Johnson Boulevard
- Class I path connecting Al Tahoe Boulevard to Rufus Allen Boulevard
- Class II bike lanes along Al Tahoe Boulevard

BIJOU/AL TAHOE COMMUNITY PLAN 1995

The Bijou/Al Tahoe Community Plan is the study area's adopted land use policy document and identifies construction of Class I and II facilities in the study area. It provides the following policy guidance, for which the Connectivity Plan's recommendations slightly vary, but are primarily consistent:

- Objective 4: To improve circulation, reduce vehicle trips, and to improve public access to the recreational areas, a network of bike trails and sidewalks shall be constructed.
 - Policy A: Extend and provide additional bike trails within the community plan area and to recreation areas.
 - Policy B: Provide adequate sidewalks in commercial areas which are maintained free of snow on a year round basis.
- Proposed Transportation Improvements:
 - Construct a sidewalk on one side of Al Tahoe Boulevard with a Class I facility on the other side
 - Construct Class II bike lanes on Al Tahoe Boulevard and Johnson Boulevard
 - Construct a Class I path from Treehaven Drive to Rufus Allen Boulevard
 - Construct a wide sidewalk that doubles as a Class I path along Rufus Allen Boulevard
 - Construct a 5-foot sidewalk on the west side of Johnson Boulevard and Lyons Avenue
 - Make signal changes and pedestrian improvements at the US 50/Al Tahoe intersection
 - Make improvements to the Al Tahoe/Johnson intersection
 - Limit the number of driveway accesses to Al Tahoe Boulevard

PLAN CONSISTENCY

2030 SOUTH LAKE TAHOE GENERAL PLAN

In 2011, the City completed an update of their General Plan and created policies that seek to encourage increased use of active modes of transportation through improvements to bicycle and pedestrian connections, traffic calming, safe access to schools, complete streets and overall street design. The Connectivity Plan's project recommendations help move the City forward in achieving its vision for "Transportation and Circulation" by implementing elements consistent with General Plan policies and working to implement enhancements that continue to define South Lake Tahoe as a bikeable and walkable community for both residents and tourists.

The Bicycle and Pedestrian Circulation Diagram identifies the following:

- Al Tahoe Boulevard is an arterial roadway
- Johnson Boulevard, Lyons Avenue and Rufus Allen Boulevard are collector roads
- Future Class I paths along Al Tahoe Boulevard between Johnson Boulevard and US 50
- Future Class I path connecting Al Tahoe Boulevard to Rufus Allen Boulevard
- Future Class II bike lanes along Al Tahoe Boulevard

Specifically, the project aligns with the following General Plan policies related to the City's active transportation network:

- Policy TC-1.1: Overall Street Design
 - The City shall develop all arterial streets to provide infrastructure for vehicles, transit, bicycles, and pedestrians.. The City shall develop a network of routes along collector and local streets for pedestrians and bicyclists.
- Policy TC-1.8: Complete Streets Design
 - The City shall seek to develop or upgrade all State Highways, arterials, and collectors as Complete Streets that accommodate all travel modes. Elements of Complete Streets design include the following:
 - Balanced design that accommodates walking, cycling, transit, driving, parking, snow removal, drainage, storm water management, emergency vehicle access and deliveries.
 - Interconnected network of facilities that increases travel route options and allows short trips to be completed off arterial roadways.
 - Appropriate pedestrian and bicycling facilities that promote safety and maximize access.
- Policy TC-1.9: Alternative Modes and Fuels
 - The City shall promote more effective use of alternative transportation modes (e.g., walking, bicycling, and public transportation) and use of electric/alternative fuel vehicles.
- Policy TC-1.15: Safe Access to Schools
 - The City shall work with the South Lake Tahoe Unified School District and Lake Tahoe Community College to provide safe access to schools (e.g., sidewalks, road crossings, bicycle paths, bus circulation). The City shall coordinate with the schools on submittal of grant requests for Safe Routes to Schools to help underwrite the cost to build and maintain the bicycle facilities connecting to schools.
- Policy TC-1.18: Traffic Calming Measures
 - The City shall explore the installation and effectiveness of traffic calming measures in order to create a safer and more attractive environment for bicyclists and pedestrians. Where it is appropriate the City shall encourage Caltrans to also consider traffic calming measures on State Highways. Examples of traffic calming measures may include, but are not limited to: bulb outs, narrow vehicle lanes, lane reductions and stop signs.
- Policy TC-3.2: Cohesive and Continuous Bicycle and Pedestrian Network
 - The City shall develop a cohesive and continuous public bicycle and pedestrian network that allows convenient and safe travel for people of all abilities, free of major impediments and obstacles, and in compliance with ADA requirements.

PLAN CONSISTENCY

- Policy TC-3.3: Implement the Bicycle Master Plan and Improve Connections
 - The City shall maintain and implement the Bicycle Master Plan and shall improve bicycle and pedestrian connections between all neighborhoods. This shall include linking residential neighborhoods, shopping districts, recreation facilities, employment centers, schools, and other public facilities with a network of safe, continuous, and attractive pedestrian sidewalks, paths, and bikeways.
- Policy TC-3.4: Bike Route Signage
 - The City shall provide appropriate signage, striping, and symbols in accordance with the California Manual of Uniform Traffic Control, for easy rider way-finding through the city bikeway system. The City shall explore the use of sharrows where bicyclists share the road with vehicles.
- Policy LU-1.3: Development Connections
 - The City shall ensure that every project is planned to enhance the physical, visual and social connections to surrounding parcels and to the larger community.

TRPA/TMPO ENVIRONMENTAL IMPROVEMENT PROGRAM 2015

The Environmental Improvement Program (EIP) was developed in 1997 as a partnership to implement projects that protect and improve the natural and recreational resources of the Region. EIP projects are separated into five (5) program areas, including the “Air Quality and Transportation” program area. Bike trail projects are included within that program area in order to create a network of sidewalks, bike lanes and other facilities to create pedestrian and bike-friendly communities. The EIP lists the following active transportation project for the study area:

- Class I path, Class II bike lanes and a sidewalk along Al Tahoe Boulevard from US 50 to Johnson Boulevard

SOUTH LAKE TAHOE PARKS, TRAILS AND RECREATION MASTER PLAN 2014

The Parks, Trails and Recreation Master Plan provides direction for enhancing recreation opportunities for residents and visitors by increasing collaborative efforts and focusing resources. Key recommendations include the development of trails to create an accessible, safe and interconnected recreation system. Priority capital projects include the following facilities which are either within or immediately adjacent to the study area:

- Bijou Bike Park (completed in 2015)
- Al Tahoe sports field improvements
- Recreation/Aquatic Center master plan
- County trail projects (along Tahoe Boulevard/US 50)
- South Tahoe Greenway Shared Use Trail extension
- South Lake Tahoe Recreation Area campground upgrades
- South Lake Tahoe Recreation Area shop relocation

LAKE TAHOE COMMUNITY COLLEGE FACILITIES MASTER PLAN 2014-2020

The Facilities Master Plan is a road map to identify strategies to maintain the college’s existing assets while meeting facility needs for future growth. The document describes pedestrian and bike paths to link future facilities with the active transportation network along Al Tahoe Boulevard and the opportunity to improve bike paths through and around the campus. A 5K running path and enhancements to the Nordic ski track and field sports facilities are identified.

APPENDIX A PUBLIC OUTREACH INFORMATION

South Tahoe Middle School Connectivity Plan Outreach Meetings and Workshops

DATE	EVENT	ENTITY/LOCATION
September 17, 2014	Project Delivery Team Kick-off	TRPA/TMPO Board Room Stateline, NV
September 29, 2014	Project Delivery Team Walking Audit	Project Area South Lake Tahoe, CA
October 16, 2014	Public/Parent/Faculty Walking Audit at School Drop-off Time	South Tahoe Middle School South Lake Tahoe, CA
October 16, 2014	Public/Parent/Faculty Walking Audit Debrief	South Tahoe Middle School South Lake Tahoe, CA
October 16, 2014	Student Survey	South Tahoe Middle School South Lake Tahoe, CA
October 16, 2014	Public Workshop with Keypad Polling	South Tahoe Middle School South Lake Tahoe, CA
October 16, 2014	Community User Survey	On-line/Available in Spanish
October 27, 2014	Stakeholder Meeting	Design Workshop Conference Room Stateline, NV
October 29, 2014	Project Delivery Team Survey Outreach	TRPA/TMPO Board Room Stateline, NV
October 31, 2014	Project Delivery Team Alternatives Workshop	Design Workshop Conference Room Stateline, NV
November 3, 2014	Cafecitos Keypad Polling	South Tahoe Middle School South Lake Tahoe, CA
November 4, 2014	Bicycle Advisory Committee, of the South Lake Tahoe Recreation Facilities Joint Powers Authority Presentation/ Feedback	City Offices South Lake Tahoe, CA
November 10, 2014	Alternatives Review with Lake Tahoe Unified School District	TRPA/TMPO Board Room Stateline, NV
November 11, 2014	Lake Tahoe Bike Coalition Meeting	Tahoe Valley Elementary School South Lake Tahoe, CA
November 12, 2014	Cafecitos Keypad Polling	Tahoe Valley Elementary School South Lake Tahoe, CA
November 13, 2014	Cafecitos Keypad Polling	Sierra House Elementary South Lake Tahoe, CA
November 13, 2014	South Lake Tahoe Recreation Commission Presentation	City Offices South Lake Tahoe, CA
November 19, 2014	Public Workshop with Survey Cards	South Tahoe Middle School South Lake Tahoe, CA
November 20, 2015	Community Alternatives Survey	On-line/Available in Spanish
December 15, 2015	Caltrans Review Meeting	TRPA/TMPO Board Room Stateline, NV
January 5, 2015	Cafecitos Alternatives Survey	South Tahoe Middle School South Lake Tahoe, CA
January 6, 2015	Cafecitos Alternatives Survey	Sierra House Elementary School South Lake Tahoe, CA
January 7, 2015	Cafecitos Alternatives Survey	Tahoe Valley Elementary School South Lake Tahoe, CA
January 29, 2015	Project Delivery Team Alternatives Analysis/Review	Design Workshop Conference Room Stateline, NV
February 12, 2015	Project Delivery Team Alternatives Analysis/Review	Design Workshop Conference Room Stateline, NV

April 21, 2015	Lake Tahoe Unified School District Presentation	South Tahoe Middle School South Lake Tahoe, CA
May 5, 2015	City Council Presentation	City Council Chambers South Lake Tahoe, CA
May 12, 2015	Lake Tahoe Unified School District Presentation	South Tahoe Middle School South Lake Tahoe, CA

Workshop Notifications & Survey Invitations

The following outreach was conducted to let people know about the development of the South Tahoe Middle School Connectivity Plan and alternatives development:

- Articles in Lake Tahoe News, South Tahoe News, The Tahoe Journal
- Event calendars in Tahoe Daily Tribune
- Posted flyers in English and Spanish at local businesses, recreation centers, post offices and the Lake Tahoe Community College
- Provided flyers (English and Spanish) to South Tahoe Middle School students and take-homes to parents
- E-Mail blasts through the following databases
 - City of South Lake Tahoe
 - Tahoe Regional Planning Agency
 - Lake Tahoe Bicycle Coalition
 - Tahoe Area Mountain Biking
 - Sierra Nevada Alliance
- Updates in the Lake Tahoe Unified School District e-mail newsletter
- Facebook page posts and updates on the following pages
 - City of South Lake Tahoe
 - Tahoe Metropolitan Planning Organization
 - Lake Tahoe Bicycle Coalition
 - South Tahoe Middle School PTA
 - Sierra Nevada Alliance
- Project website maintained by the Sustainability Collaborative: <http://sustainabilitycollaborative.org/how-we-work/community-mobility-cm/stms-connectivity/>
- Blog update on Tahoe Arts and Mountain Culture

The TRPA/TMPO and City of South Lake Tahoe e-mail lists have developed over time and include the following groups:

- | | | |
|---|--|---|
| <ul style="list-style-type: none"> • Affordable Housing Representatives • Business community/organizations • Churches • Representatives of people with disabilities • Departments of Transportation • Economic development (state and local) • Large employers • Federal agencies • Federal government • Freight shippers • Historic preservation agencies • Housing agencies • Local government | <ul style="list-style-type: none"> • Low-income and minority households • Adjacent MPOs and RTPAs with which the MPO shares a significant amount of interregional travel • Environmental protection agencies and organizations • Airport operations • Representatives of users of pedestrian walkways and bicycle transportation facilities • Private providers of transportation • Private sector • State and regional agencies • School districts | <ul style="list-style-type: none"> • State government • Transportation agencies • Transportation commissions • Representatives of public transportation employees • Representatives of users of public transportation • Native American tribes • U.S. Forest Service • Wildlife agencies and advocates • Other interested parties and citizens |
|---|--|---|

SOUTH TAHOE MIDDLE SCHOOL CONNECTIVITY PLAN OUTREACH

Individual & Group Meetings

Individual and group meetings were conducted in-person and via phone with the following entities from October 2014 through May 2014:

- Caltrans
- California Highway Patrol
- South Lake Tahoe Police Department
- South Lake Tahoe Fire Department
- El Dorado County Sheriffs Office
- South Tahoe Chamber
- Tahoe Center Property Management
- Tahoe Center Owners
- Post Office Post Master
- LTUSD Superintendent
- South Tahoe Middle School Principal

Project updates were provided at regular meetings for the following groups:

- Lake Tahoe Bicycle Coalition
- Sustainability Collaborative Mobility Group
- Tahoe Area Mountain Biking
- Lake Tahoe Unified School District
- JPA Bike Advisory Committee
- Parks and Recreation Commission

A project update was e-mailed to survey and workshop participants. South Tahoe Now promoted the project update information in an article.

Community Input Methods

Community members were provided a variety of opportunities to give input including both traditional and on-line:

- Keypad polling at public workshops
- Survey cards at public workshops
- On-line surveys (English & Spanish)
- Keypad polling (Spanish) at Cafecitos meetings
- Survey cards (Spanish) at Cafecitos meetings

SOUTH TAHOE MIDDLE SCHOOL CONNECTIVITY PLAN OUTREACH
PUBLIC WORKSHOPS FLYER

SHARE YOUR IDEAS!



Want safer, more walkable, more bikable routes around the Middle School, Bijou Park, and LTCC?

THURSDAY OCTOBER 16

LOCATION

South Tahoe Middle School

WALKABOUT & COFFEE TALK

7:00AM - 9:00AM

WALK the project area and
IDENTIFY safety concerns.

PUBLIC WORKSHOP #1

Existing Conditions

5:30PM - 7:30PM

INTRODUCE, DISCUSS and
IDENTIFY opportunities

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

¡COMPARTE SUS IDEAS!



¿Quieres rutas más seguras a pie y en bicicleta alrededor de la Middle School, Bijou Park, y LTCC?

JUEVES 16 DE OCTUBRE

LUGAR

South Tahoe Middle School

CAMINATA y DISCUSIÓN

7:00AM - 9:00AM

CAMINAR el área del proyecto é
IDENTIFICAR preocupaciones de
seguridad.

SESIÓN PÚBLICA #1

Condiciones Existentes

5:30PM - 7:30PM

INTRODUCIR, CONVERSAR é
IDENTIFICAR oportunidades.

*Financiado por una subvención de On Our Way a
traves de Tahoe Regional Planning Agency*

SOUTH TAHOE MIDDLE SCHOOL CONNECTIVITY PLAN OUTREACH
PUBLIC WORKSHOPS FLYER

PROMOTE SAFETY

Active streets are safe streets with less congestion and more 'eyes on the street'.

HEALTHY LIFESTYLE

Physical activity from walking or biking to school helps students focus better all day long.

CLEANER AIR

Walking or biking to school everyday reduces CO2 and saves money on gas.

BUILDS COMMUNITY

Walking & biking brings families, neighbors and people together.

WANT MORE INFORMATION?

Contact Ben Fish 775-588-5929
or email bfish@designworkshop.com

AREA MAP



WHAT'S YOUR ROUTE? Draw in your favorite trails and pathways on this card and bring it with you to the meeting!

PROMOVER LA SEGURIDAD

Las calles activas son calles seguras con menos congestión y más 'ojos en la calle'.

ESTILO DE VIDA SALUDABLE

La actividad física al caminar o ir en bicicleta a la escuela ayuda a los estudiantes a concentrarse durante todo el día.

AIRE MÁS LIMPIO

Caminar o ir en bicicleta a la escuela diariamente reduce el CO2 y ahorra dinero en gasolina.

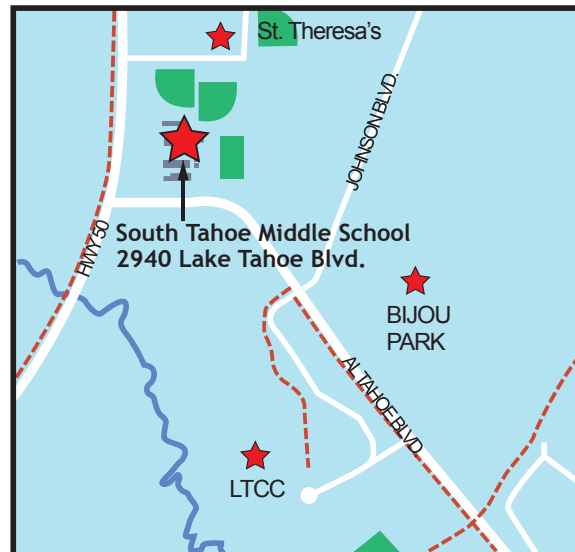
FORTALECE LA COMUNIDAD

El caminar o usar bicicleta les une a las familias, a los vecinos y a las personas.

¿MÁS INFORMACIÓN?

Contactar a Ben Fish 775-588-5929
o al correo bfish@designworkshop.com

MAPA DEL AREA



¿CUÁL ES TU RUTA? ¡Dibuje en esta tarjeta sus senderos y caminos preferidos y llévela con usted a la reunión!

SOUTH TAHOE MIDDLE SCHOOL CONNECTIVITY PLAN OUTREACH

PUBLIC WORKSHOPS FLYER

PUBLIC WORKSHOP



Prioritize safer, more walkable, and more bikable route options around the Middle School, Bijou Park, and LTCC

WEDNESDAY NOVEMBER 19

PUBLIC WORKSHOP #2

- REVIEW survey results
- DISCUSS potential alternatives
- CHOOSE your favorite alternatives

LOCATION

South Tahoe Middle School
Multi-Purpose Room

TIME

5:30 PM - 7:30 PM

For More Information:

Contact Ben Fish
775-588-5929 or bfish@designworkshop.com

*Project funded by an On Our Way Grant from the
Tahoe Regional Planning Agency*

TALLER PÚBLICO



Dar prioridad a rutas más seguras a pie y bici alrededor de la Escuela Intermedia, el Parque Bijou, y la LTCC.

MIÉRCOLES 19 DE NOVIEMBRE

TALLER PÚBLICO NO. 2

- REPASAR resultados de la encuesta
- CONVERSAR posibles alternativas
- ESCOGER sus alternativas favoritas

UBICACIÓN

Escuela Intermedia de South Tahoe
Cuarto Multi-Usa

HORA

5:30 PM - 7:30 PM

Para más información:

Contactar a Ben Fish
775-588-5929 ó bfish@designworkshop.com

*Financiado por una subvención de On Our Way a través
de la Agencia de Planificación Regional de Tahoe*

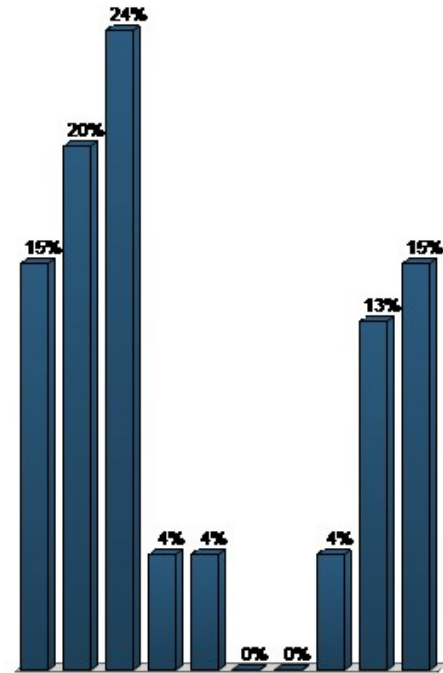
SOUTH TAHOE MIDDLE SCHOOL CONNECTIVITY PLAN OUTREACH

Results of Public Workshop Keypad Polling 10/16/2014 (20 out of 20 participants)

4/30/2015

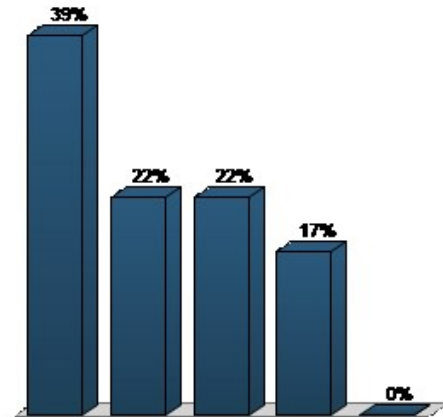
**11. Identify the top 3 barriers that prevent you from walking/biking in or through the project area more often?
(Multiple Choice - Multiple Response)**

	Responses	
	Percent	Count
Lack of facilities	15.22%	7
Crossings/intersections	19.57%	9
Traffic safety	23.91%	11
Lack of information	4.35%	2
Time or distance	4.35%	2
Bike maintenance	0%	0
Places to rest	0%	0
Lack of sidewalks	4.35%	2
Comfort and security	13.04%	6
Weather	15.22%	7
Totals	100%	46



12. How comfortable do you feel bicycling and/or walking in the following conditions: (least comfortable to most comfortable) 5 lane connector road with no bicycle facilities (Multiple Choice)

	Responses	
	Percent	Count
Least comfortable	38.89%	7
Uncomfortable	22.22%	4
Neutral	22.22%	4
Comfortable	16.67%	3
Most comfortable	0%	0
Totals	100%	18



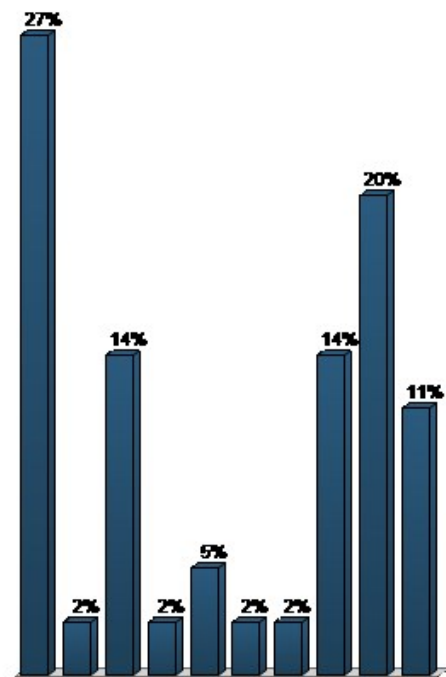
SOUTH TAHOE MIDDLE SCHOOL CONNECTIVITY PLAN OUTREACH

Results of Cafecitos Keypad Polling 11/3/2014 (14 out of 14 participants)

4/30/2015

7. ¿Qué problemas afectan a la decisión de su hijo de ir o no a pie o en bicicleta a la escuela? (check all that apply) (Multiple Choice - Multiple Response)

	Responses	
	Percent	Count
La distancia	27.27%	12
La comodidad de conducción	2.27%	1
La hora (temprana hora de inicio)	13.64%	6
Actividades antes y después de la escuela	2.27%	1
La velocidad del tránsito	4.55%	2
La cantidad del tránsito	2.27%	1
La falta de caminos	2.27%	1
La seguridad in las intersecciones	13.64%	6
El tiempo	20.45%	9
Otros	11.36%	5
Totals	100%	44



SOUTH TAHOE MIDDLE SCHOOL CONNECTIVITY PLAN OUTREACH

E-Mail Blast through Local Bike Organization

From: Lake Tahoe Bicycle Coalition <info@tahoebike.ccsend.com> on behalf of Lake Tahoe Bicycle Coalition <info@tahoebike.org>
Sent: Tuesday, October 14, 2014 9:25 AM
To: Stephanie Grigsby
Subject: YOUR INPUT IS NEEDED! (South Lake Tahoe Area Connectivity Planning)

Having trouble viewing this email? [Click here to view this message in your browser.](#)

You are receiving this email because you have expressed an interest in Lake Tahoe Bicycle Coalition. Don't forget to add info@tahoebike.org to your address book so we'll be sure to land in your inbox!

You may [unsubscribe](#) if you no longer wish to receive our emails.



INPUT IS NEEDED! (South Lake Tahoe Area Connectivity Planning)

South Lake Tahoe Area Connectivity Planning

Dear Friends,

The Lake Tahoe Unified School District, in cooperation with the Tahoe Regional Planning Agency, City of South Lake Tahoe and the Lake Tahoe Sustainability Collaborative Community Mobility group, will conduct a series of public outreach opportunities for community members, parents and students to help identify opportunities to create safer, more walkable and bikeable routes around the South Tahoe Middle School (STMS), Bijou Park and Lake Tahoe Community College. The project is funded by the On Our Way Grant from the Tahoe Regional Planning Agency.

Please join in these opportunities to discuss current conditions and safety concerns, and identify opportunities for positive alternatives.

SOUTH TAHOE MIDDLE SCHOOL CONNECTIVITY PLAN OUTREACH

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Safe connections to STMS being plotted

PUBLISHED: OCTOBER 13, 2014 BY: ADMIN,

IN: [FEATURED ARTICLES](#), [NEWS](#), [3 COMMENTS](#)

By Kathryn Reed

On a good day maybe three dozen of the nearly 800 students at South Tahoe Middle School ride their bike to school. Some walk, even more get a ride either from their parents, friends' parents or via the school bus.

For anyone who has been by the school in the morning or afternoon it's easy to see why parents may not want their child to walk or bike to the campus. The school fronts a state highway and has a four-lane major thoroughfare on one side.

Along Al Tahoe Boulevard the sidewalks are sporadic. It's most dangerous by the school because of the bus barn on the school side and all the driveways to the shopping center on the other side.



Planners want to make it safer to bike and walk to South Tahoe Middle School. Photo/LTN file

Because this is the only 6-8 school in South Lake Tahoe students are coming from all parts of the district. And the routes to get there are not ideal.

This is why a group in town is looking at how to improve the trail system in the area to make it safer for students.

"At the end of it we will have a full connectivity plan," Gavin Feiger with the Community Mobility Group told *Lake Tahoe News*. "Consultants will provide alternatives about how to connect to surrounding neighborhoods and the broader community."

His group is part of the larger Lake Tahoe Sustainability Collaborative. The collaborative was awarded a \$153,625 On Our Way grant from the Tahoe Regional Planning Agency. Experts associated with Safe Routes to Schools

are part of the team.

Enough money is in the pot to pay for design and engineering plans. The goal is not to talk about what could be done, but to have a plan ready to build.

This week begins a series of meetings and workshops to gather input from the public about possible improvements to get kids to and from school as well as how to tie the school to the existing trail system.

Safety is a huge concern.

"It is a problem not only in that area but elsewhere in the city," Police Chief Brian Uhler told *Lake Tahoe News*. "Anything that can be done to improve bike trails, pedestrian pathways, signage, and increasing the distance from 4,000-pound vehicles and bicycles or walkers is going to help."

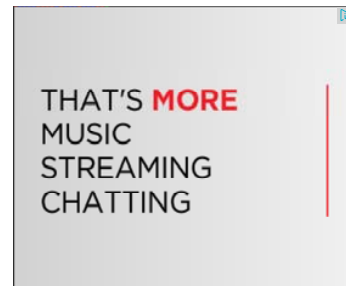
With how trails suddenly stop, people often find themselves in precarious situations, even going against the flow of traffic.

Principal Beth Delacour said the biggest problem she sees is students not using the crosswalk between STMS and Rite-Aid. Delacour is curious to hear what the activists come up with, as she was just brought into the loop in the last two weeks. She will be administering a survey to students to get their feedback about trail connections in and around the South Lake Tahoe school.

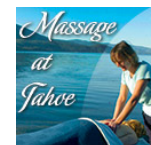
The mobility group earlier this month conducted traffic counts during the week and weekend to see how many people were using trails by STMS and which ones.

Going forward planners see this area of town being more of a hub, especially with the addition of Lakeview Commons, improvements to Harrison Avenue and potential growth at Lake Tahoe Community College. They would like the trails to logically connect to the recreation center, library, ball fields, Bijou Community Park and surrounding businesses.

After this week's meetings there will be a workshop in November where alternatives will be presented. The final plans and projects will be chosen, with appropriate design and engineering work done so construction funding could be applied for in May.



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SOUTH TAHOE MIDDLE SCHOOL CONNECTIVITY PLAN OUTREACH

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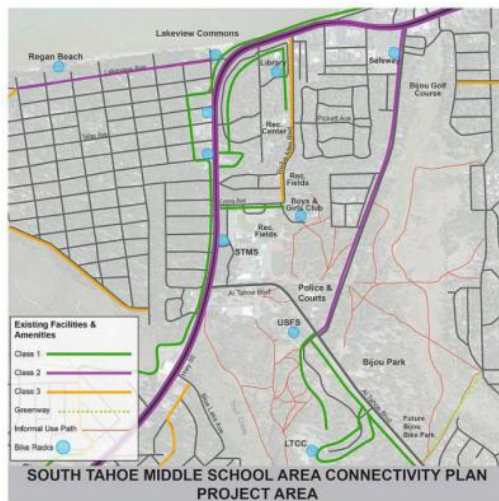
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South Tahoe Middle School Connectivity Plan Workshop

Submitted by paula on Sat, 11/08/2014 - 8:56pm

[bijou](#) [bijou park](#) [bike paths](#) [bikeable](#) [college](#) [community](#) [Community](#) [community college](#) [Community members](#) [connectivity](#) [connectivity plan](#) [design workshop](#) [grants](#) [Lake Tahoe](#) [Lake Tahoe Community College](#) [lake tahoe unified](#) [lake tahoe unified school district](#) [ltusd](#) [meeting](#) [Middle School](#) [planning presentation](#) [school](#) [school district](#) [south lake tahoe](#) [south tahoe](#) [south tahoe middle school](#) [stms](#) [students](#) [Tahoe](#) [tahoe regional planning agency](#) [TRPA](#) [unified school district](#) [walkable](#) [workshop](#)



EVENT DATE:

November 19, 2014 - 5:30pm

On Our Way Grant Program

The Lake Tahoe Unified School District (LTUSD) was awarded over \$150,000 to look into providing safer, more walkable and bikeable off highway routes around South Tahoe Middle School (STMS), Bijou Park and Lake Tahoe Community College. The Tahoe Regional Planning Agency (TRPA) awarded the grant as part of their \$500,000 "On Our Way" program grants.

Another public workshop to get feedback from the community will be held on Wednesday, Nov. 19, from 5:30 p.m. to 7:30 p.m. in the STMS Multi-purpose room.

During the workshop, a short presentation will provide the results of the recent survey and give an overview of design alternatives. The alternatives incorporate the community input received from surveys and input from the first public meeting in October. All interested community members, parents and students are encouraged to attend and give input on their preferred alternatives to move forward.



[Website Link](#)

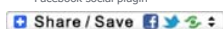


Add a comment...

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Posting as **Stephanie Grigsby** ▾ [Comment](#)

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SOUTH TAHOE MIDDLE SCHOOL CONNECTIVITY PLAN OUTREACH

Public Workshop Survey Card Example

South Tahoe Middle School Connectivity Plan Public Workshop Questionnaire/Comment Card

November 19, 2014; 5:30pm – 7:30pm Name & Email:

1. Out of the options shown today for Al Tahoe Blvd. from US 50 to Johnson Boulevard, which is your most preferred?

☐ AT 1: No road diet with sharrows
☐ AT 2: 4-lane road diet with Class II bike lanes
☒ AT 3: 3-lane road diet with Class I path

Comments:

2. Out of the options shown today for Johnson Blvd. which is your most preferred?

☐ JD1: Widen Class II bike lanes
☒ JD2: Class I path

Comments:

put on sunny side of road

3. Out of the options shown today for Rufus Allen Blvd. which is your most preferred?

☐ RA 1: Class II bike lanes
☒ RA 2: Class I path

Comments:

parking is an issue & problem that needs addressed

4. Out of the options shown today for the Al Tahoe/US 50 intersection which is your most preferred?

☐ AT/US 50 Baseline
☐ AT/US 50 Enhanced

Comments:

adding more crossing would need signage

5. Out of the options shown today for Lyons/US 50 which is your most preferred?

☐ LY/US 50 Baseline
☒ LY/US 50 Enhanced

Comments:

6. Rank your top three priority projects for bike and pedestrian improvements? (label 1-3)

☐ Lyons Avenue recommendations

☐ Middle School circulation recommendations

1 Al Tahoe Blvd. from US 50 to Johnson Avenue
(your preferred option (AT 1, AT 2, or AT 3) as selected above)

☐ Johnson Blvd. (your preferred option (JB 1 or JB 2) option as selected above)

2 Rufus Allen Blvd. (your preferred option (RA 1 or RA 2) as selected above)

3 Al Tahoe Blvd. from Johnson Blvd. to the future
Greenway recommendations

☐ E/W Connector through Bijou Meadow to Rufus Allen

☐ E/W Connector behind USFS & UPS and Crossing
US 50 at Trout Creek recommendations

☐ Al Tahoe/US 50 Intersection (your preferred option
(AT/US 50 Baseline or AT/US 50 Enhanced) as selected above)

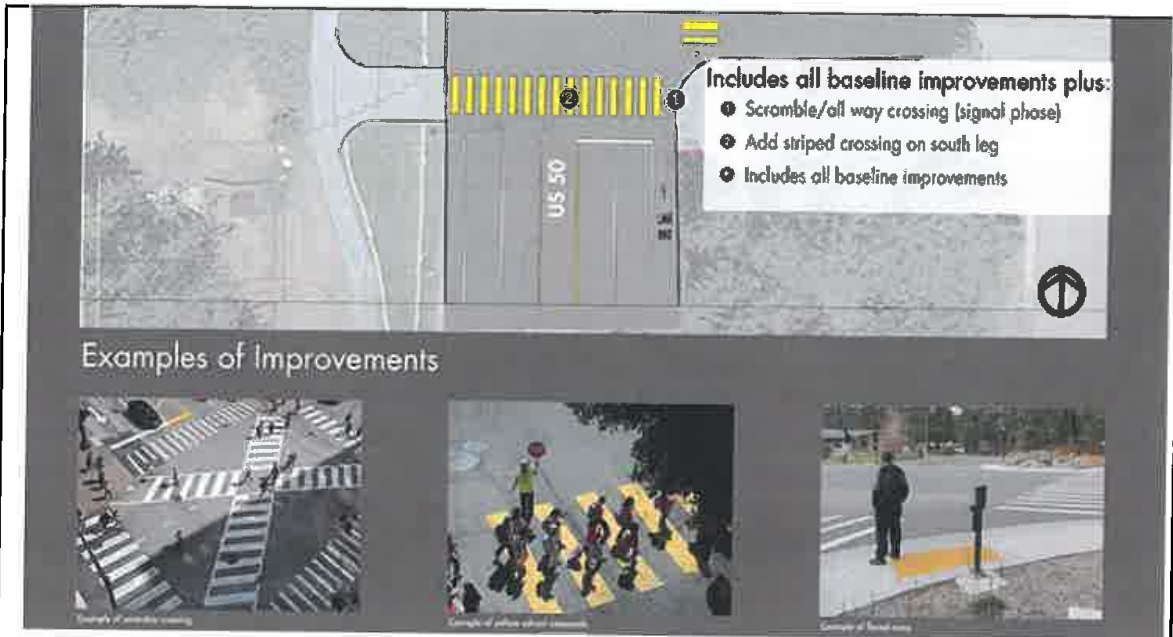
☐ Lyons/US 50 Intersection (your preferred option
(LY/US 50 Baseline or LY/US 50 Enhanced) as selected above)

☐ Rufus Allen/US 50 Intersection recommendations

Please continue on the back.

SOUTH TAHOE MIDDLE SCHOOL CONNECTIVITY PLAN OUTREACH

Cafecitos Survey Card Example



***6. Identifique la ubicación de sus tres proyectos preferidos para mejoramientos para bicicletas y peatones. (Consulte el mapa de abajo)**

- ☐ Recomendaciones para Lyons Avenue
- ☐ Recomendaciones para la circulación en la Escuela Intermedia
- ☒ Al Tahoe Blvd. de US 50 a Johnson Avenue (su opción preferida: [Pregunta 1])
- ☐ Johnson Blvd. (su opción preferida: [Pregunta 2])
- ☐ Rufus Allen Blvd. (su opción preferida: [Pregunta 3])
- ☐ Recomendaciones para la intersección Rufus Allen/US 50
- ☐ La intersección Al Tahoe/US 50 (su opción preferida: [Pregunta 4])
- ☐ La intersección Lyons/US 50 (su opción preferida: [Pregunta 5])
- ☐ Conector E/O a través del Prado Bijou a Rufus Allen
- ☐ Conector E/O detrás del USFS & USPS y cruzando US 50 en Trout Creek
- ☐ Conector N/S de Al Tahoe al Club de Niños/Lyons Ave
- ☐ Al Tahoe Blvd. de Johnson a LTCC

SOUTH TAHOE MIDDLE SCHOOL CONNECTIVITY PLAN OUTREACH

Sign-in Sheets

South Tahoe Middle School Area Connectivity Plan

Public Workshop, Thursday, October 16, 2014, 5:30-7:30 PM

South Tahoe Middle School, Multi-Purpose Room

South Lake Tahoe, CA

SIGN-IN

Please Print **NAME**

EMAIL – TELEPHONE

Name	Agency/Organization (if applicable)	Email Address	Phone Number
DEVIN MIDDLEBROOK	TRPA	dmiddlebrook@trpa.org	575-589-5230
Rebecca Bryson	Small World	rebeccabryson27@yahoo.com	
Scott VALENTINE	LTCC	VALENTINE@LTCC.EDU	
Larry Green	LTHSD/LTCC	Dr.Larry.Green@gmail.com	
Katharine Miller	EDC Library	katharine.miller@edc.gov.us	
Karen Fink	TRPA		
		PerryRobray@yahoo.com	
Karen Houser	Lake Tahoe Biotope Coalition	karenhouserb@gmail.com	
Marilee Movins	LTSLT	marilee@keeptahoeblue.org	530.541.5388
Bonnie Turnbull	resident	BROWN@BUL@gmail.com	
Pete Fink	JPA bike Advisory Committee	pedaling77@hotmail.com	572-4587
Sherry Hao	LTBC	sherryhao@gmail.com	
Chris Carney	LTBC	chris.n.carney@gmail.com	202.281.1565

South Tahoe Middle School Area Connectivity Plan

Public Workshop, Thursday, October 16, 2014, 5:30-7:30 PM

South Tahoe Middle School, Multi-Purpose Room

South Lake Tahoe, CA

SIGN-IN

Please Print **NAME**

EMAIL – TELEPHONE

Name	Agency/Organization (if applicable)	Email Address	Phone Number
Shay Navarro	School Board	navarro@stmsd.com	577-4857
Shay Navarro	TRPA	snavarro@trpa.org	775.587.5252

SOUTH TAHOE MIDDLE SCHOOL CONNECTIVITY PLAN OUTREACH

Sign-in Sheets

South Tahoe Middle School Area Connectivity Plan

Walkabout, Thursday, October 16, 2014, 7:00-9:00 AM

South Tahoe Middle School

South Lake Tahoe, CA

SIGN-IN

Please Print **NAME**

EMAIL - TELEPHONE

Name	Agency/Organization (if applicable)	Email Address	Phone Number
		Perry R Obraya@tahoea.com	
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Ken Fish	DW	kfish@designworkshop.com	775.588.5929
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Morgan Berry	TRPA	mberry@trpa.org	175 587 5200
STEVE TESHARA	SS/TWA	STEVE.TESHARA@twi.com	775-588-2488
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Paula Peterson	South Tahoe R22	paula@southtahoer22.com	530 307 0900
Rebecca Bryson	Small World	rebeccabryson27@yahoo.com	
Principae Delacour			
Superintendent Tarwater			

SOUTH TAHOE MIDDLE SCHOOL CONNECTIVITY PLAN OUTREACH

Sign-in Sheets

South Tahoe Middle School Area Connectivity Plan
Public Workshop #2, Wednesday, November 19, 2014, 5:30-7:30 PM
South Tahoe Middle School, Multi-Purpose Room
South Lake Tahoe, CA

SIGN-IN

Please Print NAME

EMAIL - TELEPHONE

Name	Agency/Organization (if applicable)	Email Address	Phone Number
DEVIN MIDDLEBROOK	TRPA	dmiddlebrook@trpa.org	775-589-5230
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STEVE TESNARA	SSTMA	STEVE TESNARA@gmail.com	588-2488
Morgan Bury	TRPA		
Sherry Hao	LTBC + CU (LTSC)	sherryhao@gmail.com	760-365-7802
Karen Houser	LTBC	karenhouser6@gmail.com	530-518-8756
Gavin Feiger			
Erin Kays	Tahoe Ditch Tribune	Erin@tahoe-ditch-tribune.com	570-578-8875
Charles Nelson	LTBC	charlesnelson@sbccglobal.net	543-1890
Gae Rae Jordan	CIC	GaeRae.Jordan@tahoe.ca.gov	525-1505
Kelly Brosch	Community Member	kelbrotahoe@yahoo.com	542-4244
Garrett Villanueva	USFS	GarrettV@hotm.il.com	541-3874
Shay Navarro	TRPA	snavarro@trpa.org	775-589-5282

South Tahoe Middle School Area Connectivity Plan
Public Workshop #2, Wednesday, November 19, 2014, 5:30-7:30 PM
South Tahoe Middle School, Multi-Purpose Room
South Lake Tahoe, CA

SIGN-IN

Please Print NAME

EMAIL - TELEPHONE

Name	Agency/Organization (if applicable)	Email Address	Phone Number
Bonnie Turnbull			
Dan Sussman			
Rebecca B...			
Patricia Sussman		patricia_hickson@yahoo.com	530-401-1397
Pete Fink			

SOUTH TAHOE MIDDLE SCHOOL CONNECTIVITY PLAN OUTREACH

Sign-in Sheets

South Tahoe Middle School Area Connectivity Plan

Public Workshop #2, Wednesday, November 19, 2014, 5:30-7:30 PM

South Tahoe Middle School, Multi-Purpose Room

South Lake Tahoe, CA

SIGN-IN

Please Print NAME

EMAIL – TELEPHONE

Name	Agency/Organization (if applicable)	Email Address	Phone Number
Jack Landy		jacques.landy@gmail.com	

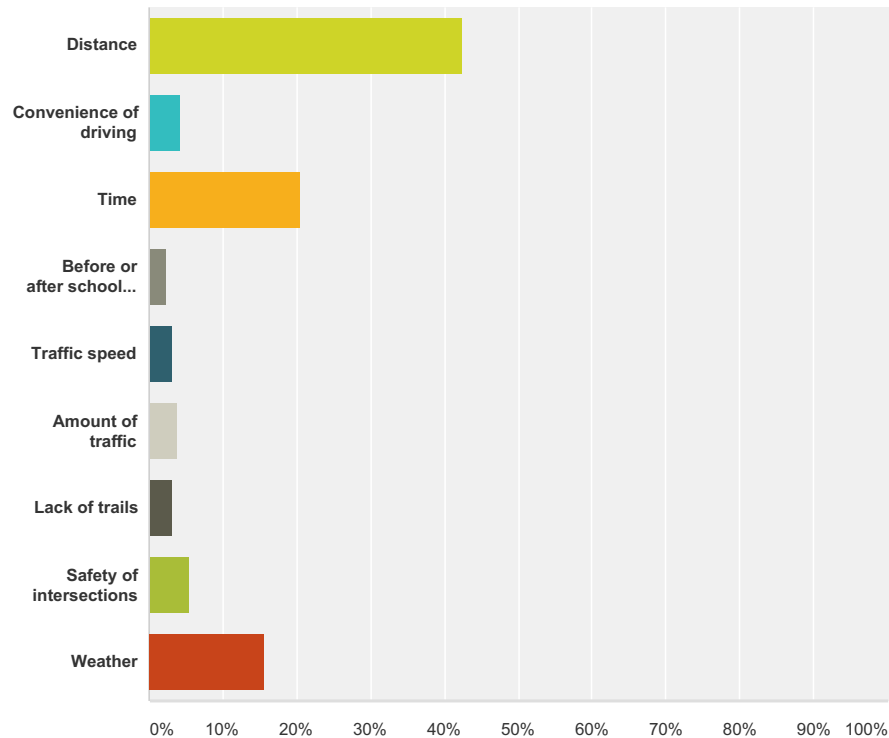
2014 SOUTH TAHOE MIDDLE SCHOOL CONNECTIVITY STUDENT SURVEY

South Tahoe Connectivity Plan Survey 2014 and the Tahoe Regional Planning Agency want your thoughts on improving walking and bicycling to school. This survey will take about 5 minutes to complete.

Survey Monkey

Q7 What issues affect your decision to walk/bike to school.

Answered: 461 Skipped: 14



Answer Choices	Responses
Distance	42.30% 195
Convenience of driving	4.12% 19
Time	20.39% 94
Before or after school activities	2.39% 11
Traffic speed	3.04% 14
Amount of traffic	3.69% 17
Lack of trails	3.04% 14
Safety of intersections	5.42% 25
Weather	15.62% 72
Total	461

2014 SOUTH TAHOE MIDDLE SCHOOL CONNECTIVITY STUDENT SURVEY

South Tahoe Community Foundation and the Tahoe Regional Planning Agency want your thoughts on improving walking and bicycling to school. This survey will take about 5 minutes to complete.

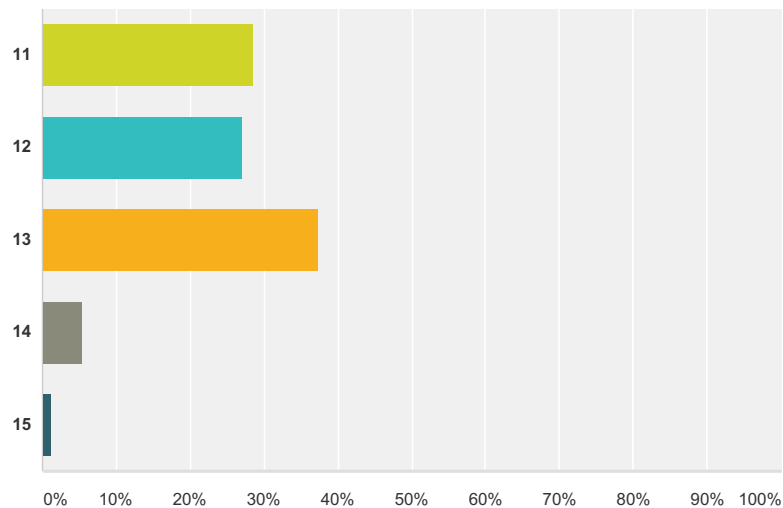
Q8 Where around the school would you like to see improvements for walking and bicycling?

Answered: 279 Skipped: 196

Answer Choices	Responses
Location 1	98.21% 274
Existing Challenge	79.93% 223
Location 2	65.23% 182
Existing Challenge	60.57% 169
Location 3	53.05% 148
Existing Challenge	48.39% 135

Q9 How old are you?

Answered: 474 Skipped: 1



Answer Choices	Responses
11	28.69% 136
12	27.22% 129
13	37.34% 177
14	5.49% 26
15	1.27% 6
Total	474

2014 SOUTH TAHOE MIDDLE SCHOOL CONNECTIVITY STUDENT SURVEY

Where around the school would you like to see improvements for walking and bicycling?

Answer Options	Response Percent
Location 1	97.9%
Existing Challenge	80.4%
Location 2	64.0%
Existing Challenge	59.8%
Location 3	51.7%
Existing Challenge	46.8%
answered question skipped question	

A Wordle was developed from the below student survey responses to the question to identify three locations where they would like to see improvements to promote better walking and biking and what the improvements should be. (Inappropriate responses were removed.)

Number	Response Date	Location 1	Existing Challenge	Location 2	Existing Challenge	Location 3	Existing Challenge
1	Oct 16, 2014 3:44 PM	by the park					
2	Oct 16, 2014 3:43 PM	by the park					
3	Oct 16, 2014 3:38 PM	YOUR HOUSE	BLACK JUSES	BLACK JUSES	BLACK JUSES	BLACK JUSES	BLACK JUSES
4	Oct 16, 2014 3:37 PM	Bijou Park	walking students some times dont look when crossing planes	Elderado Beach	walking	Safe Way	biking
5	Oct 16, 2014 3:36 PM	where the bus garage is					
6	Oct 16, 2014 3:34 PM	jetpacks		frogs	evil robots	subway	
7	Oct 16, 2014 3:34 PM	Around Tennis Courts	Cracks are dangerous	Long Lap bikerack	Rocks and dangerous bushes cars	door	
8	Oct 16, 2014 3:34 PM	fence					
9	Oct 16, 2014 3:33 PM	in front of school	cars	around the bus exit	no bike trail	basketball court at the entrance of school	no bike trail
10	Oct 16, 2014 3:33 PM	in front of school	walking in front of school	behind the track	walking behind	near the bus entry	walking near the bus entry
11	Oct 16, 2014 3:33 PM	no	yes	no	yes	no	yes
12	Oct 16, 2014 3:32 PM	Where people cross the highway.	People don't cross at the crosswalk. we had to go around last year instead of going through the rocks so were that white fence is we should put a walk way through there	I don't notice anything.	I don't notice anything.	I don't notice anything.	I don't notice anything.
13	Oct 16, 2014 3:32 PM	next to the 6th grade doors were the white fence is					
14	Oct 16, 2014 3:31 PM	in front of school	make bike or walk lane bigger	the left side of school	make a bike or walk lane	behind school	make a bike lane going on school property but to the back of the school next to the MPR
15	Oct 16, 2014 3:29 PM	In front of school	Its hard to walk to school with all the cars.				
16	Oct 16, 2014 3:29 PM	In front of school	Its hard to walk to school with all the cars				
17	Oct 16, 2014 3:28 PM	Sidewalk by the front of the school	Parents picking up kids	Sidewalk by tennis court	Amount of traffic	Opening of the gates	Buses leaving the school
18	Oct 16, 2014 3:27 PM	idk	idk	idk	IDK	IDK	IDK
19	Oct 16, 2014 3:27 PM	hwy 50	traffic	outside school	cars		
20	Oct 16, 2014 3:26 PM	the entrance	bike racks				
21	Oct 16, 2014 3:26 PM	at the track	none	bus garage	none	front office	none
22	Oct 16, 2014 3:25 PM	track	make it better	woods	less cold	fence	get rid of it
23	Oct 16, 2014 3:25 PM	?	?	?	?	?	?
24	Oct 16, 2014 3:25 PM		to much cars				
25	Oct 16, 2014 3:25 PM		not enough trails		to far to ride bike from meyers		
26	Oct 16, 2014 3:25 PM	the side where right aide is	more pathes				
27	Oct 16, 2014 3:24 PM	hwy 50	it is hard to get there	school office	it is hard to lock your bike up with a small bike rack	the rack	the rack is hard to get to because the cars always are coming and going through
28	Oct 16, 2014 3:24 PM	Maybe a trail	no trail	cross walk	no crosswalk		
29	Oct 16, 2014 3:24 PM	sidewalk next tennis coruts	make it smother				
30	Oct 16, 2014 3:23 PM	i donno know					
31	Oct 16, 2014 3:23 PM	front of the school on the path					
32	Oct 16, 2014 3:23 PM	walk.					
33	Oct 16, 2014 3:23 PM	front of the school on path walk	more sidewalks				
34	Oct 16, 2014 3:23 PM	everywhere	none	none	none	none	none
35	Oct 16, 2014 3:22 PM	By the flag pole	Bad street				
36	Oct 16, 2014 3:22 PM	NA	NA	NA	NA	NA	Na
37	Oct 16, 2014 3:22 PM	the big intersection	there lots of traffic	down the highway	the side walk isn't good		
38	Oct 16, 2014 3:21 PM	Out to the front office	to many cars in the morning	Gate	Gate is locked	to the eighth grade hall	too many cars in the morning
39	Oct 16, 2014 3:21 PM	n/a	n/a	n/a	n/a	n/a	n/a
40	Oct 16, 2014 3:20 PM	the hall ways	its hard to get to class when halls are crowded				
41	Oct 16, 2014 3:20 PM	Crosswalks	Not that much time to get across	the circle where the bike rack is	a crosswalk for the bikers to get to school	The sidewalk across the street	a separate bike path
42	Oct 16, 2014 3:20 PM	Around the outside of the fence	Cant see trail much.	The sidewalk outside the school	It can pop a tire of a bike easily		
43	Oct 16, 2014 3:20 PM	near the road between the school and dennys	more crosswalks	in between the church and tennis courts			
44	Oct 16, 2014 3:19 PM	figure 8		track		bus stop	
45	Oct 16, 2014 3:19 PM	the cross walks near Dennys	traffic				
46	Oct 16, 2014 3:19 PM	A bike path	It is hard to ride in the street because of the cars				
47	Oct 16, 2014 3:18 PM	I don't walk or bike to school	too far	too far	too far	too far	too far
48	Oct 16, 2014 3:18 PM	too far					
49	Oct 16, 2014 3:18 PM	one the hiey way	carsgoing fast	bad streets	drunk people	the groshery store	people how steal kids
50	Oct 16, 2014 3:18 PM	road past community college	bikes crossing too soon	school parking lot	kids running in front of cars		
51	Oct 16, 2014 3:17 PM	i don't know					
52	Oct 16, 2014 3:17 PM	Pioneer trail	?				
53	Oct 16, 2014 3:15 PM	track					

2014 SOUTH TAHOE MIDDLE SCHOOL CONNECTIVITY STUDENT SURVEY

54	Oct 16, 2014 3:14 PM	sidewalks in front of school	there icy in the winter					
55	Oct 16, 2014 3:08 PM	in font of the scholl		0	0	0	0	0
56	Oct 16, 2014 3:05 PM							
57	Oct 16, 2014 3:05 PM	Hwy 50						
58	Oct 16, 2014 3:02 PM	bike rack	i wish it was closer to school	light near riteaid	takes to long to wait			
59	Oct 16, 2014 3:02 PM	I don't know	I don't know	I don't know	I don't know	I don't know	I don't know	
60	Oct 16, 2014 3:01 PM	IDK	IDK	IDK	IDK	IDK	IDK	
61	Oct 16, 2014 3:01 PM	i dont know	i dont know	idont know	i dont know	i dont know	i dont know	
62	Oct 16, 2014 3:00 PM	none	none	none	none	none	none	
63	Oct 16, 2014 3:00 PM	track	outside the school	on campus	out of campus			
64	Oct 16, 2014 2:59 PM	Marcia Sarosik Dance	The bus stop is four blocks away from the studio	MontBleu	There's no buses that go there			
65	Oct 16, 2014 2:59 PM	tennis courts	the sidewalk is lop sided	long lap	going through the pokey bushes and going over rocks.	figure 8		the holes in the ground
66	Oct 16, 2014 2:58 PM	Better Bike Racks	to far away from school					
67	Oct 16, 2014 2:58 PM	??	??	??	??	??	??	
68	Oct 16, 2014 2:57 PM	On pioneer trail	small bike lane					
69	Oct 16, 2014 2:57 PM			location 2				
70	Oct 16, 2014 2:57 PM	Sidewalks to Bijou Park	run down and it turns to dirt					
71	Oct 16, 2014 2:56 PM	I would like to see a change by						
72	Oct 16, 2014 2:56 PM	Denny's Highway	Kids just J walk and it's dfangerous	cross walk	more cross walk	At the intersection there is no crosswalk		
73	Oct 16, 2014 2:55 PM	Arund my neighborhood	There's no bike trails	Highway 50				
74	Oct 15, 2014 3:46 PM	more bike racks in different places around the school	i come from Al Tahoe so i have to ride all around the school	More assemblies throughout the year	there aren't that many assemblies	A couple more new incentives		There are only like 5 different incentives
75	Oct 15, 2014 3:46 PM	around the tennis court	the traffic before school					
76	Oct 15, 2014 3:41 PM	The stop light right by the school	Kids run out when its not their turn					
77	Oct 15, 2014 3:40 PM	none	none	none	none	none	none	
78	Oct 15, 2014 3:40 PM			more bike racks around the school				
79	Oct 15, 2014 3:40 PM	have a bike path into school	traffic		nothing	near Ross		to much cars
80	Oct 15, 2014 3:40 PM	pioneer trail	bike path	disc golf course	crosswalk	sierra house		bike path
81	Oct 15, 2014 3:40 PM	idk	idk	idk	idk	idk		idk
82	Oct 15, 2014 3:40 PM	idk						
83	Oct 15, 2014 3:40 PM	front of school						
84	Oct 15, 2014 3:40 PM		789 slow sometimes					
85	Oct 15, 2014 3:39 PM	Al Tahoe side walk .	Bad Repare					
86	Oct 15, 2014 3:39 PM	at tahoe side walk	bad repare					
87	Oct 15, 2014 3:39 PM	?	?	?	?	?	?	?
88	Oct 15, 2014 3:39 PM	idk	idk	idk	idk	idk	idk	idk
89	Oct 15, 2014 3:39 PM	al tahoe sidewalk	needs repair					
90	Oct 15, 2014 3:38 PM	al tahoe sidewalk	needs repair					
91	Oct 15, 2014 3:38 PM	in the back of the school.		in front of the school.				
92	Oct 15, 2014 3:38 PM	TRACK						
93	Oct 15, 2014 3:36 PM	the inters tion						
94	Oct 15, 2014 3:33 PM	location dennys	si	stores	cross walk	fire department		a lot traffic
95	Oct 15, 2014 3:32 PM	The back of the school	To much traffic					
96	Oct 15, 2014 3:32 PM	The back of the school	To muck traffic					
97	Oct 15, 2014 3:31 PM	cross walk	cars not stopping	side walks	there so side walk i some places	cars		kids not looking cars dont see them
98	Oct 15, 2014 3:29 PM	crosswalk		busses		riteaid		
99	Oct 15, 2014 3:29 PM	drop off area						
100	Oct 15, 2014 3:29 PM	field	smoking behind trees	none		behind school		kissing
101	Oct 15, 2014 3:28 PM	Nevada	Going down to a steep hill	Sacramento	Drive down in the street	San Fransico		Ride in a boat
102	Oct 15, 2014 3:28 PM	Bicycle Rack	No locks on in	Al-Tahoe Sidewalk	Unsafe side walk	Mpr		No Good Food There
103	Oct 15, 2014 3:28 PM	the back off the school	no bike lock holder thing	track	no biking	mpr		no good food
104	Oct 15, 2014 3:28 PM	close to saweway	its destroyed	close to dennys	theres a lot of cars	close to dennys		cast go fast
105	Oct 15, 2014 3:27 PM	Pioneer Trail	Being able run and cross the street	?	?	Highway 50		No speeding
106	Oct 15, 2014 3:27 PM	Rid Aid to school	right					
107	Oct 15, 2014 3:27 PM	atv track	safe gats	bmX	rams	stms store		moany
108	Oct 15, 2014 3:27 PM	in the back	in the front					
109	Oct 15, 2014 3:26 PM	buses						
110	Oct 15, 2014 3:26 PM	IDKBRO.....	I Really dont know for any of these...	I still dont know.....	WHY DO YOU KEEP ASKING ME!!!!	AH!!!!!!!!!!!!!!!!!!!!		please stop.....
111	Oct 15, 2014 3:25 PM	Al Tahoe blv.	to be able to use the crossing walk.	hwy 50	using the side walk and looking before you cross.			
112	Oct 15, 2014 3:25 PM	larch	less traffic for walking and riding a bike ski run		for cars to look out for people walking or biking	lake Tahoe computers		for it to be open longer
113	Oct 15, 2014 3:25 PM	tallac ave	the street	okland st	street	sanfransico		glass on the street
114	Oct 15, 2014 3:25 PM	larch	less traffic riding bike or walking	ski run	less traffic driving			
115	Oct 15, 2014 3:25 PM	fine	fine	fine	fine	fine		fine
116	Oct 15, 2014 3:25 PM	I don't know	I don't know	I don't know	I don't know	I don't know		I don't know
117	Oct 15, 2014 3:25 PM	Mpr						
118	Oct 15, 2014 3:25 PM	walking around traffic	too many cars					
119	Oct 15, 2014 3:25 PM	The street by the police station	intersection	i dont know	i dont know	i dont know		i dont kow
120	Oct 15, 2014 3:25 PM	SACREMETO	STANDFORT	ANGEL	lake			
121	Oct 15, 2014 3:25 PM	In the playground	Real grass in te field	In the soccer field	Smaller Goaly boxes	In the payground		Bike ramp
122	Oct 15, 2014 3:25 PM	District Office	It is kind of in the way of where a sidewalk can be.	The portals/Old classrooms	We dont really need them. We could have something else instead there of them.			
123	Oct 15, 2014 3:25 PM	I DON'T KNOW						
124	Oct 15, 2014 3:25 PM	highway 50 by the school	J-walking					
125	Oct 15, 2014 3:25 PM	.						
126	Oct 15, 2014 3:24 PM	on the blacktop	i dont have one	sides of the school	nope	sidewalks		nope
127	Oct 15, 2014 3:24 PM	more sidewalks	there arent enough sidewalks	safer crosswalks	it could be safer to cross the street	idk		idk
128	Oct 15, 2014 3:24 PM	idk	idk	timmy	idk	timmy		idk
129	Oct 15, 2014 3:24 PM	timmy	timmy					timmy
130	Oct 15, 2014 3:24 PM	ride aid to here	crossing the street					
131	Oct 15, 2014 3:24 PM	AROUND THE SCHOOL	CANT BIKE AROUND	ON SCHOOL CAMPUS	CANT	ON TOP OF BUILDINGS		CANT
132	Oct 15, 2014 3:24 PM	bike rack	to small					

2014 SOUTH TAHOE MIDDLE SCHOOL CONNECTIVITY STUDENT SURVEY

133	Oct 15, 2014 3:24 PM	by the track	i do not no	i do not no	i do not no	i do not no	i do not no
134	Oct 15, 2014 3:23 PM	walking path	so people could walk and do exursize	dirt path	people could have fun riding there	ramps	people could bring there bikes
135	Oct 15, 2014 3:23 PM	none			bikes		more often
136	Oct 15, 2014 3:23 PM	front of the flag pole	too many cars	bus stops	bus driver yells at me	softball feild	it is locked
137	Oct 15, 2014 3:23 PM	None	None	None	None	None	None
138	Oct 15, 2014 3:23 PM	tennis courts	Messed up sidewalk	gate behind the school	crowded	lunch area	weathering
139	Oct 15, 2014 3:23 PM	I would like ramps	kids running	I would like hills	I might fall	I would like racing tracks	I might get lost
140	Oct 15, 2014 3:22 PM	out front near the flag pole	too many cars	bus stops	bus drivers yell at me	softball/babe ruth field	all gates are locked
141	Oct 15, 2014 3:22 PM	a crossing guard next to the bus garage	i don't have one	i don't know	i don't know	i don't know	i don't know
142	Oct 15, 2014 3:22 PM	Bus garage and Rid-Aid	Put a cross walk	School	Make traffic better	Bus garage	make bigger -.-
143	Oct 15, 2014 3:22 PM	No where	don't have one	No where	Don't have one	No where	Don't have one
144	Oct 15, 2014 3:22 PM	The front	The track	The black top	Outside next to the buses	next to the eighth grade hall	next to the track
145	Oct 15, 2014 3:22 PM	The parking lot	Macking sure kids are getting on with their parents not other strangers	The back of the school were the buses park	Seeing their is no stranger close to the buses when kids are trying to go to their bus	By the Boys and Girls Clup	Macking sure that kids don't go away over thier without a staff
146	Oct 15, 2014 3:21 PM	i don't walk or bicycle to school	i don't walk or bicycle to school	i don't walk or bicycle to school	i don't walk or bicycle to school	i don't walk or bicycle to school	i don't walk or bicycle to school
147	Oct 15, 2014 3:21 PM	rite-aid (right next to school)	i dont walk to school but i see people running across the busy street	the baseball /softball field	it is rocky and hard to walk on (on the school campus)	the area by toy maniacs	it is hard to bike on the small bike lane /mini road thing
148	Oct 15, 2014 3:21 PM	The front	The Gate the intersection there is a challenge because to ride my bike on the right side of the road i have to cross through the middle of the intersection and there is only one stop sign. maybe a round about could help?	The blacktop	The doors.	The seats	Equipment
149	Oct 15, 2014 3:21 PM	fairway dr		the path between tree-haven Dr and oak ave	it would be nice to have an actual paved path there because it is hard to maneuver there		
150	Oct 15, 2014 3:21 PM	no where					
151	Oct 15, 2014 3:21 PM	BY THE BUSES		BY THE 50		BY THE CHURCH	
152	Oct 15, 2014 3:21 PM	IN THE FRONT OF OUR SCHOOL	THERE IS NO SIDEWALK				
153	Oct 15, 2014 3:21 PM	No where	Do not have one	No where	Do not have one	No where	Do not have one
154	Oct 15, 2014 3:21 PM	bus garage	cross walk	police station	bike racks	back of the school	bus to go there
155	Oct 15, 2014 3:21 PM	LOCATION 1					
156	Oct 15, 2014 3:21 PM	Parking Lot	Too many cars.	Crossing highway 50.	People just cross the road without the traffic light.	The Bus	Buses should come earlier.
157	Oct 15, 2014 3:20 PM	Side walk					
158	Oct 15, 2014 3:20 PM	sidewalk at the frof of the school it needs to be bigger		more lights in front of the school		cctv camera at the bicycle parking because they stole my bike	
159	Oct 15, 2014 3:20 PM	N/A		N/A		N/A	
160	Oct 15, 2014 3:20 PM	none	none	none	none	none	none
161	Oct 15, 2014 3:20 PM	In front of the school	Not enough bike racks	No place for Skate boards/Long board	No where to put it.. then it gets taken away		
162	Oct 15, 2014 3:20 PM	i don't know...
163	Oct 15, 2014 3:20 PM	a pad to walked	running pad	a pad to go in bike	side walk	park	bijou park
164	Oct 15, 2014 3:20 PM	the first stoplight	it takes forever to cross and it is a really short cross	the second stoplight	it takes really long to cross	the sidewalks	they are really little and i end up riding in the streets
165	Oct 15, 2014 3:20 PM	close to safeway	its destroyed	close to dennys	theres a lot of cars	close to dennys	cars go fast
166	Oct 15, 2014 3:20 PM	front of the school	have a guard to make sure kids cross the rhode saffley	sidewalk	fix the sidewalk for bikers it is to rough and bumpy and it can be dangerous	blacktop soccer filed	have an adult because sometimes the balls go over and they go get it and they can get kidnapped by someone
167	Oct 15, 2014 3:19 PM	????	????	????	????	????	????
168	Oct 15, 2014 3:19 PM	bike road	safty place	walking place were no cars are	there are people who just watch tv	nature place	touching the trees
169	Oct 15, 2014 3:19 PM	road	walk	track	bike	ramps	skateboarding
170	Oct 15, 2014 3:19 PM	more bike racks	helping from thieves	less traffic	providing better ways to walk to school	making sure no one gets hit by cars	making sure kids use the cross walk
171	Oct 15, 2014 3:19 PM	i don't really know					

2014 SOUTH TAHOE MIDDLE SCHOOL CONNECTIVITY STUDENT SURVEY

172	Oct 15, 2014 3:19 PM	the circle out side	cross walk and better bike rack	by bus garage	cross walk	down by the highschool	a cross walk
173	Oct 15, 2014 3:19 PM	Highway	highway	cars	cars		
174	Oct 15, 2014 3:19 PM			to walk	to walk		
175	Oct 15, 2014 3:19 PM	the track	weather	the parking lot	to many cars	back entrance	gate door
176	Oct 15, 2014 3:19 PM	bike trake	get out erlyer	walking path	baseball club	basketball club	skate park
177	Oct 15, 2014 3:19 PM	In front of the office	Can't cross the street; too much cars	around the tennis court	make a route to get out of the school.	buses	cant get through
178	Oct 15, 2014 3:19 PM	na	na	na	na	na	na
179	Oct 15, 2014 3:18 PM	track	road	bike path	side walk	natures path	road
180	Oct 15, 2014 3:18 PM	sidewalks					
181	Oct 15, 2014 3:18 PM	bathroom	people are dropping water on the floor so we might slip	soccer	people wear cleits	cafeteria	people are dropping food
182	Oct 15, 2014 3:18 PM	in the front	exit from basket ball field	none	none	none	none
183	Oct 15, 2014 3:18 PM	Babe Ruth field	It doesnt have a trial for the bikes to go through				
184	Oct 15, 2014 3:18 PM	I like to see a bike or walk path					
185	Oct 15, 2014 3:17 PM	people need to stop walking in the plants on the school grounds	there are plants but people keep walking there so they could take a short cut	students should not cross a street like al tahoe	maybe there should be a cross walk there	there is trash on the ground when people don't clean up	just take time pick up your trash
186	Oct 15, 2014 3:17 PM	Forest	a path to walk	Near the baseball field	bike holer	stop light	cross guard at the stop light
187	Oct 15, 2014 3:17 PM	i think its gay	and this school is gay				
188	Oct 15, 2014 3:17 PM	bus pick up area					
189	Oct 15, 2014 3:16 PM	parking lot	people go to fast	soccer field	people use cleats	cafeteria	people drop food or leave food
190	Oct 15, 2014 3:16 PM	out in front of the school	i think that there should be a crossing guard	at the bus garage	i think that the buses should be in one or two lanes and then next to them should be where people could walk		
191	Oct 15, 2014 3:16 PM	Parking Lot	to much traffic				
192	Oct 15, 2014 3:16 PM	Track	to much traffic	the portables		mpr	
193	Oct 15, 2014 3:16 PM	parking lot	make less traffic to walk in				
194	Oct 15, 2014 3:16 PM	HighWay 50					
195	Oct 15, 2014 3:16 PM	on the school black top	Making ramps and jumps	School football/soccer field	Carnival, photo booth, and pumpkin run	Inside school	hang gliding,skate boarding
196	Oct 15, 2014 3:16 PM	Bike Racks	It is not that safe for bikes when cars are everywhere.	Around the School	There is no paths so we know which is the safest instead of chancing it.	Buses	I have to try to watch out for the buses when they come in or i am leaving.
197	Oct 15, 2014 3:15 PM	No where	No where	No where	No where	No where	No where
198	Oct 15, 2014 3:15 PM	No where	No where	No where	No where	No where	No where
199	Oct 15, 2014 3:15 PM	nothing	nothing	nothing	nothing	nothing	nothing
200	Oct 15, 2014 3:15 PM	Bathroom	People keep dropping to much water				
201	Oct 15, 2014 3:15 PM	parking lot	theres to much traffic	outside the parking lot	the cars go way too fast	the halls	evryone pushes
202	Oct 15, 2014 3:14 PM	I Don't Know					
203	Oct 15, 2014 3:14 PM	outside lunch area	not enough seating	staff circle	sidewalk	front of school	seating
204	Oct 15, 2014 3:14 PM	nothing	nothing	nothing	nothing	nothing	nothing
205	Oct 15, 2014 3:14 PM	crossing the street	there should be a cross gaurd				
206	Oct 15, 2014 3:14 PM	baseball fields	bike paths	regan beach	better bike paths to snowflake	across the street from the school	blocks so people cant j walk
207	Oct 15, 2014 3:14 PM	HIGHWAY 50	CROSSING GUARD	HIGHWAY 50	SOME CARS DONT STOP WHEN ITS RED	STMS	1 BIKE TAKING UP THE SPACE OF FIVE
208	Oct 15, 2014 3:14 PM	Along the lake	Too many vehicals	Al Tahoe	Too many vehicals		
209	Oct 15, 2014 3:14 PM	bike/walking trail	wake up earlier than usally	safe places to put bike	robbyer or bike getting ruend	traffic	walking/bike path
210	Oct 15, 2014 3:14 PM	The intersections by Dennis	Don't go into the bike lane	By the tennis courts	No more jay-walking	NO WHERE	N/A
211	Oct 15, 2014 3:14 PM	the gym	idk	front of school	idk	idk	idk
212	Oct 15, 2014 3:14 PM	outside lunch area	not enough seating	staff circle	sidewalk	front of school	seating
213	Oct 15, 2014 3:14 PM	near the buses					
214	Oct 15, 2014 3:14 PM	school	time	idk	idk	idk	idk
215	Oct 15, 2014 3:14 PM				Existing Challenge		
216	Oct 15, 2014 3:13 PM				Exiting Challenge		
217	Oct 15, 2014 3:13 PM	I DONT WALK	I DONT WALK	I DONT WALK	I DONT WALK	I DONT WALK	
218	Oct 15, 2014 3:13 PM	MY HOUSE	IT'S RELLY FAR AWAY	STREETS	SOME PEOPLE DON'T CARE ABOUT SAFETY	MY HOUSE	MY MOTHER WONST WANT ME TO RIDE MY BIKE
219	Oct 15, 2014 3:13 PM	The Bike Racks	The areas to rough and many people slip on wet days.	N/A	N/A	N/A	N/A
220	Oct 15, 2014 3:13 PM	Close to safeway	Its destroyed	Close to Dennys	theres a lot of traffic	Close to Dennys	Theres a lot of cars passing fast
221	Oct 15, 2014 3:13 PM	The front sidewalk	Kids are running across the street and not looking				
222	Oct 15, 2014 3:13 PM	no where	no where	no where	no where	no where	no where
223	Oct 15, 2014 3:13 PM	the back of the school	side walk				
224	Oct 15, 2014 3:13 PM	The intersection at Denny's	dont go into the bike lane. Stay on the sidewalk.	By the tennis courts.	No jay-walking	NO WHERE	N/A
225	Oct 15, 2014 3:13 PM	front of school	bike racks(place to put bikes)				
226	Oct 15, 2014 3:13 PM	I don't know	I don't know	I don't know	I don't know	I don't know	I don't know
227	Oct 15, 2014 3:13 PM	????	????	????	????	????	????

2014 SOUTH TAHOE MIDDLE SCHOOL CONNECTIVITY STUDENT SURVEY

228	Oct 15, 2014 3:13 PM	i dont know		i dont know		i dont know	
229	Oct 15, 2014 3:13 PM	I don't know	I don't know	I don't know	I don't know	I don't know	I don't know
230	Oct 15, 2014 3:13 PM	basketball corts	better pavement	7th grade hall	better halls for the 7th graders and future 7th graders		
231	Oct 15, 2014 3:12 PM	the baseball fields	make a side walk	snow flake	make a side walk	eldorado beach	make side walk
232	Oct 15, 2014 3:12 PM	NA	NA	NA	NA	NA	NA
233	Oct 15, 2014 3:12 PM	parking lot	drive slower some people go to cross the street and almost get hit.	property	respect the property kids should	classrooms	respect the teachers
234	Oct 15, 2014 3:12 PM	crossing		rite aid	somewhere to cross		
235	Oct 15, 2014 3:12 PM	nowwhere					
236	Oct 15, 2014 3:12 PM	In front of the school	theres to much bikes	the back gate	its somtimes closed		
237	Oct 15, 2014 3:12 PM	Rite Aid	People not using the cross walk				
238	Oct 15, 2014 3:12 PM	outside	inside	field	front	bus stop	back
239	Oct 15, 2014 3:12 PM	Parking lot	Drivers dont see much of students and they only look in front of them	Soccer Field	People bringing kleeets to the field	For walking, its the hallways	Too much students being squeezed in hallways
240	Oct 15, 2014 3:12 PM	Sidewalks	A staff member watching.	On the stop walk to cross.	A staff member leading them.		
241	Oct 15, 2014 3:12 PM	Parking lot	because the cars drive fast.	hall ways	because between classes the hall ways get crowded.	timber wolf plaza	there is trash almost every were you walk.
242	Oct 15, 2014 3:12 PM	baseball fields		round the school		connecting to the beach	
243	Oct 15, 2014 3:12 PM	sidewalks	there are not enough sidewalks cars need to look and stop when there someone walking across	bike ramps	they are not close enough to the school		
244	Oct 15, 2014 3:11 PM	across from the school		sidewalks	there are not enough sidewalks	back gates	always locked
245	Oct 15, 2014 3:11 PM	bike path	make it	walking path	make it	a place to cross the street	bulid it
246	Oct 15, 2014 3:11 PM	play ground	has no bike racks				
247	Oct 15, 2014 3:11 PM	cross walk	cars	parking lot	cars	where the bike racks are	cars
248	Oct 15, 2014 3:11 PM	When crossing the street.	Some people do not use the crosswalk. The bike lanes.		Some people go in the wrong direction, they should be going the same direction as the cars are. (depends where you are going)		
249	Oct 15, 2014 3:11 PM	front of the school	back of the school	the sidewalk	the entres	where the bus stop to drop the kids i dont know	
250	Oct 15, 2014 3:11 PM	Nearest the baseball field.	Pavement is torn.				
251	Oct 15, 2014 3:11 PM	I'm not sure how to answer this question!					
252	Oct 15, 2014 3:11 PM	Behind the school, in front of Ross or Rite Aid					
253	Oct 15, 2014 3:11 PM	crossing the highway	Its hard to walk across they should get a crossing guard				
254	Oct 15, 2014 3:11 PM	near ross	bike path	collage	walk path	near safe way	walk path
255	Oct 15, 2014 3:11 PM	Al Tahoe	have some adult cross those kids				
256	Oct 15, 2014 3:11 PM	I don't Know					
257	Oct 15, 2014 3:10 PM	By the bus area	There are a lot of buses in that area	Sidewalks	there are not enough sidewalks	Back gate	always locked
258	Oct 15, 2014 3:10 PM	The dirt path on the right side of the road when heading to school.	The dirt path is too close to the road.				
259	Oct 15, 2014 3:10 PM	In the back where the track is and put bike racks.	The racks in the front.				
260	Oct 15, 2014 3:10 PM	Highway 50 walking down the sidewalks	crossing the street				
261	Oct 15, 2014 3:10 PM	Ross	Making sure they use the cross walk.	Denny's	Making sure cars don't go while children are walking	Next to bus gates	Make sure when peoples friend's bus arrives they don't run toward it.
262	Oct 15, 2014 3:10 PM	Front of School	No Stop Signs	Parking Lot	Cars Drive to Fast	The Hallway	There is No Carpet
263	Oct 15, 2014 3:10 PM	In the back by the archery stand	The racks in the front	In the back by the gate to the school buses			
264	Oct 15, 2014 3:10 PM	Bridge over Upper Truckee River	The bike trail is a bit old and I always get nervous about it				
265	Oct 15, 2014 3:10 PM	turn gate near track	ground rocky and dusty				
266	Oct 15, 2014 3:09 PM	none	none	none	none	none	none
267	Oct 15, 2014 3:09 PM	I really don't bike on the streets, so I wouldn't know	I normally just bike through the woods	I also do not pay any attention to street names or areas			
268	Oct 15, 2014 3:09 PM	the front office	all the cars picking kids up	buses/ black top	where the buses pick up could be dangurours		
269	Oct 15, 2014 3:09 PM	The front of the school	I saw so girls crossing the street not at the stop light.				
270	Oct 15, 2014 3:09 PM	Denny's					
271	Oct 15, 2014 3:09 PM	None					
272	Oct 15, 2014 3:09 PM	By the bus area.	There are a lot of buses in the area. I wish to see more children be safer around the cars	By the track.	The fence.	Near the pick up area.	There are to many cars.
273	Oct 15, 2014 3:09 PM	In front of school	More tables				
274	Oct 15, 2014 3:09 PM	Out side lunch					
275	Oct 15, 2014 3:09 PM	Safer bike path	My dad doesn't want me ridng my bike there because there are creepy people. By Off The Hook		The sidewalk is really bumpy and has cracks everywhere.		
276	Oct 15, 2014 3:09 PM	bike rackout by the front	to many cars, needs safer spot.	the circle in the midle of the parking lot with grass	needs crosswalk(s)	No other place really.	Nothing
277	Oct 15, 2014 3:09 PM	AL Tahoe bolavard	does not go all the way to the shcool	The Y	No safe and new bike trails		
278	Oct 15, 2014 3:09 PM	Al Tahoe Blvd.	The bike trail doesn't go all the way to the school.	The "Y"	No safe a new bike trails.		

2014 SOUTH TAHOE MIDDLE SCHOOL CONNECTIVITY STUDENT SURVEY

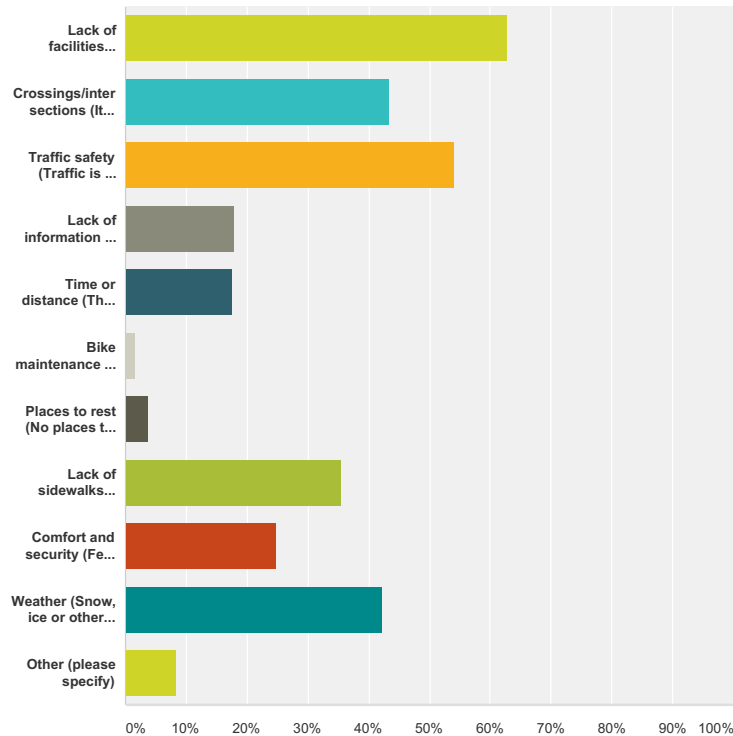
279	Oct 15, 2014 3:08 PM	front office	theres no bike place	by the gates in the back by the	afraid bike might get stolen	in the office for people who have	office doesnt let u
280	Oct 15, 2014 3:08 PM	none	none	entrance of the field	none	no locks	none
281	Oct 15, 2014 3:08 PM	?	?	?	?	?	?
282	Oct 15, 2014 3:08 PM	All around the school.	I think we need more sidewalks around the school so we can get to school easy without being scared of being crashed by a car	Intersections.	We need crosswalks in the intersections because we have to run and when some one is hurt a car might crash them.		
283	Oct 15, 2014 3:08 PM	CLOSE TO DENYS	YES	CLOSE ROSE	YES	CLOSE TO MY AUNT HOUSE	YES
284	Oct 15, 2014 3:08 PM	Front of school	Bike rack				
285	Oct 15, 2014 3:08 PM	The entrance on AI Tahoe Blvd		The entrance were the buses go.		The roundabout in the front of the school	
286	Oct 15, 2014 3:08 PM	side of school	i dont know	i dont know	i dont know	i dont know	i dont know
287	Oct 15, 2014 3:07 PM	sidewalk/bike path by al tahoe	path is dirt and has quite a few rocks, making it hard to bike over there				
288	Oct 15, 2014 3:07 PM	hibidy hoo flah	no	no	no	no	no
289	Oct 15, 2014 3:07 PM	no					
290	Oct 15, 2014 3:07 PM	Entrance Side Walk					
291	Oct 15, 2014 3:07 PM	Sawmill Pond	I think there needs to be a bike route				
292	Oct 15, 2014 3:07 PM	the stop light					
293	Oct 15, 2014 3:07 PM	in front of the school	the turn around traffick				
294	Oct 15, 2014 3:07 PM	riteaid	j walking	across from school	j walking	across saint threasas	j walking
295	Oct 15, 2014 3:07 PM	Front of school	Bike rack				
296	Oct 15, 2014 3:07 PM	i. dont. know. or. care.					
297	Oct 15, 2014 3:07 PM	in front of the school					
298	Oct 15, 2014 3:07 PM	Behind the busses	their needs to be a cross walk there.	in frount of the school	there should be a safer way to get to the school.		
299	Oct 15, 2014 3:07 PM	in front of the school	a lot of cars				
300	Oct 15, 2014 3:07 PM	I dont know		I dont know		I dont know	
301	Oct 15, 2014 3:06 PM	the stop light					
302	Oct 15, 2014 3:06 PM	the y	you can get hit by a car	poinerr	no bike trail	myers	really scared of getting hit
303	Oct 15, 2014 3:06 PM	by the bike rack	people steal bikes	the cross walk right by the school	drivers arent careful	bike trail infront of the school	people on bikes are going to fast and can hit people
304	Oct 15, 2014 3:06 PM	side of school	i dont know	i dont know	i dont know	i dont know	i dont know
305	Oct 15, 2014 3:06 PM	in outlet of the schools drive way	no sidewalk	back of school	no gate open	none	none
306	Oct 15, 2014 3:06 PM	Dont Know	Dont Know	Dont Know	Dont Know	Dont Know	Dont Know
307	Oct 15, 2014 3:06 PM	i dont know					
308	Oct 15, 2014 3:06 PM	none	none	none	none	none	none
309	Oct 15, 2014 3:06 PM	street close to the school	some people dont walk on the cross walk and almost get run over				
310	Oct 15, 2014 3:06 PM	jc	jb	ja	jw	kj	qw
311	Oct 15, 2014 3:06 PM	idk	idk	idk	idk	idk	idk
312	Oct 15, 2014 3:05 PM	bike rack	some people don't have bike locks	by the pickup line of cars	it takes a long time for walkers to get across the parking lot due to the amount of cars		
313	Oct 15, 2014 3:05 PM	Parking Lot		Outside		Drop Off Zone	
314	Oct 15, 2014 3:05 PM	I Dont Know I Take a Car					
315	Oct 15, 2014 3:05 PM	gvjuhyhygygygyhy					
316	Oct 15, 2014 3:05 PM	In front of the school	Traffic	Next to the bus Garage	Cars and Buses	Next to church	Cars
317	Oct 15, 2014 3:04 PM	By buses	No bike rack	I don't Know	idk	idk	idk
318	Oct 15, 2014 3:04 PM	lake view people should take the bus	you have to walk or ride a bike to school	the end of tallac street	they should also take the bus	the whole area around the lake	should not have to walk
319	Oct 15, 2014 3:04 PM	idk	idk	idk	idk	idk	idk
320	Oct 15, 2014 3:04 PM	school yard	crossing the street	none		none	
321	Oct 15, 2014 3:04 PM	I don't know					
322	Oct 15, 2014 3:04 PM	I don't know					
323	Oct 15, 2014 3:03 PM	near ride aid					
324	Oct 15, 2014 3:03 PM	Parking lot	Re-pave them	Lunch	better lunch		
325	Oct 15, 2014 3:03 PM	Track for running lap	bumpy and a lot of bushes	Track near the tennis court	bumpy and has a metal thing bumping out		
326	Oct 15, 2014 3:03 PM	I	Don't	Know	What	This	Means
327	Oct 15, 2014 3:02 PM	The roads entering the school	things on the bike lanes	the bike racks	they aren't in a safe spot		
328	Oct 15, 2014 3:02 PM	By the blacktop at the back of the school	You can't get through the gate				
329	Oct 15, 2014 3:01 PM	AI Tahoe Blv.	J-Walking				
330	Oct 15, 2014 3:01 PM	AI Tahoe	J Walking				
331	Oct 15, 2014 3:00 PM	I don;t know	I don;t know	I don;t know	I don;t know	I don;t know	I don;t know

2014 SOUTH TAHOE MIDDLE SCHOOL CONNECTIVITY COMMUNITY SURVEY

South Tahoe Middle School Area Connectivity – Community Survey 1

Q7 Identify the top 3 barriers that prevent you from walking/biking in or through the project area more often? (Pick 3)

Answered: 285 Skipped: 7



Answer Choices	Responses
Lack of facilities (Bike routes and paths are disconnected)	62.81% 179
Crossings/intersections (It is difficult to cross streets where I want to go or too many business access crossings)	43.51% 124
Traffic safety (Traffic is too fast or busy)	54.04% 154
Lack of information (Do not know where bike routes and trails are)	17.89% 51
Time or distance (The places I need to go are too far away)	17.54% 50
Bike maintenance (My bike needs repair)	1.75% 5
Places to rest (No places to sit along the way)	3.86% 11

South Tahoe Middle School Area Connectivity – Community Survey 1

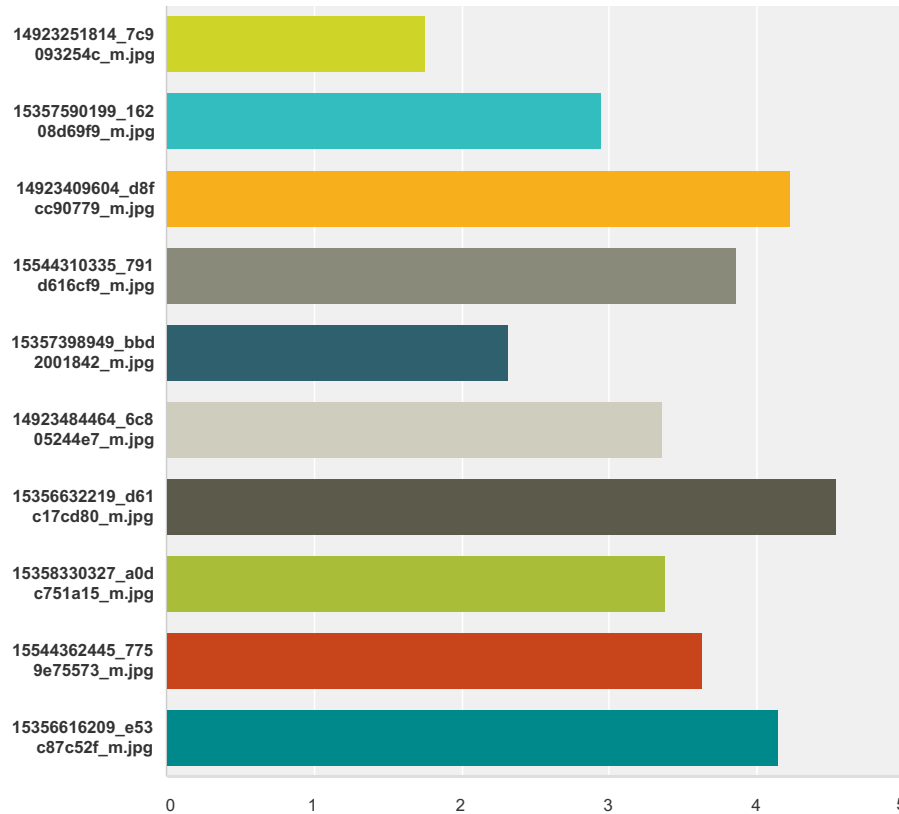
Lack of sidewalks (Sidewalks are missing, narrow, or not connected)	35.44%	101
Comfort and security (Feels unsafe)	24.91%	71
Weather (Snow, ice or other conditions)	42.11%	120
Other (please specify)	8.42%	24
Total Respondents: 285		





2014 SOUTH TAHOE MIDDLE SCHOOL CONNECTIVITY COMMUNITY SURVEY

South Tahoe Middle School Area Connectivity – Community Survey 1

Q8 How comfortable do you feel bicycling and/or walking in the following conditions: (least comfortable to most comfortable)







Answered: 280 Skipped: 12



	Least Comfortable	Uncomfortable	Neutral	Comfortable	Most Comfortable	Total	Average Rating
	51.99% 144	27.08% 75	14.44% 40	6.50% 18	0.00% 0	277	1.75
	7.94% 22	27.80% 77	31.05% 86	29.24% 81	3.97% 11	277	2.94
	1.83% 5	2.20% 6	11.72% 32	39.19% 107	45.05% 123	273	4.23
	2.55% 7	11.68% 32	16.79% 46	35.04% 96	33.94% 93	274	3.86

2014 SOUTH TAHOE MIDDLE SCHOOL CONNECTIVITY COMMUNITY SURVEY

South Tahoe Middle School Area Connectivity – Community Survey 1

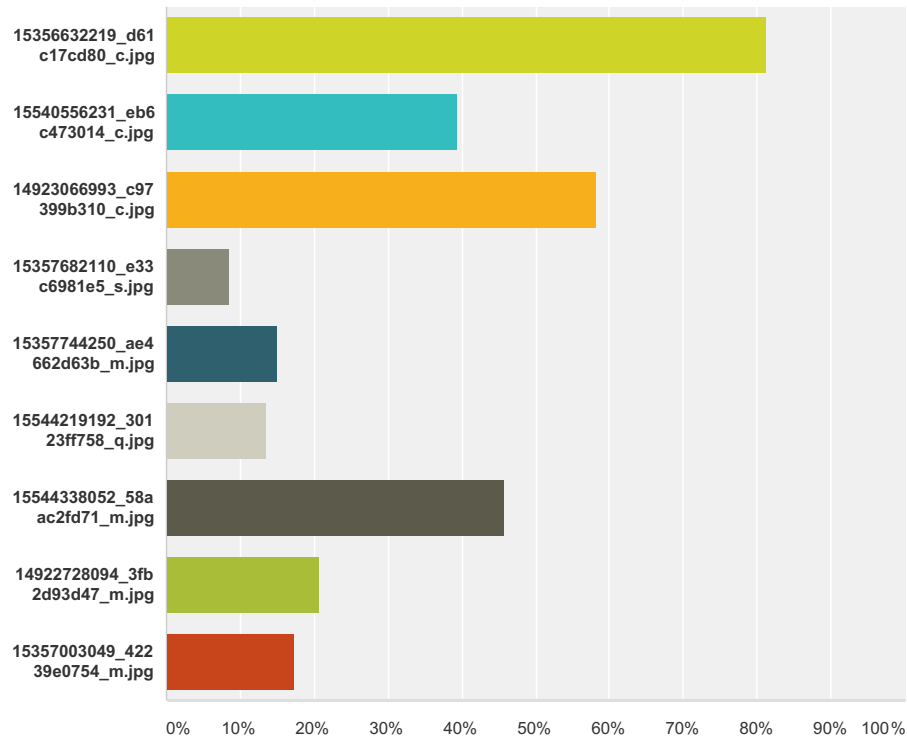
	24.82% 68	32.85% 90	28.83% 79	12.41% 34	1.09% 3	274	2.32
	4.74% 13	16.42% 45	26.64% 73	41.97% 115	10.22% 28	274	3.36
	1.82% 5	1.09% 3	6.91% 19	21.45% 59	68.73% 189	275	4.54
	6.27% 17	11.81% 32	29.52% 80	42.80% 116	9.59% 26	271	3.38
	2.91% 8	10.18% 28	23.64% 65	47.27% 130	16.00% 44	275	3.63
	3.94% 11	5.02% 14	12.54% 35	30.47% 85	48.03% 134	279	4.14







2014 SOUTH TAHOE MIDDLE SCHOOL CONNECTIVITY COMMUNITY SURVEY

South Tahoe Middle School Area Connectivity – Community Survey 1

Q9 Which top 3 treatments do you think would contribute to a safer bicycling and walking environment in the project area? (Pick 3)


Answered: 271 Skipped: 21



Answer Choices	Responses
	81.18% 220
	39.48% 107
	58.30% 158
	8.49% 23
	15.13% 41
	13.65% 37

2014 SOUTH TAHOE MIDDLE SCHOOL CONNECTIVITY COMMUNITY SURVEY

South Tahoe Middle School Area Connectivity – Community Survey 1

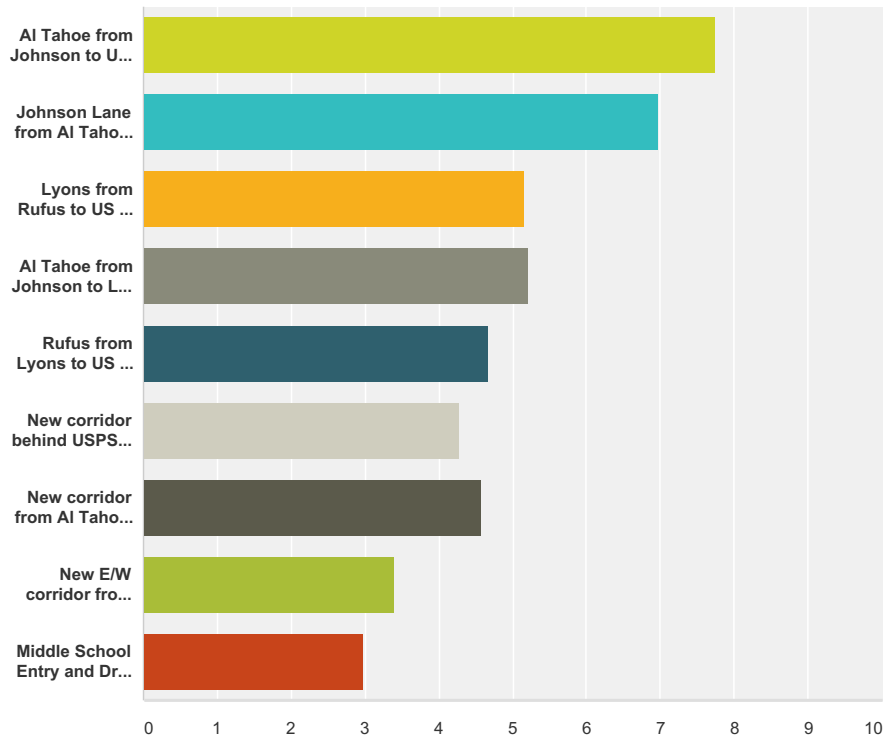
	45.76%	124
	20.66%	56
	17.34%	47
Total Respondents: 271		

2014 SOUTH TAHOE MIDDLE SCHOOL CONNECTIVITY COMMUNITY SURVEY

South Tahoe Middle School Area Connectivity – Community Survey 1

Q10 Prioritize these bicycle and walking corridors in the order that you would like to see appropriate bicycle facility improvements. Highest priority to lowest priority, please rank each choice. (Refer to map)(Please note that you can either number your selection or drag and drop them into the desired order. After ranking a corridor, the corridors below will automatically renumber. For example, if you rank Corridor D as 1st priority it will automatically move Corridor D to the top and the ranking of the remaining corridors will adjust automatically. You can then continue and change the rank or order of each corridor as desired.)

Answered: 218 Skipped: 74



	1	2	3	4	5	6	7	8	9	Total	Average Ranking

2014 SOUTH TAHOE MIDDLE SCHOOL CONNECTIVITY COMMUNITY SURVEY

South Tahoe Middle School Area Connectivity – Community Survey 1

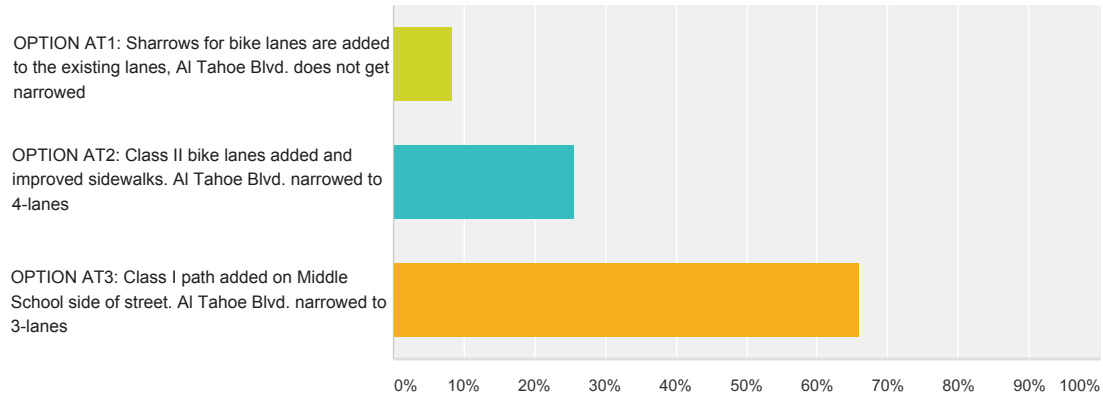
Al Tahoe from Johnson to US 50 (Corridor A)	44.50% 97	26.61% 58	11.47% 25	5.96% 13	5.50% 12	2.75% 6	0.92% 2	0.92% 2	1.38% 3	218	7.74
Johnson Lane from Al Tahoe to US 50 (Corridor B)	23.85% 52	25.23% 55	18.81% 41	11.47% 25	8.72% 19	5.96% 13	2.75% 6	1.38% 3	1.83% 4	218	6.97
Lyons from Rufus to US 50 (Corridor C)	1.83% 4	6.88% 15	21.10% 46	17.89% 39	15.60% 34	14.68% 32	13.30% 29	4.13% 9	4.59% 10	218	5.16
Al Tahoe from Johnson to LTCC Sports Fields (Corridor D)	9.63% 21	7.34% 16	10.09% 22	22.48% 49	16.06% 35	10.09% 22	9.63% 21	6.88% 15	7.80% 17	218	5.22
Rufus from Lyons to US 50 (Corridor E)	1.83% 4	7.34% 16	7.34% 16	12.84% 28	27.06% 59	16.97% 37	12.39% 27	9.17% 20	5.05% 11	218	4.67
New corridor behind USPS (Corridor F)	2.30% 5	7.37% 16	9.22% 20	7.83% 17	7.83% 17	30.88% 67	15.21% 33	9.68% 21	9.68% 21	217	4.29
New corridor from Al Tahoe to Rufus (Corridor G)	5.50% 12	10.55% 23	11.93% 26	8.72% 19	5.05% 11	9.63% 21	31.19% 68	12.39% 27	5.05% 11	218	4.57
New E/W corridor from Johnson to Middle School/Rufus (Corridor H)	2.29% 5	4.13% 9	7.34% 16	6.88% 15	9.63% 21	4.13% 9	11.93% 26	39.91% 87	13.76% 30	218	3.40
Middle School Entry and Drop Off Area (Corridor I)	8.26% 18	4.59% 10	2.75% 6	5.96% 13	4.59% 10	5.05% 11	2.75% 6	15.60% 34	50.46% 110	218	2.99

2014 SOUTH TAHOE MIDDLE SCHOOL CONNECTIVITY SURVEY 2 - ALTERNATIVES

South Tahoe Middle School Area Connectivity – Alternatives Selection

Q1 For Al Tahoe Blvd. from US 50 to Johnson Boulevard, which is your most preferred? (See images below for reference)

Answered: 144 Skipped: 8



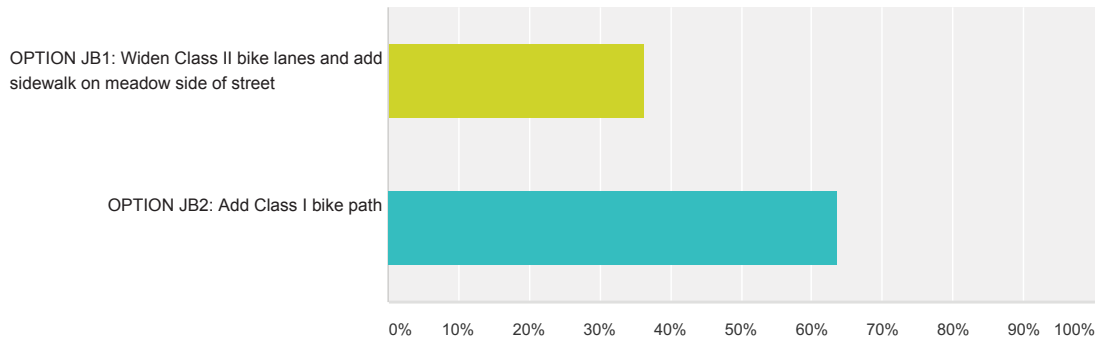
Answer Choices	Responses	
1. Sharrows for bikes are added to the existing lanes, Al Tahoe Blvd. does not get narrowed	8.33%	12
2. Class II bike lanes added and improved sidewalks, Al Tahoe Blvd. narrowed to 4-lanes	25.69%	37
3. Class I path added on Middle School side of street, Al Tahoe Blvd. narrowed to 3-lanes	65.97%	95
Total		144

2014 SOUTH TAHOE MIDDLE SCHOOL CONNECTIVITY SURVEY 2 - ALTERNATIVES

South Tahoe Middle School Area Connectivity – Alternatives Selection

Q2 Out of the options shown below for Johnson Blvd. which is your most preferred?

Answered: 146 Skipped: 6

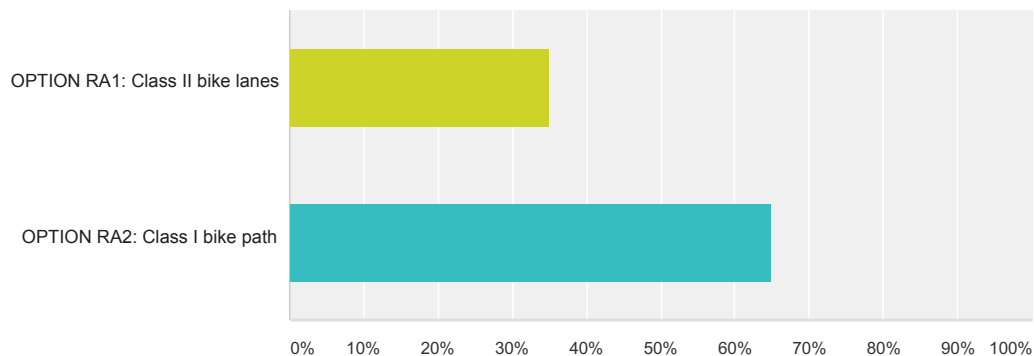


Answer Choices	Responses	
1. Widen Class II bike lanes and add sidewalk on meadow side street	36.30%	53
2. Add Class I bike path	63.70%	93
Total		146

South Tahoe Middle School Area Connectivity – Alternatives Selection

Q3 Out of the options shown below for Rufus Allen Blvd. which is your most preferred?

Answered: 140 Skipped: 12



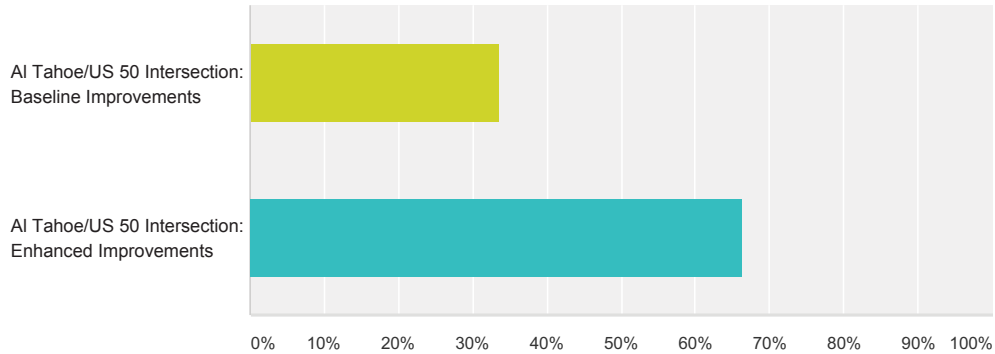
Answer Choices	Responses	
1. Class II bike lanes	35.00%	49
2. Class I bike path	65.00%	91
Total		140

2014 SOUTH TAHOE MIDDLE SCHOOL CONNECTIVITY SURVEY 2 - ALTERNATIVES

South Tahoe Middle School Area Connectivity – Alternatives Selection

Q4 Out of the options shown below for the AI Tahoe/US 50 intersection which is your most preferred?

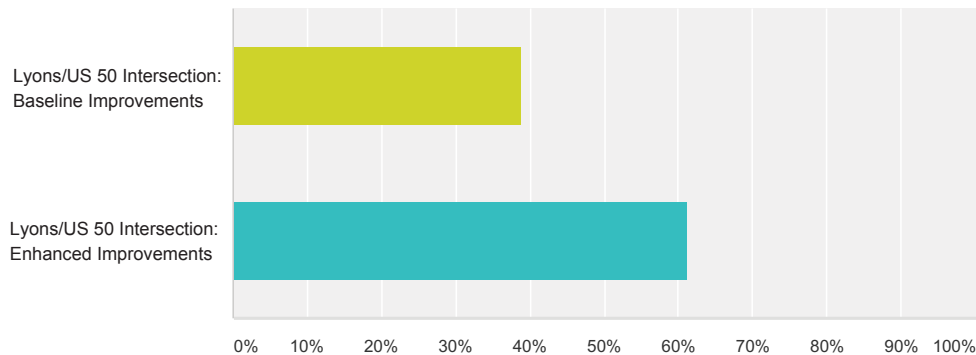
Answered: 137 Skipped: 15



Answer Choices	Responses
Baseline Improvements: School zone striping & signage, larger pedestrian waiting areas at corners, striped crossing on the south side (from Denny's to Tulare)	33.58% 46
Enhanced Improvements: Includes baseline improvements listed above plus removal of one east bound travel lane on AI Tahoe to make room for Class II bike lanes plus bicycle intersection striping and a bike pocket.	66.42% 91
Total	137

Q5 Out of the options shown below for Lyons/US 50 which is your most preferred?

Answered: 142 Skipped: 10



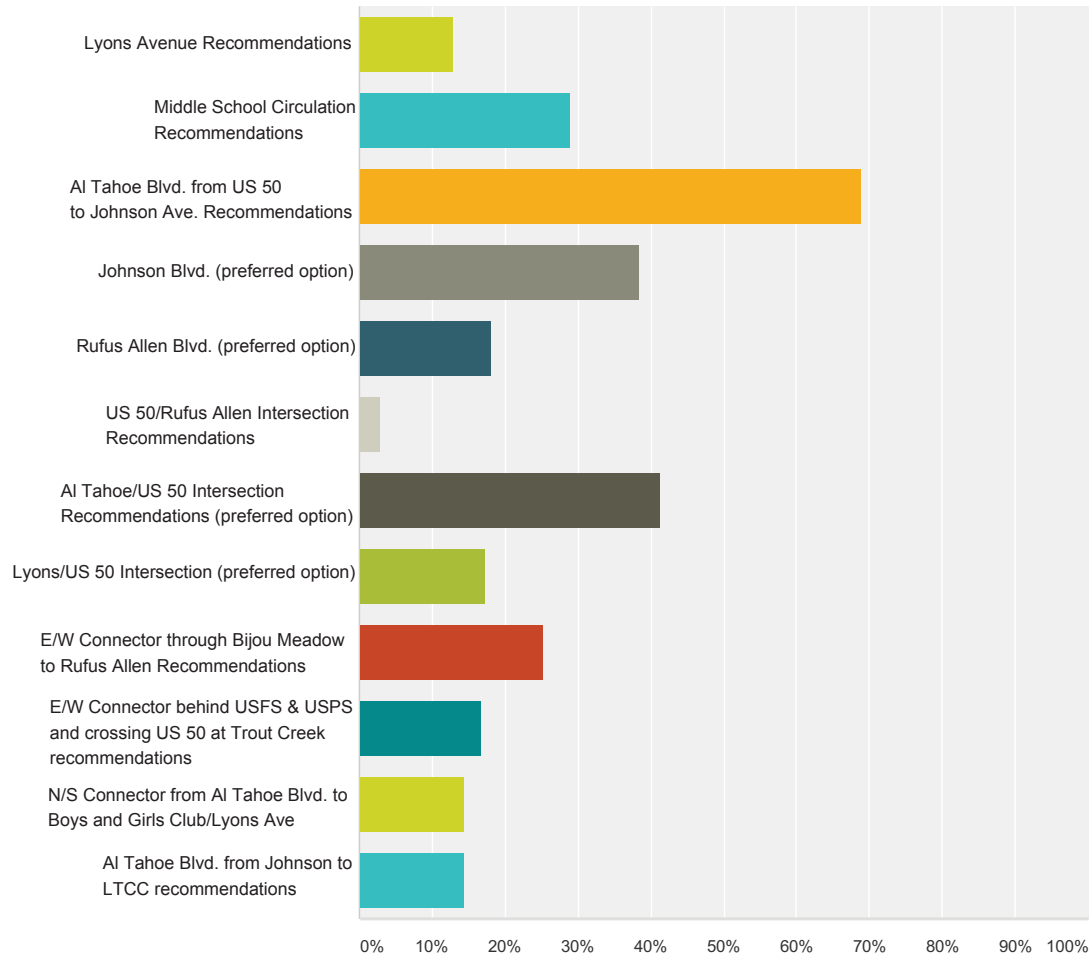
Answer Choices	Responses
Baseline Improvements: School zone striping and larger, flared curb ramps/waiting areas at the corners	38.73% 55
Enhanced Improvements: Includes baseline improvements listed above plus a striped crossing on the south side (from Middle School to the bike path) and a "scramble" crossing or all way pedestrian crossing phase (like the crossing @ the casinos in Stateline)	61.27% 87
Total	142

2014 SOUTH TAHOE MIDDLE SCHOOL CONNECTIVITY SURVEY 2 - ALTERNATIVES

South Tahoe Middle School Area Connectivity – Alternatives Selection

Q6 Identify the location of your top three priority projects for bike and pedestrian improvements. (Refer to map below)

Answered: 138 Skipped: 14



Answer Choices	Responses
Lyons Avenue recommendations	13.04% 18
Middle School circulation recommendations	28.99% 40
AI Tahoe Blvd. from US 50 to Johnson Avenue (your preferred option: [Q1])	68.84% 95
Johnson Blvd.(your preferred option: [Q2])	38.41% 53
Rufus Allen Blvd. (your preferred option: [Q3])	18.12% 25
Rufus Allen/US 50 Intersection recommendations	2.90% 4

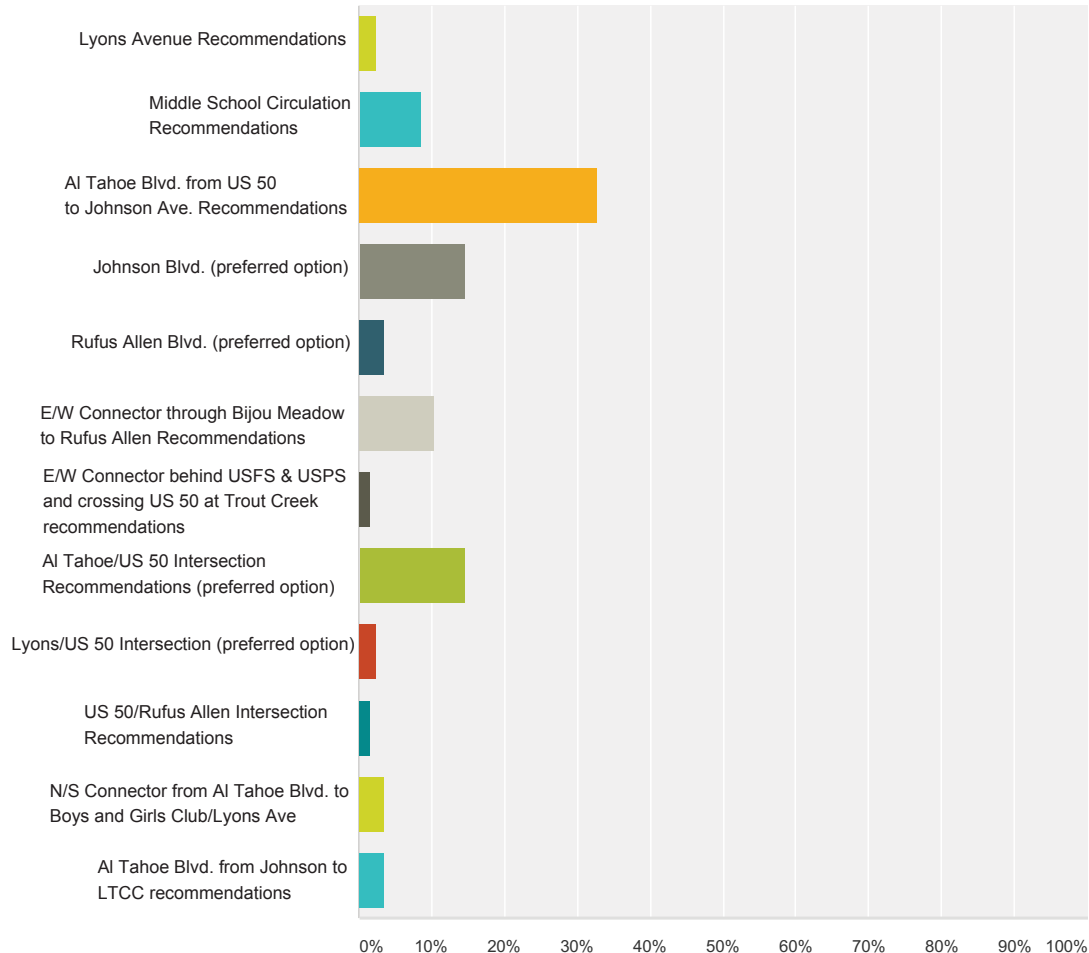
2014 SOUTH TAHOE MIDDLE SCHOOL CONNECTIVITY SURVEY 2 - ALTERNATIVES

South Tahoe Middle School Area Connectivity – Alternatives Selection

Al Tahoe/US 50 Intersection (your preferred option: [Q4])	41.30%	57
Lyons/US 50 Intersection (your preferred option: [Q5])	17.39%	24
E/W Connector through Bijou Meadow to Rufus Allen	25.36%	35
E/W Connector behind USFS & UPS and crossing US 50 at Trout Creek recommendations	16.67%	23
N/S Connector from Al Tahoe Blvd to Boys and Girls Club / Lyons Ave	14.49%	20
Al Tahoe Blvd. from Johnson to LTCC	14.49%	20
Total Respondents: 138		

Q7 What is your number one priority project and why is it most important to you?

Answered: 116 Skipped: 36



2014 SOUTH TAHOE MIDDLE SCHOOL CONNECTIVITY SURVEY 2 - ALTERNATIVES

Answer Choices	Responses	
Lyons Avenue recommendations	2.59%	3
Middle School circulation recommendations	8.62%	10
Al Tahoe Blvd. from US 50 to Johnson Avenue (your preferred option: [Q1])	32.76%	38
Johnson Blvd. (your preferred option: [Q2])	14.66%	17
Rufus Allen Blvd.(your preferred option: [Q3])	3.45%	4
E/W Connector through Bijou Meadow to Rufus Allen	10.34%	12
E/W Connector behind USFS & UPS and crossing US 50 at Trout Creek recommendations	1.72%	2
Al Tahoe/US 50 Intersection (your preferred option: [Q4])	14.66%	17
Lyons/US 50 Intersection (your preferred option: [Q5])	2.59%	3
Rufus Allen/US 50 Intersection recommendations	1.72%	2
N/S Connector between Rufus and Al Tahoe, behind Middle School Track	3.45%	4
Al Tahoe Blvd. From Johnson to LTCC	3.45%	4
Total		116

APPENDIX B:

2014 TAHOE VALLEY AREA PLAN BICYCLE FACILITY EVALUATION

Bicycle Facility Evaluation for the Tahoe Valley Area Plan



Prepared for the
Tahoe Regional Planning Agency

Prepared by



LSC Transportation Consultants, Inc.

Tahoe Valley Area Plan Bicycle Facility Evaluation

Prepared for the
Tahoe Regional Planning Agency
And the
City of South Lake Tahoe

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Appendix A — Bicycle and Pedestrian Counts

Appendix B — Community Meeting Minutes

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As part of the development of the Tahoe Valley Area Plan, one issue that was identified as meriting detailed evaluation was how best to make bicycle connections in the northern portion of the area, defined as the portion northwest of US 50 and northeast of State Route (SR) 89 (Emerald Bay Road). The key goals of this study are to identify the most convenient, safe, and useful routes for a variety of users, and what strategies are needed to improve conditions for cyclist and pedestrians by reducing conflict with motorists within the project area.

At the eastern end of this area (eastern end of Eloise Avenue) a Class I multiuse bicycle facility provides a dedicated connection eastward to the center of South Lake Tahoe, while the northwestern end of this area (the northern end of Eloise Avenue at 15th Avenue) is the origin of a popular Class I facility multiuse path serving Baldwin Beach and Camp Richardson. Between these two points, bicyclists use a variety of local streets to travel approximately 2 miles, with signage and sharrows providing guidance. An important goal of this study is therefore to identify how best to guide bicyclists unfamiliar with the area between these two Class I facilities, and what strategies are warranted to improve cycling conditions.

This study included the following:

- A public meeting to gain input on current bicycling conditions and opinions
- A series of bicycle and pedestrian counts
- A review of bicycle accident data
- An evaluation of various Class III signed bicycle routes
- An assessment of strategies to improve bicycle/pedestrian crossings of Tahoe Keys Boulevard, Eloise Avenue, James Avenue, and 3rd Avenue.

In total, this study has yielded recommendations regarding bicycle routing, intersection treatment, and signing/stripping.

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Existing Class III Signage and Markings

The following are marked bicycle routes in the study area:

- Eloise Avenue is marked as a bicycle route from end to end. In addition to bicycle route signs, sharrow markings are painted on both sides of the roadway at key intersections.
- A second route is marked from the 12th Street/Eloise Avenue intersection northeast on 12th Street, southeast on Tahoe Island Drive, northeast on Washington Avenue, and southeast on Tahoe Keys Boulevard to Eloise Avenue. This is indicated by signage only.

Bicycle and Pedestrian Counts

In order to determine current use patterns, a series of bicycle and pedestrian counts were performed by LSC staff on Wednesday, August 13th, 2014 from 3:00 PM to 6:00 PM and Saturday, August 16th, 2014 from 11:00 AM to 2:00 PM. The counts were conducted on James Avenue and Eloise Avenue at the intersections with the following four cross streets: Tahoe Keys Boulevard, 3rd Street, Dunlap Drive and 15th Street. Table 1 presents a summary of the counts, while the data by 15-minute count period are presented in Appendix A.

Table 1: Summary of Bicycle and Pedestrian Volumes At James Avenue and Eloise Avenue Crossings											
Cross Street Location	Weekday Peak Hour			Saturday Peak Hour			Estimated Saturday Daily Volume			% By Mode	
	Bicycles	Pedestrians	Total	Bicycles	Pedestrians	Total	Bicycles	Pedestrians	Total	Bicycles	Pedestrians
Tahoe Keys Blvd	68	16	84	122	24	146	793	156	949	84%	16%
3rd Street	40	5	45	50	14	64	325	91	416	78%	22%
Dunlap Dr	57	26	83	104	5	109	676	169	845	80%	20%
15th Street	147	7	154	198	9	207	1,287	59	1,346	96%	4%

Also shown in Table 1 are estimated daily volumes. The daily volumes were estimated by multiplying the peak hour by a peak hour to daily factor of 6.5. This peak hour factor was developed from analyzing daily and peak-hour bicycle count data from the *Lake Tahoe Bicycle and Pedestrian Plan* for locations on the south shore of Lake Tahoe. As shown, total daily bicycle/pedestrian activity was 1,346 movements at the Eloise and

James intersections of 15th Street, 949 movements at the Tahoe Keys Boulevard intersections, 845 movements at the Dunlap Drive intersections, and 416 at the 3rd Street intersections. The majority of non-motorized travel was made by cyclists, ranging from a low of 78 percent of all bike/ped movements at the 3rd Street intersections to a high of 96 percent at the 15th Avenue intersections.

The key findings of these counts are discussed below, by count area.

Tahoe Keys Boulevard

The intersection of Eloise Avenue and Tahoe Keys Boulevard is complicated by the presence of a fifth intersection leg formed by Council Rock Drive. A summary of all bikes and pedestrians movements near Tahoe Keys Blvd discovered the following:

- 37% crossed Tahoe Keys Blvd at Eloise Avenue
- 22% turned on or off of Tahoe Keys Blvd to/from the Bike Path on Eloise
- 14% traveled along Tahoe Keys Blvd without crossing
- 11% crossed Tahoe Keys Blvd at James Avenue
- 4% crossed Tahoe Keys Blvd north of Eloise Avenue where Council Rock Drive diverges from Tahoe Keys Drive
- 12% performed other turning movements

Overall, these counts reflect that substantially more crossings occur at the Eloise Avenue intersection than at the James Avenue intersection.

3rd Street

Between Tahoe Keys Boulevard and 3rd Street, bicycle and pedestrian volumes decrease significantly. A summary of all bicycle and pedestrian movements near 3rd Street discovered the following:

- 58% crossed 3rd Street at Eloise Avenue
- 8% crossed 3rd Street at James Avenue

- 34% performed other movements

Dunlap Drive

At Dunlap Drive, both Eloise Avenue and James Avenue change direction at acute angles.

- The highest pedestrian volumes in the study area were observed at this location, which occurred during the weekday between 4:45 PM and 5:45 PM.
- A summary of all bicycle and pedestrian movements near Dunlap Drive discovered that 57 percent of movements were crossing Dunlap by going from Eloise Avenue on one side to Eloise Avenue on the other side.

15th Street

- This location had the highest hourly bicycle volume in the study area (198 bicycles per hour), which occurred on a Saturday between 12:45 PM and 1:45 PM.
- 80% crossed 15th Street between the Class I Bike Path and Eloise Avenue
- 5% crossed 15th Street between the Class I Bike Path and James Avenue
- 5% traveled between location east of Eloise and the Class I Bike Path
- 10% that traveled in the area did not use the Class I Bike Path

The counts at each intersection give a good indication of overall travel patterns through the area:

- At both terminal ends of the paths, the majority of the users traveled on Eloise Avenue.
- At the 15th street end, 80 percent continued or came from Eloise Avenue
- At Tahoe Key Boulevard, 37 percent used Eloise, with the 2nd highest group (22 percent) turning on or off Tahoe Keys Blvd. This 2nd largest group of users is assumed to either take Tahoe Keys to Washington Avenue in order to proceed along the Tahoe Island route, or reach destinations within the Tahoe Keys

neighborhood. They are not assumed to connect back to the bike path via Venice Drive, as 15th Street count locations reports only 5% traveled south on 15th street from Venice Drive.

Accident Data

The Statewide Integrated Traffic Records System (SWITRS), maintained by the California Highway Patrol, provides a database of all reported roadway accidents throughout California. A review of all accidents in which a bicycle or pedestrian was involved that occurred in the South Lake Tahoe area over the last ten years was conducted. Based on these criteria it was found that a total of 206 bicycle and pedestrian related accidents had occurred, as shown in Table 2.

TABLE 2: 2004-13 Recorded Bicycle and Pedestrian Accidents in South Lake Tahoe

			Citywide		Along Potential Bike Routes	
			Bicycle	Pedestrian	Bicycle	Pedestrian
2013	-	2014	1	3	0	0
2012	-	2013	10	3	0	0
2011	-	2012	13	7	0	0
2010	-	2011	3	10	0	0
2009	-	2010	14	5	0	0
2008	-	2009	16	12	2	0
2007	-	2008	15	11	3	0
2006	-	2007	13	13	0	0
2005	-	2006	13	14	0	2
2004	-	2005	11	19	0	0
Total			109	97	5	2

Source: CHP, Statewide Integrated Traffic Records System.

Note: The City of South Lake Tahoe Police Department has recently improved their process for recording bicycle and pedestrian accidents. The data shown may not include all accidents.

Though the majority of these accidents happened along US 50 or SR 89, seven of the recorded accidents happened on one of the street among the potential route options:

- James/3rd -- Two accidents involving a bicyclist
- James/10th – One accident involving a bicyclist and one accident involving a pedestrian
- Washington/3rd – One accident involving a bicyclist
- Tahoe Keys/California – One accident involving a pedestrian
- Tahoe Island/Tahoe Vista – One accident involving a bicyclist

As indicated, four of the seven accidents occurred along James Avenue. It is notable that, despite the higher bicycle and pedestrian activity levels, no accidents involving bicyclists or pedestrians were reported anywhere along Eloise Avenue in the ten-year period.

Public Meeting and Other Input

A public meeting was held on July 21, 2014 at South Lake Tahoe City Hall. After a presentation by the consultants, a spirited discussion ensued. Much of this focused on the need for improved bicycling conditions. In addition, the pros and cons of various route options were discussed. Minutes of this meeting are provided as Appendix A, attached. In addition, several emails and letters were subsequently received, which are provided in this appendix.

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Potential Route Options

Based on public input and a review of traffic engineering factors, seven potential route options were developed and evaluated as potential connector routes through the Tahoe Valley area. These options are shown in Figure 1, and discussed below.

Eloise – Eloise: This route would follow Eloise Avenue for the entire length between the ends of the two Class I facilities, as is currently in place.

James – James: Near the western end of the Class I path over the Upper Truckee River, a short piece of pavement would formalize the existing use path connecting with the northeastern end of James Avenue. The route would travel southwest on James Avenue and jog to Eloise Avenue for the one block east of Dunlap, then return to James Avenue for the northwestern run to 15th Avenue where the route would jog northeast to the end of the Class I facility to Camp Richardson.

James (West) – Eloise (East): This option would use James Avenue in the western portion, but stay on Eloise Avenue east of Dunlap Drive.

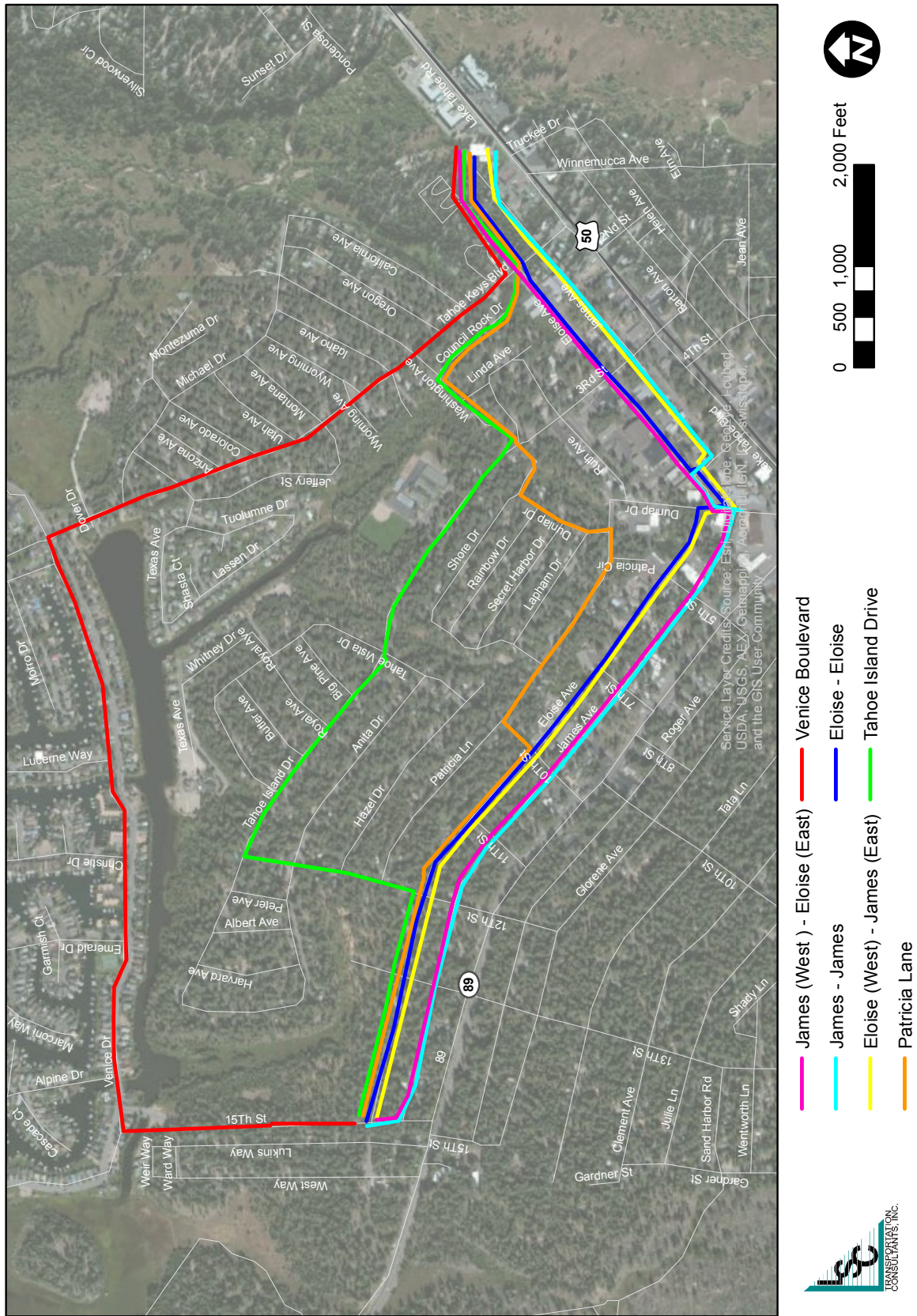
Eloise (West) – James (West): This route would use Eloise west of Dunlap Dr, and then jog to James to the east.

Patricia Lane – Starting on Eloise Avenue at the western terminal end of the bike path, the route would jog to the northeast at 10th Street and then use Patricia Lane southeast to Dunlap Drive. Heading northeast on Dunlap Drive, the route would then follow a short section of South Shore Drive, Washington Avenue, Council Rock Drive, and finally Eloise Avenue.

Tahoe Island Drive -- This is similar to the Patricia route, except that 12th Avenue and Tahoe Island Drive would be used to connect Eloise Avenue and Washington Avenue.

Venice Boulevard -- The Venice Route would use 15th Street to connect to Venice Drive and Tahoe Keys Blvd, connecting in the east to the bike path via Eloise Avenue.

Figure 1
Potential Bike Routes in Northern Tahoe Valley



Route Evaluation

As a basis for evaluating the various route options, data was collected for a range of factors that impact the safety, user comfort and scenic attractiveness of each. As summarized in Table 3, the following were the characteristics considered:

- Crossing Conditions at Tahoe Keys Boulevard – While neither the crossing at James or at Eloise are good (as there is substantial through traffic and no signing, striping, or signals); the crossing at James is particularly poor due to the short distance for drivers turning off of US 50.
- Crossing Conditions at 3rd Avenue – Again reflecting the short distance between James Avenue and US 50, conditions are better at Eloise Avenue than at James Avenue. The lower traffic volumes coupled with relatively good lines of sight provide better crossing conditions at 3rd Avenue than at Tahoe Keys Boulevard.
- Length of Route – The shortest route is the Eloise-Eloise option at 1.70 miles. Several other options (James – Eloise, Eloise – James and Patricia are only slightly longer. At the other end, the Venice Drive option is almost a half-mile (0.48 mile) longer.
- Ease of Routefinding – A route with fewer turns tends to be easier for cyclists to follow, while staying on one named street makes it easier to remember. Even with bicycle route signage, each turn introduces a potential for a cyclist unfamiliar with the area to miss a sign and get “off route”. The Eloise – Eloise route is preferable by this criterion. Note that the James – James route requires additional turns due to the fact that the block just east of Dunlap Drive is missing.
- Number of Intersecting Public Streets – Intersections tend to increase the potential for accidents, and also reduce the attractiveness of a route as cyclists need to be more alert for potential conflicts. The lowest number of intersections is found along the Eloise – Eloise route (16), while the highest number is along the Venice Drive route.
- Number Of Intersecting Driveways – Driveways also create the potential for conflicts that reduce the value of a bike route. The lowest number is found along the James – James route (110) and the highest number (147) is found on the Tahoe Island Drive and Venice Drive routes. The Eloise – Eloise route’s figure is also relatively low (114).

TABLE 3: Comparison of Potential Through Bicycle Routes in Northern Tahoe Valley Area

All routes connect Class I facility at northeast end of Eloise Avenue to Class I facility at northwest end of Eloise Avenue

Assuming No Improvements

	James-James	James (W) - Eloise (E)	Eloise - Eloise	Eloise(W) - James (E)	Patricia Lane	Tahoe Island Dr.	Venice Drive
Crossing Conditions at Tahoe Keys Blvd	Very Poor	Poor	Poor	Very Poor	Poor	Poor	Poor
Crossing Conditions at 3rd Avenue	Average	Good	Good	Average	n/a	n/a	n/a
Length of Route (miles)	1.83	1.77	1.70	1.76	1.76	1.85	2.18
Additional Length over Shortest Route (mi)	0.13	0.07	0.00	0.06	0.06	0.15	0.48
Ease of Routefinding	Average	Average	Good	Average	Poor	Poor	Average
Number of Intersecting Public Streets	24	18	16	21	21	20	29
Number of Intersecting Driveways	110	133	144	121	124	147	147
Relative Traffic Volume	Low	Low	Low	Low	Low	Moderate	High
Number of Parked Cars Passed	87	57	73	103	30	22	35
Percent of Adjacent Land Use							
Light Industrial/Service	25%	15%	12%	21%	1%	0%	0%
Commercial	23%	22%	20%	21%	2%	2%	2%
Natural/Undeveloped	8%	16%	20%	13%	10%	10%	17%
Residential	43%	46%	48%	45%	87%	88%	81%
Number of Accidents Along Route (10 years)	3	1	0	2	0	1	0

OVERALL SCORE ON A SCALE OF 1 (VERY POOR) TO 5 (VERY GOOD)

Overall Conditions for Experienced Riders	3	3	3	3	5	5	4
Overall Conditions for Inexperienced Riders	3	3	3	3	5	5	4
Overall Attractiveness for Resident Riders	3	3	2	2	4	4	4
Overall Attractiveness for Visitor Riders	3	2	3	3	5	5	4

- **Number of Parked Cars** – Cars parked along the roadways has a particular impact on the quality of a bike route, as they can block the cycling area and create the potential for “dooring”. A survey on a summer day found this figure to be lowest for the Tahoe Island Drive route (22) followed by Patricia (30) and Venice Drive (35). The James (West) – Eloise (East) and Eloise – Eloise routes had a moderate level (57 and 73, respectively), while the Eloise (West) – James (East) route had the highest at 103.
- **Relative Traffic Volume** – While specific traffic volumes vary from block to block, overall the various combinations of Eloise and James, as well as Patricia Lane routes have relatively low volumes, the Tahoe Island Drive route has a moderate volume, and the Venice Drive route has a relatively high volume.
- **Percent of Adjacent Land Use in Various Land Use Categories** – As a recreational experience, a bike route is better by the higher the proportion of natural lands it passes, and worse by the proportion of commercial and (particularly) industrial/service lands it passes. Residential land uses can be considered relatively neutral. As shown in Table 3, the greatest proportion of adjacent parcels that are natural/undeveloped (typically forested) is found along the Eloise – Eloise route (20 percent) and the Venice Drive route (17 percent), dropping as low as 10 percent for the Patricia Lane and Tahoe Island Drive, and 8 percent along James Avenue. The proportion of light industrial/service land uses is highest along James Avenue (25 percent) and lowest (none) along the Tahoe Island Drive and Venice Drive routes, with Eloise Avenue in the middle (12 percent). Commercial land use proportion is comparable between James Avenue (23 percent) and Eloise Avenue (20 percent), both of which are substantially higher than the Patricia Lane, Tahoe Island Drive, and Venice Drive routes (2 percent). This factor is less important for commuting cyclists as the main purpose of their trip is not the experience of the trip. However, as light industrial/land uses tend to generate higher traffic turning movements and resulting conflicts with cyclists, land use is still a consideration for commuting cyclists.
- **Number Of Bicycle Accidents Along Route In The Past 10 Years** – The greatest number of accidents reported occurred on the James – James route (three), while no accidents were reported on the Eloise – Eloise, Patricia Lane, and Venice Drive routes.

While traffic speed is another factor for consideration, speed count data is not available and collection of this data was not included in the scope of the study. Anecdotally, traffic speeds are higher along Tahoe Keys Boulevard.

Recommended Route

The following discusses recommended overall routes. Specific modifications to support these routes and address identified deficiencies are discussed following.

It is recommended that the existing bike route of Eloise – Eloise should continue to be used as the primary route which connects the two Tahoe Valley shared use paths. The Tahoe Island route should be designated as a secondary bike route used to connect the Tahoe Valley Bike Paths.

The Eloise – Eloise route should be considered the primary connecting bike route for the following reasons:

- Eloise Avenue is the most direct path connecting the Tahoe Valley Bike Path.
- Though the route travels along a high percentage of commercial and light industrial land uses, the roadway is relatively low volumes and speed and it has a relatively high proportion of natural/undeveloped land use.
- Eloise Avenue is only two blocks away from US 50 and SR 89, which contain many restaurant and shopping destinations.
- The crossings of Tahoe Keys Boulevard and 3rd Avenue along Eloise Avenue are at safer locations than the James Avenue locations.

The Tahoe Island route should be considered a secondary route for the following reasons:

- At only an additional 0.15 miles over the length of the Eloise – Eloise route, Tahoe Island provides a more scenic alternative route to Eloise as it travels along no commercial or light industrial land uses.
- Currently a bike route in this corridor is already designated. However, it should be changed to use Council Rock Drive instead of Tahoe Keys Blvd. This will keep users off the high traffic volume Tahoe Keys Blvd, concentrate crossing activity at Eloise Avenue, and reduce crossing conflicts at Washington Avenue.
- The Tahoe Island route is preferable over the Patricia Lane route as it serves the Tahoe Valley Elementary School.

- The Tahoe Island route is preferable over the Patricia Lane route as it reduces the number of turns that cyclists have to negotiate and thus the potential to get off route.

Regarding the other potential routes, the following is a short discussion of each of the route's shortcomings.

James to James: Based on accident data, James Avenue has the most potential for Auto/Bicycle and Auto/Pedestrians accidents. The speed at which vehicles turning off the highway are high, and the close proximity of the James Avenue intersections reduces the ability to recognize and react to cyclists. James Avenue also has a large number of intersecting streets, adding to potential vehicle conflicts. In addition the alignment of James requires those traveling along it to make several unintuitive turns near and around Dunlap Drive. This can create some confusion and can potentially cause some users to become off route. The James – James route also travels along the highest percentage of commercial and light industrial land uses. Because of the above mentioned reasons, the two James Avenue variations are also poor candidates for route options.

Patricia Lane: The Patricia Lane route comes in as the third most plausible route to connect the two Class I paths. However the Tahoe Island route is chosen over the Patricia route as it avoids the potentially hazardous (recorded accident) and confusing left turn at the intersection of Washington/Tahoe Island/3rd Street. The Patricia route also requires the user to make several turns before it rejoins Eloise Avenue, potentially confusing and losing the user.

Venice Drive: The Venice route proves undesirable based on various reasons. As it is the longest route of the seven options, the primary reason is distance. Though only half a mile longer than the Eloise – Eloise route; the Venice route makes an unnecessary jog to the north before returning south again. Bike path users, upon seeing the route on a map or realizing they are no longer traveling along a reasonably direct path, will likely consider this as undesirable and forgo the route altogether. In addition, Tahoe Keys Blvd is considered a high volume street, with one reported accident along it. Finally, the high auto traffic is negative, adding to the factors that make the route undesirable.

Recommended Improvements

Signage

The bike route used to connect the Tahoe Valley bike paths is considered a Class III type path as defined by the Caltrans *Highway Design Manual*. A Class III bike route, which shares the road with vehicle traffic, should be marked with signs as well as pavement markings.

As documented in the *Lake Tahoe Bicycle and Pedestrian Plan* (2010) Design Guidelines Section 4.2, the bike route should be signed with a D11-1 bike route sign at:

- Beginning at the end of the Class I facilities (with applicable M4 series signs as shown below)
- At major changes in direction or at intersections with other bicycle routes (with applicable M7 series signs below)
- At intervals along bicycle route not to exceed ½ mile

An information kiosk similar to the Interpretive Signage described in section 8.1 of the *Lake Tahoe Bicycle and Pedestrian Plan* should be installed at both terminal ends of the Tahoe Valley Class I Shared Use Path. The sign should have a map with the two route alternatives (Eloise – Eloise and Tahoe Island) bike routes pictured. A description of each should be included to describe the most direct route and scenic nature of each. In addition, a directory of nearby local businesses should be displayed, as well as directions to services and activity centers.

Pavement Markings

Per section 4.2.3 of the *Lake Tahoe Bicycle and Pedestrian Plan*, Shared Lane Marking stencils (sharrows) should be placed on bike routes. The following additional guidelines are from the California Manual on Uniform Traffic Control Devices (CMUTCD) Section, 9C.07:

- If used in a shared lane with on-street parallel parking, Shared Lane Markings should be placed so that the centers of the markings are at least 11 feet from the face of the curb, or from the edge of the pavement where there is no curb.

- If used on a street without on-street parking that has an outside travel lane that is less than 14 feet wide, the centers of the Shared Lane Markings should be at least 4 feet from the face of the curb, or from the edge of the pavement where there is no curb.
- If used, the Shared Lane Marking should be placed immediately after an intersection and spaced at intervals not greater than 250 feet thereafter.

Sharrow markings are currently in place along Eloise Avenue. However, there are several long stretches where no markings are provided, specifically the 1,300-foot section of Eloise Avenue between Dunlap Drive and 3rd Street, and the 1,100-foot section of Eloise Avenue between 3rd Street and Tahoe Keys Boulevard. We recommend that additional sharrow markings be placed in each direction on Eloise at the James Avenue intersection, mid-block between James Avenue and 3rd Avenue, and mid-block between 3rd Avenue and Tahoe Keys Boulevard. This will provide visiting cyclists with reassurance that they are on the bike route.

Sharrow markings should also be placed along the Tahoe Island Drive secondary route, as discussed above. This will require installation and maintenance of approximately 36 additional individual markings.

Sharrow markings are not recommended along James Avenue, as it is not a designated bike route. However, the section of James parallel to US 50 serves a relatively high traffic volume and is also used by cyclists accessing the adjacent commercial land uses. The straight alignment tends to encourage excessive travel speeds. Center line yellow striping and white edge line striping is recommended in order to create a 10-foot travel lane in each direction. While pavement width varies, this will result in a 3 to 4 foot wide paved shoulder on both sides of the roadway and help to separate cyclists from motor traffic. By reducing the perceptual width of the roadway, this striping will reduce travel speeds and overall accident potential.

Pedestrian Crosswalk

A marked crosswalk provides a defined path for pedestrians and cyclists to cross a roadway. Marked crosswalks can serve several purposes including channelizing cyclists/pedestrians to cross the road in a single specific location, and making drivers aware of encountering a crossing location.

As discussed below, pedestrian crossing improvements are considered at the following three primary crossing locations along the proposed Tahoe Valley bike route:

- Tahoe Keys Blvd
- 3rd Street
- Dunlap Drive

Consideration is also given to the Tahoe Keys Boulevard crossing at Washington Avenue.

Warrants and Guidelines

The CMUTCD is a key guidance document regarding crossing options. The CMUTCD does not specify minimum pedestrian crossing volume warrants for the installation of marked crosswalks at uncontrolled intersections. However, the CMUTCD states the following guidelines in agreement with studies concluding that marked crosswalks can be less safe than unmarked crosswalks:



- Crosswalk lines should not be used indiscriminately. An engineering study should be performed before they are installed, at locations away from highway traffic signals or STOP signs.
- Because non-intersection pedestrian crossings are generally unexpected by the road user, warning signs should be installed and adequate visibility should be provided by parking prohibitions.

The following factors may be considered in determining whether a marked crosswalk should be used:

- Vehicular approach speeds from both directions
- Vehicular volume and density
- Vehicular turning movements

- Pedestrian volumes
- Roadway width
- Day and night visibility by both pedestrians and motorists
- Channelization is desirable to clarify pedestrian routes for sighted or sight impaired pedestrians.
- Discouragement of pedestrian use of undesirable routes
- Consistency with markings at adjacent intersections or within the same intersection

The 2009 edition of the Federal MUTCD contains pedestrian and vehicle volume warrant guidelines for Pedestrian Hybrid Beacons.

Though a hybrid pedestrian beacon is not recommended, its warrant is applied as a reference in determining the validity of a marked crosswalk. These warrant volumes are contained in the MUTCD under the “guidance” heading meaning that they may be modified based on engineering judgment. The warrant

guidelines consider pedestrian volumes, conflicting vehicle volumes, and roadway width. There are separate warrant guidelines for low-speed roadways (posted speed limit of 35 mph or less) and high-speed roadways (posted speed limit greater than 35 mph). Both warrants suggest a minimum crossing volume of 20 pedestrians during the peak hour to consider use of a pedestrian hybrid beacon.



Table 4 displays the warrant threshold for the number of pedestrians, given the vehicle volumes and roadway width for crossing locations. For the crossing of Tahoe Keys Boulevard and Council Rock Drive on Eloise, an effective crosswalk length of 50 feet was applied, as pedestrians/cyclists on the westernmost 20 feet of the crosswalk are in little danger from through traffic movements. James Avenue was included in the warrant analyses as a comparison. The crossings at Dunlap Drive are included but due to the

low vehicle volumes no minimum pedestrian threshold warrant is met. Based on this analysis, a full pedestrian hybrid beacon is not warranted at any of the crossing locations. The location that gets closest to meeting the minimum warrant level is the Eloise/Tahoe Keys crossing, where crossing activity is 33 percent of the minimum warrant threshold.

TABLE 4: Tahoe Valley Bike Route, Pedestrian Hybrid Beacon Warrant

	Eloise Ave	James Ave
Tahoe Keys Boulevard		
<i>Minimum Bicyclists/Pedestrians per Hour</i>	130	80
<i>Bicyclists/Pedestrians Per Hour</i>	43	8
Warrant Met?	NO	NO
3rd Street		
<i>Minimum Bicyclists/Pedestrians per Hour</i>	483	483
<i>Bicyclists/Pedestrians Per Hour</i>	40	9
Warrant Met?	NO	NO
NOTE 1: Vehicle volume too low on Dunlap to consider Warrant		
NOTE: Pedestrian volumes are based on pedestrians counts conducted on August 13&16, 2014.		
NOTE: Warrants for the pedestrian hybrid beacon are listed under "guidance" in the MUTCD and are therefore subject to modification based on engineering judgment.		

A full traffic signal pedestrian volume warrant is also available in the MUTCD. This warrant was applied to the crossing locations along the bike route, and was found to not be met.

Recommended Improvements to the Eloise Avenue Crossing at Tahoe Keys Boulevard

Figure 2 presents the recommended crossing improvements along Eloise Avenue at Tahoe Keys Boulevard. Based upon the discussion above and current design standards (as presented in the *Lake Tahoe Bicycle and Pedestrian Plan*), the following elements are included:



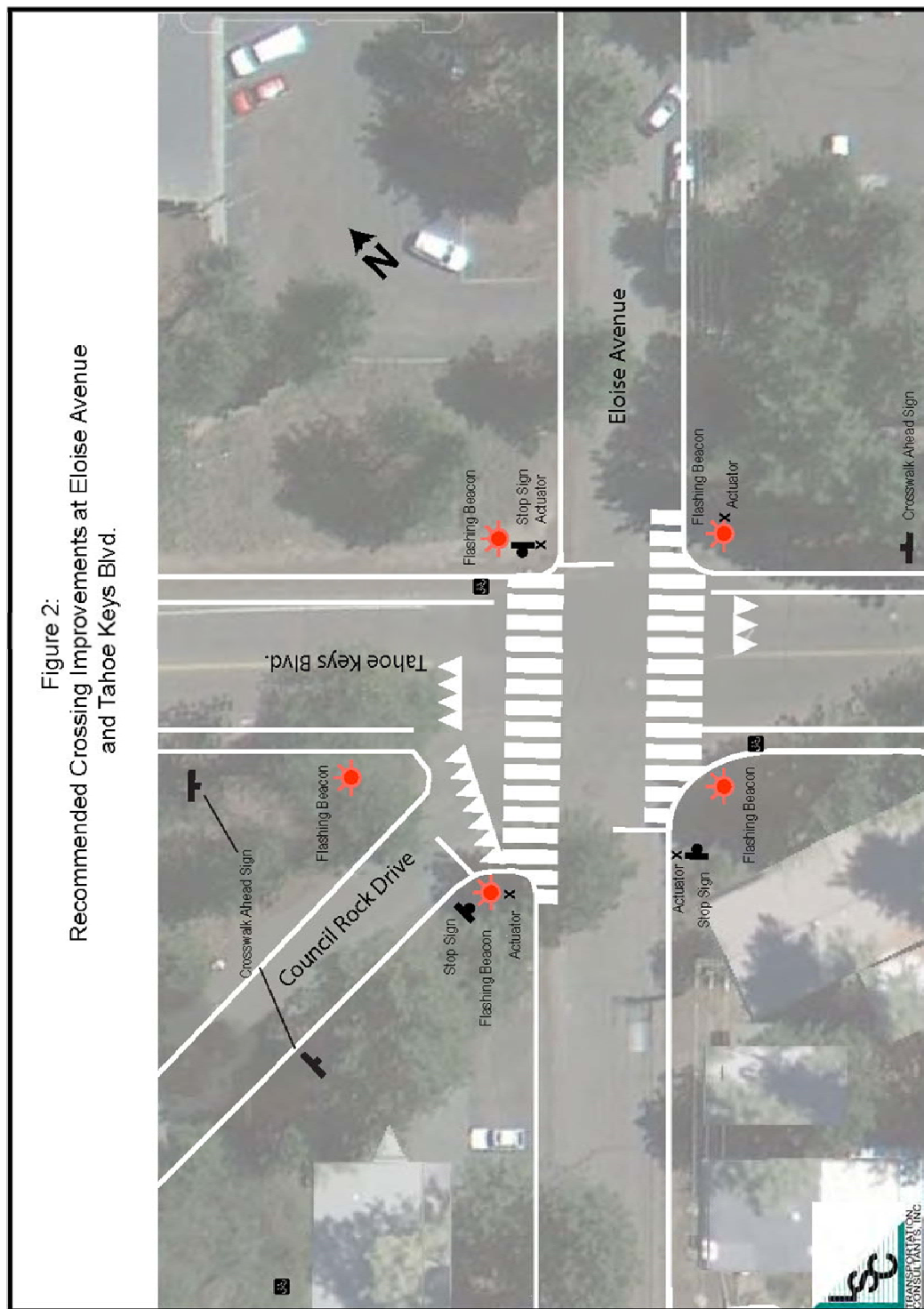


Figure 2:
Recommended Crossing Improvements at Eloise Avenue
and Tahoe Keys Blvd.

- “International Style” crosswalks are marked along both sides of the Eloise Avenue alignment. These are recommended to be 10 feet in width, starting from a point 3 feet in from the existing edge of pavement on Eloise Avenue (the unmarked edge of the bicycle lane). “Shark teeth” advanced triangular markings are provided to increase the awareness of approaching motorists.
- Flashing beacons (solar powered) should be located on each of the five corners of the intersections, similar to those installed on Heavenly Village Way. While there are no formal warrant criteria for this type of installation, the fact that this location meets 33 percent of the warrant volumes for a PHB and that its installation is consistent with conditions at other locations selected for this treatment indicates that this is an appropriate strategy. These flashers should be actuated by actuators installed on the four corners along Eloise Avenue. The actuators on the southwest and northeast corners (where bicyclists traveling on the right side of the road will reach the intersection) are on separate posts located convenient to the bicycle travel path at the start of the crosswalk markings, while those on the northwest and southeast corners (used only by pedestrians) are located on the flashing beacon post. Pressing any of the actuator buttons will (through a wifi signal) actuate yellow flashing beacons on all five posts. To allow the flashing to continue for the time necessary for pedestrians to complete the longer crossing, the flashing phase should continue for 25 seconds.
- Advance crosswalk signs (W11-2) should be placed on the Tahoe Keys Boulevard and Council Rock Drive approaches, approximately 100 feet in advance of the crosswalk.

Note that this plan does not require any roadway construction or change in pavement. Estimated cost of striping, signs, flashing beacons and actuators is \$19,000.

A similar crosswalk striping plan, with actuated beacons and advance crosswalk signs, is recommended for the intersection of Eloise Avenue at 3rd Street.

Discussion of Other Potential Improvements

The discussion above provides the recommendations that are the focus of this study. The following is a discussion of other issues raised in the course of the study:

- The intersection of Tahoe Island Drive, 3rd Street and Washington Avenue was the site of a bicyclist injury accident in 2008. This accident consisted of a

northbound driver overtaking a cyclists also proceeding northbound at an excessive rate of speed. This intersection is controlled by Stop signs on all four approaches. A “Stop Sign Ahead” sign has been installed on the curve approaching the intersection from the south, and the fifth leg has been eliminated from the intersection. While any accident is regrettable, the fact that the history is limited to one reported accident over a ten year period and that there are no other geometric or sight distance deficiencies indicates that no other modification are appropriate. If additional similar crashes occur in the future, a warning beacon on the “Stop Sign Ahead” sign could be considered.

- The section of Tahoe Island Drive between Washington Avenue and Tahoe Vista Drive provides the only public access to Tahoe Valley Elementary School. It is a particularly difficult roadway on which to improve bicycle safety. The 1,500 foot long tangent section tends to encourage high rates of vehicle speed, while the limited 23-foot pavement width is insufficient for a motorist to safely overtake a cyclist in all conditions. The 40-foot right-of-way width, moreover, makes widening of the roadway a difficult proposition. While the recommendations above would provide sharrow markings, another more effective means of reducing traffic speed and increasing driver attention would be a series of speed humps.¹ To fully conclude that speed humps are appropriate would require speed counts and an assessment of specific potential hump locations that is beyond the scope of this study.
- As discussed above, it is recommended that cycling conditions along James Avenue parallel with US 50 be improved through striping to define the travel lanes and shoulders. A more aggressive option would be to convert the sections of Eloise Avenue and James Avenue to one-way operation, which could provide for a dedicated bike lane on both streets with a painted median separating the cyclists from motor traffic. However, this is not recommended for the following reasons:
 - One-way streets tend to result in higher traffic speeds.
 - One-way streets increase overall roadway and turning movement volumes as some movements require out-of-direction travel. As a result, traffic noise and air emissions are increased.

¹ This is the strategy that has been implemented by Placer County on the neighborhood streets near the Kings Beach Elementary School in Kings Beach.

- As the segments of Eloise Avenue and James Avenue east of Tahoe Keys Boulevard are dead-end (and thus would need to remain two-way), continuous bike lanes connecting with the Class I facility to the east could not be provided.
- Between the 1-Way signs (which must be visible from all driveways), Do Not Enter signs, No Left Turn signs and No Right Turn signs, one-way streets substantially increase the visual clutter of the streetscape.
- While counts at the Tahoe Keys Boulevard / Washington Avenue intersection were not included in the study scope, there is a modest level of bicycle and pedestrian crossing activity at this location. There is currently a marked crosswalk and advance warning signage on Tahoe Keys Boulevard. Given that there is no history of pedestrian or bicycle accidents at this location over a 10 year period, the current level of crossing improvement is appropriate.
- The Eloise bicycle route requires cyclists to negotiate a jog on Dunlap Drive formed by the fact that the two Eloise Avenue approaches to Dunlap Drive are offset by roughly 140 feet and are at acute angles. Bike Crossing Ahead signs are in place on the Dunlap Drive approaches, and cyclists are provided with signs to guide them through the area. While optimally the east approach would be realigned to be opposite the west approach, this would require purchase of private property and is probably not feasible. Another option would be to convert the busier Dunlap / Eloise (East) intersection to an all-way stop. This would require a specific warrant study, including traffic counts. (The fact that no pedestrian or bicycle accidents were recorded in this area over a ten-year period indicates that an All-Way Stop would not be warranted for safety reasons.) Dunlap Avenue would also be a good candidate location for speed humps, located to the south of Eloise (East) and to the north of Eloise (West).
- As a bicycle route, it is important that the pavement condition along Eloise Avenue be improved. This is particularly important due to the relatively narrow roadway, which can require cyclists avoiding a pothole to encroach into vehicle travel paths.

APPENDIX A
Bicycle and Pedestrian Counts

Tahoe Keys Blvd Bicycle and Pedestrian Counts

15-Minute Period Start Time		Peak Hour		# Bicyclists and Pedestrians in Period by Movement																									
		Total Bikes	Hourly Bike Total	Total		Hourly		Bikes & Total		Hourly		Total		Using Turning		Crossing at James		Crossing at Eloise		Crossing at James		% Turning on/off		% Using Council Rock		% Along TKB		% Other Movements	
Weekday -- August 13, 2014																													
3:00 PM	17	68		1	9	18	77		14	1	1	2	0	0	0	78%	6%	11%	0%	0%									
3:15 PM	21	59		1	8	22	67		10	1	0	6	4	1	45%	5%	27%	18%	5%										
3:30 PM	12	59		3	11	15	70		4	3	2	0	4	2	27%	20%	0%	27%	13%										
3:45 PM	18	62		4	11	22	73		9	3	1	2	7	0	41%	14%	9%	32%	0%										
4:00 PM	8	50		0	9	8	59		3	2	1	1	0	1	38%	25%	13%	0%	13%										
4:15 PM	21	54		4	12	25	66		4	3	4	5	8	1	16%	12%	20%	32%	4%										
4:30 PM	15	43		3	13	18	56		7	2	0	6	2	1	39%	11%	0%	33%	6%										
4:45 PM	6	44		2	14	8	58		0	2	0	2	1	3	0%	25%	0%	13%	38%										
5:00 PM	12	50		3	16	15	66		5	3	1	1	1	4	33%	20%	7%	7%	27%										
5:15 PM	10	--		5	--	15	--		3	5	1	3	0	3	20%	33%	7%	20%	20%										
5:30 PM	16	--		4	--	20	--		7	3	1	5	3	1	35%	15%	5%	25%	5%										
5:45 PM	12	--		4	--	16	--		5	3	2	4	0	2	31%	19%	13%	25%	13%										
Peak Hour	--	68		--	16	--	77		37	8	4	10	15	3	44%	10%	5%	12%	18%	4%									
Saturday -- August 16, 2014																													
11:00 AM	16	102		10	24	26	126		7	0	1	7	8	3	27%	0%	4%	27%	31%	12%									
11:15 AM	20	110		6	17	26	127		7	5	2	1	5	6	27%	19%	8%	4%	19%	23%									
11:30 AM	22	111		5	14	27	125		9	1	0	8	4	5	33%	4%	0%	30%	15%	19%									
11:45 AM	44	114		3	16	47	130		20	2	2	19	2	2	43%	4%	4%	40%	4%	4%									
12:00 PM	24	96		3	18	27	114		8	2	1	8	4	4	30%	7%	4%	30%	15%	15%									
12:15 PM	21	97		3	22	24	119		12	3	0	4	3	2	50%	13%	0%	17%	13%	8%									
12:30 PM	25	116		7	20	32	136		8	4	1	9	3	7	25%	13%	3%	28%	9%	22%									
12:45 PM	26	122		5	21	31	143		17	1	0	7	5	1	55%	3%	0%	23%	16%	3%									
1:00 PM	25	111		7	21	32	132		6	3	0	11	7	5	19%	9%	0%	34%	22%	16%									
1:15 PM	40	--		1	--	41	--		20	1	0	5	5	10	49%	2%	0%	12%	12%	24%									
1:30 PM	31	--		8	--	39	--		24	5	1	5	3	1	62%	13%	3%	13%	8%	3%									
1:45 PM	15	--		5	--	20	--		6	5	1	3	0	5	30%	25%	5%	15%	0%	25%									
Peak Hour	122	122		21	24	143	143		43	8	5	35	19	16	30%	6%	3%	24%	13%	11%									
Total All	477	--		97	--	--	--		252	71	27	134	94	73	44%	12%	5%	23%	16%	13%									

3rd Street Bicycle and Pedestrian Counts

	Total Bikes	Total Peds	Total	Bicyclists					
				Crossing at Eloise	Crossing at James	Other Movements	% Crossing at Eloise	% Crossing at James	% Other movements
Weekday -- August 13, 2014									
Peak hour	40	5	45						
Total	100	13	113	53	8	39	53%	8%	39%
Saturday -- August 16, 2014									
Peak hour	50	14	64						
Total	125	35	160	78	9	38	62%	7%	30%
Total	225	48	273	131	17	77	58%	8%	34%

Dunlap Drive Bicycle & Pedestrian Counts

Peak Hour

15-Minute Period Start Time	Total Bikes	Hourly bike total	Total Peds	Hourly ped total	Total Bikes & Peds	Hourly Total	Eloise to Eloise Crossing	% Eloise to Eloise Crossing
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Weekday -- August 13, 2014

3:00 PM	11	53	1	9	12	62	9	75%
3:15 PM	14	57	4	8	18	65	8	44%
3:30 PM	10	53	4	5	14	58	5	36%
3:45 PM	18	50	0	4	18	54	10	56%
4:00 PM	15	38	0	9	15	47	10	67%
4:15 PM	10	33	1	22	11	55	7	64%
4:30 PM	7	30	3	21	10	51	7	70%
4:45 PM	6	29	5	26	11	55	1	9%
5:00 PM	10	37	13	23	23	60	8	35%
5:15 PM	7	--	0	--	7	--	1	14%
5:30 PM	6	--	8	--	14	--	6	43%
5:45 PM	14	--	2	--	16	--	10	63%
Wd Total	128	--	41	--	169	--	82	49%
Peak Hour		57		8		65	33	51%

Saturday -- August 16, 2014

11:00 AM	17	78	1	5	18	83	11	61%
11:15 AM	16	83	1	4	17	87	11	65%
11:30 AM	11	80	2	4	13	84	8	62%
11:45 AM	34	83	1	2	35	85	25	71%
12:00 PM	22	75	0	3	22	78	15	68%
12:15 PM	13	67	1	4	14	71	5	36%
12:30 PM	14	71	0	4	14	75	4	29%
12:45 PM	26	93	2	4	28	97	17	61%
1:00 PM	14	104	1	4	15	108	7	47%
1:15 PM	17		1		18	--	10	56%
1:30 PM	36		0		36	--	27	75%
1:45 PM	37		2		39	--	28	72%
Sat Total	257		12		269	--	168	62%
Peak Hour		83		4		87	59	68%
All Total	385		53			87	250	57%

Peak Hour

APPENDIX B
Community Meeting Minutes

Meeting Notes -- Community Meeting

Tahoe Valley Bicycle Facility Evaluation

Monday July 21, 2014

Attendance: Total of 27 individuals

Discussions:

- Possible Route along Tahoe Keys to Venice to 15th
- Tourist to beaches fastest James/Eloise
- Tourist like that James is close to and parallel with Highway 50/89
- Crossing at Keys & 3rd are a big issue
- Backup at signals issues, could go past James
- James maybe too close to 50
- 3rd drivers going fast
- On 3rd there is a dip for bikes
- James – too many turns
- South Y speeding/speed limit too high
- Few crossings around the Y
- Sustainable communities can in the long term increase crossings and decrease speed
- B street crossing should be included
- First cater to local and then that will attract visitors
- See highway comfort to visitors
- Council Rock Route Issues with access points
- Com/Res and Residential access points along each route
- Tourist, experience is important not always the destination
- Safety concern at driveways
- JPA - James proposed, business like it but lots of deliveries
 - Bikes are already on James need to make it safer
- Alt route Eloise /Council Rock/Washington/CTC path – Dunlap
- Alt route - Not CTC but use Patricia – 10th
- Visitor prefer Tahoe Keys visually
- Locals like to bike to businesses
- Different routes in different direction – to avoid bad left turns
 - Maybe not a good idea
- Council Rock – Tahoe Keys, 2 routes good idea
- Class 2 on Tahoe Keys not enough alone, may need enhancements for tourist and children to feel comfortable

- Wayfinding signs important
- One way for cars – one or two for bikes on Eloise or James – bicycle boulevard
- Business helped by bikes
- Class I alone James
- Bikeway should be beautiful
- Dangerous crossing at Tahoe Keys? Find number of accidents
- Speed of Right turns off highway on to Tahoe Keys Boulevard
 - Work with Caltrans on design of RT
- Make decision based on growth of bikes an improved route/system will bring
- Road bikes – Upper Truckee route
- Make this area more of a bike corridor and it is okay to be less of a pedestrian corridor
- More signs! Like national parks
- New class I on Viking may be better connection
- Glorene proposed Class III
- Need more crossing of US 50 to beaches
- Remove dirt cut through at James
- One way on James (toward Y) – 2 way bikes with protected lane!
- 3rd is safe routes to schools area, needs Traffic Calming
- Future of this plan- too big – not realized maybe smaller is better
- Rec Plan – bikes #1
- James as local/preferred
- Crossings important!! Slow down cars
- How continuous protected bikeway can be with lots of driveways?
- One way is how far away? 20 years away?
- Outreach needed for one way
- Share the road moveable signs
- Roundabout at TKB
- Better signs or bumps or paint at major road
- Priority maintenance on Eloise if chosen
- Keep route Eloise & connect to James
- Use stop sign judiciously
- Green paint on 50, City maintained

Public Input Received Subsequent to the Meeting

“I think that the two crossings of Tahoe Keys and 3rd street seem the most problematic with whichever street is chosen for the route. Adding to the problem is the addition of the right turn lane from Hwy 50 onto Tahoe Keys. I have never felt that there is a safe area to wait to cross Tahoe Keys. I think building a bulb-out or area where cyclists and pedestrians can wait to cross and be off the road would bring necessary attention to the fact people want to cross. From there signs, cross-walk marking, or lights would incrementally help with the crossing.” Email From Joe Marzocco

“To: John Hitchcock, Planning Manager, City of South Lake Tahoe

From: Taylor Flynn, Business Owner, 963 Third Street

Bike Route Comments for the Tahoe Valley Area Plan

The bicycle workshop on July 21 was most constructive in that it highlighted the varying perspectives and brought about some new ideas for bicycle routes in the proposed Tahoe Valley Area Plan. After much consideration, along with conversations with several participants after the meeting, following are my public comments regarding bicycle transportation, a key component of the proposed Tahoe Valley Community Plan.

“Beach” Bicycle Routes

(Through and around TRPA Special Area 1, Plan Area Statement 110 connecting the eastern Class 1 Bike Route to the USFS Class 1 bike route to Camp Richardson and western shore beaches).

Consultant Gordon advocated that a “fewer is better” approach in regards to bike routes to avoid confusion, especially for visitors. I hereby advocate for two main routes, which can basically be likened to the “scenic” and “business” route vehicle highway designations.

Scenic Route: Eloise Ave. across Keys Blvd. to Council Rock to Washington Ave. through the CTC lot to Patricia, then back to Eloise. This is a new route proposed in the plan and advocated by Shay Navarro at the meeting. Speaking to Shay afterward, she said it would make sense to come back at 10th Street because 10th could be a connector across Highway 89 to the western routes off of Lake Tahoe Blvd (more on this later). I, personally, like this route over a proposed Tahoe Island route, which I feel is too narrow and busy with residential vehicle traffic to be a viable option. An advantage of this route is that it is relatively direct while also being somewhat scenic and bypasses the South Tahoe Refuse.

Business Route: While I like the idea of business access on James Street, I will reiterate, here, that my belief is that crossings at James and Keys Blvd. and James at

Third Street are too dangerous and therefore advocate maintaining the existing route along Eloise Ave.

Safety: There are three main safety issues with crossings at arterial routes Third and Key at James Street. 1. At one block off of Highway 50 signals, there will be conflicts with drivers speeding to make the green lights at the highway. 2. Conversely, these intersections regularly back up with traffic on Third and Keys past James Street, which would make it necessary for bicyclist to weave through waiting vehicles. 3. As consultant Gordon pointed out, there is little time and sight distance after coming off of Highway 50 for drivers to see bike traffic coming across James. Plus, traffic could potentially back up onto Highway 50 with the bike crossing being so close to Highway 50 at James.

Convenience: Additionally, it will be far less confusing for cyclists stay on Eloise Ave. Cyclists simply stay on Eloise between the Class 1 bike route that lets out near Keys Blvd. and the one that begins on 15th Street. This is why Eloise is the existing route. The route is close enough to Highways 50 and 89 that cyclists feel comfortable that they can access businesses and that they are headed in the right direction. Conversely, routing to James Street means there will need to be additional turns at Keys Blvd, midway at Dunlap, then back again to Eloise before the 15th Street.

Esthetics: Some people have advocated routing to James Street to avoid going past South Tahoe Refuse, but, as one workshop attendee pointed out, the landscaping at STR is relatively attractive. The esthetic value of James compared to Eloise is a toss-up. Both are in the light industrial district, and both could be improved with public wetland restoration and better screening of storage areas at businesses (which is called for in the new area plan). To improve the riding condition of this existing route, prioritize it for routine City maintenance, such as filling asphalt cracks.

Win-Win: There is only one shopping center along James between Keys and Dunlap that would benefit most visitors – Kings Shopping Center. One workshop attendee pointed out the SEZ between James and Eloise could be utilized. Great idea. This could be a node off of Eloise and over to James to access the shopping center. Currently an underutilized green area, this public lot could be converted into a mini park and bike route “rest area” with picnic tables, etc. Address bicycle access to these businesses by improving the connection and signage between James and Eloise along Tahoe Keys Blvd.

Tahoe Keys Route: Keep the existing route along Keys Blvd. to Venice, just make it safer with better class 2 bike lane striping, signage, etc. This can be a pleasant scenic route, though some riders may feel uncomfortable on Keys Blvd. due to high traffic volume. This existing route goes away from the Area Plan and is also a rather “out of the way” route to beaches, so, in a sense, it is not necessarily a main route within the Tahoe Valley Plan.

Eastern Connection Bike Routes

(Connecting to the proposed Class 1 bike route along Lake Tahoe Blvd.)

There is a need to connect from the proposed Class I bike route along Lake Tahoe Blvd., which ends at Viking Way, into the Tahoe Valley Plan. While perhaps not the most desirable type of route, the proposed two-way Class II bike path along the north side of Lake Tahoe Blvd. for three blocks would connect to Glorene. From Glorene, there is an existing dirt trail approximately 1/8 mile north of Lake Tahoe Blvd. that connects through an empty lot over to Roger. I'm not sure if this lot could be utilized, but it would be advantageous because Roger travels behind Highway 89 businesses. Whether this route stays on Glorene or cuts over to Roger, it could turn east at 10th street, travel across Highway 89, and then and naturally tie into the beach route at Eloise and the Council Rock/Washington/Patricia proposed route mentioned above.

The proposed routes along D Street and Tata from Lake Tahoe Boulevard into the Tahoe Valley area make sense.

Connecting North and South

A natural connection between the proposed Greenbelt and Greenway bike routes south of Highway 50 to the "beach" routes north of the highway is Third Street. Third Street connects the proposed and existing routes from Helen, to James, to Eloise, to Washington. Additionally, Third might be wide enough to accommodate Class II bike lanes. As a designated "Safe Route to School," there may be additional funding available for bike lanes and street lighting on Third Street. Because Tahoe Keys at Highway 50 is "T" intersection, Third Street is the natural signaled route across Highway 50 to tie from the "beach" bike routes over to the newly proposed greenbelt bikeway and Tahoe Valley businesses.

Dunlap is another proposed route and makes sense as a node over to main "Y" intersection. However, the bike routes in discussion are all off the highway as safe "throughways" for bicycles. Hence, I see Dunlap more as an "end" route to a destination – the South Y Intersection – than a "through" bicycle route.

Full Disclosure

I own the business at the corner of Third and Eloise, the Tahoe Mountain News. As a certifiable "bike geek," I enjoy having our business on the bike route. We keep two office bikes and regularly travel by bicycle to run errands. Also, I regularly ride from the office to mountain bike recreationally on the new USFS trails on Tahoe Mountain and elsewhere.

Furthermore, for the past six months, we have been in the initial planning stages of turning our building into a "nano" brewery. Having the bike routes go by our building is

an obvious benefit for this type of business. Conversely, if the planned craft brewery comes to fruition, it could be an attraction for those traveling on the bike routes.

Conclusion

After having my business on the bike route at a busy intersection for the past nine years, my main concern for safer crossings at Third Street and Tahoe Keys Blvd. I have witnessed two bike accidents and many near misses here. Some of the bike signal options that consultant Gordon presented at the workshop are viable options. Simply having better signage and street markings would also increase bicycle safety.

Thank you for your time, attention and consideration.

Sincerely, Taylor Flynn